The stock market

Solomon Stephen Huebner

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Professor of Commerce, Univ. of Pennsylvania

THE STOCK MARKET
PROPERTY INSURANCE
LIFE INSURANCE
MARINE INSURANCE

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PREFACE

This textbook aims to present, in a comprehensive and nontechnical manner, the numerous services of the organized stock market to the individual investor and to financial and other business enterprises. It also aims to bring together in compact and classified form those facts, principles and practices of the business which enable the student and layman to have a clear understanding of the nature of our organized security markets and the legitimate ways in which they may and should be employed.

To the uninformed, a stock exchange is little more than the spectacular scene that is witnessed from its gallery. This phase, however, by no means represents the real soul of the institution. From our exchanges there radiate numerous, far-reaching influences in the form of enforced regulations, and standardized practices and services, which not only influence vitally every angle of the stock and bond business throughout the nation, but which in their results "are as broad as the business interests of the country, affect in their most intimate and important business relations all the people thereof, and make our exchanges an integral and inseparable part of the national financial system." The purpose of this volume is to present these regulations, practices and services in their true setting, with a view to clearing away much of the misunderstanding that now exists. It may be added that in 1904 the author inaugurated a course of study at the University of Pennsylvania in "Organized security and Produce Exchange Markets," probably the first course of this kind to be given in an American University, and that this volume embodies in large part the conclusions arrived at during seventeen years of teaching of this subject.

The twenty-five chapters of the text are grouped into four distinct parts, dealing respectively with the "Services of Organized Security Markets," "The Organization and Operation of the Market," "Factors Affecting Security Prices," and "Legal Principles and Usages Governing the Stock Exchange Business." The first of these parts of the volume is devoted to a discussion of the services rendered by organized stock markets to the business community, a subject much misunderstood by the general public. Separate chapters are devoted to the "Nature and Scope of the Market," "Nature and Value of a Continuous Market," "The Discounting Function of the Market," "The Functions of Short Selling," "The Regulation of Brokerage Transactions and the Conduct of Brokers," "The Nature and Functions of Privileges," and "Arbitraging and Its Services."

Part II of the volume deals with the scientific phases of organization and operation. Under this heading the several chapters present the essential considerations connected with the legal status of exchanges; the listing of securities; types of dealers, brokers, offers and orders: the quotation service; the technique of a short sale; stock exchange clearing houses; the transfer of securities; the conversion of securities; and the nature and marketing of privileged subscriptions.

Part III of the book relates to an analytical discussion of the fundamental factors which govern prices of securities. The chapters of this portion of the book relate respectively to "The Money Market in Its Relation to Security Prices," "Financial Panics and Business Depressions," "Manipulation," and "Factors Influencing the

General Level of Prices over Considerable Periods of Time."

The last part of the book is devoted to an analysis of those legal principles and usages governing the stock and bond market with which all who deal with brokers are most apt to come into contact and with which they should be acquainted. Separate chapters are devoted to a discussion of the "Principles and Usages Pertaining to the Execution of Orders," "The Legal Nature of a Speculative Purchase," "Legal Principles Pertaining to the Repledging of Stock En Bloc," "Extent to which Customers' Margins and Pledged Securities are Protected," and "Identification of Securities."

Special acknowledgment is due to my departmental colleagues, Professor Robert Riegel, and Assistant Professor H. J. Loman. Professor Riegel very generously assisted me by his constructive criticism and in the assembling of material for certain chapters. Mr. Loman read the entire manuscript and gave the benefit of his valuable criticism. I am also under special obligation to Mr. Loman for his active assistance in the preparation and writing of the chapter on "Stock Exchange Clearing Houses," a subject to which he has given special study. Many persons connected with the New York Stock Exchange, and other Exchanges, also gave me valuable assistance throughout the preparation of the volume. To them I desire to express my appreciation for their uniform courtesy and to acknowledge my obligation for the assistance they rendered in explaining practices and in giving other information.

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SERVICES RENDERED BY THE ORGANIZED STOCK MARKET

CHAPTER I

NATURE AND SCOPE OF THE STOCK MARKET

Stocks and Bonds Contrasted.—With the development of large-scale production and transportation it was only natural that there should be a transition from the system of individual ownership or private partnership to that of corporate organization, depending for its financial existence and support on the sale of stocks and bonds. The several types of markets in which such sales are conducted constitute, collectively speaking, the so-called "stock and bond market."

The modern corporation has made it possible to combine the small savings of the millions into huge sums for the creation of mammoth enterprises, capable of performing services entirely beyond the reach of an individual. Where the funds merely have been lent to the corporation, the owner is given a certificate, a so-called bond,[1] to indicate that he is a creditor. Where, however, the funds have been invested permanently in the corporation, with a view to participating as part owner of the enterprise in its success or failure, the investor is given a receipt, a so-called stock certificate,[2] to indicate the extent of his ownership. Few facts deserve to be impressed more upon the investing public than this fundamental distinction between bonds and stocks. Stocks are inherently specula-

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[1] For a sample form of bond certificate see Appendix IV.

[2] For a sample form of common stock certificate see Appendix II, and of a preferred stock certificate see Appendix III. For a classification and description of stock certificates see Appendix I.

tive in character. Bonds are credit instruments and, with few exceptions, give a definite promise as to the payment of interest and the return of the principal, although in many instances the promise turns out to be impossible of fulfillment. Stock certificates, on the contrary, promise nothing at all. They merely constitute an evidence of ownership, a certification of the holder's privilege to share in risk, that is, to participate in the varying fortunes of the business enterprise.

National Wealth Represented by Securities.—Available figures, although necessarily only approximate, clearly indicate the great importance of stocks and bonds in our financial life. Recent estimates[3] place the wealth of the United States at $188,000,000,000. Corporation bonds and stocks, issued against this wealth, aggregate about $35,000,000,000 and $65,000,000,000, respectively, or a total of $100,000,000,000.[4] To this total, however, there must be added approximately $25,000,000,000 in bonds issued by the Federal, State, and City governments.[4a] It would seem, therefore, that stock and bond certificates represent over half of the nation's wealth. At the close of 1917 the nation's banks owned approximately $8,500,000,000 in stocks and bonds, a total equal to nearly six times their total cash holdings, while in addition some $10,000,000,000 of their deposits, it was estimated, were loaned against stock and bond collateral.[5] The various types of insurance companies also have considerably over half of their enormous assets, totaling between $6,000,000,000 and $7,000,000,000, invested in stocks and bonds.

Exclusive of the numerous holders of Government bonds, there are probably 4,000,000 persons who are shareholders

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[3] Report of Census Bureau in 1915.
[4] H. S. Martin, *The New York Stock Exchange*, p. 88.
[4a] *Ibid*.
[5] *Ibid*., pp. 95, 171.

and bondholders in American corporations. "Corporations are no longer owned by a few rich men and rich families, but by the small shareholder, the small investor . . . by a multitude of small, or odd-lot, holders of securities."[6] The United States Steel Corporation and the Pennsylvania Railroad have about 150,000 and 135,000 shareholders, respectively, while the number of corporations having between 10,000 and 25,000 shareholders is very considerable. Various investigations by financial journals from time to time also show that, with respect to our important corporations, the number of stockholders is increasing faster than the number of shares outstanding, that is, the average number of shares in these issues owned per person is decreasing. This is true of both railroads and industrials. Thus in 1906 the average number of shares per stockholder in a representative group of the leading railroads of the United States was placed at 188.5; by 1909, the average holding had declined to 144.2, and by 1913 to 133.2. For a representative group of industrials the average holding for the corresponding years was placed at 125.5, 92.75, and 85.0.[7] A somewhat less comprehensive investigation in 1915 placed the average holding per stockholder as regards 36 railroads at 114 shares and for 52 industrials at 83 shares.[8]

The foregoing data with respect to the distribution of American securities becomes all the more important when it is remembered that the number of stockholders does not represent individual holders in all cases, but often includes corporations. One railway company may be the holder of a portion of the stock of another railway cor-

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[6] Testimony of William C. Van Antwerp before the Committee on Banking and Currency. Hearings on S. 3895, p. 117.

[7] Thomas Gibson's Market Letters, 1906 and 1909, and the *Wall Street Journal*, April 4, 1914.

[8] *Philadelphia Public Ledger*, January 2, 1916.

poration, and may itself represent many stockholders; or large blocks of securities may be owned or held by trust companies, brokerage offices, life and fire insurance companies, savings banks, and other investment companies which in turn represent the investments or deposits of an enormous number of persons, the great majority belonging to the poorer classes. How far this process of subdivision must be carried in order to determine accurately the extent to which the population of the country is involved in the ownership of its corporate securities is difficult to judge. Suffice it to say that enormous blocks of securities are held in this way and that this indirect form of investment is rapidly increasing.

Until the outbreak of the recent war, there was also a remarkable tendency for investors of foreign countries, especially European, to enter our security market in addition to their own. At that time, for example, 13 per cent of the stockholders of the Pennsylvania Railroad, and 18 per cent of the United States Steel Corporation, were residents in foreign countries, and these were by no means isolated cases. Estimates made at the time placed foreign investments in American securities at from $5,000,000,000 to $6,000,000,000. As has been said, the security market is "undergoing the same internationalizing as commerce."

Types of Markets.—The term, "the stock market," is very comprehensive and may be regarded in the United States as embracing the purchase and sale of stock certificates and other corporate securities (1) by salesmen, advertisement, or "over the counters" of offices; (2) at street markets, commonly designated as "curb markets"; (3) at public auctions; and (4) on stock exchanges, which operate under strict and comparatively uniform rules. Of these several types of markets the last is by far the most important.

"Over-the-counter" transactions.—While the sale of bonds by direct solicitation, that is, through salesmen, advertisements in the press, office circulars, and other similar methods, represents a large and important branch of dealings in securities, this method is used only to a limited degree with respect to high-class and well-known stocks. Investment houses pursue this method in distributing the stocks of numerous comparatively small corporations whose issues are not listed on any regular exchange, and, following the original distribution, undertake to create an over-the-counter market for their clientele. In recent years numerous promoters of oil, mining, motor, and other highly speculative promotions have distributed an enormous volume of securities to the American public through actual canvass by salesmen or through more or less sensational advertising. Unrestricted by any of the disciplinary rules enforced by our regular exchanges and unhampered in most of our states by adequate supervisory legislation, the operations of many of these promoters have reached the proportions of a national scandal. Too often the unknowing confuse this phase of the stock market with the infinitely more legitimate practices of the exchange markets or of high-grade investment houses, with the result that these are constantly obliged to encounter a great deal of unmerited criticism.

Curb Markets.—Curb markets obtain their name from the fact that the brokers composing them conduct their operations in the open street, instead of being housed in a building. While various cities have such markets, usually of a very limited character, the leading market by far of this kind in the United States is the New York Curb Market, which has been in existence for over 40 years, and which affords a market place for such securities as meet the limited listing requirements of this particular market and, at the same time, are not listed on the New York Stock

Exchange.[9] The importance of this market may be judged from the fact that security issues of 680 different corporations, some of them of great importance, are admitted to trading thereon. Fifty-nine of these corporations have listed in this market some 74,000,000 shares, without a par value, while the shares of other companies listed on the New York curb have a par value of about $1,700,000,000. Some 61 bond issues, in some instances of very large size, are also listed in this market. In the amount of business transacted in the United States the New York Curb is second only to the New York Stock Exchange.

There is real need for this type of market. The New York Curb Market is essentially one for mining, oil, and industrial securities, which either cannot, or will not, comply with the stricter listing requirements of the regular exchanges. As has been stated, this market is "the great crucible in which are tested the thousand-and-one hasty stock flotations of each new era of expansion in the country." It also affords an opportunity for dealing in securities prior to their being listed on a regular exchange or even before they are issued. In the latter case the contracts go under the name of "when, as, and if issued" contracts, such contracts becoming due and payable the day after the final payment on them has been made under the terms of the corporation's circular.

Many stock-exchange houses have regular representatives on the curb, and the Hughes Committee reported that approximately 85 per cent of the orders executed on the curb come from stock-exchange houses. The close rela-

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[9] Recently the New York Curb Market has moved within a building, and strictly speaking, should be now referred to as an Exchange. The daily press, however, continues to refer to this market, owing to its distinctive character, as the New York Curb Market. According to recent press accounts a certain limited element, formerly connected with the curb market on the street, continues to operate on the street as formerly.

tionship between the New York Curb Market and the New York Stock Exchange is indicated also by the fact that the curb market, as expressed in its rules, permits dealing only in securities not listed on the New York Stock Exchange. It is understood that when any security traded in on the curb is listed on the New York Stock Exchange the brokers on the curb shall at once cease to deal therein. The hours of trading of the New York Curb Market as well as all holidays are the same as those of the New York Stock Exchange.

To a considerable degree, curb markets have found it necessary to adopt regulations for the proper conduct of business. Referring to the New York Curb Market, the governing control is vested in a Board of Representatives, and in standing Committees, in a manner and for purposes quite similar to those that will be explained for the regular exchanges. Membership is restricted to persons who meet with the approval of the association. Although such a market is legally "open to all who choose to trade therein," it is usually agreed among most of the members that "no one is obliged to accept any contract which is not acceptable." There are also regulations relating to the types of orders for buying and selling, types of bids and offers, the time and method of delivering securities, the transfer of securities, commission charges, and listing requirements. In many of these respects the New York Curb Market has seen fit to imitate the business procedure of the New York Stock Exchange. As a general proposition, however, curb-market regulations, although similar in their general nature, fall far short of maintaining the high standards enforced by the regular exchanges.

Auction Markets.—Many unlisted stocks and bonds are sold at public auctions which are organized solely for the marketing of securities, and the quotations for transactions made at such auctions in New York, Boston, and Philadelphia are published regularly in the newspapers and financial journals. An examination of the transactions shows that the stocks sold at these auctions are chiefly those of banks, trust companies, insurance companies, and minor industrial and mining corporations. Frequently, however, stocks listed on the regular exchanges change hands at these auctions. The auction affords a convenient place to market (1) securities that are not listed on any exchange or curb market; and (2) securities that, although listed elsewhere, have been deposited as collateral without the pledgee having reserved the right to sell the same on an exchange. In law, stock exchanges are regarded as places of private sale; therefore, the securities referred to above can only be sold by the pledgee in satisfaction of the debt at a public sale, in accordance with the law of pledgor and pledgee.[10] Stocks listed on exchanges and enjoying an active market thereon usually command a price at these auctions but slightly below the current price on the exchange, partly for the reason that arbitraging[11] may be practiced by buying the security at auction and promptly selling it on the exchange, and partly because the purchaser at an auction usually pays no commission.

As a rule the person desiring to sell a security at an auction must notify the auctioneer by a stipulated time of his intention and the auctioneer will then advertise the security for sale in the press as well as in his so-called "catalogue." This catalogue, which is usually issued twice before the day of the auction (auctions are usually held once or twice a week at a stated hour), furnishes a complete list of the securities offered and is given a wide distribution among brokers and the auctioneer's clients in all parts of the country. It usually divides the securities offered for

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[10] For a full discussion of the application of this law see Chapter XXIII.

[11] For an explanation of this practice see Chapter VII.

sale into various classes, such as "for account of whom it may concern," "executor's sale," "trustee's sale," "administrator's sale," and "for other accounts."

According to the terms of the auction sale, which are fully detailed in the catalogue, cash payment must be made before delivery or transfer at a stipulated hour on or before the day following the sale. As far as applicable, stock exchange conditions are usually observed. Stocks are sold flat, and bonds at "price and interest," except income or defaulted bonds, or those on which there are special rulings by the New York, Philadelphia or Boston exchanges.

Unless announced to the contrary, purchasers may take all or a part of the items advertised in the catalogue; and the auctioneer reserves the right, unless stated to the contrary, to sell the listed items privately. No commission is charged the purchaser as a rule. The seller is charged an entrance fee for each week. This fee includes the cost of advertisement in the catalogue or elsewhere. A commission is also charged for any security advertised by the auctioneer, where the security is sold privately outside of the auction and, therefore, is withdrawn from sale.

As a rule the catalogue states that securities listed therein for sale are not owned or sold on behalf of the auctioneer, but are owned by, and sold for, the client for whom the house acts *as auctioneer and agent, and not otherwise.* It follows, therefore, that sales at auction are made subject to consummation. The right is reserved by the auctioneer to require a deposit at the time of the sale, whether so advertised or not. Sellers are also given the privilege of specifying a "withdrawal price," which is in the nature of a limited stop order, that is, in case the bid price at the auction is not equal to this withdrawal price the security is withdrawn from sale and may be re-advertised for a later auction.

General Nature of Organized Stock Exchanges.—As compared with the preceding types of markets, the regular exchanges are by far the most important. The securities of nearly all of the larger and better known corporations are dealt in on these markets. The most important stock exchanges are those located in New York, Boston, Philadelphia, Chicago, Baltimore, Pittsburgh, Washington, Detroit, Cleveland, Cincinnati, New Orleans, Los Angeles, and San Francisco. During 1920 the shares sold on the New York Stock Exchange totaled 226,640,400, and bonds \$3,976,107,150 par value. During 1919 the respective figures were 316,787,725 shares and \$3,808,806,150. To this enormous turnover there must be added the business of the numerous other exchanges of the country. The New York Curb Market represents average annual sales of about 60,000,000 shares, while during 1920 transactions on the above mentioned exchanges, exclusive of those in New York, aggregated approximately 35,538,000 shares, although with respect to several of these markets most of the shares involved possess a comparatively low par value.

So huge is the volume of business on our exchanges that this type of market is usually construed as synonymous with the "stock market." A congressional committee has stated with respect to our stock exchanges that "their results are as broad as the business interests of the country, and affect in their most intimate and important business relations all the people thereof," and a keen critic of our exchanges has referred to the New York Stock Exchange as "an integral and inseparable part of the national financial system, as important as any part of the whole system, as important as the banks themselves," and that its quotations "are taken by banks all over this country as a basis for loans on securities. Courts of Justice in every section of the country figure their damages on the quotations of the New York Stock Exchange. These quotations constitute evidence of value."[12]

The fundamental purpose of organized exchanges, to quote the preamble of the Constitution of the New York Stock Exchange, is to "furnish exchange rooms and other facilities for the convenient transaction of their business by its members, as brokers; to maintain high standards of commercial honor and integrity among its members; and to promote and inculcate just and equitable principles of trade and business." Later chapters will explain at length the drastic manner in which exchanges supervise the conduct of their members, and the detailed way in which they regulate all phases of brokerage transactions. Through their efforts the moral tone surrounding security markets has been raised immeasurably beyond what it otherwise would be. To the uninformed, the New York Stock Exchange represents little more than the spectacular scene that may be witnessed from its gallery. This phase, however, by no means represents the real soul of the institution. From our exchanges there radiate influences, in the form of enforced regulations and standardized practices, that vitally influence every angle of the stock and bond business, even to the remotest parts of the country. Thus the entire personnel connected with the exchanges, including all branch offices of members, is brought under a rigid disciplinary control. All phases of the conduct of brokerage transactions, such as the types of orders, settling of contracts, commissions, making of bids and offers, distribution of quotations, advertising, etc., are standardized in the interest of speed, economy, efficiency, and justice. To have their securities admitted to dealing, all corporations must observe a detailed set of requirements imposed by the ex-

[12] Testimony of Samuel Untermyer at Hearings before Committee on Banking and Currency, United States Senate, on S. 3895, 1914, pp. 13, 42.

change in question.[13] All phases connected with the transfer of securities are carefully controlled.[14] Moreover, as already observed, curb and auction markets adopt stock-exchange practices as far as reasonably applicable. These are merely some of the ways and others will be referred to in later chapters, in which our stock exchanges exert a powerful influence for uniformity of practice and a high standard of honor in a business that otherwise would be susceptible to the greatest irregularities in both of these respects. In brief, our stock exchanges constitute the coördinating force that tends to bring all of the many separate elements of the stock and bond business into an honest and smoothly running system.

But aside from this service, stock exchanges constitute continuous markets, that is, places where nearly all stocks and bonds admitted to dealing can be bought or sold at a moment's notice, the only question being that of price.[15] Later chapters are devoted to a discussion of functions of exchanges so important that without their presence the financial life of the nation would well-nigh come to a standstill. Yet all of these important services, as will be pointed out later, are fundamentally dependent upon the existence of a continuous market and such a market, in turn, is dependent upon the existence of a large group of speculators and the practice of selling short.

Speculation and short selling have been subjects of much adverse criticism by many writers. Our exchange markets are organized with a view to facilitating a two-sided market. The two elements in the market contending over prices are known as the "bulls" and the "bears." The

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[13] See Chapter IX on "Listing of Securities," and Appendices VII and VIII, giving the listing requirements of the New York Stock Exchange.

[14] See Chapter XV on "Transfer of Securities."

[15] See Chapter II on "Nature and Value of a Continuous Market."

bulls strive to produce a rising market (the name having probably been derived from the fact that a bull fights by tossing his victim upward) and the bears seek to depress the market (the name having probably been derived from the fact that a bear fights by crushing his victim downward). These two terms, however, simply represent an interesting way of referring to the old law of supply and demand. When the bulls are in the ascendency, that is, when the demand for stocks is greater than the supply, prices rise, and the market is characterized as "strong" or "rising" or a "bull market." When the bears are in the majority, that is, when the supply of stocks exceeds the demand, prices decline, and the market is labeled in the press as "weak" or "declining" or a "bear market." When bulls and bears are about evenly matched, that is, when the supply of stocks about equals the demand, such terms as "firm" or "unchanged" are used. Other terms commonly applied to the market to indicate its condition are "dull," "stagnant," "active," and "panicky."

It is difficult to trace the motives of the numerous interests composing the "bull" and "bear" groups. There are investors, speculators, and gamblers. There are those who buy or sell outright, those who buy on credit, and those (short sellers) who sell what they do not possess in anticipation of a price decline with a view to repurchasing the same stock later at a lower price. To the uninformed, speculation and short selling seem useless and harmful practices. Needless to say, there are many persons so poorly equipped financially and so little informed about values that their financial salvation lies in the direction of never engaging in any kind of speculation, not only in the security market, but also with respect to real estate, commodities, or any sort of business enterprise. "Legitimate speculation," it has been said, "involves anticipation of the needs of the market and power to assume risks in making contracts to meet those risks."[16] That certainly is not a business in which simpletons may properly engage. Later chapters will undertake to show the necessary relations that legitimate speculation bears to many of the foremost functions of organized markets. Viewed from that standpoint, any impartial student of the subject will agree with Professor Leroy-Beaulieu's conclusion that "the evils that speculation prevents are greater than those it causes."

Financial Importance of Stock Exchanges—*Volume of Listings.*—Attention has already been called to the existence of corporate securities in the United States with an aggregate par value of approximately $100,000,000,000 ($65,000,000,000 of stocks and $35,000,000,000 of bonds); and representing over 50 per cent of the nation's wealth. Of this huge total New York Stock Exchange listings alone represent slightly more than one third of the bonds and one fourth of the stocks[17] (see tables on page 17). Using the past ten years as a basis, the average annual listings of new securities on the New York Stock Exchange exceed $1,650,000,000. But account must be taken also of the listings of the New York Curb Market—some $2,000,000,000 in stocks and bonds that do not appear on the New York Stock Exchange—and those of the numerous other exchanges of the country. Nearly all of the securities of the best known corporations are listed upon some exchange, while in the case of the smaller exchanges the listings also comprise the stocks and bonds of hundreds of comparatively small corporations often of a purely local character. Thus the list of the Philadelphia Stock Exchange contains over 100 bond issues, shares with an aggregate par value of nearly $500,000,000, and nearly 1,000,000 shares without any par value, which are not found on the New York list.

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[16] Sereno S. Pratt, *The Work of Wall Street*, p. 81, quoting President Hadley's definition of speculation.
[17] H. S. Martin, *op. cit.*, p. 89.

Volume of Sales.—Dealings on our exchanges reach tremendous proportions and vastly exceed the sales occurring across the counter or at auction. Using the past ten years as a basis the average annual sales of stock on the New

FINANCIAL IMPORTANCE OF THE NEW YORK STOCK EXCHANGE

Year	Volume of Sales		Listings of New Securities
	Number of Shares	Bonds (Par Value)	
1911	127,207,258	$890,210,100	$1,224,449,230
1912	131,128,415	675,213,500	1,816,008,540
1913	83,470,693	501,571,020	1,260,059,330
1914	47,900,568	461,522,600	1,060,789,360
1915	173,145,203	961,094,700	1,480,518,540
1916	233,311,993	1,149,851,950	2,796,347,758
1917	185,628,948	1,057,190,200	3,108,138,895
1918	144,118,469	2,062,827,500	539,659,347
1919	316,787,725	3,808,806,150	1,587,637,032
1920	226,640,400	3,976,107,150	

CLASSIFICATION OF SECURITIES LISTED ON THE NEW YORK STOCK EXCHANGE AS OF OCTOBER 13, 1921, EXCLUSIVE OF U. S. LIBERTY LOANS

(See H. S. Martin, *The New York Stock Exchange*, p. 179, which gives the listings for year 1917)

BONDS:		
United States Government Bonds...	$872,010,030	
Bonds of Insular Possessions.......	10,500,000	
Foreign Countries and Cities........	2,992,261,800	
State and Municipal Bonds (United States)..........	772,050,400	
		$4,646,822,230

Other Bonds:			
Railroad Bonds...	$9,679,995,200		
Telephone and Telegraph Bonds.........	507,966,600		
Coal and Iron Companies' Bonds.........	135,625,700		
Mfg. and Industrial Companies' Bonds.........	1,293,611,300		
Miscellaneous....	573,128,800		
Gas and Electric Companies' Bonds.........	451,420,400		
Street Railway Companies' Bonds.........	1,135,974,100		
		$13,777,722,100	
		$18,424,544,330	
			No Par Value Shares
Stocks:			
Railroad...........	$6,719,178,900		
Oil Companies......	796,844,075		15,067,509
Mining Companies..	1,136,766,000		1,135,088
Street Railways.....	666,040,100		
Express Companies.	63,967,300		
Coal and Iron Companies...........	170,971,200		
Gas and Electric Companies.......	478,932,058		
Telephone and Telegraph Companies.	669,090,700		
Mfg. and Industrial Companies.......	6,746,239,995		10,299,508
Banks and Trust Companies.......	251,339,200		
Miscellaneous......	764,935,481		4,212,529
		$18,464,305,009	30,714,634
		$36,888,849,339	30,714,634

(Allowing an average of $30 per share for no-par value shares, nearly $1,000,000,000 would be added to the capitalization total, bringing that figure to about $37,000,000,000.

York Stock Exchange amounted to nearly 167,000,000 shares with an aggregate market value of approximately $14,500,000,000. In such active years as 1916, 1919, and 1920, however, the sales vastly exceeded the average, and totaled 233,000,000, 316,000,000, and 226,000,000 shares, respectively. As previously stated, the New York Curb Market sales aggregate about 60,000,000 shares annually, although the par value per share is considerably smaller than on the New York Stock Exchange, while during 1920 the annual sales on 12 American exchanges, outside of New York, totaled over 35,500,000 shares. It has been estimated that, as regards American stock exchanges, at least 60,000 persons are directly interested as regular operators, brokers, arbitragers, and specialists.

The Organized Security Market a World Market.—To an ever increasing extent capitalists, bankers, brokers, and arbitragers are utilizing the services of foreign stock exchanges, and many large corporations have their securities listed on the leading exchanges of several countries. The telegraph and cable have annihilated distance, and through these agencies the various exchange markets have been placed in almost immediate touch with one another.

So intimate is this international relationship between the great exchanges that the quotations of our security markets reflect not merely the general judgment of local and national events, but of conditions prevailing throughout the civilized world. No better illustration of this can be found than that which presented itself at the commencement of the recent war, when the exchanges of the world were forced to close, many of them for the first time in their history. July 28 and 29, 1914, witnessed the closing of the exchanges at Madrid, Vienna, Budapest, Brussels, Antwerp, Berlin, and Rome. On July 30 the exchanges of St. Petersburg, Montreal, and nearly all South American centers ceased operations, and by July 31, the Paris Bourse and London Stock Exchange had also suspended operations. The New York Stock Exchange alone, of the great exchanges, remained open, and, as stated by a member of the Board of Governors of that Exchange, "everybody wanted to sell in New York because there was no other place to sell. Over-night orders revealed a frantic state of mind and this was especially true of cables. There was no price limit. 'Sell at the market' was the word, and utter demoralization the prospect." Accordingly, at ten o'clock on July 31, the New York Stock Exchange was also closed, and this action was immediately followed by the closing of the New York Curb Market, and practically every other stock exchange in the country, thus furnishing a most striking illustration of the interdependence of the security markets of the world.

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CHAPTER II

NATURE AND VALUE OF A CONTINUOUS MARKET

Meaning of "Continuous Market."—Attention has already been called in the previous chapter to the continuous character of the market furnished by our organized security exchanges. A continuous market may be defined as one where any security listed in that market may be bought or sold at any time during business hours at comparatively small variations from the current price. Where the security is "active," that is, where numerous speculators are engaged in the buying or selling of that security, such a market implies that large quantities may be bought or sold almost instantly at very slight concessions from the last quotation. Where the security is "inactive," that is, where comparatively few speculators are interested in making a market, immediate sales are usually effected only at greater concessions in price. But whether the security be active or inactive, a continuous market implies one where a sale may be promptly made, the only question being that of price.

Factors Producing a Continuous Market.—To have a continuous market it is necessary that there be present at all times during business hours a sufficient number of buyers and sellers. While the purchases and sales of the investing public contribute substantially to this end, this factor alone falls far short of the desired purpose, and at times is almost negligible. To make the market continuous it is essential that there be (1) a group of speculators so large that some will always be ready to buy or sell a particular stock; and (2) the privilege of short selling, so that a demand for any particular stock may be supplied immediately by some seller who may not possess that particular stock, however, at the time of the sale, but who is willing to make the sale on the assumption that the continuous character of the market will enable him to obtain the particular security later for purposes of delivery.

Speculation and short selling are usually the objects of much criticism, yet it is important to remember that these two factors are essential to the existence of a continuous market, and a continuous market, in turn, is essential to the successful fulfillment of any of the functions attributable to organized exchange markets. Suppose that, with respect to any one of the functions of exchanges discussed in this and other chapters, the question be asked: What are the fundamental factors that make the service or practice possible? The answer must always be: A large group of speculators, short selling, and as a result of these, a continuous market. Later chapters will show that floor traders,[1] odd-lot dealers,[2] specialists,[3] and arbitragers,[4] all aid materially in making the market much more continuous than it would be if reliance had to be placed solely on the public demand or supply. Each group pursues its own object and renders its particular service, yet the combined effect of their efforts is a huge increase in the volume of transactions in the market, as well as a much greater continuity in the regularity of the sales. Moreover, all of these groups, as will be explained later, depend for success in their calling upon short selling and the continuous market. Each group is assisted by the other; all depend upon the continuous char-

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[1] For a detailed account see p. 144.
[2] For a detailed account see pp. 144–6
[3] For a detailed account see pp. 147–8
[4] For a detailed account see Chapter VII.

acter of the market which they themselves help to create; and the continuous market, in turn, is largely the product of speculation and short-selling.

Benefits Derived from a Continuous Market.—Numerous advantages to the business community are directly attributable to the continuous character of our organized security markets. In the last analysis this continuous feature is really a means of insurance to owners and creditors against unnecessary loss. The following represents a summary of the advantages referred to, although, owing to their intricate nature, a detailed discussion of some of the benefits must be reserved for later chapters.

1. *Gives Mobility to Property Represented by Stocks and Bonds.*—By assuring a ready transfer of securities from hand to hand, the creation of corporations is greatly facilitated. Large corporations are anxious to have their stocks and bonds listed on one or more of the leading exchanges with a view to increasing their marketability and to enhancing their value as collateral for borrowing purposes. Investors look more favorably upon stocks or bonds that possess these two important attributes. Corporations and underwriters of securities are well aware of this fact, as is evidenced in many advertisements of new issues by some such statement as "application for listing on (name of Exchange) Exchange has been made."

2. *Gives Constant Quotations for the Benefit of Security Owners and Creditors.*—Owing to the elaborate quotation service of our organized markets, owners of nearly all listed securities are enabled to know the price from day to day. In the absence of exchange markets, transactions would be private and prices would certainly not be representative of the general judgment. Even if recorded, prices determined in private offices might easily be designed to mislead. On our exchanges, however, all transactions are made in the open market, under proper regula-

tions, and quotations are immediately spread broadcast, first by the ticker and news services and immediately thereafter by the daily press.

3. *Constitutes the Chief Reliance of Holders for Prompt Conversion of Stocks and Bonds into Cash, or Vice Versa.*—Marketability is one of the very desirable attributes of stocks and bonds as it is of other property. Investors or speculators are loath to tie up funds in property that is not readily salable. One of the first thoughts that occurs to the average prospective purchaser of a stock or bond, even though it be of the highest grade, is: Have I assurance that in case of necessity, this security can be sold at a moment's notice and without much sacrifice in the price? The existence of a continuous market gives reasonable assurance on this point. It also gives reasonable assurance that the price realized was determined under equitable conditions, in a regulated market, and represents the general judgment as to the present and future value of the security in question. Ready marketability is equally important to our large investment institutions such as banks, trust companies, and insurance companies. To an ever increasing degree such institutions must rely upon the investment of their enormous funds in listed securities. In fact, their huge holdings of bonds and stocks serve as a sort of secondary cash reserve, since their value may be converted into cash almost instantly through sale in the continuous market if occasion requires.

4. *Constitutes the Chief Reliance of Creditors for the Prompt Liquidation of Collateral.*—Exchange quotations are used by banks everywhere as a basis for collateral loans. Such quotations, moreover, constitute legal evidence of value, since the courts of justice recognize them as the basis for measuring damages.

With the increase in the proportion of the nation's wealth represented by stocks and bonds there has followed an increase in the use of such evidences of wealth as security for loans. But lenders of money are loath to accept collateral that cannot be sold readily, or, if they make loans under such conditions, the assumed value of the collateral must exceed greatly the amount of the loan. With a continuous market at hand, however, bankers will readily lend money on listed securities in the customary ratio of $80 cash to $100 market value of securities deposited as collateral. They do this because they know that, in case the borrower should allow his account to become impaired a few minutes will suffice to enable them to sell the collateral on some exchange for an amount still in excess of the loan. At the outbreak of the recent war all the great stock markets were closed for several months, with the result that it was impossible for the holders of stocks to know their market value. Many will recall the absurdly low prices at which securities were often sacrificed at some of the improvised and unofficial markets. Still more will recall the limited amount that could be borrowed on good securities simply because the banks possessed no current market quotations upon which to base their loans, and furthermore, were fearful because of the absence of any continuous market at the time of their ability to dispose of the collateral should the borrower prove unable to protect his loan. During the money-trust investigation by Congress much was made of the fact that leading witnesses regarded some of the most speculative stocks as among the best bank collateral for loans simply because they were extremely active in the market. They emphasized the fact that lenders of money were concerned quite as much with the regularity with which collateral was quoted in the market, and the extent of fluctuations between sales, as with the intrinsic worth of the security itself.

5. *Makes Arbitraging Possible.*—Reference is made to the practice of making two transactions at about the same

time, one a purchase in the low market and the other a sale in the high market, with a view to clipping the difference between the two prices.[5] The two transactions may be made in two different exchange markets. Or the arbitrager may be (1) buying "rights" (subscriptions to new stock) and selling the equivalent amount of old stock,[6] or (2) buying convertible bonds and selling an equivalent amount of the stock into which the bonds are convertible.[7] But whatever the nature of the arbitrage transaction, it is vital that the purchase and sale be effected almost simultaneously if the arbitrager is to be reasonably sure of the profit he started out to clip when he made the first of the two transactions. If much time elapses between the purchase and sale, prices may so change in the two markets as to cause a loss instead of a profit. The arbitrager proceeds on the theory that when he detects a difference in prices he will find the two markets so continuous that his two orders (one to buy and the other to sell) will be immediately executed at about the prices he had in mind when placing the same. Other factors, like short selling, are necessary to successful arbitraging, but none are more vital than the existence of a continuous market.

6. *Enables Odd-Lot Dealers to Operate.*—Like arbitragers, odd-lot dealers require a continuous market if they are to accommodate small investors in the prompt sale of lots of less than 100 shares.[8] The function of these dealers is to supply or take such lots promptly and at an eighth or a quarter (depending upon the securities) from the current quotation for 100 shares. Yet if asked to buy, they will take odd lots with a view to reselling them in the

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[5] For a detailed discussion of the subject see Chapter VII on "Arbitraging."

[6] For a detailed discussion see Chap. XVII

[7] For a detailed discussion see Chap. XVI

[8] For a detailed discussion see Chap. X

open market immediately upon having received 100 shares of the stock from different sources; and if asked to sell, they will sell the odd-lot short in anticipation of buying it in the open market immediately upon having disposed of odd-lots in the stock aggregating 100 shares. Being obliged to give or take the stock at a price so near the last quotation for 100 shares, it follows that the open market must be sufficiently continuous to enable them to sell immediately what they have accumulated or to buy in promptly what they have sold short. Like arbitragers, odd-lot dealers operate on the theory that their transactions in the open market can be executed at about the prices they had in mind when called upon by other brokers to give or take odd-lots.

7. *Makes the Use of Stop Orders Feasible.*—A discussion of the continuous market would not be complete without reference to the various forms of so-called "stop orders."[9] A "stop" or "stop-loss" order is one that orders the broker to sell or buy a stock as soon as the market price reaches a designated figure. Thus, with United States Steel stock selling at 80 the broker may be instructed to "sell at 76 stop," in which case the broker may not undertake to sell the stock until an independent transaction in the market has been made at 76 or lower. When, however, this price has been reached, the stop order becomes an "at the market" order, and the broker is obliged to sell the stock immediately for what it will bring. The general assumption, however, is that, owing to a continuous market, the stock will be sold at either 76 or only slightly under this figure.

Stop orders may be used advantageously by both owners and creditors, and serve as a means of protecting profits or of cutting losses. Thus an owner having a

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[9] For a detailed discussion see pages 159–63.

profit in a given stock, which he expects to increase, and not being able to keep in constant touch with the market, may protect this profit by placing a stop order to sell the stock slightly below the current price. Should the price increase the stop order will not be executed. But should the price decline to the stipulated figure the order will be promptly executed at about the indicated figure. A banker who has difficulty in securing more collateral from a borrower may simply instruct him that he has placed a stop order with respect to the collateral. This is a warning that if the price declines to the figure named in the order, the collateral will be immediately sold at the market price. The same practice is also commonly resorted to by brokers when customers fail to properly replenish their collateral on speculative transactions. But in all such cases bankers and brokers must proceed on the theory that the market is sufficiently continuous to assure the prompt execution of the stop order at a figure that will still leave the proceeds of the sale in excess of the amount of the loan.

8. *Exerts a Favorable Influence Upon the Money Market.*—The ownership by any country of a large mass of securities that are listed on the leading exchanges and thus enjoy a ready market is a strong safeguard against financial panic. If confidence becomes shaken and a demand for money suddenly makes itself felt, causing creditors to insist on cash settlements, the banks are forced to call in loans and accumulate cash. But stocks and bonds to an increasing extent serve as collateral for loans, and, by virtue of the fact that such securities can be sold much more readily than other property, because of the continuous market for them, bankers first look toward the stock market for the application of corrective measures. The first blow, when money becomes dear, nearly always falls upon the stock market, that is to say, the first loans called are usually

those protected with stock and bond collateral; and it frequently happens that a period of forced liquidation in this market sufficiently corrects the money situation so as to leave other business practically unmolested. Crises are prevented, when they can be thus prevented, through the liquidation of securities, and in case they cannot, the security market discounts them, and breaks their force into a succession of small declines, instead of a collapse. And even suppose the crisis is so far-reaching that aid must be sought from abroad, if our bankers are the holders of many active stocks, listed on the foreign markets of England, France, and other countries, their sale may be effected within an hour or two through a cable order, and the proceeds of the sale at once forwarded to this country in the form of gold.

The extent to which credit is made available between different markets, all of which can be brought into touch with one another through the telegraph or cable, has been demonstrated by many examples of such a character as to preclude any advance preparation for the coming trouble. The San Francisco conflagration, for example, involved an enormous and sudden waste of capital which had to be replaced by underwriters within a short time. Yet it is astonishing to observe how domestic and foreign fire-insurance companies were able to dispose of the securities, in which they had invested their funds, in order to supply the millions necessary for the payment of claims.

What may seem so apparent in the case of important crises, it should be remembered, occurs almost daily in a less sensational way. A corporation desires to borrow $50,000,000, and the funds are readily obtained in the most available market by the sale of securities, or by depositing them as security and borrowing thereon. From week to week the pressure on the money market is largely transferred to the borrower on demand loans, who has deposited stocks and bonds as collateral; and frequently contraction or expansion in money rates is thus avoided. If there were not a large mass of salable securities, and large markets where they could be sold promptly, we would have the spectacle of banks charging eight or nine per cent for time loans one month, and then two, three, or four per cent another month. Since stock markets, however, make it possible for credit to be placed almost instantly at the disposal of one market or another where most needed, time-loan rates fluctuate but little. Commercial borrowers continue to pay a rate of five or six per cent with the serene confidence that they need fear but little variation.

CHAPTER III

THE DISCOUNTING FUNCTION OF EXCHANGE MARKETS[1]

Exchanges as Clearing Houses of Current News.—Next to the furnishing of a continuous market, the discounting function of exchanges is probably their greatest service. Stock exchanges have come to be recognized more and more as agencies for the collective expression of human judgment concerning the present and prospective value of securities. Communication by wire has not only brought all the leading exchanges into immediate touch with current happenings everywhere, thus making them news agencies of national and international scope, but has so connected the various investment and speculative markets of the nation and the world as to make them practically one. A few minutes will suffice to enable investors throughout a large territory, to give expression to their opinions of current market news in the form of actual purchases and sales at prices that, in turn, are immediately transmitted by wire to all investment centers and are soon thereafter made available to the general public by the daily press. Exchange markets thus may be regarded as pivotal centers where thousands of minds concentrate to express their judgment concerning prices. They represent the collective mind of the investment world as to values. And in this

[1] In the preparation of this Chapter liberal use was made of my article on "The Scope and Functions of the Stock Market," *Annals of the American Academy of Political and Social Science*, vol. 35, May, 1910.

connection it is all important to remember that the collective judgment is much more reliable than the judgment of an individual. As individuals, we may make serious errors in our purchases or sales; but collectively, as will be indicated later, the market has proved its worth as a remarkably accurate discounter of the future. Explained in greater detail, the value of this prompt expression of the collective judgment is three-fold, namely:

1. *Protects the Holders of Securities and Harmonizes Quoted Prices and Actual Values.*—Without an organized market the average holder of corporate securities, owing to the absence of sources of information, would stand in a most defenseless position. He would be unable to learn their price from day to day, because transactions, if private, would not be recorded, might be designed to mislead, and certainly would not be representative of the general judgment. He would be exposed to many times the fraud of to-day. He would be at the mercy of every rumor. He would be unable to place a correct estimate of the importance of current events upon the price of his securities. He could easily be mislead by unscrupulous counselors into selling his securities far below their fair value, and would never be certain of honest treatment in the execution of his orders. To-day, however, the honesty of brokers is secured through a rigidly enforced system of rules, and every newspaper of any importance gives daily the quotations of leading securities, thus protecting the holder against deception as to prices. Estimates have been made to the effect that current quotations are published in newspapers with a circulation of at least 10,000,000 copies. A few minutes also suffice to convey quotations by thousands of tickers to brokerage houses, banks, trust companies, investment houses, insurance offices, etc., located in practically every city of importance.

Moreover, these exchange quotations represent the average combined judgment of many minds, which is given concrete expression in actual transactions on the floor of the exchange. Through the widespread publicity of stock exchange quotations the world over, the holders of securities are given *gratis* the combined opinion of the most competent financiers as to the value of those securities at present and their prospective value in the future. Since these financiers always have in mind the future, rather than the present, their initiative in making purchases and sales will tend to discount the effect of coming events on any given security. It is for this reason that the price of a stock often bears no definite relation to the present earnings of the corporation or to the dividend paid. A non-dividend-paying stock may seem to command an apparently unwarranted price, yet upon the declaration of a dividend the price will usually fail to advance much and may actually decline. Similarly, a dividend-paying stock may apparently sell much too low, yet upon a cut in the dividend the stock will usually fail to decline appreciably and may actually advance. In other words the market—the collective judgment of the investment world—is always in advance of the present. It is concerned primarily with the future, and bad news or good news is discounted in advance. When the facts become the common property of the rank and file of the population, their effect is lost because the discerning mind of the speculative community has approximately measured their importance in advance and by its sales and purchases has brought about a prompt adjustment of the price to a lower or higher level. The holder of stocks and bonds is free to disregard current quotations if he chooses; but if their trend is pronounced they should serve as a guide by which he may regulate his own action relative to the holding or selling of his securities. For the time being prices and intrinsic values may seem far apart, yet in the long run, owing to the desire of speculators to anticipate the future, quoted prices and inherent values as judged by future earning power are brought into approximate harmony with one another.

2. *Standardizes Values and Directs the Flow of Capital from Unprofitable to Profitable Channels.*—The stock market also serves a most useful purpose in directing the flow of capital from channels where least needed into those where it can be most profitably employed. Daily fluctuations in security prices may have but little significance, yet it is an axiom of the financial world that pronounced changes in the earning power of corporations are reflected, in the long run, by pronounced changes in the prices of their securities. It is equally true that relatively low quotations for the stocks and bonds of corporations in a given line of industry, if continued month after month, are indicative of the unprofitable character of that type of investment. Consequently it soon ceases to be attractive to investors. The quotation table proclaims its unworthy character to the owners of capital more effectively than any other argument. New enterprises along the same line will be discouraged, for what reason is there to undertake the extension of an industry already unprofitable, when the same quotation table gives evidence of other lines of business whose high and advancing prices of shares, as a result of large and increasing returns, will serve as a guide to capitalists in directing the flow of their uninvested funds? If the shares of steam railroads and street railways are relatively low, and show an unfavorable movement, it is a warning to the holders of capital that they should exercise caution in giving financial support to the promotion and extension of this type of enterprise. If, on the other hand, the stocks of equipment, iron and steel, copper, or motor companies are selling high and show an advancing tendency, it is an indication that further development and in-

creased production are desirable and that the flow of capital into these channels is warranted.

By thus standardizing the profitableness or unprofitableness of many groups of industries to a common basis, and presenting the same in a table of quotations that is easily understood and accessible to all the world, stock exchanges serve to prevent the misdirection of funds into unnecessary ventures. They may be described as clearing houses for all news of business significance. All information, political and industrial, is there studied and weighed by experts, who by buying and selling gratuitously give their conclusions to the world in the recorded quotations. These recorded transactions, representing the combined judgment of many trained minds, relieve the mass of small investors of the trouble and expense, even granting that an investigation could be made, of familiarizing themselves with the many intricate factors underlying the operation, management, and future prospects of corporations, possibly situated thousands of miles away. Unworthy classes of investments are thus differentiated from the worthy and investors are attracted to the latter. "Through the publicity of knowledge and prices, the bringing of a multitude of fallible judgments upon this common ground, to an average, there is afforded to capital throughout the world an almost unfailing index of the course in which production should be directed."[2]

It remains to be said that by standardizing values the stock exchange is a creative agency for the upbuilding of business since it tends to bring investors and worthy investment opportunities together. "Just as the banks represent the organization of capital for the making of loans," it has been said, "so the stock exchanges in America, England, and Continental Europe represent the organization of capi-

[2] Charles A. Conant, *Wall Street and the Country*, p. 29.

tal for the purpose of investment." Their members and affiliated firms are intimately associated with the largest banks, corporations, promoters, and private capitalists. So intimate has this association become that directly or indirectly promoters with propositions to finance, or corporations with large issues of securities to float, must usually consult banking, investment, and brokerage houses that have stock-exchange affiliations and that are thereby able to gauge the possibilities and success of the project, to formulate the plans by which the capital is to be raised, and to lay it properly before the investing public. These houses base their judgment concerning investment conditions largely upon the activity and price movements prevailing on the exchanges. In brief, the whole investment business of the world, as one writer aptly expresses it, is "attuned to the tone of these exchanges and reflects the confidence or doubt of the collective public mind to which they give expression."

3. *Discounts Future Business Conditions.*—Besides affording a valuable protection to the holder of securities and directing the flow of capital, stock exchanges serve the further useful purpose of "discounting the future trend of business." In this respect they afford a register of prospective values for property other than that dealt in on the exchanges and constitute a "barometer of future business conditions." Speculation, as already pointed out, deals with the future and not the present or the past. Corporate stocks and bonds constitute so large a proportion of the world's wealth, and represent such a variety of industries, that a marked advance or decline in the general level of prices is the surest indication, in fact an almost unfailing index, of coming prosperity or depression. And the all important fact is that such changes of prices on the exchanges always precede, that is, discount the event, and do not follow or occur concurrently. Without an exception every

business depression or boom in this country has been discounted by our security markets from six months to two years before the dull times or prosperity became a reality.

The financial and business panic of 1907 will serve as an illustration in this connection. The business conditions of 1906 and 1907 were the best that this country had ever enjoyed up to that time. Factories were running overtime, crops were abundant, railroads were congested with traffic, and real-estate operations were booming. The press was filled with the most optimistic descriptions and predictions. Yet, despite the excellent news, security prices showed little gain following the month of August, 1906. The earmarks of coming financial and business distress were at hand. The stock market was serving its purpose as the pivotal center where thousands of the leading minds of the world were acting on judgments that had reference to the future and not the present. Stocks were for sale by those who reasoned correctly concerning the future, and were purchased by those who based their judgments on the present. They were even sold at a sacrifice, and as a knowledge of the coming state of business affairs percolated from one strata of intelligence to another, the selling movement increased in momentum until in March the market experienced its first panic. A rebound in prices occurred, but stocks were still for sale, and by November an unusually low price level was reached. In the meantime, however, business was excellent, and the press of nearly the whole country wondered what all the trouble was about, and why the Wall Street gamblers were thus losing their senses. The business depression of 1908, however, followed the stock market collapse of 1907, and when it was a reality to even the most ignorant, the stock market had clearly discounted the event, and prices of securities refused to yield further.[3] Securities

[3]Another rentoe example of the discounting function is afforded

were now regarded as a desirable purchase from the standpoint of the future. Accordingly we witnessed the spectacle of rapidly ascending stock-market prices at the very time when business was at its worst, complaints the loudest, and the public press as pessimistic as it had previously been optimistic. The stock exchange was again the pivotal center where thousands of the best minds of the country were expressing their judgment of the future, and were willing to convert cash into securities because of an anticipated improvement in values. It may truly be said that major stock-market movements run contrary to what is seen, read, and heard.

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by the market of 1914–1915 when the effect of abnormal war conditions was reflected truly for each of the leading groups of American industries. Upon the reopening of the market in December, 1914, there developed almost immediately a violent reshifting in the prices of the various groups of securities. Industrial stocks, taking a list of 47 leading corporations representing all important types of manufacture, showed a price advance of 117 per cent during the first year of the war. A selected list of 27 leading industrials that figured largely in the manufacture of war orders showed an appreciation of 229 per cent during the same time, while in the case of ordnance stocks the advance was even greater. Bonds, however, showed scarcely any appreciation at all, while railroad and public-service corporation stocks, owing to the increase in operating costs and the inability to increase the price of their service correspondingly, appreciated only 20 per cent and 23 per cent, respectively. As regards each of the aforementioned groups the relative market appreciation approximately measured in advance the future prospects of profits. Later, when the reader had constantly paraded before him the acceptance of huge orders at fabulously profitable prices, the market ceased to display its buoyant upward tendency. It should be remembered that the "bull" market following the declaration of war reached its culmination on the average as early as the close of 1915. By the beginning of September, 1916, although the country enjoyed unexampled prosperity, the appreciation in our list of 47 industrials had declined from a high of 117 per cent to 87 per cent, in the list of strictly war stocks from 229 per cent to 164 per cent, and in the list of railroad and public-service corporations from 20 per cent and 23 per cent to 11 per cent and 17 per cent, respectively. Beginning the latter part of 1919, and through practically all of 1920, the market underwent further drastic declines, and any examination of market quotations for representative groups of stocks makes apparent the fact that the serious business depression of 1921 was discounted months in advance.

It is the failure to understand this fundamental law of price movements that has been the cause of enormous losses to the unthinking and unknowing, whose judgments are based on what is seen, read, and heard at the time. When the good news, whether it be big crops or large earnings, becomes common property, it has been discounted by the market; and similarly when the bad news is apparent to all it has likewise been discounted. It is only natural, therefore, that the rank and file should regard the stock market as a most incomprehensible affair, always going contrary to what is so perfectly evident at the time. It is quite natural that they should always blame their losses on the working of the market rather than on themselves, although in reality their trouble is attributable to their failure to realize that market movements anticipate the future.

Again, one should remember that the stock market is not distinct from other markets. The manufacturer, the merchant, the produce dealer, and the real-estate operator, all have an interest in its primary price movements since they have an important bearing on their own transactions. Many of the market's fluctuations, especially those of a few days or weeks, have little significance since they may represent only some particular local cause or the whim of some speculator. But if the market steadily and rapidly declines, many business men who know its "discounting" significance will assume a waiting attitude as regards their planned undertakings or curtail their production; and this waiting attitude, since all business is closely interrelated, will react upon all other forms of business effort.

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CHAPTER IV

THE FUNCTIONS OF SHORT-SELLING

General Nature of the Short Sale.—In any treatment of the functions of organized stock markets, considerable emphasis should be placed upon the operations of those who speculate for the fall of stocks through the process of selling "short" that which they do not possess with the object of buying back later at a lower price and then fulfilling delivery on their sales. By way of introduction the general nature of such a sale may briefly be explained.[1] Believing that a particular stock, let us say United States Steel Common, will fall in price, a speculator sells 100 shares short in anticipation of the decline. His desire is to postpone delivery of the shares to the buyer until some later date when he hopes to be able to buy the share for purposes of delivery at a price lower than that received on his sale. But this he cannot do, since the rules of the exchange require delivery on the day following the sale. Fortunately for him, all United States Steel Common stock is the same for delivery purposes and any 100 shares of it is as good as any other hundred shares. Accordingly, he borrows 100 shares from some one and delivers the same in fulfillment of his sale. The purchaser, quite unconcerned as to the source of the stock, pays the purchase price to the short-seller, who in turn transfers the market price of the stock to the lender as security for the temporary loan. Now

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[1] For an explanation of the technical aspects of short-selling see Chapter XII on "The Short Sale."

should the price decline sufficiently to induce the short-seller to take his profit he will buy 100 shares (that is, "cover" his sale) in the open market, return the same to cancel his temporary loan, and receive back from the lender of the stock the money deposited as security. Since the price at which he bought the stock in the open market was less than the price at which he originally sold, his profit will be equal to the difference, minus such expenses as may have been incurred in conducting the operation. Should the stock advance beyond the original sales price, however, our short-seller will be confronted with a loss and will have to suffer the consequences of his poor judgment.

Many condemn and few sympathize with the short-seller in the market, because of the belief that it is wrong to sell that which one does not possess; that no economic good is performed by the practice; and that short-selling artificially depresses security prices. To many short-selling seems to be a pernicious practice that ought to be suppressed. They seem to regard short-sellers as a nuisance and a menace, as a group deliberately bent upon injuring the best interests of legitimate investment. In fact, many have urged the prohibition of short sales, and numerous attempts have been made at legislation with this object in view.

A moment's reflection, however, will show that all these conclusions have little basis in fact. These opponents forget that short-selling is a common practice in many leading kinds of business. The manufacturer is expected by the wholesaler to sell his finished wares at a definite price for some definite future delivery; and to assure the delivery of his goods at a stipulated price and time, the manufacturer expects the commission man or produce broker to sell the raw cotton, grain, metal, etc., for future delivery at a definite price, even before the crop has been harvested or the metal obtained. In fact, it is becoming increasingly clear that American producers, if they are to compete successfully in foreign commerce, must be in a position to enter into contracts for the future delivery of their goods in distant markets, at definite prices, and at an agreed time. To accomplish this purpose, and at the same time eliminate the element of gamble, it is necessary to secure quotations in advance on the requisite raw materials, marine insurance, foreign exchange, and steamship space. As a matter of fact dealers in produce, marine-insurance companies, foreign-exchange dealers, and steamship companies are usually willing to obligate themselves to the future delivery of their commodity or service at fixed quotations, thus enabling the exporter to determine in advance all the primary costs that enter into his venture. Contractors, likewise, in contracting for work at a definite price, are constantly selling labor and materials "short." The general practice of "hedging" on our exchanges by those handling our important staples must also necessarily involve a short sale. In business generally, therefore, short-selling seems to be regarded as a necessary means of insurance against speculative losses. If recognized by all these business interests, it certainly cannot be maintained that it is wrong in the stock market to sell something that one does not now possess but intends to buy later.[2]

The Stabilizing and Discounting Functions of Short Selling.—Critics are also wrong in contending that short-selling does not perform an economic good, and that it act-

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[2] Concerning the morality of short-selling, William C. Van Antwerp makes the following statement: "If it is immoral to *sell* for a purpose, it is equally immoral to *buy* for a purpose; in each case the purpose is the hope of a profit. Buying for a profit is approved by everyone; why not selling? In both instances you have bought or sold for a difference in price; the *sequence* of the events in no way involves a question of morals, since there is no ethical difference and no economic difference between buying first and selling last, and selling first and buying last. Moreover, in selling short you do no injury since you sell to a buyer, at his price, only what he wants and is willing to pay for." *The Stock Exchange from Within*, p. 89.

ually depresses the prices of securities. The short sale in the stock market, and the same is also true of produce markets, is often the greatest benefactor in repressing rampant speculative enthusiasm on the one hand, and in checking the effect on security prices of excessive pessimism on the other. Short-sellers do not determine prices. By selling they simply express their judgment as to what prices will be in the future. If their judgment is wrong, they will suffer the penalty of being obliged to go into the market and cover their sales at higher prices. In making their sales they are just as open-minded in their reasoning as those who purchase because they believe the market will advance. With few exceptions their motive is not a malicious one. They simply hope to make a profit by correctly interpreting the market bearing of economic and political events.

Nine-tenths of the public, it is said, are by nature "bulls" and the higher prices go the more optimistic and elated they become. If it were not for a group of short-sellers, usually greatly in the minority but, as a class, superior in intelligence, who resist an excessive inflation, it would be much easier than now to raise prices through the roof; and then when inflation becomes apparent to all, the descent would be abrupt and likely unchecked until the basement was reached. The operations of the "bear," however, make excessive inflation extremely expensive, and likewise tend to prevent a violent smash, because the short-seller, to realize his profits, must become a buyer for amounts equivalent to his sales. The writer has been told by several members of the New York Stock Exchange that they have seen days of panic when practically the only buyers, who were taking the vast volume of securities dumped on the Exchange were those who had previously sold short and who now turned buyers as the only way of closing their transactions. They were curious to know what would have happened in those panic days, when everybody wished to sell and few cared to invest, if the buying power had depended solely upon the real investment demand of the outside public. In such times of distress the short-seller becomes, as he has well been called, "the market's best friend." The "bull," it is true, will help the situation with his purchases. But the short-seller renders the *double service* of retarding an unwarranted advance by his sales and of checking an unwarranted decline by his purchases.

In reply to the prevalent opinion that short-selling unduly and artificially depresses security prices, it should be stated that short-sellers are frequently the most powerful support that the market possesses. It is an ordinary affair to read in the daily press that the market is sustained or "put up" at the expense of the "shorts," who, having contracted to deliver at a certain price, can often be easily driven to "cover." Short-selling is thus a beneficial factor in steadying prices and obviating extreme fluctuations. It constitutes a stabilizing force in the market at all times. Largely through its influence, the discounting of serious depressions does not take the form of a sudden shock or convulsion, but, instead, is spread out over a period of time, thus giving the actual holder of securities ample time to observe the situation and limit his loss before ruin results. Indeed, there could be no organized market for securities, worthy of the name, if there did not exist two sides, the "bull" and the "bear." The constant contest between their judgments is sure to give a much saner and truer level of prices than would otherwise exist. "No other means," reports the Hughes Committee for the investigation of exchanges, "of restraining unwarranted marking up and down of prices has been suggested to us."

Other Functions of Short Selling.—The usefulness of short-selling is by no means limited to the discounting of important events that affect the market, to the resisting of excessive inflation of the general price level of the market as a whole or of the price of any particular security, to the checking of unwarranted declines in times of panic and business depression, and to the steadying of prices by causing declines or advances to be gradual instead of violent. These general functions of short-selling are supplemented by a large number of specific uses, each of which fills a distinct economic need, and all of which, considered collectively, make an organized market much more serviceable to the community than would otherwise be the case. Owing to their intricate nature, a detailed discussion of most of these specific uses of short-selling must be reserved for later chapters. It is considered desirable at this time, however, in order to give the reader a bird's eye view of the subject, to enumerate these uses. Briefly summarized, short-selling, in addition to the previously described functions, renders the following nine services:

1. *Enables Owners of Securities, Unable to Deliver at Once, to Sell the Same and Borrow for Purposes of Delivery.*—The investor with securities in his safe-deposit box is thus in a position, no matter how far he may be from home, to sell promptly whenever the price seems advantageous or when cash is urgently needed, and is spared the inconvenience and possible hardship that might result if immediate delivery of the particular shares sold was necessary. He is, therefore, spared the necessity of carrying securities with him on his journey. His order to sell may be transmitted by wire; the delivery will be effected by his broker through a loan of the security; and this loan will later, at his convenience, be canceled by a delivery of the shares held in vault. Similarly, securities held in foreign countries may be sold pending their transportation to the market where sold. Finally, sales may also be made against securities that have not yet been given deliverable form by the corporation but which the seller knows will be delivered later. In this way sales are often effected in large volume

before the security in question has been actually issued, thus giving a broad market, with its accompanying benefits, to investors, the banking community, and the corporation, much sooner than otherwise would be the case.

2. *Makes Possible the Hedging of a Dangerous Market Position.*—A new security, for example, may be carried by a promoter or broker with a view to selling the same from time to time as market conditions permit. Future unforeseen market changes, however, may involve the holder in a huge loss. Accordingly, prudence may dictate the desirability of hedging this dangerous long account by selling short a sufficiently wide and well chosen range of other securities at current prices on the theory that fundamental changes effect the entire market more or less. Now should adverse circumstances arise, there may be a serious decline in the price obtainable for the new security, but this loss will be largely, if not altogether, offset by the profits realized on the short sales. Should market conditions be favorable to rising prices, the short sales, it is true, will net a loss, but as against this the favorable movement of the market will likely enable the promoter to accomplish his purpose of marketing his new issue at a substantial profit. Here short-selling serves as a means of insurance with a view to reducing the hazard connected with a dangerous position in the market. To obtain the benefits of financial stability, freedom from worry, and greater certainty of average profits, the distributor of this new issue will regard a possible loss on his short sales, or a possible reduction of gross profits on the venture because of such sales, in the same light that business men view the payment of premiums for fire, marine, and other forms of insurance protection.

3. *Makes Possible the Operations of Odd-Lot Dealers,* whose chief function it is to make a continuous market for lots of less than 100 shares.[3] Without such dealers the

[3] For a fuller discussion see Chapter X.

small investor would be severely handicapped in buying or selling odd lots of securities, partly because no one could readily be found who cared to buy or sell the exact number of shares, and partly because ordinary market transactions are based on 100 shares or multiples thereof. All difficulty in this matter, however, is overcome by the presence of a group of odd-lot speculators whose business it is to buy or sell odd lots of every description and at prices usually an eighth or a quarter below or above the current quotation for 100 shares. In fact, one of the most mysterious features of the stock market to the unsophisticated layman is the lightning speed with which his order to buy or sell a small lot of stock, no matter how "odd" the number of shares involved, is executed.

The reason for such rapid execution of small orders is simple. A customer, let us say, instructs his broker to buy seven shares of a given stock. To effect a purchase of this odd number of shares in the open market would necessitate much delay in finding a seller, would likely mean a purchase price considerably above the current market price, and would involve labor and inconvenience altogether out of proportion to the commission charged. Hence the broker goes straight to an odd-lot dealer, who automatically sells the stock at a fraction above the current price for 100 shares. Almost invariably this dealer does not own the shares he sells. Instead, he sells them short in the expectation that his other short sales of odd lots in the same stock will soon total a full lot of 100 shares, when he hopes to cover in the open market at least an eighth lower. If, on the contrary, the broker has been ordered to sell the seven shares, he will find the odd-lot dealer equally accommodating. Now the dealer takes the stock not as an investment, but as a speculator who hopes to accumulate speedily 100 shares from different sources with a view to selling the same shares in the open market at least one-eighth higher.

Possibly he has already, prior to securing a full lot, sold 100 shares short in anticipation of accumulating the balance. His hopes of buying or selling at a profit of one-eighth or more may not and often are not realized. His interests are those of a speculator and his hope is to have his average profits exceed his losses by a sufficient amount. Put an end to short-selling and to speculation, and there is an end to the odd-lot dealer's work as conducted to-day, with the result that the small investor, the very person whom it should be our purpose to assist by all means possible, will be a distinct loser.

4. *Facilities the Work of Specialists,* whose function it is to give a continuous market in those stocks that are comparatively inactive.[4] Specializing in one or a few stocks, a specialist stands in much the same position to those securities that he handles as the odd-lot dealer stands to the odd-lot business. Always ready to buy or sell, he makes a ready market at the best prices. At the same time, and this is highly important in the case of inactive securities, he is instrumental in reducing greatly the range of price fluctuations. If called upon to sell, he will in all likelihood not have the stock on hand. Instead, he will promptly accommodate the buyer by selling the stock short, and will later cover his sale in order to effect delivery. Put an end to short-selling and to speculation and the specialists' work will be rendered difficult indeed, with the result that inactive securities will be less easily bought and sold, and will be subject to price fluctuations much greater and much more uncertain than is now the case.

5. *Makes "Arbitraging" Between Different Markets Possible.*—In the stock market this term refers to the practice, made possible when a security in one market happens to sell higher or lower than in another, of buying a stock

[4] For a fuller discussion see Chapter X.

in the low market and immediately selling the same in the high market with a view to making the difference in price. An explanation of the intricate nature of the operation and the manner of performing its functions must necessarily be deferred until a later chapter.[5] Suffice it to say here that the practice is useful in leveling securities to a common price in all the markets, in making the market for a particular stock more continuous, and in facilitating foreign-exchange transactions. In organized produce exchange markets the practice serves a further purpose of causing not merely all the markets, but the several grades of the product, the various "future" monthly delivery periods, and, in some instances, even different kinds of produce, to sell in harmonious relationship to one another. But whatever the purpose accomplished, it is essential to remember that an arbitrage transaction, whether in the stock market or the produce market, depends upon a short sale in one or the other of the two markets involved.

6. *Makes Possible the Practice of Arbitraging in Privileged Subscriptions,* or "rights," as they are commonly called.[6] Corporations frequently offer to stockholders the privilege of subscribing to new stock to the extent of a specified percentage of their old holdings and at a price below the current market quotation. This privilege, as will be shown later, has a computable value, which may be realized by selling the "rights" in the open market long before the new stock is issued. In the marketing of these rights "arbitragers" furnish the continuous buying power. As they buy the rights at a price slightly below their mathematical value, they sell an equivalent amount of the old stock short at the market price and borrow shares temporarily to fulfill delivery. They thus reap the difference as a profit.

[5] For a fuller discussion see Chapter VII.
[6] For a fuller discussion see Chapter XVII.

When the new stock called for by the rights is finally issued by the corporation, it is delivered in fulfillment of the loan effected when the short sale was made, thus ending the transaction.

7. *Enables Owners of "Rights" to dispose of the Same at Once by Selling Short an Equivalent Amount of the Old Stock.*—This practice is very commonly resorted to and possesses, as will be explained later, certain important advantages.[7] Technically, the possessor of the rights is short of the market until the new securities are delivered by the corporation because he is obliged in the meantime to borrow stock in order to fulfill delivery on his short sale. In reality, however, he continues to hold the rights that entitle him to the new shares promised by the corporation. When the shares are finally delivered to him, he will use them to terminate the loan entered into at the time he effected his short sale.

8. *Makes Arbitraging in Convertible Securities Possible.*[8] Where a bond, for example, is convertible into stock, it is apparent that the two securities should sell in proper relationship to one another. What that relation should be will depend upon the terms of the conversion privilege. Suffice it to say here that an arbitrager can determine the mathematical equivalent of the two securities. Should one sell out of line as compared with the other, he will buy the low-priced security and sell short the high one. If the prices again move to their natural position, he may resell his purchase and cover on his short sale, thus obtaining a profit that will depend upon the extent that the two prices come together. In other instances, where the circumstances permit, he may actually convert the security purchased and deliver the new securities obtained from the corporation in

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[7] See Chap. XVII.
[8] For a detailed discussion see Chapter XVI.

fulfillment of his short sale. By their constant watchfulness for small profits, arbitragers will cause convertible securities to sell in proper relation to the price of the securities into which they are convertible. By their numerous transactions they also make the market for convertible securities more continuous. Moreover, should a security rise in price because of its convertible feature, the holder may realize his gain without going through the process of effecting an actual conversion, that is, he may simply sell at the current price which, owing to the operation of arbitragers, is certain to include the gain referred to.

9. *Greatly Increases the Continuous Character of the Market,* which characteristic, as we saw in a previous chapter, results in numerous advantages to the investing, banking, and business community. From this standpoint the importance of the vast volume of short sales of speculators, odd-lot dealers, specialists, hedgers, and arbitragers, together with the numerous covering transactions that result from such sales, can scarcely be overestimated. Indeed, all the foregoing functions of short-selling are also dependent for their fullest realization upon a continuous market. Hence it follows that a large group of short-sellers, by greatly increasing the volume of transactions, also materially improves the basis for a better realization of the numerous functions of short-selling itself.

Functions of Short-Selling in the Produce Market.—The preceding discussion is confined to the functions of short-selling in markets that relate to invested capital. Yet much of the criticism of short-selling has had its origin in the prevalent use of the practice in organized produce-exchange markets. In such markets, however, the practice is of even greater importance, indeed is absolutely indispensable to the modern requirements of the business community. Here, short-selling serves the further all-important purposes of (1) enabling dealers, manufacturers, and exporters to enjoy the fullest benefits of so-called "future contracts"; and (2) of making it possible for the same classes to "hedge" their *trade profits* against loss through price fluctuations. Owing to the very general opposition to short-selling in all types of markets and the repeated attempts to legislate the practice out of existence, a brief explanation of these two additional functions may not be out of place.

The first refers to the general practice in grain, cotton, coffee, metal, and other produce-exchange markets of buying and selling for "future delivery," that is, at any time during trading hours dealers and speculators are willing to enter into so-called "future contracts" for the delivery of a stated amount of produce at an agreed price within some designated future month. The value of such contracts to millers, manufacturers, exporters, and others, dependent upon a regular supply of produce, cannot be over-emphasized. The miller, for example, may serve as a typical illustration. He may receive an order to deliver flour six months from date at a stipulated contract price, and, not possessing the wheat, wishes to know if he can safely accept the order. Or, his elevator capacity being small, he may desire to make sure of a regular supply of wheat from month to month, and at prices that will make it profitable to keep his mill fully employed. Without a continuous market in "futures," this miller would not be able to secure his supply months in advance and at definite prices, and every order for the future delivery of flour at a fixed price would be a speculation, unless he actually held the necessary wheat (a most inconvenient arrangement) at the time his contracts were accepted.

Under present conditions, however, the purchase of wheat and its storage prior to the acceptance of orders for the future delivery of flour is entirely unnecessary. As soon as the miller receives his order, he may at once ascertain the present price of wheat to be delivered to him in some future month best suited to his convenience. The existence of a broad continuous market will assure the prompt execution of such "future" purchases to practically any amount, and such a market exists, in turn, because of the presence of a large number of short-sellers. In all probability the wheat purchased for future delivery may not yet have been harvested, the short-seller depending upon the continuous market as the source of supply from which he must later obtain the wheat necessary to fulfill delivery on his sale. Now if the miller finds the price of wheat satisfactory, and if we assume that he knows his other manufacturing costs, he can at once accept the contract for the delivery of the flour, let us say, in October, at the same time giving his order for the purchase of the requisite amount of September wheat at the prevailing price. Having concluded the two orders, the miller is certain of his trade profit—his milling profit—irrespective of future fluctuations in the price of wheat. We have here an instance where a short-seller in the speculative market enables a manufacturer to become a short-seller himself, that is, he is enabled to accept contracts for the future delivery of the finished product at a definite price and with the assurance of a reasonable trade profit. In other words, the speculative market is used to eliminate speculation in business, the gamble of speculative price fluctuations being thrown upon those whose business it is to assume such risks.

But of equal, if not greater, importance to the business community is the practice, adopted by all leading interests in the grain, cotton, and various other organized exchange markets, of "hedging" against the loss of trade profits through price fluctuations. And this important practice, it should be emphasized, is again absolutely dependent upon short-selling and a continuous market, which market, in turn, is dependent upon the existence of numerous short-sellers.

Hedging may be defined as the practice of making two contracts at about the same time, of an opposite though corresponding nature, the one in the actual *trade market,* and the other in the *speculative market.* Thus a purchase in the *actual grain market* of a certain amount of wheat at a certain price is promptly offset by a short sale in the *speculative market* on some large exchange of the same amount of grain for some convenient future month's delivery, with a view to canceling any losses that might result from fluctuation in price. As soon, however, as the *trade* transaction is terminated by a sale, the *speculative* short sale must also be terminated, that is, covered by a purchase on the exchange. Both contracts are entered into at about the same time, and both must be terminated at about the same time if the hedger wishes to avoid speculation. But it must be clearly understood that the grain purchased in the trade market will not be used to fulfill delivery on the short sale made in the speculative market. Except for hedging purposes, the two markets are independent of each other; that is, the grain purchased in the trade market will be resold to consumers, while the short sale in the speculative market will be covered by a purchase in that market.

Having hedged his wheat, it is apparent that whether the price rises or falls, our dealer is always even. If wheat declines 20 cents per bushel, the dealer loses that amount on his trade wheat (four to five times the total profit he expects to make out of the actual handling of the wheat), but the amount lost here will be canceled by the 20 cents gain on the short transaction. Whatever the dealer makes by price fluctuations on the wheat he holds is lost on his short sale in the speculative market, and *vice versa.*

The question will at once be asked: How does the dealer make a profit since he is always even, irrespective of price fluctuations? Here we must distinguish clearly between the *trade profit* and the *speculative profit*. Our dealer wishes to avoid speculative risks and therefore makes use of the speculative market for the purpose of hedging. His business consists, let us say, in conveying grain from Chicago to New York, and it is in the handling and the transportation of grain between these two markets that he expects to make a *trade profit,* which is the result of his knowledge of the business and his ability to render this particular service in competition with other dealers. Now let us assume that the differential in price between Chicago and New York is 10 cents, this difference including the cost of transportation, the cost of handling, and—from our standpoint very important—the profit that those in the grain shipping business between these two centers expect to make. Let us further assume that when the time for shipment arrives, the wheat in Chicago, purchased at $1.50 per bushel has declined 20 cents. But through the operation of arbitragers, in turn dependent upon the right to make short sales, prices of wheat all over the country go up and down together. Fluctuations on the Chicago Board of Trade will be reflected promptly, therefore, in the New York market. In other words, if wheat in Chicago drops to $1.30, the price in New York, under normal conditions and in view of our illustration, will be $1.40. Yet there is still the difference of 10 cents between the Chicago and New York quotations, and this difference includes the *trade profit*. By hedging, our dealer is thus enabled to sell his wheat in New York irrespective of any decline in the price.

When denouncing speculation, short-selling, and exchange markets, the critic should bear in mind the fact that dealers and exporters handling the nation's leading staples hedge nearly all their purchases, and that many manufacturers, likewise, do so extensively. Over 90 per cent of the grain held in the leading Western centers, we are informed, is thus protected on the exchanges of Chicago, Kansas City, Minneapolis and St. Louis. Nearly all of the cotton shipped to Liverpool is hedged there and in New York or New Orleans. Nothing is so common as the statement that the entire wheat crop of the country is sold several times over on the Chicago Board of Trade in the course of a year, and that most of the transactions must therefore be fictitious since they do not involve the actual delivery of the grain. But this large volume of transactions need cause no surprise when we reflect that the same grain in passing successively to the commission man, the elevator owner, the exporter, and finally the miller, is sold against by each one of these interests. Many illustrations may be cited where the same grain, in passing from the farmer to the consumer, is hedged half a dozen times, each hedging transaction involving two deals on the exchange, first a short sale, and later a covering purchase.

Let critics also bear in mind that British banks as a rule refuse to lend money on grain or cotton that is not hedged, and that in many instances American banks are calling attention in their advertisements to the attractiveness of hedged collateral. Even the farmers, who, as a class, are usually loudest in their complaints against operations on exchanges, are among the greatest gainers from the practice of hedging. Were it not possible for large elevator companies and exporters to hedge their holdings, the farmer would be unable to dump his large crops, as at present, on the market within the three months of the crop-moving season and receive cash therefor. No class of middlemen could be induced, at present small trade profits, to take a year's harvest within so short a time and hold it for gradual distribution during the balance of the year; and if any cared to be such reckless gamblers it is doubtful that bankers would care to finance their operations. Without the hedging privilege, elevator owners and grain dealers would be obliged to discount the enormous risk assumed in buying large quantities of grain, and, to be on the safe side would have to make allowance for the worst contingency anticipated by offering the farmer a much smaller price than is now given. It is generally maintained by the leading interests in the market that without the hedging privilege farmers would receive an average price at least 10 per cent under that prevailing to-day. Fundamentally, therefore, hedging is insurance against a real hazard in business. Leading produce exchanges, such as the Chicago Board of Trade and the New York Cotton Exchange, render in this respect a function as legitimate and useful as our life, fire-, and marine-insurance companies; in fact, they should be regarded as among the greatest insurance institutions in existence. Here, by means of short-selling, a type of risk is assumed by speculators so dangerous that no private insurance company has ever ventured to underwrite the same.

CHAPTER V

REGULATION OF BROKERAGE TRANSACTIONS AND THE CONDUCT OF BROKERS

Importance of Such Regulations.—Great importance attaches to the safeguards that organized stock exchanges give stock- and bond-holders by regulating brokerage transactions and by maintaining a standard of commercial honor among brokers, much higher than would otherwise exist. It is not at all surprising that in the free buying and selling of such a vast amount of mobile and easily transferable corporate securities, many questionable practices should have arisen. In this connection the constitution of nearly every stock exchange, as already pointed out, defines the purpose of the exchange as follows: "Its object shall be to furnish exchange rooms and other facilities for the convenient transaction of their business by its members, as brokers; to maintain high standards of commercial honor and integrity among its members; and to promote and inculcate just an equitable principles of trade and business."

No person can be elected to membership until he has signed the constitution of the exchange, and by such signature he obligates himself to abide by it, and by all subsequent amendments thereto. The value of such an organized market becomes apparent when we take account of the gigantic frauds that have been perpetrated upon investors during the past few years through advertising campaigns of persons unaffiliated with any recognized exchange, or by certain members of unorganized curb markets. While by no means perfect, the value of stock-exchange regulations, and most exchanges have similar regulations, to the investing public are so evident that more than a brief mention of them is unnecessary. Only the most important regulations will be noted, therefore, and these may be classified, using the New York Stock Exchange for illustrative purposes,[1] under those relating to requirements for admission to membership, those aiming to prevent fraud and manipulation, and those governing the conduct of business.

Admission Requirements.—The greatest care is exercised by the important exchanges in admitting new members. To be admitted an applicant must exhibit his property holdings and show an adequate financial equipment. In this respect any misstatement upon a material point in the application, either for membership, or reinstatement, or an extension of time, may at any time subject the guilty party to expulsion. No application for the readmission of a person who has lost his membership on the exchange through the violation of its rules, or for the reinstatement of a member who has been suspended because of insolvency or failure to meet his engagements, can be considered unless the applicant has secured the consent of two-thirds of the members of the Governing Committee of the exchange. When a member, suspended for insolvency or failure to meet contracts, applies for reinstatement, he must furnish to the proper committee a list of all creditors, a statement of the amounts originally owing, and the nature of the settlement in each case (p. 27). Such proof of settlement with all creditors must appear satisfactory before the application for reinstatement can be balloted on by the Committee on Admissions, and be referred to the Governing Committee.

All important exchanges also regulate carefully the branch offices of members, and provide that no member

[1] Future references in this chapter, unless otherwise indicated, relate to pages of the Constitution of the New York Stock Exchange, as revised to February, 1920.

may form a partnership with a suspended or expelled member of the exchange, or with any insolvent person, or with any one, formerly a member of the exchange, against whom any member may hold a claim arising out of transactions that have not been settled in accordance with the rules of the exchange (p. 75). No person is "eligible to either general or special partnership in more than one registered firm at the same time" (p. 74), and "a member of the exchange who is a general partner in a firm represented thereon is liable to the same discipline and penalties for any act or omission of said firm, as if the same were committed by him personally" (p. 75). All branch offices of members must be in charge of partners, managers, or clerks acceptable to the exchange, and all such managers, clerks, and other employees must, as regards the solicitation of business, be paid fixed salaries that do not vary with the business. Moreover, whenever it "shall appear to the Governing Committee that a member has formed a partnership or established a branch office, or is individually or through any member of his firm interested in a partnership in a foreign country, whereby the interest or good repute of the exchange may suffer, the committee may require the dissolution of such partnership, the discontinuance of the interest in said foreign partnership, or of such branch office, as the case may be" (p. 76).

Rules Against Fraud and Manipulation.—As previously stated, one of the primary purposes of an exchange is "to maintain high standards of commercial honor and integrity among its members, and to promote and inculcate just and equitable principles of trade and business." To accomplish this purpose a very large proportion of the rules of the New York Stock Exchange, and the same may be said of other exchanges, are directed against fraudulent and unbusinesslike practices in the buying and selling of securities. In the first place the rules require the completion of every sale and purchase on the exchange by actual delivery of the securities and payment therefor, and prohibit fictitious transactions, "matched" orders and "wash" sales (p. 50). Fictitious transactions have been forbidden on practically all exchanges for many years, and the New York Stock Exchange in February, 1913, in an endeavor to clarify the situation, adopted a resolution to the effect that "no stock-exchange member, or member of a stock-exchange firm shall give, or with knowledge execute, orders for the purchase or sale of securities which would involve no change of ownership" under penalty of suspension not to exceed one year.

To prevent manipulation and to protect the small investor, brokers offering to buy or sell more than 100 shares of stock are compelled to accept any smaller offering of 100 shares, or multiple thereof, and where an offer of a large block of stock is accepted, the buyer or seller must take care of the smaller offerings (p. 82). Nor may any member be connected, directly or indirectly, by any method whatsoever, with any "bucket shop" or organization engaged in the business of merely dealing in differences of quotations in the actual market, without a *bona fide* purchase or sale of the security or commodity involved (p. 87). Practically all organized exchanges have adopted a definite rule to this effect.

It is important at this point to distinguish between the real and the unreal in brokerage transactions, that is, between the *bona fide* broker's office, from which orders are sent to the great exchanges of the country to be executed according to the usages and customs of the market, and the fictitious broker's office where only bets on price fluctuations of stocks or produce are made between the customer and the proprietor of the so-called bucket shop. While many states have enacted laws prohibiting the operation of bucket shops, yet the disguises under which bucketing of orders is practiced have been so varied and clever that many exist even in localities where their operation has been declared illegal. Not only are the bets very one-sided[2] and the "customer's" chances of losing much greater than of winning, but too frequently the patron's disadvantage is further increased by dishonest practices on the part of the *pretending* broker, such as manipulating the actual market to bring the price of a given stock to the point where the bets may be closed out, or closing the shop through voluntary suspension should, perchance, a considerable number of patrons be winning. Moreover, the patron of a bucket shop is unprotected, because as soon as the price of the given security reaches a point where the small margin becomes exhausted (one single transaction in the actual

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[2] For a full discussion of the nature of bucket shops and their operation see the first three chapters of John Hill's *Gold Bricks of Speculation: A Study of Speculation and Its Counterfeits; and an Exposé of the Methods of Bucket Shops and Get-Rich-Quick Swindles.* As explained by the author the task of beating the bucket shop is impossible. "Take for instance," he explains, "the $10 stock trade, which is the most popular deal among the patrons of bucket shops; could there be a more insane bet on the part of the patron? He steps up to the 'order' window, pays in $10 and 'buys' say, ten shares of American Sugar at $110 a share. If American Sugar declines three-quarters of a point—to $109.25—the patron loses his $10, the remaining one-quarter being the commission charged by the bucket shop. American Sugar must advance to $111.25 in order that the patron may win $10 from the shop after paying the 25 cents commission. I am not an expert in figuring the percentage in games of chance, but it looks to me as if the fool patron was betting even money with the keeper that American Sugar would advance $1 25 a share before it would decline 75 cents a share; in other words, the keeper has 50 cents a share the advantage of the patron on a bet involving a fluctuation in the stock market of 75 cents on one side and $1.25 on the other, or a total of $2.00, so that the 'sucker' starts out by giving an advantage of 25 per cent to the keeper. Or, it might be more correct to figure it in this way: The stock must advance $1.25 a share to permit the patron to make as much as he would lose on a decline of 75 cents a share, the advance being 166⅔ per cent of the decline. It is a question in my mind on a deal of this kind (and there are probably more of these dealings than of any other in bucket shops) if the keeper has not really a 66⅔ per cent advantage."

market may bring the price to this point) all transactions in bucket shops are declared closed. It should also be noted that the bucket-shop proprietor renders no service whatever. He has made no actual purchase or sale and therefore has earned no commission or interest on money supposed to have been advanced to the patron. The pretended purchases or sales (bets) have no effect whatever on the prices of securities or produce in the actual market, because they do not represent a supply of, or demand for, the actual stock or commodity.

In their relations with customers, brokers are prohibited by numerous rules from resorting to fraudulent practices that customers naturally find it difficult to detect. Thus a broker is forbidden by the rules of the New York Stock Exchange "to buy or sell directly or indirectly for his own account, for account of a partner, or for any account in which he has an interest, the securities, the order for a purchase or sale of which has been accepted by him for execution," except when by reason of his neglect to execute an order he is compelled to take or to supply on his own account the securities named in the order, in which case he is declared not to be a broker and not to be entitled to a commission (p. 86). Where brokers have orders to buy and orders to sell the same security, they must first offer such security at one-eighth per cent higher than their bid before making transactions with themselves (p. 51). An improper use of a customer's securities by a member or his firm is also declared "an act not in accordance with just and equitable principles of trade," and is subject to a penalty of suspension or expulsion (p. 101). Practically all exchanges also provide that every member must keep complete accounts, subject at all times to examination by the Governing Committee or any standing or special committee of the exchange, designated for the purpose, and, under penalty of suspension, no member may refuse or neglect to submit such accounts or willfully destroy the same (p. 32). Many exchanges also stipulate in their rules that any broker employed for the purchase or sale of securities must keep a record of every transaction showing the date, number of shares, name of the security, price, and the broker from whom bought or to whom sold, and on the day of executing the order must furnish the customer with the name of the broker from whom the security was bought, or to whom sold. Non-compliance with this rule makes the broker guilty of fraud or false pretense or of "acts detrimental to the best interests of the exchange." Every member of the exchange is also required to use due diligence to learn the essential facts relating to every account accepted by himself or by his representatives.

As a further precaution against fraudulent or unbusinesslike practices most exchanges have adopted certain general rules that are far-reaching in their effects since they may be extended to cover every practice that may be regarded as contrary to just and equitable dealing. Thus Article XVII, Section 2, of the New York Stock Exchange's Constitution, provides that "a member adjudged .... guilty of fraud or of fraudulent acts shall be expelled." Section 6 of the same Article provides that "a member who shall be adjudged .... guilty .... of any conduct or proceeding inconsistent with just and equitable principles of trade may be suspended or expelled"; while Section 8 stipulates that "any member who may be adjudged guilty of any act which may be determined by the Governing Committee of the exchange to be detrimental to the interest or welfare of the exchange" may be suspended for a period not exceeding one year. As a still further precaution the Exchange established a Committee on Business Conduct. This committee is charged with the duty of "considering matters relating to the business conduct of members with respect to customers' accounts" and of keeping "in touch with the course of prices of securities listed on the Exchange, with a view to determining when improper transactions are being resorted to" (p. 15). The Committee is empowered to examine into the dealings of any member, with respect to the above subjects, and is instructed to report its findings to the Governing Committee.

From time to time, as events justify the same, various acts, practices, or omissions are declared to come within the scope of one or the other of the three aforementioned general rules. Thus, the following acts of members, not yet enumerated, have been declared as constituting "acts detrimental to the interest and welfare of the exchange": failure to submit to any standing or special committee such portion of their books or papers as are material to any matter under investigation; willful destruction of any required evidence, or refusal to appear or testify as a witness; the publication of any advertisement of other than a strictly legitimate business character; the taking or carrying of any speculative account in which a clerk of a bank, trust company, insurance company, or broker is directly or indirectly interested, without the written consent of the employer; and the acceptance or carrying of an account for a customer, either a member or non-member, without proper and adequate deposit of margin. In the same way reckless or unbusinesslike dealing is declared to be contrary to "just and equitable principles of trade." The significance of the aforementioned three rules as a means of maintaining a high standard of honor in a business that, almost more than any other because of the conditions under which transactions must necessarily be conducted, can easily lend itself to sharp practices on the part of unscrupulous brokers, has been well stated in the following words:[8]

[8] John G. Milburn's Brief on Behalf of the New York Stock Exchange," p. 724 of Hearings before the Senate Committee on Banking and Currency on S. 3895, 63rd Congress, Second Session, 1914.

"The rules making acts contrary to just and equitable principles of trade a ground for expulsion enable the exchange to hold its members to a standard of business integrity far higher than the law does or could require. A member may be expelled for doing that which, according to the standard of the most honorable of his own business associates, is deemed contrary to fair dealing, irrespective of the question whether or not it amounts at law to fraud or positive wrongdoing. He may be punished for reckless and unbusinesslike conduct, and even for errors of judgment. In all his transactions he has to conform to a standard which the law does not undertake to prescribe. Whatever he does has to be in accordance with "just and equitable principles of trade" — a standard unknown to any system of law. Whether any particular act of his violates those principles is determined, not by any outside body of laymen like a jury and the application of technical rules of evidence, but by a select body of members of the exchange chosen to uphold just and fair dealing, who ascertain the facts with businesslike directness, and who are empowered to expel, which is the ruin of a man's career as a broker, or to suspend, which is a deep humiliation. These rules are an illustration of the disciplinary efficiency of the exchange."

Rules Governing the Conduct of Business.—These rules relate to a large variety of subjects and, among other matters, define and regulate the practices relating to the kinds of bids and offers permitted, maturity of contracts, comparison of contracts to avoid misunderstandings, clearing and settlement of transactions, payment for and delivery of securities, closing of contracts in case of insolvency or failure to meet business obligations, deposits on contracts, transfer and registry of securities, and commission charges. All of these regulations, subject as they are to the strictest enforcement, again serve to insure the regularity of purchases and sales and thus greatly benefit the vast number of investors and dealers dependent upon brokers when purchasing or selling securities.

All exchanges also provide for the arbitration of disputes that may arise between members, and if the non-member is willing, between members and their customers (p. 14). A non-member agreeing to arbitrate, must execute an agreement, however, to abide by the rules of the exchange, and also a full release of his claim. All complaints of non-members charging members of the exchange with wrongdoing are promptly dealt with by the appropriate committee. Other articles of the New York Stock Exchange's Constitution provide for the prompt settlement of disagreements over the terms of contracts, the settlement of contracts, and practically every other dispute that might arise to interfere with the expeditious handling of business. Insolvency, or failure to comply with contracts, also leads to automatic suspension of the insolvent member (p. 26).

Despite the severe criticism that has been directed in recent years against certain practices of American exchanges, there can be no doubt that the numerous aforementioned regulations governing brokerage transactions and the conduct of brokers, when considered collectively, are of incalculable value as a means of safeguarding the thousands of investors who, in buying securities, must engage the services of brokers who, if unregulated in their conduct and if free to do as they please, could easily misrepresent transactions to their clients. Perfection is not claimed for these regulations, but it is clear that without an organized market for corporate securities the average investor would stand in a most defenseless position and would be exposed to many times the fraud and misrepresentation that may now exist. While there is still room for improvement, each year, fortunately, sees the adoption of new and more stringent rules by the several exchanges and the stricter enforcement of those already in existence.

The reasonable efficacy of existing rules for securing regularity and honesty in purchases and sales is apparent when judged from the standpoint of an exchange as large as the New York Stock Exchange. Despite the thousands of transactions daily, involving millions of dollars and effected in nearly all instances by a mere word or gesture, disputes rarely occur between contracting parties that are not promptly settled without resorting to litigation. As stated in the brief on behalf of the New York Stock Exchange,[4] "the fidelity of the members of the exchange to their customers is attested by the fact that, notwithstanding the unusual risks and temptations of the business, only 78 failures occurred in the last 13 years, or 6 a year. Thus, the annual ratio of members who failed during that period to the total membership was slightly more than one-half of one per cent; and half of those who failed settled with their creditors. It seems scarcely probable that any rules could be devised to produce a better showing." It may safely be asserted that there is probably no group of business men among whom good faith in the fulfillment of business obligations and the strict observance of usages and customs are so proverbial, and the repudiation of contracts so practically unknown, as among the membership of a large exchange.

References

Constitution of the New York Stock Exchange, revised to February, 1920.

Hearings before the Senate Committee on Banking and Currency on S. 3895, 63d Congress, Second Session, 1914.

[4] Hearings on S. 3895, 63d Congress, Second Session, p. 724.

CHAPTER VI

OPTIONS AND THEIR FUNCTIONS

A full statement of the functions of organized exchange markets requires an explanation of the nature and uses of "options," or "privileges," as they are also called. The several types of contracts coming under this class not only afford a way of operating in stocks and produce without actually buying or selling the same, but constitute, and this is their true economic function, a means of insurance to those who may have undertaken commitments on either the "long" or the "short" side of the market. The legitimate uses of privileges, however, are very generally ignored, and too frequently such contracts serve little more than a convenient means of betting on the trend of the market. Owing to the abuses to which privileges lend themselves, various exchanges, including the New York Stock Exchange,[1] forbid the making of offers to buy or sell privileges on their floors, while several States have also seen fit to enact so-called "anti-option" laws. Moreover, the use of privileges is not nearly so popular now as formerly. But such prohibitions, and the declining use, should not cause us to overlook the economic and entirely moral use of privileges. Although not recognized by the New York Stock Exchange, unlike the exchanges of London and Paris, stock-exchange firms may deal in privileges, and in fact, some

[1] Article III, Section 9, Constitution of the New York Stock Exchange.

firms have issued special circulars describing their nature and functions.

Briefly defined, privileges are contracts that give the purchaser the option to compel the seller to deliver to, or to receive from him, as the case may be, a specified amount of securities or produce within a specified time as per the terms of the agreement. This type of option should not be confused with "buyer's and seller's options," as used on the stock exchange and which will be described later,[2] or with "futures" as used on organized produce exchanges with reference to the delivery of specified amounts of produce within some future designated month. They differ essentially from these types of contracts in that the terms of "buyer's and seller's options" and "futures" concerning delivery must be complied with at some time, whereas a privilege, as far as the purchaser of the same is concerned, can be exercised or not at his discretion. In other words, under certain circumstances the purchaser of a privilege will want the seller of the privilege to comply with its terms, while at other times he may find it advantageous to allow the agreement to expire without demanding fulfillment.

Types of Options Explained.—Privileges as used in the United States are of three main kinds, namely: "calls," "puts," and "straddles," the latter being often referred to as "spreads" or "double options." Other special forms exist,[3] but their use is confined almost entirely to European markets. Note should also be made of the fact that both "London" and "American" options are sold in this country, and that these two types present sufficient differences to warrant a separate classification. Referring first to

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[2] Chapter XI.

[3] These are usually adaptations of the three types of contracts mentioned in the text. The special forms most commonly met with are the "Call o' More" and the "Put o' More."

"American" privileges, or those originating in this country, the nature of "calls," "puts," and "straddles" may be briefly described as follows:

1. *A "call"* may be defined as an option that, in consideration of the premium paid, gives the purchaser the right to compel the seller to deliver to him a given number of shares of stock within a given time at a stipulated price, which is placed somewhat higher than the prevailing market price of the stock at the time the "call" is purchased. The following is a copy of the contract as used in New York:

New York, *Sept.* 6, 1916.

FOR VALUE RECEIVED, the bearer may call on one day's notice, except last day when notice is not required, — 100 Shares of the Capital Stock of the ANACONDA COPPER MINING CO. at — 90 — any time in 30 days from date.

All dividends for which Transfer Books close during said time, go with the Stock. Expires at 2.30 *P. M. Oct.* 6, 1916.

[Signed]......................

A "call" is used either when the purchaser expects a rise in the stock under consideration or to protect a short sale against a rising market. To illustrate: If a call is purchased on a stock where the call figure is 90, and the stock should advance to 100, a profit of 10 points, minus the premium paid for the privilege, would result if the call was closed at 90. Should the stock decline, however, instead of advance during the period specified in the option, the holder's risk will be limited to the cost of the call, namely, the premium. On the other hand, should the stock have been sold short the short-seller would be assured of the stock for delivery purposes at 90 should the price go higher. In case of a decline in price, however, the call would enable the short-seller to allow his profits to run and limit his loss to the premium paid.

2. *The "put"*[4] is the reverse of the "call," and gives the purchaser, in consideration of the premium paid, the right to make the seller take from him a given number of shares of stock within a given time at a stipulated price, which is placed somewhat below the prevailing market price of the stock at the time the "put" is purchased. "Puts" are purchased either for the purpose of making profits when a decline in the stock is expected or of protecting profits against a possible decline. To illustrate: If the "put" price is 90 and the stock declines to 80, a profit of 10 points, minus the premium paid for the privilege, would result if the "put" was closed at 90. Should the stock rise instead of decline during the period of the "put," the holder's risk is again limited to the amount paid for the "put." It may be added here that a "put" or "call," under the American system, can be closed whenever there is a profit and the purchaser thereof is inclined to take the same, that is, a privilege does not require waiting until the last day of the contract period to exercise the same.

3. *A "straddle"* is a combination of the "call" and "put," and entitles the purchaser, in view of the premium paid, to either demand delivery from, or to deliver to, the seller of the "straddle" a certain number of shares of stock within a given time at a stipulated price. The delivery prices in the "call" and "put" are again placed respect-

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[4] Following is a copy of the "put" contract as used in New York:

New York, *Sept*. 6, 1916

FOR VALUE RECEIVED, the bearer may deliver on one day's notice, except last day when notice is not required,—100—shares of the capital stock of the ANACONDA COPPER MINING CO. at —90— any time in 30 days from date.

All dividends for which Transfer Books close during said time, go with the stock. Expires at 2.30 *P.M.*, *Oct*. 6, 1916

(Signed) ....

ively higher and lower than the prevailing market prices of the stock at the time the "straddle" is purchased, but the amount above or below need not be the same. The cost of the "straddle" is necessarily more than that of the "put" or "call" alone since the holder is given the privilege of utilizing either a rise or a decline in the stock during the time for which the "straddle" is issued. Here it should be noted that either the "put" or "call" feature may be exercised before the expiration of the period. Moreover, the closing of the "put" does not affect or cancel the "call" feature of the "straddle." Thus, if in a 60-day "straddle" the "put" should be closed 30 days following the purchase of the option, the purchaser would have another 30 days left to exercise the "call." "Straddles" are usually purchased when the buyer feels that the market is apt to show considerable fluctuation during the time stipulated in the option. Purchasers of this type of option also usually go on the theory that if one feature, say, the "put," cannot be advantageously exercised, the "call" is apt to prove beneficial, or *vice versa*. The London "straddle," as will be pointed out later, also serves as a means of insurance for a specified period for speculators who make numerous transactions both for the "long" and "short" account.

American and London Options Contrasted.—In view of the importance of London privileges in the American market, a brief explanation of them is in order. Such options are sold by reputable London houses that in most instances confine themselves largely to the option business, and that, through their American representatives, periodically publish quotation sheets giving the current prices, or premiums, for "puts," "calls," and "straddles" on various American stocks dealt in on the London Exchange. The quotations are usually given for various periods, such as at the end of one, two, three, or more months. Although sold in the American market, London privileges are governed by the rules of the London Stock Exchange and, accordingly, an option good until the end of a certain month is understood to mature "on the day before the 'making-up' day of the last settlement for that month, which generally comes three to six days before the last day of the month, and is fixed by the London Exchange Committee about two months in advance." Should the owner of the option intend to exercise the privilege, notice must be given on this day. The privilege of demanding fulfillment of the option, however, rests entirely with the purchaser. It may be added that brokers in selling London options charge a commission of one-eighth per cent or $12.50 per 100 shares, plus cable expenses.

London privileges are executed at the current market price of the stock in London whereas in the case of American options the "call" price is placed somewhat above the market price of the stock and the "put" price somewhat below. Moreover, to the market price of the stock at the time a London "call" is purchased there is added interest at a fair rate for the time the option has to run, and this price, inclusive of such interest, is therefore the "call" price. On "puts" interest is allowed to the purchaser at a fair rate for the period covered by the agreement. Lastly, London privileges must be exercised, if at all, at the end of the option period; whereas American privileges, as we have seen, permit the holder to exercise the same at any time during the option period.

Uses of Options.—As already indicated, the insurance function is the most legitimate feature connected with the use of privileges. In this respect, "puts," "calls," and "straddles" are advantageous in that the holder thereof knows the exact extent of his liability, irrespective of market fluctuations. Should the price of the stock move against the option holder, his loss is absolutely limited to the amount of the premium plus the difference between the current price of the security at the time the option was purchased and the agreed price at which the security can be "put" or "called." On the other hand, if the market moves favorably, the holder of the option has offered to him the possibility of a profit larger than the amount paid for the privilege, in which case he will allow his option to lapse. In other words, privileges serve the same general purpose as stop-loss orders, namely, to limit losses on market commitments while at the same time leaving open the possibility of increased profits. The justification of a speculative group in our organized markets has already been discussed. If this contention is correct, it follows that those having entered upon speculative transactions in the security market should be free, if they choose, to utilize a type of contract that will tend to lessen the hazard involved.

A few illustrations will serve to make the insurance function of privileges clearer. Let us assume that a stock is selling at 90 and that the holder of 100 shares, although believing that the stock will rise, nevertheless desires to protect himself against a possible decline. This he may accomplish through the purchase of a "put," which, let us assume, is purchased by the payment of a premium of $200 and grants the holder the right during a period of three months to deliver the hundred shares to the seller of the option at a price two points below the market price at the time the put was purchased, or at 88. Should the price decline to 80 the holder of the stock in the absence of the put, would be confronted with a loss of 10 points. Being the holder of a "put," however, he has the right to deliver the same at 88, and his loss is limited, therefore, to the difference of two points ($200) between the purchase price of 90 and the "put" price of 88, plus the premium of $200.

Again, let us assume that, with the stock selling at 90, a hundred shares are sold short, and that the short-seller, while believing that the stock will decline, nevertheless desires to protect himself against a substantial rise. This may be accomplished through the purchase of a "call" which, let us say, is obtained for a premium of $200 and grants the holder the privilege, during a period of three months, of calling the stock from the seller of the option at a price two points above the market, or at 92. Now should the price rise to 100 the short-seller would face, had he not secured the protection of a call, a loss of ten points in order to purchase the stock for delivery on his short sale. The possession of the "call," however, gives him the privilege of calling the stock at 92, thus again limiting his loss to the difference of two points ($200) between the sale price of 90 and the call price of 92, plus the premium of $200.

Frequently, and in a manner similar to the foregoing illustrations, "puts" and "calls" are used by those who already are fortunate enough to have a considerable profit on their purchases or short sales, which they do not desire to take because of a further expected rise or decline, but which they nevertheless wish to protect against violent price fluctuations. In such instances privileges serve the purpose of protecting profits rather than of limiting losses. Although rarely used for the purpose, I have had my attention called to a few instances where a "put," issued by a thoroughly reliable firm, was accepted by a financial institution, in lieu of further margins, in order to protect a customer's loan against the contingency of an indefinite market depression of the collateral deposited as security.

Reference should also be made to the practice of "trading against options." Often the holder of a "put" or "call" may wish to take advantage of market movements and make several turns during the life of his option. Thus, in case the stock, upon which a call has been purchased, should advance so rapidly as to warrant a belief that a reaction in price will follow, the holder of the "call" may sell the stock short in the open market "against his option." Then, should the stock decline in price as expected, it may be purchased at the lower figure, and still leave the speculator in possession of his option. Possibly before the expiration of the call, the fluctuations in the stock may enable the making of one or more additional sales and repurchases. If at any time, when a sale has been effected, the stock should not decline as expected, but instead continues to rise, the holder of the "call" has his option to fall back upon and his loss will be limited in the manner previously indicated. A like procedure of trading against his option, it is apparent, may be followed by the holder of a "put." Similarly, a "straddle" may be used as a means of protecting a dealer who makes numerous trades in a given stock and wishes frequently to change his position in the market. Here the process of selling and repurchasing may be continued as often as opportunity permits, but should the dealer at any time be caught by a market rise following a sale, he may fall back upon the "call" feature of his "straddle," or should the market decline following a purchase, he will be protected by the "put" feature. Dealers, as we have seen, serve to make a market more continuous in character. And in this connection their calling may, if they choose, be rendered less hazardous, since "straddles," "puts," or "calls" may be used as a means of insurance against excessive loss. From this standpoint privileges may be described as term insurance policies that, in consideration of a definite cost, change a speculator's position from one of great uncertainty to one of approximate certainty.

The uses of privileges, however, are by no means confined to the insurance function. As was stated at the beginning of this chapter they may be used, for example, as a method of operating in stocks without actually buying or selling the stocks. Thus, let us assume that a considerable advance is expected in a given stock and that a speculator does not care to hazard a large sum or does not desire to take the risk of purchasing the stock by depositing the customary margin against a speculative purchase and assume the liability of further margin calls in case of a decline. Instead of undertaking a margin transaction, this speculator may follow the plan of procuring a "call" for a period of, say, three months for a premium of $200 and with the "call" price two points above the current quotation. Now whatever the course of the market may be, the option holder's liability is limited to the cost of the "call." Should the stock, however, advance sufficiently above the "call" price to make it seem advisable to take a profit, the option holder may sell short in the open market, and then exercise his right of calling the stock for purposes of delivery against his sale. If, however, the market should decline instead of rise, the option holder may allow his "call" to lapse, and his loss will be limited to the premium paid.

Privileges have also at times been used by manipulators with a view to influencing the opinion of the speculative community. Offering "puts" freely at small premiums and at prices near the market price would seem to indicate confidence on the part of the option seller in a future rise in the price of the stock under consideration; while a willingness to sell "calls" on liberal terms would seem to indicate the contrary. By their apparent readiness or unwillingness to sell privileges, large operators have at times sought to mislead the street as to their true market position. At other times "puts" or "calls" have been freely sold by leading operators because they were anxious to accumulate or distribute certain lines of stocks and were, therefore, entirely willing to receive premiums on privileges and have the stock delivered to them in case of "puts," or called from them in case of "calls." In other instances, the free sale of "puts" has constituted an important part in the operation of a corner.[5] Sometimes also privileges have been used to facilitate advertising and selling campaigns, the party in charge of the campaign being either offered a "call" entitling him to demand stock from time to time at a stipulated price in order to meet his sales, or a "put," in case he possesses the entire issue, entitling him to deliver back any unsold portion.

No discussion of privileges is complete that does not refer to the common practice of using this type of contract for purely betting purposes. This unfortunate *misuse* to which the American option, since it may be exercised at any time during the option period, so easily lends itself, has been the cause of much adverse criticism, has led to the adoption of anti-option laws and stock-exchange prohibitions, and has chiefly been responsible for the general failure to appreciate the legitimate functions. The practice referred to consists of the use of "puts" or "calls" as bets upon price fluctuations without any intention of effecting an actual delivery of securities. Not wishing, for example, to sell a stock in the open market a person may, as we have seen, purchase a "put" instead. Now should the price of the stock fall sufficiently it is assumed that he will purchase the requisite number of shares in the open market at a price below the delivery price as stipulated in the "put," and upon delivery of the stock to the seller of the option will net the difference between the "put" price and the

[5] As illustrating this use of privileges, in this case a "put," see *in re* Chandler, 13 Am. L. Reg. (U. S.) 310. The case relates to a corner in oats, and Chandler, in order to impress the market with his ability to maintain the inflated price, freely offered to sell "puts" on extremely liberal terms.

lower market price at which the stock was bought, less the cost of the option and the commission on the purchase. Similarly, a "call" may be purchased in anticipation of a rise in price, thus enabling the holder to call the stock with a view to selling it in the market at a higher price. Very often, however, actual purchases or sales in the market are not effected by those who purchase privileges, and in fact, the parties to the agreement never intended that there should be an actual delivery of stock. Instead, the settlement consists of a payment of the difference in price, thus making the option a pure bet on price fluctuations.

Attitude of the Courts Towards Options.—The frequent misuse of privileges naturally causes one to question the legality of such contracts. The legal status of privileges, however, has been clearly determined by the courts of the several states. In the absence of statutes prohibiting privileges, the courts have enforced such contracts where the facts did not clearly show that the agreements were mere wagering arrangements and that the parties thereto merely intended to settle differences. "It is perfectly plain," writes Dos Passos,[6] "that in England, as in the United States, these options frequently represent real transactions, and that there may be a *bona fide* intention of delivering or receiving stocks when they are issued." In the case of Story *vs.* Salomon, 71 N. Y. 420, the legality of a "straddle" was considered, the defendants contending that the contract violated the statute against gambling.[7] Here the legality of the contract was upheld on the ground that there was nothing illegal on the face of the contract in the absence of proof to the contrary. In commenting on the case, Dos Passos gives the following explanation:[8]

[6] Dos Passos, *A Treatise on the Law of Stock Brokers and Stock Exchanges*, 2d ed., vol. I, p. 603.

[7] For a later statement of the law concerning privileges see Harris *v.* Tumbridge, 83 N. Y. 92.

[8] Dos Passos, *op. cit.*, p. 605.

"One may pay for an option to take at a future day, at a certain price, a farm, or article of personal property, and most contracts for the purchase or sale of merchandise at a future time are made with a view to the market price on the day of performance. There is always an element of speculation and uncertainty as to that; but it has never been supposed that there is any betting for such contracts. The court in such a case will not infer an illegal intent unless obliged to; and the transaction, unless intended as a mere cover for a bet or wager on the future price of the stock is legitimate. If it had been shown that neither party intended to deliver or accept the shares, but merely to pay differences according to the rise or fall of the market the contract would have been illegal. But, in the absence of such evidence, upon the above reasoning the contract was sustained."

Factors Determining the Price of Options.—To have their business yield reasonably dependable profits, experienced sellers of privileges are careful to avoid a hit or miss policy and to follow a fairly scientific plan for determining the cost of the options they offer, the line of reasoning resembling that followed by insurance companies in arriving at their premiums. Naturally the cost of a "put," "call," or "straddle" will depend largely upon the length of time during which the same is to run and the extent of the difference between the current market price and the price named in the agreement. The shorter the period and the greater the difference in prices, the less likely is the buyer of the option to exercise the rights under the agreement.

But to determine safe premiums and differences in prices it is desirable for the seller of privileges to arrive approximately at the past *average* fluctuations of the stock under consideration during the various periods of time, such as one week, one month, two months, etc., for which the options are offered. These average fluctuations correspond to the average loss ratio as determined by insurance companies, and the cost of meeting these average fluctuations corresponds to the "net premium" in insurance. Just as insurance companies must add to the net cost in order to allow for expenses and profits, so the experienced seller of privileges arrives at his gross cost by adding (1) a fair margin of profit, and (2) an allowance for contingencies. In the insurance business, it is also highly desirable to secure a sufficiently large number of risks and to properly distribute them in order to reap the benefits of the law of average. Correspondingly, the experienced seller of privileges will seek not only to do a sufficiently large business but to scatter the risks sufficiently over different stocks, that is, to accept risks on approximately the same amounts of stock at regular intervals of time.

Despite these precautions, however, unusual conditions may be expected to arise suddenly in a market so sensitive to current economic changes and rumors as the stock market. Thus at one time the market may be steady as a whole, while at other times the fluctuations may be wild, owing to financial strain, changing crop prospects, far-reaching legislation, scarcity of stock for delivery purposes, or some other cause. Again, the nature of a particular stock, or class of stocks, may be such as to cause sudden economic changes to bring about more violent fluctuations than occur in other sections of the market. Such uncertain factors require the seller of privileges to be on his guard at all times. He must constantly ascertain the importance of special influences that affect a particular stock or the market as a whole, and that are likely to change the *average* result during the period of the option. Moreover, where privileges may be exercised at any time before maturity, and, as we have seen, American options differ from London options in this respect, the seller

of the privileges, where the circumstances seem such as to justify a reversal of his position under the agreement, may hedge a "call" by buying, or a "put" by selling short, all or part of the stock against it.

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CHAPTER VII

ARBITRAGING

Definition and General Nature.—The practice of "arbitraging" has its origin in the fact that the price of a given security, commodity, or other subject matter, may be lower in one market than it is at the same time in some other market. The term refers to the practice of buying and selling the same subject matter, or two subject matters closely and inherently related to one another as regards price, almost simultaneously in two different markets with a view to clipping the difference in prices as a profit. Where both of the markets are within this country, the transaction is labeled as "domestic arbitrage," to distinguish it from "foreign arbitrage," which involves two markets located in different countries.

Numerous markets afford illustrations of the practice. Thus there may be arbitraging in stocks, bonds, or leading commodities. The marine-insurance business has often afforded a prominent field for international arbitraging,[1] and the same is also true of the foreign-exchange business.[2] Again, interest or dividend bearing securities may be sold and commercial paper purchased. Or there may be arbitraging in interest rates, money being borrowed at a lower rate than the dividend or interest return obtainable from securities purchased with the borrowed funds.[3]

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[1] See Huebner, *Marine Insurance*, p. 167. New York, 1920.
[2] See Deutsch, *Arbitrage in Bullion, Coins, Bills, Stocks, Shares and Options*.
[3] See Chap. XVIII.

Other leading cases of arbitraging are: between a bond and a stock into which the bond is convertible;[4] between a stock and "privileged subscriptions" giving the holder the right to subscribe to new shares in the same corporation;[5] and between two stocks that have a fairly fixed price relationship to each other owing to a merger or other consolidation. Of these various forms of arbitraging, that pertaining to the stock market, and especially to the New York and London Stock Exchanges, has been by far the most important. This branch of arbitraging therefore, will be made the basis of this chapter with a view to explaining its nature, requirements, and services.

Stock-Exchange Regulations Concerning Arbitraging.—Domestic arbitraging had its first real development with the installation of improved telegraphic communication between American cities, and foreign arbitrage with the laying of the first successful trans-atlantic cable in 1868. Unrestricted growth, however, did not seem to meet with favor by the nation's premier Exchange. In 1898 the New York Stock Exchange adopted a resolution preventing arbitraging by any of its members on the plea that the "sending of continuous quotations, or quotations at frequent intervals, by members of this Exchange from the floor of the Exchange, is detrimental to the interest and welfare of the Exchange," and that "trading between this Exchange and that of any other city in the United States, based upon quotations from the floor of this Exchange, has resulted in practically ignoring the commission law."[6] This action, which was later extended to cover arbitraging with the Consolidated Exchange of New York, had the effect of reducing the volume of domestic arbitrage to very limited proportions. As far as the New York market

[4] See Chap. XVI.
[5] See Chap. XVII.
[6] Constitution of the New York, Stock Exchange, p. 80.

was concerned, this business could henceforth be conducted only by non-members who, being obliged to pay commissions and also lacking the floor facilities so necessary to successful arbitraging, would be at a decided disadvantage in conducting this type of business. In 1911 a second resolution was adopted [7] which resulted in greatly reducing foreign arbitrage. The effect of this resolution was to limit the business to non-members, or to members whose London or other foreign correspondents were also members of the New York Stock Exchange.

Despite these restrictions, however, foreign arbitraging increased in volume until the commencement of the World War, when most abnormal circumstances caused its entire cessation. The conditions referred to are several, namely: (1) Government control of cables and their use for only essential messages; (2) pressure of Government business on banking firms to such an extent as to preclude the continuance of many lines of activity formerly pursued; (3) prohibition of code messages by the British Government; (4) refusal of the markets, owing to abnormal conditions, to promptly respond to the arbitrager's operations, thus necessitating shipment of securities to a much greater degree than formerly; (5) an enormous increase (some 600 per cent over pre-war rates) in the cost of shipment and insurance combined; and (6) the British Government's prohibition of the initiation of arbitrage operations by London houses. According to advices received in June, 1921, arbitraging between New York and London had not yet been resumed to an appreciable extent. With the lifting of the British Treasury restrictions some of the international houses attempted to resume but found it to be practically impossible under the existing conditions of the London market. The cash basis on which business

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[7] Constitution of the New York Stock Exchange, p. 81 .

was done on the London Stock Exchange and the absence of short contracts practically precluded speculative transactions, with the result that the London market was so non-continuous in character that arbitrage transactions could not be undertaken with any degree of confidence. Added to this, was the further element of uncertainty created by the extraordinary unsettlement in foreign exchange rates. Nor could arbitraging be conducted between New York and Amsterdam, owing to slowness of cable communication. It was stated recently, that it took about five hours to get a cable through between these centers, so that by the time an order reached Amsterdam a change in market quotations might easily show a large loss instead of a profit.

With the return of more normal conditions, however, the disastrous effects of present limitations are likely to gradually wear off. The balance of this chapter will treat of conditions as they were at the commencement of the World War, in the belief that with the removal of existing obstructions international foreign-exchange houses will again resume arbitraging on a scale fairly commensurate with pre-war years.

Description of New York-London Arbitraging.—This branch of the business has nearly always been handled primarily by certain international banking firms, in nearly all cases British, French, and German, which also engaged in the business of foreign exchange. In 1901 we are advised, only about a dozen such firms operated between New York and London. At the commencement of the War, in 1914, the number of firms possessing arbitrage departments had increased to 20. We are also advised that the volume of arbitrage transactions between New York and London would at times aggregate 100,000 shares per day, involving 5,000 or more cable messages.

Between London and New York there is a difference in time of nearly five hours (4 hours, 55 minutes, and 59 seconds to be exact), so that when the New York Stock Exchange opens at ten A. M. it is four minutes of three in London. But while the London Stock Exchange officially closes at three P. M., the very time when operations on the New York Stock Exchange commence, trading continues on the floor in American stocks until four P. M. After that trading is transferred to the curb market where it may continue until the close of the New York market, or eight P. M. London time.

Owing to the aforementioned difference in time, New York arbitrage houses receive quotations from their London correspondents before the New York Stock Exchange opens. In fact, London two P. M. quotations reach New York shortly after nine A. M., and later quotations continue to flow in regularly. These quotations are at once reduced to their New York equivalents, a process to be referred to shortly, and are then conveniently tabulated for immediate use as soon as the first New York quotations make their appearance. Only a few minutes will suffice, following the opening of the New York market, to make important sales of the leading arbitrage stocks, in that market, to collect the quotations, and to have them transmitted to London by experienced operators.

Of fundamental importance to the business is a cable service capable of keeping pace with the fractional differences as they occur in the two markets. It is only through this means that the arbitrager may hope to remain constantly posted as to the differences in quotations, and to continue to make transactions almost simultaneously in the two markets. In fact, there are instances of so-called "three-cornered foreign arbitrage," involving the same security listed on three international exchanges.

Transmission facilities for abitraging purposes are organized solely with a view to speed and economy. At the

New York end of the line, describing operations as they existed at the outbreak of the World War when arbitraging had to be suspended, most of the important arbitrage stocks were traded in at "posts" arranged near the railing along the south wall of the Stock Exchange. Here representatives of the arbitrage houses were assigned positions, and pneumatic tubes enabled them to connect promptly with the cable offices located downstairs. Similarly, at the London end of the line arbitragers' clerks also had desk accommodations at the cable offices. The speed with which these clerks managed to transmit messages back and forth between the two continents was truly astonishing. To complete an arbitrage transaction it is necessary that the ocean be crossed twice, once by the order to buy or sell, and again by the return message advising that the order has been executed at the given price, and on each of these trips the cablegram, it is stated, must pass through the hands of at least three operators. All of this was ordinarily accomplished in the remarkably short space of about four minutes, and in some instances only three minutes.[8] Probably no more rapid means of communication can be found in any other type of business. Moreover, to save time and money, all cablegrams are reduced to the smallest proportions. Three or four words will serve to send all necessary information with respect to orders involving several thousand shares, and a single letter is often made to stand for the name and address of the sender and the exact time of the dispatch.

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[8] See Van Antwerp, *The Stock Exchange from Within*, p. 284. In this connection, Van Antwerp makes the following statement: "The celerity and accuracy of the cable service between New York and foreign countries, as perfected in arbitraging, has no parallel elsewhere. Twenty minutes are often required to complete a cable transaction between the London Stock Exchange and the Paris Bourse, and so it frequently happens where speed is required, that messages between those two centers are cabled by way of New York."

Conversion of London into New York Prices.—Speedy communication, however, is not the only difficulty that presents itself in foreign arbitrage. Numerous other complicated factors must claim the arbitrager's attention, and add to the complexity of his work. There are stamp taxes and commisions to consider, as well as interest charges, constant fluctuations in money rates both here and abroad, cable tolls, costs of insurance and other shipping expenses, the fortnightly settlement system abroad as contrasted with our practice of daily settlements, rates of foreign exchange, and different methods of quoting prices.

Of these various factors, the last two are very important and deserve a brief explanation. Unless reduced to their mathematical parity, a given London quotation is considerably higher than its New York equivalent. This is due to the fact that quotations in the two markets are not on a par. American securities are quoted in the London market on the arbitrary basis of $5.00 to the pound sterling, whereas, under normal exchange one pound sterling equals only $4.8665. The ratio of exchange, however, will fluctuate considerably from time to time, the rate having been as high as $7.00 to the pound sterling at the commencement of the War and as low as $3.50 within the past year.

To overcome the inaccuracy of this arbitrary method of quoting American stocks in London, it is necessary for arbitragers to reduce London quotations to an exact parity with those of New York. This is usually done by "multiplying the London price by the New York price and demand sterling, and dividing the product by five." Compilations of this sort, however, will prove burdensome when we reflect that foreign-exchange rates, as well as stock prices in both markets, are constantly changing, and that speed in effecting transactions is essential if any profit is to be realized from the small differences in price prevailing in the two markets. Conversion tables[*] have thus been prepared for the special use of arbitragers and for the purpose of avoiding delay as well as errors. These tables contain columns representing the various possible exchange rates, and under each column will be found the London quotations and their New York equivalents.

Methods of Closing Transactions.—Having made his purchase and sale in the two markets, the arbitrager will naturally wish to settle these two transactions at the earliest opportunity. Otherwise, through repeated transactions his account is apt to pile up in each of the two markets to a point that will preclude further arbitraging operations.

Three methods of settlement are available. One of these involves the shipment of securities from the market in which they were bought to that in which they were sold. Except in rare cases, principally when the market refuses for considerable periods of time to respond to the arbitrager's operations, this method is avoided owing to the expense, trouble, and inconvenience involved. The more the arbitrager can reduce his shipments, the greater will be his profit. Such shipment between New York and London not only requires about one week in transit, but the securities must be sent by registered mail adequately insured against fire, theft, and marine perils. Marine insurance companies, moreover, grant insurance on securities only if the contents of each package is limited to about $30,000. In domestic arbitrage, however, a considerable number of firms do not insure securities sent by registered mail, but simply have the certificate numbers certified to by a notary public with a view to obtaining new certificates from the issuing corporations in case of loss.

A second method, and by far the most generally used,

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[*] See S. A. Nelson, *The A, B, C, of Options and Arbitrage*, for a sample of such a table.

consists of balancing the account in the two markets. Whereas the New York market may have been lower than London when the arbitrage transaction was originally made, prices may soon rearrange themselves in such a manner that the London market is lower than New York. When such a situation presents itself, the arbitrager will reverse his transactions, that is, will sell in the market where he is long of stock, at the same time buying in the other market to cover his short sale. If possible, arbitragers will attempt to close their transactions every day. But if the difference in prices between the markets continues in the same direction, they will extend their long or short position over a week, a month, or even longer. In other words, they will continue to accumulate stock by purchases in the low market, while at the same time selling-short repeatedly in the higher market and borrowing the stock to fulfill delivery. This extended position is taken, however, solely in the hope that the two markets will reverse themselves with respect to prices and that they can then sell their accumulation of securities in the higher market, and buy in the same amount in the lower market in order to liquidate their loans. The more arbitragers there are, it may be added, and the greater the volume of their transactions, the more likely it is that such balancing of accounts can be effected.

Sometimes arbitrage firms also arrange to exchange securities with one another. While one firm may be long of a certain stock in New York and short in London, some other firm may be short in New York and long in London with respect to the same security. Here an opportunity presents itself for the two firms to match their opposite accounts. Although easy and simple in its application, this method is seldom resorted to, chiefly for the reason that other arbitrage firms will in most instances be in the same market position with respect to any given stock.

Factors Necessary to Successful Arbitraging.—To make arbitraging profitable it is practically necessary that the arbitragers have a membership on both of the exchanges between which operations are conducted. In most instances the margin between prices is so small as to leave no profit whatever if the arbitrager is obliged to pay commissions customarily charged non-members. Since speed is the very essence of success, it is essential that the arbitrager have facilities always at hand for the instantaneous transmission of quotations between the markets in which he is operating. Only by this means can he detect differences in prices immediately upon their appearance, determine whether or not it is profitable to make a transaction, and transmit immediately all messages of actual transactions so that both ends of the line may be kept fully informed. Aside from this equipment, however, there must be a continuous market for the securities in both the centers used by the arbitragers, and such a market, it has already been explained, requires for its existence the presence of a large speculative class and the practice of short-selling on a comprehensive scale. It is for this reason that arbitraging is practically confined to large and very active stocks, such issues being commonly characterized in the daily press as constituting the "arbitrage group." Nor should trading in this continuous market be limited through governmental or other artificial restrictions, such as prevailed after the commencement of the World War.

The short sale is also a prime necessity in the sense that in nearly every arbitrage deal the arbitrager must be a short-seller in one of the markets. Too much emphasis cannot be given to the fact that elimination of short-selling would destroy the very basis for profitable arbitraging between markets. The arbitrager must also be given the privilege of borrowing and lending stocks in both markets since he relies upon this practice as the cheapest way of carrying his two transactions until they are closed. In the market where the short sale was made the arbitrager will necessarily want to borrow the stock in order to fulfill delivery in accordance with the rules of the market. On the other hand, in the market where the arbitrager is long of stock he will want to employ it as a lender in the market with a view to raising funds for the conduct of his business.

Benefits Resulting from Arbitraging.—On the surface arbitraging would seem to consist simply of the clipping of small profits. Such profits undoubtedly constitute the motive for certain dealers engaging in the practice. Were this factor the only consideration, the subject would hardly merit a separate chapter. In reality, however, arbitraging results in several important indirect advantages highly beneficial to the business community, and it is for this reason that the subject should be understood by the general public. Briefly stated these advantages are:

1. *Level Prices in the Various Markets.*—Buying in the low market will tend to raise the price in that market, while selling in the other market at the same time will tend to lower the price in that market. The result is that any difference in the price of a given security will soon be extinguished. Arbitragers thus prevent the continuance of unnatural differences in prices by supplying a demand in one market from stocks of another. It is largely owing to this factor that prominent international stocks, listed on the world's leading exchanges, are said to "have but one price, a world price." With respect to the "arbitrage group" of securities, arbitraging thus serves to minimize distance and practically to make a world market of the several exchange centers where such securities happen to be listed. The investment and specu-

lative element in the market is thus given advantage of the same price level, irrespective of location. In our leading produce markets, grain, cotton, coffee, etc., this advantage is even more apparent. Here arbitragers not only bring into proper relationship the several markets as regards transportation and carrying charges, but also the various monthly delivery periods on future contracts, the various grades of the product under consideration, and even, as in grain, the various kinds of closely allied crops. Conditions of fairness, considering all time and distance charges, involving transportation, warehousing, interest, and insurance costs, are thus established for all market interests, irrespective of locality and time. As stated on another occasion:[10] "Through the constant watchfulness of arbitragers all leading markets are kept in line with one another. Grain, like water, will seek its level. It is made to move from the center where it is plentiful to places where it is not so plentiful. Instead of chaos we are given a harmonious relationship between different markets, between grades, between the several monthly periods, and even between different kinds of grain."

2. *Facilitates the Settlement of International Debts.*—Reference has already been made to the fact that most of the arbitraging between New York and London has thus far been limited to the operation of old and well established banking firms that are also dealers in foreign exchange. Such firms often find the security market an easier and more profitable means of settling the international debts of their clients than is afforded by any of the other methods of conducting a foreign-exchange business. Thus let us assume that "A," an American importer in New York, owes $100,000 to "B," an English

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[10] Huebner, "Functions of Organized Produce Markets," published in American Produce Exchange Markets, *Annals of the American Academy of Political and Social Science*, September, 1911, p. 23.

exporter in London. If prices on the New York and London Stock Exchanges are such as to justify the transaction, an arbitrager in New York, "X," who is also a dealer in foreign exchange, can settle the debt of "A" with the funds of some London purchaser of stock, at the same time paying for the stock bought in New York with the funds received from "A."

The process of the deal may be outlined as follows: A" pays the $100,000 he owes "B" to "X" for transmission to London. But "X," instead of buying exchange, observes that a certain stock is selling for $100 in New York, while the London price, reduced to the New York parity, is $100½. Such a difference affords a profit greater than that obtainable by any of the ordinary methods of settling "A's" debt. Accordingly, "X" cables an order to "Y," his London representative, to sell 1,000 shares of the stock on the London Stock Exchange, at the same time buying 1,000 shares in the New York market. The London purchaser is then asked to pay the purchase price of $100,500 to "Y," whereas payment of the $100,000 on the purchase of the stock in New York is made by "X" with the $100,000 received from debtor "A." "Y" is instructed by "X" to pay $100,000 to "B," and the difference of $500 between the New York purchase and London sale prices is credited by "Y" to "X's" account. "A's" debt to "B" has thus been settled without the purchase of a bill of exchange, and "X" has realized a profit of $500 minus commissions, cabling expenses, transfer and stamp taxes, and overhead office expenses. The stock held long in New York "X" may at once lend in that market to obtain funds for the conduct of his business, whereas his short sale in London may be kept open through the borrowing of stock in that market. In this way, "X" is enabled to avoid the costly shipment of securities from New York to London. Later, prices in the two markets may be reversed, the stock selling slightly higher in New York than in London. This gives "X" his opportunity to sell the 1,000 shares he is holding in New York, at the same time covering his short sale in London with a purchase of an equal amount. In all probability a second profit has resulted from this reverse transaction. In fact, this time the purchase in London and the sale in New York may have served to settle the indebtedness of a London importer to some New York exporter.

3. *Increases the Continuous Character of the Market.*— By taking advantage of the smallest differences — eighths and quarters and even sixteenths, since the London market permits quotations at such small variations — arbitragers greatly assist in the making of a continuous market in all the securities in which they operate. Before the War, as already stated, arbitraging between New York and London sometimes involved aggregate transactions of over 100,000 shares per day. Through the initiation of these numerous transactions, arbitraging constitutes a powerful indirect factor in bringing about all the numerous benefits to the business community attributable to a continuous market.[11] To a considerable extent also, international arbitraging on a large scale serves as an advertisement of foreign securities in the American market and of American shares in foreign markets.

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[11] See Chapter II.

PART II

ORGANIZATION AND OPERATION OF THE MARKET

CHAPTER VIII

LEGAL STATUS AND ORGANIZATION OF STOCK EXCHANGES

Private Character of American Stock Exchanges.—Unlike produce exchanges in the United States, which have in nearly all instances been incorporated, American stock exchanges are "private, voluntary, unincorporated associations." As pointed out by Dos Passos in referring to the New York Stock Exchange,[1] a "voluntary association of persons, like the New York Stock Exchange, by which each individual broker is enabled to carry on his separate business under regulations made alike for the protection of himself and his client or principal, has no technical name or place in the law.... An institution like the stock exchange is an anomaly of the law. It is amphibious in its nature; for, without being either a corporation or a partnership, it possesses some of the characteristics of both." It resembles a corporation in that it may adopt a constitution and by-laws, binding upon the members of the association, and has, unless voluntarily dissolved, a continued existence unaffected by the death, resignation, suspension, or removal of members. It differs from a corporation in that it has no charter and has not been organized in pursuance of any statute or legislative act; has received no special privileges from the state, and therefore owes no special duties to the public; has issued no stock to its members, who have therefore no claim to property rights in the association as stock-

[1] J. R. Dos Passos, *Treaties on the Law of Stock Brokers and Stock Exchanges*, pp. 20, 22.

holders; and, since the privilege of membership is derived exclusively from the exchange that grants it, it may confer, refuse, or withdraw such privilege.

Despite the great importance that the New York Stock Exchange has assumed as an integral part of the nation's financial system, it, and the same may be said of other unincorporated stock exchanges of the country, has preserved its purely private character. No special legislation controls the Exchange and all transactions on its floor are governed by its own rules and by the customs, usages, and laws that regulate such transactions everywhere.

The importance of this private character of American exchanges becomes apparent when comparing our practice with that prevailing in Continental Europe. In France and Germany, for example, exchanges exist by special legislation. The Paris Bourse is virtually given a monopoly by the French Government in listed securities and its members practically hold government office, being appointed by the President of the Republic and giving to the Government a prescribed bond. The manner of doing business is also carefully regulated by the Government and all prerogatives of the members are prescribed. In Germany, likewise, all exchanges are established with the permission of the Government, which exercises important control over their operation. Many phases of stock-exchange business, including the Clearing House Association, are subject to state regulation, the Government being represented in the directorate of the exchange either by a state commissioner or other officials. All regulations of the exchange must be approved by the Government, and many phases of the conduct of business that in the United States are purely matters for the exchange to settle, must be referred for approval to the legislative or executive branches of the Government. Brokers in most instances must also take an oath of office. Furthermore, the state, unlike the practice in the United States, regulates the publication of quotations, the listing of securities, the types of orders, and even goes so far as to designate the classes of persons who may do a speculative business.

Property Rights Possessed by Exchanges.—So long as there is no violation of their rules or of equitable principles of trade, exchanges are not directly concerned with the contracts between members and their principals. They do no business unless the ownership of certain property interests may be so regarded. In this respect they have a property interest in their building sites, and in the income derived from the collection and sale of quotations, the dues paid by members, and the fees charged for listing securities.

In view of the intimate relationship borne by stock exchanges to the financial and commercial life of the nation, the question as to whether such exchanges are legally quasi-public institutions charged with special public duties has been raised a number of times in the courts. This question has arisen most frequently in connection with the right of a stock exchange to control the publication and distribution of quotations representing the transactions on its floor. The courts, in their decisions, have invariably referred to the private, voluntary, unincorporated nature of the stock exchanges. As regards the Chicago Board of Trade, an incorporated body, the Court (127 Ill. 153) rendered a decision to the effect that:

"Having so conducted its affairs for many years as to create a standard market for agricultural products, and by acting in concert or combination with telegraph companies, built up a system for the instantaneous and continuous indication of that market and its fluctuations, until the public, and all persons dealing in such products, have conformed to this system, and until, in consequence of the general use of that system and the usage of trade, such instantaneous market quotations have become necessary to the safe and successful transaction of business, such system will have become affected with a public interest, and such Board of Trade cannot thereafter, in the furnishing of such quotations make any unjust discrimination between persons willing to pay therefor, and to conform to all reasonable rules and regulations."

As regards the New York Stock Exchange, however, the decisions have always been opposed to this view. In the case of Commercial Telegram Company *vs.* Smith (47 Hun 494) it was claimed that the New York Stock Exchange had no right to exclude the Commercial Telegram Company from the privilege of collecting quotations on its floor for transmission to outsiders. An injunction was sought on the ground that the Exchange existed for the benefit of the public and that its refusal to give quotations was against public policy. The Court, however, pointed out the private status of a stock exchange and concluded that:

"The claim that the Stock Exchange has no right to exclude the Commercial Telegram Company from its floor upon the ground of public policy evidently proceeds upon an entirely erroneous theory. The exchange is a private association; it has the right to admit to its floor whom it pleases; it obtains nothing from the State except that protection which the law affords to every citizen; it has sought no special privilege and obtained no special powers. It is, therefore, just as much the master of its own business and of the method of conducting the same as any private individual within the State. It may make public the transactions which occur within its walls or it may refuse all information in respect thereto. No matter which course is pursued, so long as it violates no law it has a right to conduct its business as it pleases .... The New York Stock Exchange has asked nothing from the people of the State, except that which is granted to every citizen; it has no special privileges under the law, it has no special rights, and the people therefore have no right to interfere in the transaction of its business to any greater extent than they have in that of any individual" (pp. 505, 507).

Nature of a "Seat" on the Exchange.—A seat on a stock exchange is a species of property that may be defined as giving to the holder the collective privileges of membership under the constitution and by-laws of the exchange that has bestowed such membership. This membership, or seat, can only be obtained by subscribing to the constitution and by-laws of the exchange, and the member is the owner thereof only in a qualified and not an absolute sense. In other words, he obtains the seat under certain restrictions imposed by the exchange. The seat, for instance, is not inheritable property in the absolute sense, although of considerable value. It cannot be sold or transferred to a person whose membership would prove objectionable to the exchange. Admission to the exchange usually takes place by a transfer of membership, but such transfer can only be made if the name of the proposed transferee has been submitted to the Committee on Admission and has been approved by it. The peculiarity of the property rights attaching to a stock-exchange seat is further illustrated by many court decisions that have held that it is not property of such a character as to be included in the category of taxable property.[3] Thus one decision (San Francisco *v.* Anderson, 103 Cal. 70) holds that:

"What such a seat is chiefly appears in the opinion of this court in Lowenberg *v.* Greenebaum, 99 Cal. 192; in that

[3] Summary of People *v.* Feitner, 167 N. Y. 1 (1901); Matter of Glendinning, 68 N. Y. App. Div. 125 (1902); San Francisco *v.* Anderson, 103 Cal. 70 (1894).

case we held that a seat in said board, being merely 'a personal privilege of being and remaining a member of a voluntary association with the assent of the associates,' was not property that would pass by a sale under a common writ of execution; and following the views there expressed we hold that it has no such quality as make it assessable and taxable as property. It is a mere right to belong to a certain association with the latter's consent, and to enjoy certain personal privileges and advantages which flow from membership of such association. These privileges and advantages cannot be transferred without the consent of the association, and a forced sale of them would not give to the purchaser the right to occupy said 'seat.' "

It should also be noted that the holders of exchange seats have no proprietary interest in the property of exchanges, and have no right to any proportional part of it upon withdrawing. This principle is based upon the fact that exchanges are not organized for gain, and that they have no interest in the business profits of their members. Their fundamental purpose is to furnish a convenient market place for their members, and the ownership of property by them as an organization is merely incidental. "But, unlike the relation of partners," according to Dos Passos,[8] "a member of the exchange, or his legal representatives, has no right to call for an account of the property or a division of the same. The interest of each member in the property of the association is equal."

The market value of stock exchange seats, usually quoted in the press whenever a transfer by sale is made, depends chiefly upon the limit placed by the exchange upon the number of memberships, and upon the supply of and demand for such memberships. Other things being equal, the

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[8] *Op. cit.*, p. 33.

price of seats usually fluctuates in accordance with the activity of business on the exchanges. The membership of the New York Stock Exchange is limited to 1,100 and in the case of most of the smaller American exchanges the limit ranges from 150 to 350. In some instances exchanges have undertaken the policy of purchasing seats, if they can be obtained at a favorable price, and retiring them by cancellation. The effect of a limited membership upon the market value of the privileges going therewith is particularly noticeable in an exchange like the Paris Bourse where membership at a recent date was limited to 70 and where the monopoly privileges going with the membership have at times commanded a market price in excess of 2,000,000 francs. Fluctuations in the prices of seats on the leading American stock exchanges are as great as those occurring in a representative list of leading stocks, the price of a New York Stock Exchange membership, for example, having varied within the past twelve years from a minimum of $51,000 to a maximum of over $100,000.

Preference of Exchange Members to the Proceeds of Defaulting Members' Seats.—In view of the large market value often attaching to seats, it is important to note that practically all American stock exchanges, including the New York Stock Exchange,[4] have a rule to the effect that members of the exchange, if they are creditors of an insolvent member, have a preferred claim, as compared with outside creditors, to the proceeds from the sale of the seat. It is provided that upon the transfer of membership the proceeds thereof shall be applied to the following purposes and in the following order of priority:

(1) The payment of all fines, dues, assessments, and charges of the exchange, or any department thereof, against the member whose membership is transferred.

[4] Article XV, Section 3.

(2) The payment of creditors, members of the exchange, or firms registered thereon, of all filed claims arising from contracts subject to the rules of the exchange, if, and to the extent that, the claims shall be allowed by the Committee on Admissions. A *pro rata* distribution is to be applied if the proceeds are insufficient to meet such claims.

(3) The surplus of the proceeds, if any remains after meeting the foregoing purposes, shall be paid to the person whose membership is transferred or his legal representatives.

Rules of this character have been frequently opposed as repugnant to justice. Since the seat, which in New York ranges in value from $50,000 to over $100,000, might be the only valuable asset of the bankrupt, a practice of applying this value towards the payment of creditor members in full to the exclusion of outside creditors is declared indefensible. On the other hand, such rules are defended by exchange members as making possible the acceptance of one another's obligations for large amounts.

Several times the legality of exchange rules providing for the distribution of the proceeds of a seat in the abovementioned order of priority has been questioned in the courts.[5] According to the facts in Hyde *v.* Woods, 94 U. S. 523, a member of the San Francisco Stock Exchange became a bankrupt and the plaintiff was appointed the assignee. The Constitution of the Exchange contained a provision similar to that stated above. The seat was sold, and the purchaser thereof was duly elected, and the purchase price was paid to the creditors who were members of the exchange. The plaintiff contended that this distribution of the proceeds of the sale was an unlawful preference within the meaning of the bankrupt law. Mr. Justice Miller in deciding the case said:

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[5] Hyde *v.* Woods, 94 U. S. 523; Weston *v.* Ives, 97 N. Y. 228, 229.

"There is no reason why the stock board should not make membership subject to the rule in question unless it be that it is a violation of some statute or of some principle of public policy. It does not violate the provision of the bankrupt law against preference of creditors, for such a preference is only void when made within four months previous to the commencement of the bankrupt proceedings. Neither the bankrupt law nor any principle of morals is violated by this provision so far as we can see. A seat in this board is not a matter of absolute purchase. Though we have said it is property, it is incumbered with conditions when purchased without which it could not be obtained. It never was free from the conditions of article 15, neither when Fenn bought nor at any time before or since. That rule entered into and became an incident of the property when it was created and remains a part of it, into whosesoever hands it may come. As the creators of this right — this property — took nothing from any man's creditors when they created it, no wrong was done to any creditor by the imposition of this condition.

. . . .

It is said that it is against the policy of the bankrupt law — against public policy — to permit a man to make in this or any other manner a standing or perpetual appropriation of his property to the prejudice of his general creditors; and it is to this point that the numerous authorities of counsel are cited. They all, however, relate to cases where a man has done this with property which was his own — property on which he himself imposed the direction or the incumbrance which impeded creditors.

It is quite different where a man takes property, by purchase or otherwise, which is subject to that direction or disposition when he receives it. It is no act of his which imposes the burden. It was imposed by those who had a right to do it and to make it an accompaniment of any title which they give to it."

The Government of Exchanges.[6]—The internal organization of an American exchange is fixed by its constitution and by-laws. The system of organization is virtually the same, differing only in minor details, for practically all the stock exchanges of the country. In fact the Constitution of the New York Stock Exchange seems to have been used as a model for the systems of organization prevailing with respect to most other exchanges.

The provisions of the Constitution of the New York Exchange may be divided into two distinct groups, namely, those that outline the government of the exchange, and those that govern the business conduct of its members. According to the first group of provisions the whole government of the Exchange is vested in the Governing Committee, consisting of the president, the treasurer, and forty members, the president and treasurer being elected annually and the forty members being divided into four groups of ten members each, the term of office of one of these groups expiring every year. Directly or by appeal the Governing Committee is vested with all powers necessary for the government of the Exchange, the promotion of the Exchange's welfare and purposes, and the regulation of the business conduct of its members. It also possesses the power to appoint and dissolve all standing and other committees; to define, alter, and regulate their jurisdiction; to exercise original supervisory jurisdiction over all matters referred to such committees; to direct and control their actions or proceedings at any stage; and to try all charges against members of the Exchange and punish those who may be guilty.

[6] See Constitution of the New York Stock Exchange as revised to February, 1920, Articles II to XI, inclusive.

Most of the details relating to the government of the Exchange are delegated to 12 standing committees, which are appointed by the Governing Committee from its members, and which, as already stated, are subject to its control and supervision. These committees and their duties are the following:[7]

1. *Committee of Arrangements* (consisting of seven members), which has general care of the Exchange, which enforces all rules and regulations necessary to the conduct of business, good order and the comfort of the members, and which controls and regulates the quotation service and all telegraph or telephone connection with the Exchange.

2. *Committee on Admissions* (consisting of fifteen members), which considers all applications for membership and all applications of suspended members for reinstatement to their privileges. An affirmative vote of two-thirds of the Committee is necessary to elect to membership, or to reinstate a suspended member.

3. *Arbitration Committee* (consisting of nine members), which investigates and decides all claims and matters of difference arising from contracts subject to the rules of the Exchange, between members of the Exchange, or at the instance of a non-member between members and non-members. According to the rules this Committee may dismiss any case and refer the parties to their remedies at law, and must so refer them upon joint request of the contestants. Its decision is final in all cases, unless an appeal be taken by a member of the Committee, or in cases involving a sum of $2,500 or over when either party may appeal to the Governing Committee. When a non-member makes a claim, he is required to execute an agreement to abide by the rules of the Exchange, and also a full release of said claim.

[7] These duties have been abstracted from the Constitution of the New York Stock Exchange as revised to February, 1920.

4. *Committee on Business Conduct* (consisting of five members) whose duty it is to consider matters relating to the business conduct of members with respect to customers' accounts and to keep in touch with the course of security prices on the Exchange with a view to determining when improper transactions are being resorted to with respect to these subjects. It is empowered to examine into the dealings of any members and to report its findings to the Governing Committee.

5. *Committee on Commissions* (consisting of five members) which enforces the rules relating to commissions, partnerships and branch offices, and which is instructed to report to the Governing Committee any undesirable partnership or branch office or any violation of the commission rules.

6. *Committee on Constitution* (consisting of five members) to which are referred all additions, alterations, or amendments to the Constitution, and which is instructed to report them back to the Governing Committee after due consideration.

7. *Finance Committee* (consisting of seven members) which examines all accounts and vouchers and acts as a board of audit, reporting the results of its examination to the Governing Committee.

8. *Committee on Insolvencies* (consisting of three members selected from the Committee on Admissions) which investigates every case of insolvency immediately after the announcement of the same, and after ascertaining the cause of the failure reports the result of its examination to the Committee on Admissions.

9. *Law Committee* (consisting of five members) to which are referred all questions of law affecting the interests of the Exchange. It acts in an advisory capacity to the executive officers of the Exchange and is empowered, wher-

ever it deems it necessary, to examine into the dealings of any member of the Exchange.

10. *Committee on Quotations* (consisting of five members) which has charge of all matters relating to quotations, and which is entrusted with the duty of approving or disapproving any applicant for quotations.

11. *Committee on Securities* (consisting of five members) which makes the rules defining the requirements for regularity in delivery of securities dealt in at the Exchange and decides all questions relating to the settlement of contracts subject to the rules of the Exchange, of due bills, of irregularities in securities, or in deliveries thereof, and all questions relating to reclamations therefor.

12. *Committee on Stock List* (consisting of five members) which receives and considers all applications for the listing of securities on the exchange and reports its findings and recommendations thereon, together with full information, to the Governing Committee.

Suspension and Expulsion of Members.—The power of suspending or expelling members constitutes one of the most important functions of an exchange in the maintenance of a high standard of business conduct for the mutual protection of the members of the Exchange as well as the public. What the countries of continental Europe seek to effect by statute in the discipline of brokers, American exchanges, as unincorporated associations, aim to accomplish by their own rules. As pointed out by Dos Passos,[8] the member of an unincorporated exchange "has no rights of a higher dignity than those springing out of a voluntary contract between himself and his fellow members. Such contracts are upheld when they are not unreasonable or contrary to law or public policy, and the member may

[8] J. R. Dos Passos, *Op. cit.*, p. 73.

thereby voluntarily subject himself to summary expulsion for causes and in modes which would not be justified in the case of a chartered corporation."

Numerous specific acts punished by the Exchange by fine, suspension, or expulsion were stated in Chapter V on the "Regulation of Brokerage Transactions and the Conduct of Brokers." Not only do American exchanges possess the right to suspend or expel members for violation of their express rules and for fraudulent acts or misstatement of material facts in the application for membership, but also for certain acts that may not be specifically defined by, or even mentioned in, their by-laws. Thus, many acts not specifically punishable by suspension or expulsion under the Rules of the New York Stock Exchange may be included under three general rules that deserve special mention namely, Article XVI, Section 5, declaring a member ineligible for reinstatement in case his failure or a failure of a firm registered upon the Exchange and of which he is a partner "has been caused by reckless or unbusinesslike dealing"; Article XVII, Section 6, providing for the suspension or expulsion of a member who is adjudged guilty of "any conduct or proceeding inconsistent with just and equitable principles of trade"; and Article XVII, Section 8, authorizing the Governing Committee to suspend any member from the exchange for a period not exceeding one year "who may be adjudged guilty of any act which may be determined by said committee to be detrimental to the interest or welfare of the Exchange." From time to time these general rules are given definite interpretation by the adoption of resolutions that definitely prescribe certain acts as "being inconsistent with just and equitable principles of trade" or as being "detrimental to the interest or welfare of the Exchange."

References

J. R. Dos Passos, *Treatise on the Law of Stock Brokers and Stock Exchanges*, 2d ed., Chap. II on "Legal Nature of Stock Exchanges; Character and Incidents of Membership Therein; and Rules and Regulations Thereof," pp.13–164.

E. Vidal, *The History and Methods of the Paris Bourse*, published by the National Monetary Commission, 61st Congress, 2d Session, Senate Document No. 573, 1910.

Stock Exchange Regulations in Germany, pp. 221–328 of the *National Monetary Commission's Report* on "Germany's Imperial Banking Laws."

Constitution of the New York Stock Exchange, Articles II to XI, inclusive.

CHAPTER IX

LISTING OF SECURITIES

Definition and Importance of Listing.—Before the stocks or bonds of any corporation can be dealt in on the floor of an exchange they must be "listed," which means that they must meet to the satisfaction of the proper exchange authorities certain prescribed standards of legality, security, and workmanship. Listing constitutes the foundation of an organized security market. Experience has shown the necessity of having stock exchanges compel corporations, when desiring to obtain for their securities the advantages of the continuous market that an exchange affords, to meet reasonable requirements of publicity and to issue securities in proper form. Stock exchanges stand between the corporations and the public, and one of their primary purposes should be to see that the interest of the public is properly safeguarded in the issuance and marketing of securities.

All stock exchanges have listing requirements which, however, differ somewhat in their details. The requirements [1] of the New York Stock Exchange are equal in their comprehensiveness to those of any other American market and will be used, therefore, as the basis of this discussion. While ultimate control, as regards this Exchange, is vested in the Governing Committee, there is appointed annually from its membership of 40 a Committee on Stock-List, composed of five members, whose duties are to:[2]

[1] For list of these requirements see Appendix VII.

[2] Constitution of the New York Stock Exchange, Article XI, Section 1, Division 12.

"Receive and consider all applications for placing securities upon the list of the Exchange, and make report and recommendation thereon to the Governing Committee, giving full statement concerning organization, capitalization, resources, and indebtedness.

It shall have power to place upon the list, without report and recommendation to the Governing Committee, any obligations of the Government of the United States or of any State or City thereof, or of a foreign State or City, also temporary receipts issued by any corporation or firm for part or full payment of subscription to bonds, stocks, or other obligations; and it shall have power to direct that any such securities or temporary receipts be taken from the list, and further dealings therein prohibited.

It shall have charge of the arrangement and revision of the list of securities."

Applications to list must be signed by an executive officer of the corporation, must be filed with the Secretary of the Exchange, and on notice additional printed or typewritten copies must be filed on or before a stipulated day prior to the date set for consideration. Every application must be accompanied by a payment to the Exchange of $100 for each $1,000,000 or portion thereof of the par value of each class of security sought to be listed.

Misconceptions Concerning the Purpose of Listing.—Few features connected with the mechanism of American stock exchanges are so generally misinterpreted as regards their underlying purpose as the listing of securities. The popular conception too frequently implies that when the New York or some other Stock Exchange admits a security to its list it recommends that security for favorable consideration by investors and speculators.

This conception is entirely wrong. In listing a security the Exchange in no sense assumes responsibility for future fluctuations in the price or the intrinsic worth of that security. It expressly disclaims any intention to either recommend or condemn any security or to associate with its listing any guarantee of value. Its function is to make available to the world an open and continuous market in such stocks and bonds as meet its prescribed standards of legality and form, and questions of price and value are left entirely to the decision of the individual investor or speculator. The mere fact that a security can be bought and sold on an exchange should never be regarded as a guarantee against the risks inherently associated with the ownership of stocks and bonds, or as a safeguard to protect fools or unthinking individuals from the consequences of their mistaken judgment. In fact the authorities of our exchanges have even taken the position that an exchange cannot properly condemn, approve, or criticise the reports of corporations, since by doing so the exchange would be instrumental in passing judgment upon the value of securities.

A moment's reflection will show that the attitude of the New York Stock Exchange cannot be other than that just stated, and that no system of listing can be devised that will be a substitute for the judgment of the individual. In the first place the Exchange cannot make a special investigation of the intrinsic value of the tangible and intangible property of the hundreds of corporations whose securities are listed, and whose property interests are scattered all over the country. The expense and labor involved preclude the possibility of any exchange sending experts to all parts of the country with a view to examining, for instance, all the plants of the numerous industrial corporations that apply for the listing privilege. Expert opinions might be called for but, since the business of nearly all corporations is speculative in character, it would be difficult to know whose valuation to accept.

Even assuming that the tangible property of a large corporation could be fairly estimated, such estimates would only be of temporary value. The stock market is a "market for incomes," and prices and values change as the income of the corporation is affected, differently at different times, by the numerous factors that influence the prosperity of the company. Periodical examinations would be essential, therefore, and the assumption of that duty with reference to the entire list of corporations is clearly a practical impossibility. Nor has the Exchange the power to act as a censor of the numerous corporation managements and to dictate their actions and business policy.

Advantages of Listing.—If then the Exchange in no sense recommends or guarantees the intrinsic worth of securities, what is the function of listing? The answer is that the New York Stock Exchange, for example, rigidly requires every corporation seeking admission to its list to comply with a definite set of rules, calling for several hundred items of information, the strict enforcement of which gives reasonable assurance to the public that the securities are legally issued, are prepared in proper form as regards their text, are surrounded by all reasonable safeguards against counterfeiting or misuse, and represent, at the time of listing, a legally organized, solvent, and going business concern. While the Exchange does not guarantee any security, or even affirm the truthfulness of the statements filed by the corporation, it does certify that due diligence and caution have been used in examining the securities with reference to the above mentioned features. For this reason "admission to the list," to quote the Report of the Hughes Committee on Speculation in Securities, "establishes a presumption in favor of the soundness of the security so admitted," and "the Committee on Stock-List constitutes one of the most important parts of the Exchange's organization, since public confidence depends upon the honesty, impartiality, and thoroughness of its work."

Despite its limitations, listing affords to the public and to the corporations involved various advantages in addition to those just mentioned. The first of these is *publicity,* probably the best safeguard that investors can have. Of the various agencies that in recent years have furthered the progress of publicity on the part of corporations, American stock exchanges are entitled to a leading place. The service in this respect has been rendered through two main channels, namely (1) by compelling corporations to enter into agreements with the Exchange to furnish to their stockholders periodical reports of their physical and financial condition, to give prompt notice of all actions with respect to dividends, interest, or privileged subscriptions, and to promise not to dispose of their interests in subsidiary corporations, except on direct authorization of the shareholders; and (2) by making public all the facts acquired in the process of listing.

The New York Stock Exchange has proceeded on the theory that all the information obtained in response to the numerous inquiries that corporations must answer as a prerequisite to listing (to be discussed later) should be made public for the benefit of those who cannot have access to the records of the company. In publishing the applications all references to rosy prospectuses are avoided by the Exchange, and only the facts are recited. Consideration by the authorities entrusted with listing is refused in the case of all information that cannot be published to the shareholders, and all facts that the Exchange obtains the public can also receive. An application for listing, however, is considered confidential until approved, but when approved all facts obtained become matters of public information. Any one applying to the Secretary's office may secure any information possessed by the Exchange concerning the company or its securities. Moreover, the agreement between the corporation and the Exchange, providing for the publication of annual reports of a complete and detailed character, serves as a distinct benefit to investors in enabling them to determine for themselves the merits of the securities that they may contemplate purchasing.

Listing also gives stocks the benefit of a broad, continuous market where sales can be effected with the least waste of time and the smallest price fluctuations between sales, that is, listing places stocks on a higher plane of convertibility. This advantage is well explained by Lawrence Chamberlain in the following statement:[3]

"Probably the error at the bottom of the listed-bond fallacy is this: the difference between stock-market and bond-market conditions is not generally appreciated. In several respects stocks, unlisted and uncurrent, are not so desirable as listed. Stocks as a class sadly need even the slight oversight that listing achieves; and as for salability, even high-grade shares, such as those of the New England banks and mills, suffer badly, at times, in liquidation, for lack of a broader market. Too generally are unlisted and uncurrent stocks interchangeable terms. But not to such an extent, bonds. The great system of American bond houses, which has no like in any European country, is really an immense exchange in itself, reaching out with its branch offices and traveling representatives over the more settled parts of the United States and Canada. This system, with the aid of telegraph and telephone, fulfills for most purposes the legitimate functions of an *investment* exchange. There is of course no similar system for stocks—no federation of houses, handling uncurrent and unlisted, *as well as* listed stocks, that through the medium of an extended clientele

[3] Lawrence Chamberlain, *The Principles of Bond Investment*, p. 66.

and a highly developed street brokerage business puts buyer and seller in reasonably quick communication. Unlisted stocks, therefore, are not on the same plane of convertibility as unlisted bonds."

Closely associated with the greater convertibility of listed stocks is their greater hypothecary value. Generally speaking, listed stocks are more acceptable as collateral for borrowing purposes than unlisted ones because they are currently quoted on the tape and in the press; and such quotations, as already explained, reflect under normal conditions the judgment of the entire market and are the expression of the combined opinion, made public by actual purchases and sales, of those best able to analyze present and prospective values. The greater frequency and volume of sales on an exchange, with comparatively small fluctuations between transactions, also serve as a protection to holders of collateral in case of forced liquidation. In fact, the more active a security is, the less necessary is a knowledge of its inherent worth for borrowing purposes. This fact is so commonly recognized that, as Chamberlain states: "the loan clerks of the New York banks that cater to brokerage houses are too likely to make loans with an eye solely to the quotations of the day." Even with reference to bonds Chamberlain concludes that:[4]

"In making loans upon collateral, other conditions enter in, which give listed bonds a decided advantage. A bank has not the time or personal interest to investigate, as a purchaser should, the character of collateral security. From the nature of commercial banking, personal credit is the specialty; collateral credit or credit instruments are

[4] Lawrence Chamberlain, *The Principles of Bond Investment*, p. 65.

secondary. The national bank and the trust company look upon listed securities as authentic; reference is easy to current quotations as the basis for appraisal and loan. Therefore, listed securities are, in general, more acceptable. In taking them the bank moves along the line of least resistance; the loan clerk has less thinking to do."

To purchasers and sellers of securities listing gives the protection and safeguards that organized stock exchanges afford in regulating brokerage transactions, in enforcing well defined usages and customs, and in maintaining a high standard of commercial honor among brokers. Moreover, exchange business is transacted at a uniform commission and at a lower rate than is often charged for the sale of unlisted and uncurrent securities. Holders of listed securities, even though these securities may not be pledged as collateral, also have the benefit of constant quotations from day to day that are representative of the general judgment, and have the assurance that they can, at any time, and at approximately the prevailing price, convert their holdings into cash.

Lastly, to the corporation listing affords a regular market with daily quotations that are widely circulated through the press and otherwise. Its securities are, therefore, kept prominently before the public and are given a certain degree of advertisement and popularization. All the preceding advantages serve to make their securities more attractive to the public than they otherwise would be. It is for this reason that promoters find listing on an exchange a valuable aid in the distribution of their securities, and that financial houses interested in the flotation of securities nearly always state prominently in their advertisements of the issues that application has been or will be made to list the same on certain recognized exchanges.

Listing Requirements of the New York Stock Exchange.—The extent to which the New York Stock Exchange, with $38,000,000,000 par value of listed stocks and bonds, exclusive of Liberty Bond issues, has sought to safeguard the admission of securities to its market becomes apparent upon an analysis of its listing requirements, as published under date of November 1, 1920.[5] These requirements include numerous statements and promises that may be briefly abstracted and classified under the following nine heads:

1. *Organization of the Corporation and the Nature of Its Securities.*—For an original listing every railroad corporation must recite its title, date, and state of organization, and authority for the same; special rights or privileges obtained under the charter; the amount of capital stock authorized, issued, and applied for; par value; rate of dividend; voting power; whether the capital stock is full paid and non-assessable; whether personal liability attaches to ownership; whether preferred stock has been authorized and the preference of such stock as to dividends and distribution of assets; the purpose of the issue and the application of the proceeds; the amount issued for securities, contracts, and property; and a statement of additional property to be acquired. All listed bonds must also be fully described as to their title, denominations, maturity, rates of interest, form, and all other essential features. The corporation must also furnish a statement of the amount of mortgage liens and other indebtedness or liability, jointly or severally, for leases, guarantees, rentals, and car trusts, and the terms of payment thereof; the distribution of securities and the application of the proceeds; and an income account for one year and a balance sheet of recent date.

[5] Only the more important requirements are referred to in the text For a complete copy of the listing requirements of the New York Stock Exchange, see Appendix VII.

Each corporation must also furnish the name and location of its transfer agent and registrar, the address of its main office, a classified list of its officers and directors, the date and place of the annual meeting, and the end of its fiscal year. Substantially the same requirements are demanded from industrial and mining corporations, except that the requirements are modified in some particulars in order to adapt them to the particular class of corporation.

2. *Description of the Property.*—Railroad corporations must recite in their applications for listing the location and route of the road; description of the property and the total mileage in operation; contemplated extensions; and the total equipment. Corporations other than railroad and mining companies must state whether they represent an original organization or a consolidation of previously existing firms or corporations. If a consolidation, a concise history of the organization and the names and locations of constituent companies owned in whole or in part must be furnished. Such corporations must also give a full description of the property, real, personal, and leased; the real estate owned in fee, acreage and location, and the character of buildings thereon; the nature and character of the product manufactured; the character of the business to be transacted, the duration of the charter and charters of subsidiary companies; and all special rights and privileges conveyed to the corporation under its charter, or to directors under the by-laws. Mining corporations in addition to numerous requirements already indicated, are required to furnish:

"A. Patented and unpatented claims, by numbers.

B. (1) Geological description of country; (2) location and description of mineral and other lands; (3) ore bodies; (4) average value of ore; (5) character; and (6) methods of treatment.

C. History of workings, (1) results obtained; (2) production each year.

D. (1) Ore reserves compared with previous years showing separately as to character and metal content; (2) estimate of engineer as to probable life of mines; (3) probabilities by further exploration.

E. (1) Provisions for smelting and concentration; (2) cost of (*a*) mining, (*b*) milling and smelting, (*c*) transportation; and (3) proximity of property to railway or other common carrier.

F. Properties in process of development; income account if available, guarantees for working capital and for completion of development.

G. Total expenditures for preceding five years for acquisition of new property, development, proportion charged to operations each year.

H. (1) Policy as to depletion; (2) acquisition of new property; (3) new construction and development.

I. Annual reports for preceding five years, showing number of tons of ore treated, average assay, yield, percentage of extraction, recovery per ton of ore."

3. *Engraving of Securities.*—In view of the enormous amount of the nation's wealth represented by bonds and stock certificates, and the free and easy manner in which title to these evidences of wealth changes hands, it is of the utmost importance that every possible precaution be taken in the making of such securities to afford the greatest possible security against counterfeiting. It is for this reason that all stocks, bonds, coupons, and certificates of deposit, in order to be eligible for listing, must be engraved in the best manner and in strict accordance with the demands of the Exchange. All such securities must be printed from at least two steel plates, namely: "A *face plate* containing the vignettes and lettering of the descriptive or promissory portion of the document, which should be printed in black, or in black mixed with a color, and a *tint plate* from which should be made a printing in color underlying important portions of the face printing. The impression

from these two plates must be so made upon the paper that the combined effect of the whole, if photographed, would be a confused mass of lines and forms, and so give as effectual security as possible against counterfeiting by any process."

Each denomination of bonds must be so distinctive in appearance and color as to make it readily distinguishable from other denominations and issues. For each class of stock issued separately engraved plates, distinctive in color, must be used in order to distinguish certificates for 100 shares from those for smaller amounts. Certificates for 100 shares must also have the denomination engraved thereon in words and figures; and where the certificate is issued for less than 100 shares "there shall be engraved thereon some device whereby the exact written denomination of the certificate may be designated distinctly by perforation, and also conspicuously the words, 'certificate for less than one hundred shares.'" Any impress by a hand stamp on any security, except for a date or power of substitution is objected to by the Committee. It is also worthy of note that the name of the engraving company must appear upon the face of every certificate of stock, bond, and temporary receipt, and upon the face of each coupon and the title panel of the bond, and that no certificate or security will be accepted unless engraved by a company whose work has been approved by the Governing Committee of the Exchange.

4. *The Printed Text of Securities.*—Besides regulating the engraving of securities, the Exchange controls the general outline of the printed text of securities. Thus, in the case of bonds, the Exchange takes the position that the average bondholder rarely consults the mortgage securing the bond, and that, while it is not desirable to make the bond recite all facts in too great detail, it is essential that there should be an insistence upon sufficient reference being made

to all vital features so that holders of the bonds may have due notice of all important facts in the mortgage, thus giving them the opportunity, if they so desire, of consulting the details of the mortgage itself. For this reason the corporation submits to the Committee on Stock-List a draft of the bond, together with a copy of the mortgage or indenture, with a view to having the same passed upon by the Committee and, if necessary, revised. The text of the bond, according to the listing requirements, must recite the privileges and conditions of issuance, the denomination, date, due date, rate of interest, how and where payable, redemption by sinking fund or otherwise, the terms of exchange or convertibility into other securities, and all other unusual features. All bonds that may be issued interchangeably in coupon and registered form, or that are registered and not interchangeable, or that, if issued in denominations of $100, are exchangeable into coupon bonds for $1,000 each, must bear prescribed legends reciting all essential facts necessary to render convenient and certain such interchangeability. When bonds are denominated in foreign moneys, it is recommended that the standard value in United States gold coin be stated, and that the text of the bond be given in the English language with the foreign text in a parallel column, the English text to govern the interpretation. Moreover, since the bulk of trading is in the Borough of Manhattan, the Exchange insists that all notices must be published at least in the Borough of Manhattan, thus making it impossible for an unscrupulous management to claim that the company complied with the terms of the mortgage by publishing notices elsewhere in the City of New York.

The text of stock certificates must "recite ownership, par value, whether shares are full paid and non-assessable, terms of redemption, preference as to dividends, voting power, or other privileges, including distribution of assets in the event of the dissolution of the corporation." Common-stock certificates must recite the preferences of the preferred stock, since the holder of common stock should know what rights rank ahead of his stock. As an additional safeguard all certificates must contain the following legend: "This certificate is not valid until countersigned by the transfer agent, and registered by the registrar." The transfer agent, it should be noted, is the agent of the company and serves as a check for the company in the issuance of securities. The registrar, on the other hand, is not the agent of the company but acts under the authority of the Exchange. The registrar, therefore, will not register stock until authorized to do so by the Exchange, thus serving as a check against the wrongful issuance of stock by the company. The irrevocable power of attorney, together with the bill of sale and power of substitution found upon the reverse side of the certificate, is also prescribed in the listing requirements of the Exchange.

5. *Transfer and Registry.*—Besides prescribing the text and form of securities the Exchange supervises their transfer and registry in certain important particulars. Every corporation making application for listing securities must agree "to maintain a transfer office or agency in the Borough of Manhattan, City of New York, where all listed securities shall be directly transferable, and the principal of all listed securities with interest or dividends thereon shall be payable; also a registry office in the Borough of Manhattan, City of New York, other than its transfer office or agency in said City, where all listed securities shall be registered." Both the transfer agent and the registrar must be acceptable to the Committee on Stock-List. The registrar is forbidden to register any listed stock unless authorized by the Committee and is required to file with the Secretary of the Exchange an agreement to comply with all requirements pertaining to registration. The Com-

mittee must approve any change by a corporation of a transfer agency, a registrar of its stock, or of a trustee of its bonds or other securities; and a trust company or other agency may not at the same time act as transfer agent and registrar. When stock is transferred at the company's own office, the transfer agent, authorized to countersign certificates, must be an individual other than an officer authorized by the company to sign certificates of stock. The following additional requirements are also stipulated:

"The entire amount of the capital stock of a corporation listed upon the Stock Exchange must be directly transferable at the transfer office of the corporation in the Borough of Manhattan, City of New York. When a corporation makes transfer of its shares in other cities, certificates shall be interchangeable, and identical in color and form, with the New York certificates, except as to names of transfer agent and registrar; and the combined amounts of stocks registered in all cities shall not exceed the amount authorized to be listed.

Interchangeable certificates must bear a legend reciting the right of transfer in New York and other cities.

The registrar must file with the Secretary of the Stock Exchange an agreement to comply with the requirements in regard to registration and not to register any listed stock, or any increase thereof, until authorized by the Committee.

Certifications of registry must be dated and signed by an authorized officer of the registrar."

6. *Papers to be Filed with Applications for Listing.*—For listing stocks these papers comprise (1) copies of the charter or articles of incorporation, the by-laws, all leases and special agreements, the resolutions of stockholders authorizing the issue and the action of the directors thereunder, and the resolutions of the Board of Directors authorizing the listing of securities applied for; (2) certificates showing the proper authority for the issue, and the

amount of securities registered at the date of application; (3) a map of the property and contemplated extensions, and a report of a duly qualified engineer covering the present physical condition of the property; (4) specimens of all securities applied for; and (5) an opinion of counsel, who is not an officer or director of the corporation, or otherwise connected with the corporation, as to the legality of the authorization and issue of securities.

In addition to the foregoing the corporation must file, when listing bonds, copies of the mortgage or indenture, together with an opinion of counsel covering the validity of the issue, and a trustees' certificate covering the acceptance and issuance of the bonds, the securities held, and the cancellation or deposit of underlying securities and prior liens.

7. *Agreements to be Observed by Corporations Applying to List Securities.*—Various agreements are exacted by the Exchange in the interest of publicity and for the protection of the public against certain forms of gross manipulation formerly practiced. The most far-reaching of these is the agreement that the corporation will "publish at least once in each year and submit to the stockholders, at least fifteen days in advance of the annual meeting of the corporation, a statement of its physical and financial condition, an income account covering the previous fiscal year, and a balance sheet showing assets and liabilities at the end of the year; also annually an income account and balance sheet of all constituent subsidiaries, owned or controlled companies; or a consolidated income account and a consolidated balance sheet." Proper notice of the issuance of rights or subscriptions to its securities must be given to the Exchange by every corporation, so that holders of listed securities may be afforded a sufficient time within which to record their interests. Every corporation agrees to publish promptly and to notify the Exchange of any action in

respect to dividends, interest, or privileged subscriptions, and to give the Exchange at least 10 days' advance notice of the closing of the transfer books or the taking of a record of stockholders for any purpose. In view of the numerous consolidations of corporations through stock ownership, it is also important to note that every corporation making application to list its securities must agree not to dispose of its stock interest in any constituent company, except where such subsidiary company purchases its own stock for retirement or cancellation, or to permit any of its subsidiaries to dispose of their stock interests in other companies, except on direct authorization of the stockholders of the parent company. Among other agreements, mention should be made of those that require corporations to notify the Exchange of the issuance of additional amounts of listed securities and make immediate application for the listing thereof; to redeem preferred stock in accordance with the requirements of the Exchange; to notify the Exchange if deposited collateral is changed or removed; and to have on hand at all times a sufficient supply of certificates to meet the demands for transfer. The Exchange has also recommended that corporations fix a date record for dividends, allotment of rights and stockholders' meetings, without closing of the transfer books.

8. *Listing of Securities of Reorganized Corporations.*—In the case of reorganized corporations the application to list securities must furnish, in addition to an income account, a balance sheet at the close of the receivership, if available, and a balance sheet at the date of organization, and the various papers required under other circumstances for listing stocks and bonds. It is also necessary to furnish:

"Opinion of counsel stating that proceedings have been in conformity with legal requirements, that the property is vested in the new corporation and is free and clear from all liens and encumbrances except as distinctly specified; and also as to equities of securities of the predecessor corporation. There must also be furnished a certified order of the court confirming sale on foreclosure or other authority for reorganization; also a certified copy of the plan of reorganization."

The following papers must be filed, in addition to those previously referred to: Certified copies of the plan of organization, of all mortgages or indentures, and of the legal proceedings and order of the Court confirming the sale, or other authority for reorganization; a certificate of cancellation, deposit, or holding of prior issues; and an opinion of counsel showing that all proceedings have conformed with legal requirements, and that, except as distinctly specified to the contrary, the corporation holds proper title to the property, free from all liens and encumbrances.

9. *Listing of Additional Amounts of Listed Securities.* —The financial page will show almost daily that some corporation, whose security issues are already listed, will have an additional amount of some such bond or stock listed. Every such increase in stocks or bonds must be listed separately, although it is not necessary to observe all the requirements demanded, and to read all the documents called for, in the case of original listings. To avoid the filing of a full additional application, especially when it may be necessary to list securities quickly, as in the case of bond conversions into stock, or the issuance of privileged subscriptions, the company in its application may request authority from the Committee on Stock-List to list the new securities and the Committee may then recommend that the Governing Committee grant authority that such securities be listed upon official notice of and issuance in accordance with the terms of the application. Upon such official notice being given by the company the registrar is given authority to

register the security. While the requirements for such listing are comparatively few, the Exchange does ask for a statement from the corporation showing, among other facts, the amount and authority for the issue, including action by the stockholders, directors, and public authorities; the purposes of the issue and the application of the proceeds; the amount, description, and disposition of securities exchanged for new issues; additional property acquired or to be acquired; any changes in the charter, by-laws, or capitalization, details as to property acquired and disposed of since the last application, character and amount of output of the business since the last application; and an income account and balance sheet of recent date. When a corporation proposes to increase its authorized capital stock, 30 days' notice of such proposed increase must be given to the Exchange before the new stock is eligible for listing.

Modus Operandi of Listing.—Having classified the listing requirements in detail, we may next outline the general procedure followed in placing a corporation's securities on the list. Approximately three or four applications come before the Committee on Stock-List weekly. Comparatively few of these applications are rejected, because in the course of years corporations have ascertained the listing requirements of the Exchange and know to a reasonable certainty the conditions that will be accepted or declined. In fact, many applicants make inquiry in advance and if they find that they can not meet the requirements will not file an application. The result is that applications seldom come before the Committee on Stock-List unless they have first passed through the hands of its clerk and fulfill requirements.

A corporation wishing to list its securities applies to the Exchange and is given a printed list of the requirements.[6]

[6] For full copy see Appendix VII.

With the assistance of the Clerk of the Committee on Stock-List the corporation then prepares its application, basing it on the requirements that were furnished to it. Upon its completion, the application is sent to the members of the Stock-list Committee, each member being also furnished a copy of the various papers that corporations must file. After the members of the Committee have familiarized themselves with the facts relating to the proposed listing, notice is given to the parties in interest to appear before the Committee to answer such questions as the members may wish to ask concerning any fact recited in the application or in the papers accompanying it. The parties in interest who usually appear are the treasurer of the company, sometimes its president, the legal representative of the company, and frequently a representative of the banking house interested in the security.

Almost the first questions directed to those who appear before the Committee relate to the distribution of the stocks or bonds sought to be listed. "Give us a list showing, not the names of the stockholders, but the number of your stockholders who hold 1,000 shares or more, 100 shares or more, or less than 100 shares?" "How many holders of these various amounts hold their stock absolutely free and clear of any engagement not to sell it so that the stock shall not be tied up in a pool?" "Is there any syndicate interested in any of the stock, and if so, how much stock is tied up by a syndicate agreement?" These are some of the questions that the representatives of the company must answer to the satisfaction of the Committee. It must always be remembered that American exchanges, unlike the London Stock Exchange, for example, do not propose to make an initial market for securities. Instead, the New York Stock Exchange insists that the market must be made prior to the listing of the securities. In other words, assuming a company wishes to list

$20,000,000 of stock, at least a sufficient amount to insure a fair market must have been sold to the public and be free of control by syndicate agreement, that is, the securities must be free for market purposes and a few persons are not allowed to control the market by virtue of large holdings or because by agreement others are restrained from selling. The importance of this matter is apparent since it is customary in the issuance of securities by corporations to form syndicates to underwrite the securities, and sometimes following the dissolution of the syndicate there may still exist a gentlemen's agreement by which the parties to the syndicate bind themselves to retain their securities until a stipulated price can be realized.

If the Committee is of opinion that a sufficient amount of the security to warrant a fair market is in the hands of the public, it next considers the application as it stands with a view to revising and amending it to meet the demands of clearness and completeness. Any points not clearly stated are restated, and any unusual powers of the directors, or other peculiar conditions, are inserted. The representatives appearing before the Committee are also closely questioned as to the balance sheet in order to ascertain the absolute solvency of the company.

If all questions have been satisfactorily answered, and if the application is satisfactory, the Committee on Stock-List recommends the listing of the securities to the Governing Committee. The revised and amended application,[7] frequently comprising over 5,000 words, is printed and a printer's proof, embodying all the changes, is signed by the company's representative. A copy is given to each of the 40 members of the Governing Committee at least 24 hours before its meeting. At the next regular meeting of this Committee the Chairman of the Committee on Stock-

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[7]For copy of completed application, see Appendix VIII.

List presents the applications that have been approved and moves that the same be listed. Any member of the Governing Committee may object to any proposed listing because of personal knowledge or because of information obtained with respect to the application. But such objections rarely occur, owing to the care previously exercised. On the affirmative vote of the majority of the Committee the security is listed, the company is at once notified, the registrar, if the securities are stock, is authorized to register the amount of securities recited in the application, and trading therein can begin the next morning. The printed statements on which the listing is based are furnished to all the members of the Exchange, who keep them on file for the information of themselves and such customers as may desire the facts. They are also freely given to any person requesting them, and are furnished in New York to the daily and financial papers which frequently quote copious extracts.

Removal or Suspension of Securities from the List.—Whenever the outstanding amount of any listed security appears to have become so limited as to make further dealings therein dangerous, the Committee on Stock-List may direct that the security be stricken from the list. The rules of the Exchange also empower the Governing Committee to suspend dealings in the securities of any corporation previously admitted to the Exchange, or to summarily remove any security from the list.

The exercise of this power by the Exchange has been the subject of much adverse criticism, chiefly on the ground that innocent purchasers of the stock while on the list may later be deprived of the advantages attaching to listing. Removing a security from the list is manifestly a serious question, and has always been so regarded by the Governing Committee of the Exchange. Yet, in the absence of Government supervision in the matter, the exercise of this power must be regarded as necessary to enforce the rigid observance by corporations of the agreements already referred to. The practice, however, is particularly justified by the Exchange on the plea that too small an outstanding amount of any listed security is a source of danger to customers and brokers, as well as the public, and that removal of the stock from the list is necessary to eliminate this danger.

The danger referred to may arise from two causes. If very limited in amount the stock may easily be subjected to the grossest kind of manipulation. A few individuals, by obtaining control of most of the shares, might be in a position to fix an artificial price by occasional transactions on the Exchange and succeed in inducing unsuspecting buyers to purchase the shares at greatly inflated prices. Such manipulation is particularly easy if there is no short interest in the stock seeking to depress its price. On the other hand, if a short interest should exist in the stock, the greater of the two dangers is apt to arise, namely, a corner. Finding themselves unable to borrow or purchase the security, short-sellers would be compelled to settle at the manipulator's price, much to the detriment of themselves, their brokers, and the public. Past experience has clearly shown that corners not only affect the parties directly involved, but, by demoralizing the entire security market, indirectly injure holders of other securities. For the foregoing reasons the New York Stock Exchange refuses to list a security when owned chiefly by a single interest; likewise, the listing laws and regulations of various European countries prohibit the listing of any stock unless the outstanding amount reaches a prescribed figure. The same reasons, it is argued, require that a security should be removed from the list, or dealing therein suspended, when only a very limited amount remains in the hands of the public.

Progressive Development of Listing Requirements and Suggested Changes.—Whatever may be our conclusions as to the adequacy of the listing requirements of the New York Stock Exchange, it is certain that these requirements have been progressively strengthened in the interests of greater publicity.[8] As indicating progressive development there might be mentioned the fact that the publication of annual reports by corporations, for years merely a recommendation, was made an absolute requirement a few years ago. On April 1, 1910, the Exchange also abolished the so-called Unlisted Department, which had existed since 1885, and which was created at a time of great dullness on the Exchange with a view to enlarging the opportunities for brokerage transactions. Under this system a considerable number of industrial and mining corporations were allowed to obtain a market on the Exchange without furnishing many of the facts now essential. The creation of this department has been generally recognized as a great mistake, and as a step "wholly at variance with the duty of the Exchange to protect the investor." In abolishing this practice, as William C. Van Antwerp writes,[9] "The Listing Committee accomplished a two-fold blessing in setting the Exchange right with the public by ridding their institution of anything approaching the blind pools of early days, and at the same time forcing certain wealthy corporations to abandon their policy of concealment or lose the privilege of the floor."

That there is still room for improvement must of course be admitted, and a few of the suggestions most prominently advanced might be mentioned. Van Antwerp[10]

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[8] The London Stock Exchange will, upon receipt of the published applications, and without further examination, list any security that is listed on the New York Stock Exchange.

[9] William C. Van Antwerp, *The Stock Exchange from Within*, p. 167.

[10] *Ibid.*, pp. 167 and 364.

calls attention to the London Exchange's policy of refusing to list a vendor's shares, that is, the shares received in consideration of the sale by the seller of the property, until six months after the shares of the company have been offered to the public. He implies that this "very wise precautionary measure" might be adopted here, since "if one or more individuals secure a block of stock in payment for properties in the concern, they are prevented from unloading those shares on the public until a sufficient time has elapsed to determine the merit of the property."

The Hughes Committee on Speculation recommended (1) that the Exchange "should adopt methods to compel the filing of frequent statements of the financial condition of the companies whose securities are listed, including balance sheets, income and expense accounts, etc., and should notify the public that these are open to examination under proper rules and regulations;" and (2) "should require that there be filed with future applications for listing a statement of what the capital stock of the company has been issued for, showing how much has been issued for cash, how much for property, with a description of the property, etc., and also showing what commission, if any, has been paid to the promoters or vendors," and to adopt means "for holding those making the statements responsible for the truth thereof." Mention should also be made of the so-called Owen Bill for the regulation of stock exchanges,[11] which provided that no securities shall be dealt in on an exchange unless there be filed copies of all written and oral agreements or contracts affecting the authorization, issue, sale, or disposition of the securities, together with a full disclosure of (1) all fees, commissions, or other compensation connected with the issue and disposition of the securities and (2)

[11] S. 3895, 63d Congress, Second Session, 1914.

the net amount realized or to be realized by the corporation therefor.

Recommendations of such far-reaching importance as those just mentioned make necessary a brief reference to the limitations that prevent exchanges from being too drastic in their demands. Stock exchanges in the United States are merely private, voluntary, unincorporated associations and have no legal authority to demand information from corporations. Too drastic requirements by the New York Stock Exchange, no matter how wholesome in the interest of publicity, might only serve to drive corporations from its list to that of another exchange that is less severe. Many corporations might also, if they regard the demands of the exchanges as too severe, seek admission to curb markets with their superficial listing requirements, thus encouraging the development of a market that, because of its comparatively unregulated character, cannot insure to the public the safeguards afforded by regularly organized exchanges.

Despite these limitations, the New York Stock Exchange has been subjected to much criticism because it has not required in respect to listing what should properly be required by legislatures and public-service commissions. Publicity along the lines of the foregoing recommendations is not required by state or national law. Yet, legislation recently proposed[12] has been based on the theory that the Stock Exchange should be required to demand information that corporations are not bound by law to furnish. If drastic regulation of the issuance of securities and the fullest measure of publicity is wanted, it would be better, from the standpoint of the exchanges, to have the "requirements proceed from governmental authority operating directly on the corporations, rather than indirectly

[12] S. 3895, 63d Congress, Second Session, 1914.

through a body like the exchange, which has no power to compel performance."[13] Strict governmental control over corporate publicity and the issuance of securities, if applied to all corporations, would largely relieve exchanges of a burden that they will gladly yield. It would remove all incentive for any corporation, desiring for its securities the benefits of a continuous market, to have them listed on the curb, or on an exchange whose requirements are only superficial.

References

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Sereno S. Pratt, *The Work of Wall Street*, Chap. IX.

Listing Rules of the New York, Philadelphia, Chicago and other Stock Exchanges, published in the Hearings before the Committee on Banking and Currency on S. 3895.

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[13] Testimony of John G. Milburn, Counsel for the New York Stock Exchange. Hearings before the Committee on Banking and Currency on S. 3895, p. 366.

CHAPTER X

TYPES OF DEALERS AND BROKERS AND THEIR WORK

The membership of an exchange by no means consists entirely of brokers. Nearly every exchange counts among its members many of the leading capitalists of its locality, and the New York Stock Exchange includes in its membership some of the greatest capitalists of the nation. These men employ brokers to transact their business and never execute an order personally. Their membership, however, gives them many valuable business connections, as well as the benefit of a lower rate of commission than that customarily charged the general public. Because the volume of their business is usually large, this reduction in commissions is apt to exceed the annual dues incident to membership and the interest on the market price of their seats. This is particularly true in the case of so-called "operators" whose speculative commitments at times reach enormous proportions.

Types of Dealers.—Turning to a consideration of those members of an exchange who operate on its floor, we find that they are either traders or brokers. Traders, as distinguished from brokers, may be divided into four classes, namely, floor traders, odd-lot dealers, specialists, and arbitragers. Each class has its own functions to perform and presents its own peculiar characteristics. On American Exchanges, however, members are not bound to belong to any one of these classes. They usually do, but may, if they desire, extend their business operations to include the entire range of stock-exchange activities.

"Floor" or "Room" Traders.—Many members operating on the floor belong to the class of "floor" or "room" traders. They trade in any stock that shows signs of activity, and are generally "scalpers" of "eighths" and "quarters." A floor trader changes his position quickly and may be a "bull" one minute and a "bear" the next. If his speculative venture is wrong, he is quick to limit his loss, and if right he is satisfied with a small profit. In the long run he hopes by this method to make his profitable days average better than the unprofitable ones.

Room traders naturally are inclined to adhere strictly to such principles of trading as in their opinion will best tend to bring about an average profit. Small and sure profits they generally feel should be taken in preference to large and uncertain ones. After remaining long or short of a stock for a whole day or more they frequently use "stop-loss" orders, that is, orders that become "at-the-market" orders to sell or buy the stock if the quotation drops or rises to a designated point. Many of them also practice the "evening-up" of trades before the close of the day so that they may "go home with nothing to disturb their equanimity." Although having no other purpose in mind than the clipping of small profits, their activity proves beneficial to the public in that it helps to render the market more continuous in character.

Odd-Lot Dealers.—Such dealers devote themselves entirely to the making of a market in lots of less than 100 shares, and have developed as a group in response to the growing demand for a free, continuous market for small investors whose purchases and sales are necessarily smaller than the unit of trading (100 shares) prevailing on the large exchanges of the country. This unit of trading is the minimum amount of stock for which a broker, according to the exchange rules, must accept a bid or offer, and the market quotations are based on sales of that unit or multiples thereof. Quotations on odd lots, of say five or ten shares, would be apt, owing to their negligible quantity, to be misleading to the public. Brokers would have no inducement to buy or sell very small lots in the open market, of say two or three shares, because the minimum commission of one dollar would not adequately compensate for the labor and time involved. Brokers would also find it impossible in an active market to execute large orders of, say, 500 shares or more if contracts had to be made with all who offered to buy or sell lots of five or ten shares; and bankers would find it extremely inconvenient to lend money on collateral containing numerous certificates for odd amounts.

These difficulties are largely eliminated by the existence of odd-lot brokers who stand ready at all times to buy or sell any odd lot of stock at a slight concession from the market price for full lots. As a result small investors have the opportunity to buy or sell one share or ninety-nine shares, "all equally well within the average of less than one-eighth of the one per cent of the wholesale price."[1] As commission brokers come to the odd-lot dealer with their customers' orders to buy these small lots, the latter sells them the stock at a price an eighth or a quarter above the market price for 100 shares, and when his sales of such lots reach 100 shares he buys them in the 100-share market in order to fulfill delivery on his contracts. Similarly, if small lots are offered to him, he buys them at a price an eighth or a quarter below the current price for 100 shares, and when such purchases in any stock amount to 100 shares, he promptly sells them in the wholesale market. His profit consists solely of the difference between the price at which he originally

[1] Testimony of Henry G. S. Noble, Hearings before the Senate Committee on Banking and Currency on S. 3895, 1914, p. 165.

bought and subsequently sold, or originally sold and subsequently bought.

When selling odd lots to small investors, the odd-lot dealer goes short of the market since he sells the odd lots first and then buys the 100 shares in the wholesale market. He cannot without great risk buy the 100 shares in advance of his sales of the fractional lots, because he does not know how many orders for such lots in any given stock will come to him, their volume changing greatly from hour to hour. Moreover, odd-lot buying increases greatly during severe declines when bargain hunters are attracted. To buy the stock first, have the market go down, and then furnish the bargain hunters with the stock at current prices is a procedure that one cannot expect the dealer to follow. His only protection consists in selling first as the market declines and then promptly buying the 100 shares when he knows the amount he has sold. Another service of short-selling is thus apparent since without it the odd-lot dealer would not find it possible to operate, and without him small investors would be deprived of the continuous market at good quotations which such dealers make for them.

The importance of odd-lot dealers is indicated by Henry G. S. Noble's estimate that in an active market about 20 per cent of the business on the New York Stock Exchange is in small lots.[2] Between 50 and 60 odd-lot brokers are said to operate on the floor of this Exchange. Two firms handling this type of business, we are told, had about a million dollars invested in memberships at one time, one having nine partners with seven holding exchange memberships and the other seven partners with six Exchange members.[3]

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[2] Testimony on S. 3895 before the Senate Committee on Banking and Currency, 1914, p. 167.

[3] William C. Van Antwerp, *The Stock Exchange from Within*, 1914, p. 282.

Specialists.—These constitute a group of dealers who make a specialty of one or a limited number of securities. They establish their headquarters at that part of the floor where such securities are dealt in. Their existence is especially necessary to commission brokers because they are always ready to make a market for them in the securities they represent. Their economic usefulness consists chiefly in their willingness to take chances as speculators in the securities they specialize in. In being ready to trade under all market conditions they render easier and more certain the commission broker's business of serving the public. Through their speculation they help to create a continuous market. Without them fluctuations between sales of certain stocks would be much greater, and many stocks would at times have no market whatever.

Like the odd-lot dealer, the specialist must meet the demand either to buy or sell. A commission broker having an order to execute hastens to the spot where the security is dealt in and inquires as to the market. The specialist, anxious to be the first bidder, offers to pay 100¼ or to sell at 100½, or at wider fluctuations if he chooses. If the broker buys 100 shares at 100½, the specialist, generally having sold the stock short, promptly endeavors to buy the shares. Or he may already have purchased the stock in the belief that buyers will appear. If, under the first circumstances, he fails to buy the shares at less than 100½, he will endeavor promptly to limit his loss to an eighth or a quarter, if possible. The same tactics are pursued if the broker should sell to him at 100¼.

Frequently commission brokers leave so-called waiting orders with specialists to be executed by them whenever the market price may happen to reach the particular buy or sell limit prescribed in the orders. Under such circumstances the specialist becomes a broker, and must be careful not to violate his professional status as such. Under date of

March 30, 1910, the New York Stock Exchange adopted a resolution, providing "that any member of the Exchange who, while acting as a broker, either as a 'specialist' or otherwise, shall buy or sell directly or indirectly for his own account, for account of a partner, or for any account in which he has an interest, the securities, the order for the purchase or sale of which has been accepted by him for execution, shall be deemed guilty of conduct or proceeding inconsistent with just and equitable principles of trade, and shall be subject to the penalties provided in Article XVII, Section 6, of the Constitution." This, however, is not made applicable to the act of any member "who, by reason of his neglect to execute an order, is compelled to take or to supply on his own account the securities named in the order; in such case the member is not acting as a broker and shall not charge a commission."

Arbitragers.—The business of arbitragers, as explained in the chapter on arbitraging, is to buy in one market and sell at a higher price in another with a view to making the difference. Most of the arbitraging has taken place between the New York and London markets, although a considerable amount also occurs between the markets afforded by some of the minor exchanges of the country. Our previous explanation of the arbitrager's functions and methods renders a repetition unnecessary. Chapters XVI and XVII also explain the usefulness of arbitraging in connection with the marketing of privileged subscriptions and the conversion of bonds into stock.

Types of Brokers.—Turning now to a consideration of brokers, using this term in the strict sense, we find that they may be divided into three classes. It is difficult, again, always to draw a hard and fast line between the several classes, because on American exchanges brokers are not restricted to any one class, and some, therefore, at times act in one capacity and at other times in another.

The three classes referred to comprise commission brokers, "floor" brokers, and money brokers. The function of each of these classes will now be considered.

Commission Brokers.—Commission brokers are partners of a commission house and devote themselves to the execution of orders for their firm's customers, the firm receiving a commission of 7½ cents per share on stocks selling below $10 per share, 15 cents per share on stocks selling at $10 and above but under $125 per share, and 20 cents per share on stocks selling at $125 per share and over, subject to a minimum charge of $1. Their function is to execute customer's orders with the least delay, at the best possible price, and in strict accordance with the terms thereof. Prompt execution of orders means pleased customers, and satisfaction among customers means larger business. If the commission firm is a large one, it may have two or even more floor representatives.

"Floor" Brokers.—Commission brokers, or other members of the Exchange for that matter, often find it highly desirable, when obliged to execute orders simultaneously in many stocks, to have so-called floor brokers assist them in the execution of orders in any part of the Exchange. In other words, these brokers, numbering some 200 on the New York Stock Exchange, are brokers for other brokers. Formerly they received for their services $2 per 100 shares, as contrasted with the commission broker's charge of $12.50 at that time, and were thus commonly known as "two-dollar brokers." To-day, however, their compensation has been somewhat raised,[4] although it remains very much less than

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[4] On the New York Stock Exchange commissions on business for members of the Exchange, when a principal is given up, shall not be less than the following:

On stock selling below $10 per share............	1¼ cents per share
On stock selling at $10 per share and above, but under $125 per share.......................	2½ cents per share
On stock selling at $125 per share and over......	3 cents per share

the commission charged the outside public. As a rule they receive orders from many different firms, and are expected to give to all the closest attention. They cannot delegate their orders to some one else without sacrificing their limited commission. To be of greatest value to their employers they must not only be skillful in the execution of orders but must keep in constant touch with floor gossip and news. Their meager wage, however, is compensated for in part by the absence of office responsibilities and the risks and unpleasantness frequently associated with the commission broker's relations to his customers.

Money Brokers.—A large proportion of the loans made to brokers are in the form of "call loans," that is, loans subject to call after 24 hours' notice by either borrower or lender. In New York, the great call-loan center of the country, such loans may be negotiated by bankers either directly with brokers or through the assistance of money brokers who act as middlemen between lenders and borrowers. A large proportion of such loans is negotiated by money brokers who lend the funds on the floor of the Exchange. The current rates of interest on such loans are established on the Exchange and are quoted on the tape just as are security quotations. As soon as a banker ascertains how much money is at his disposal for demand loans, he communicates with his broker in the same way that the owner of securities communicates with his broker if he wishes to sell.

The daily operations of some of these brokers on the New York Stock Exchange were immense at one time. One testified during the money-trust investigation at

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Commissions on business for members of the Exchange when a principal is not given up shall not be less than the following:

On stock selling below $10 per share............ 1¼ cents per share
On stock selling at $10 per share and above, but
under $125 per share......................... 3¾ cents per share
On stock selling at $125 and over................. 5 cents per share

Washington that he borrowed as much as $25,000,000 and loaned as much as $15,000,000 in one day, or $40,000,000 in all, and that his operations averaged at least $10,000,000 a day. Some of these brokers represent only borrowers or lenders while others represent borrowers as well as a few of the largest lenders. A large bank lending heavily on the Exchange the year around may be represented by only one broker who is not allowed to represent any other lender or borrower; while in other cases the broker may serve exclusively three or four large banking institutions. But whether representing lenders or borrowers, money brokers have nothing to do with the selection of collateral. The street knows what constitutes good collateral on demand loans, and the matter is arranged by the borrowers and lenders themselves. Recently, it may be added, the New York Stock Exchange undertook to employ a clerk whose duty it is to list all funds coming to the floor to be lent, and likewise all applications for loans, and who thus acts as a sort of clearing house in the matter. It is stated that to an increasing extent it is becoming the practice more and more of lending institutions to telephone their offerings directly to the clerk at the money desk.

American and London Systems Compared.—Unlike American exchanges with their several classes of dealers and brokers to which members may belong without restriction, the London Stock Exchange's membership consists of but two classes—jobbers and brokers—and members can belong to only one or the other. The broker, under the London system, can act merely as a middleman between the public and the jobber. The jobber, on the other hand, cannot deal with the public directly, and is obliged to make his trades on the floor of the Exchange with brokers and fellow jobbers. Brokers, in other words, are commission brokers, receiving their compensation in the form of commissions, while jobbers are merchants of securities and depend on the profits resulting from their deals.

A broker in London having received an order from a customer must go to a jobber who specializes in that security. Without being told by the broker whether he wishes to buy or sell, the jobber is asked to name his price limits, and will quote let us say, 50 and 50⅛, meaning that he is willing to buy the stock at 50 and sell at 50⅛. The broker will try to drive as hard a bargain as possible for his customer and may intimate, therefore, that the quotations are too wide. Thereupon, the jobber may "split" the difference, thus making the quotation 50 1-16. At this price the broker buys the security, and thereupon advises the customer of the particulars of the transaction, including the name of the jobber. In conducting his business, it should be added, the jobber sells short and relies upon a continuous market to enable him to buy immediately the stock that he sold to the broker; likewise in case the broker sold to him there is reliance upon a continuous market to dispose of the stock immediately.

The jobber combines in himself the functions of specialist, speculator, and trader. Whether his presence is more advantageous to the public than the American plan is a disputed subject with opinions much at variance. There are those who state that the large number of jobbers on the London Exchange—their number greatly exceeding that of the brokers—assures closer quotations, especially in a panicky market, for the great mass of inactive securities. Others feel that the New York Stock Exchange, by not restricting the operations of brokers and by throwing the field open to all members, offers the greatest advantages, or at least that "the same result is obtained in thé New York Stock Exchange far more openly and above board by the presence in all active securities of a host of such jobbers, — brokers, traders, specialists, and speculators, — each actively bidding and offering by voice and gesture, and without collusion, and each thereby contributing to the making of the freest possible market and the closest possible price."[5]

References

William C. Van Antwerp, *The Stock Exchange from Within*, pp. 277–284.

S. A. Nelson, *The Consolidated Stock Exchange of New York*, Chaps. XIII, XIV, XV, XVI, and XVII.

Hartley Withers, *Stocks and Shares*, Chaps. VIII and IX.

Hearings before the Senate Committee on Banking and Currency on Senate Bill 3895, 1914, pp. 160–178.

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[5] William C. Van Antwerp, *op. cit.*, p. 338.

CHAPTER XI

TYPES OF OFFERS AND ORDERS

Types of Bids and Offers.—The rules of every stock exchange definitely state the various kinds of bids and offers that are permitted to be made on its floor, and the essential differences between them relate chiefly to the time of delivery. Thus the New York Stock Exchange, which is typical in this respect, provides in its rules that bids and offers may be made only as follows:

1. "For cash," that is, for delivery of the securities by the seller upon the same day that the contract is made.
2. "Regular way," that is, for delivery of the securities by the seller upon the business day following the day upon which the contract is made.
3. "At three days," that is, for delivery of the securities by the seller upon the third day following the day upon which the contract is made. Some exchanges allow two-day contracts that call for delivery upon the second day following the making of the contract.
4. "Buyer's" or "seller's" options for not less than 4 days nor more than 60 days. The commonest forms of such offers are those to buy or to sell securities "buyer thirty" (days) or "seller thirty" (days), or "buyer sixty" or "seller sixty." The options under these bids and offers give either the buyer the right to call, or the seller the right to deliver, at any time within the limits fixed. The New York Stock Exchange requires that such options must not run less than 3 days nor more than 60; that on all transactions for more than 3 days, written

contracts must be exchanged on the day following the transaction; that such contracts shall carry interest at the legal rate, unless otherwise agreed; and that in all cases one day's notice must be given, at or before 2:15 P. M., before the securities shall be delivered prior to the maturity of the contract. The rules of the Exchange further provide that "on offers to buy 'seller's option' or to sell 'buyer's option,' the longest option shall have precedence, and on offers to buy 'buyer's option' or to sell 'seller's option,' the shortest option shall have precedence."

With respect to the time of delivery offers to buy or to sell may also be conditioned on the happening of some future event. Examples of such offers are those to buy or to sell securities "seller (upon the) opening of books," or "to arrive," or "when issued." Bids and offers of this sort are not provided for by the rules of the New York Stock Exchange, but where used the seller must deliver as soon as the event stated in the offer occurs.[1]

The following regulations of the New York Stock Exchange concerning the time of delivery on contracts should also be noted. Bids and offers without stated conditions are considered as "regular way," and the great mass of the business on the Exchange belongs to this class. All deliveries of securities must be made before 2:15 P. M. of the day when delivery is called for under the definition of the several bids and offers, and when deliveries are not made by that time, the contract may be closed "under the rule." Contracts falling due on holidays or half-holidays observed by the Exchange are settled on the preceding business day, except that, when two or more consecutive days are holidays or half-holidays, contracts falling due on other than the first of such days are settled on the next business day

[1] Such buyers' and sellers' options must not be confused with "puts" and "calls," also generally referred to as options.

following. On half-holidays securities sold specifically for "cash" must be delivered at or before 11:30 A. M.

Regulation of Bids and Offers.—In addition to the foregoing rules, it is important to give special attention to the rules adopted by the New York Stock Exchange on March 30, 1910, and amended on May 12, 1911, and February 25, 1920. Prior to the adoption of these rules, a broker could offer to buy or sell a large block of securities and refuse to accept offers for less than the total amount. This practice led to abuses through manipulation of prices, since dealers could by this means establish quotations for a certain security above or below its previous price, by simply offering to give or to take an amount of the security so large that no one would be in a position to offer or to receive the amount. The rule of 1910, however, declares that the recognized quotation on stocks shall be public bids and offers on lots of 100 shares, or on lots of $10,000 par value of bonds, and that "all bids and offers on larger lots shall be considered to be for any part thereof in lots of 100 shares and any multiple thereof, in the case of stocks; and in the case of bonds, in lots of $10,000 par value and any multiple of $5,000 in excess of $10,000 par value."[2] This means that a broker offering to buy 1,000 shares of a particular stock at a price above the current quotation is compelled to accept all offers of 100 shares or multiples thereof until the entire order of 1,000 shares has been filled. In addition to this rule regulating bids and offers, further provision was made to the effect that "if a bid is made for a larger lot of stock above the price at which smaller lots are offered, or if a transaction is made in a larger lot above the price at which smaller lots are offered, such bidder or buyer shall be compelled to buy any or all of the smaller lots which were publicly offered

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[2] Constitution of the New York Stock Exchange, p. 82.

at the time, at the lower price, up to the amount of the bid for the larger lot. If the bid for the larger lot is accepted, and the buyer is unwilling to buy more, the seller must give up to the members who were publicly offering to sell at the lower price, such amounts as they were publicly offering to sell at the lower price, if such claim is made immediately."[3] A similar rule applies in case an offer is made to sell a larger lot of stock below the price that is bid for smaller lots. It is expressly provided, however, that the foregoing provisions shall not apply to lots of less than 100 shares nor to active openings when bids and offers are simultaneous.

The foregoing rules were later supplemented by additional rules that provide that "a member may sell or offer the largest amount bid for without regard to priority of bids. Should the offer be of an amount larger than the largest bid, the balance shall go to the next largest bidder in sequence; bids for equal amounts being on a par. A member may buy on bids under the same rule."[4] Silent bids and offers are not recognized, and further provision is made to the effect that "disputes arising from a question as to the priority of a bid or offer, if not settled by agreement between the members interested, shall be settled by vote of the members knowing of the transaction in question," and "if not settled by agreement between the members interested, shall be settled by any member of the Committee of Arrangements."[5] Attention is also called to the resolution of the Exchange, which provides that "where parties have orders to buy and orders to sell the same securities, said parties must offer said securities, if they be bonds at one-eighth of one per cent, and if stocks

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[3] Constitution of the New York Stock Exchange, p. 82.
[4] *Ibid.*, p. 83.
[5] *Ibid.*, p. 84.

at one-eighth of one dollar, higher than their bid before making transactions with themselves." [6]

Types of Orders Classified with Reference to the Price Limits Used.—Subject to the foregoing exchange rules governing bids and offers, the engagement between broker and customer for the purchase and sale of securities may contain any promises and conditions that they may see fit to agree upon and that are not contrary to law. With few exceptions, however, the restrictions placed upon orders for the purchase and sale of securities through a broker pertain to the price at which the purchase or sale should be made. In this respect orders are either "limited" or "unlimited." Limited orders, in turn, may be divided into two classes, namely, those that are to be executed at a fixed price only and those that belong to the class of so-called "stop" orders. Unless stipulated to the contrary by the customer, orders are considered by custom to remain in force only during the day on which they were issued. If the contrary is desired in this respect, the customer must either indicate the period for which the order shall remain in force, or, if he does not desire to state a definite time, have the order marked "good till canceled."

A typical illustration of an order limited as to a fixed price is the following: "Buy (or sell) for my account and risk 100 U. S. Steel common at 78." In this case the buying order must be executed by the broker in the open market, as soon as possible, and at the stipulated price of 78, or at a better price if the stock is offered under 78 when the order reaches the market. Similarly, the selling order must be executed at 78 or better. "Better" means above the stipulated price if it is a selling order and below the stipulated price if it is a buying order.

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[6] Constitution of the New York Stock Exchange, Article 23, p. 51.

Contrasted with this limited order, there is the "at-the-market" order, which specifies no price and which must be executed *immediately* at the *best price obtainable at the time*. Such orders are frequently given, especially by creditors when closing out collateral, for the express purpose of having an immediate execution to forestall any possible adverse movement of the price. In the case, therefore, of semi-active or inactive securities "at the market" orders may be the cause of considerable price fluctuations. It is in the execution of such orders that odd-lot dealers, specialists, and floor traders serve a very useful purpose in that they are instrumental through their speculations in making the market more continuous. No discretion can be exercised by the broker, no matter how good his intention, in deferring the execution of such orders. On the other hand, the broker, as long as he acts carefully and in good faith, is fully protected by law against any of the consequences that may grow out of the fact that he finds it possible to execute the order only at a price far removed from the quotation that ruled when the order was given.

"**Stop Orders.**"—A very common form of limited order is the so-called "stop order," the principal function of which is to enable holders of securities as well as short-sellers to protect their profits or to limit their losses in a fluctuating market. Bankers and other lenders of money may also use such orders to protect themselves against borrowers who allow their collateral to depreciate in price beyond the agreed limit. Having bought 100 U. S. Steel common at 78, the buyer may give a stop order as follows: "Sell 100 U. S. Steel common at 76, stop," or in case a short sale was made at 78, the seller may give the following order: "Buy 100 U. S. Steel common at 80, stop." Any stipulations may be made as to the period of time during which such orders are to remain in force, but, unless otherwise stated, are considered by custom to be "good till canceled." In the case of the aforementioned selling stop order, the order becomes an "at-the-market" order just as soon as 100 shares of the stock are sold or offered by another broker at 76 or under. Likewise, a buying stop order becomes an "at-the-market" order just as soon as 100 shares of the given stock are sold or bid for by another broker at or above the stipulated price, namely, 80 in our illustration. It has been decided many times by the courts, and is understood by usage, that the broker entrusted with the stop order must not be instrumental in manipulating the market with a view to making the price of the given stock such as to make his stop order become operative as a market order.

Since the stop order becomes a market order when the price of the security reaches the price stipulated in the order, it follows that the broker may not be able, especially in a rapidly declining or advancing market, to sell or buy the stock at the stipulated price. Nevertheless, the broker must act at once when the stipulated price is reached, although the next bid or offer may be considerably below the previous sale. The customer must stand the loss, if any, and the broker would be legally liable for failure to act promptly, if in case of an order to sell, for example, he had an opportunity to execute the order at a price lower than the stop price but neglected to do so in the sincere expectation of a rise. Evidently this legal position of the broker was not understood by many members of the public at the time of the panic associated with the so-called "peace note leak" of 1916. On that memorable day the market became apparently non-continuous for a brief period of time. Certain securities, otherwise very active, declined 10 points or more in a few minutes with the result that numerous stop orders had to be executed at prices much below the limits set in the order, although immediately afterwards many of the prices rebounded to almost the figures prevailing before the decline commenced. The chagrin of many whose stop orders had been executed might well be imagined, and complaints were exceedingly numerous. Probably to prevent similar complaints in the future, the New York Stock Exchange saw fit to embody the legal meaning of a stop order in a special resolution. This resolution, adopted under date of December 27, 1916, expressly states, "that a stop order to buy stock becomes a market order when the stock sells at or above the stop price; a stop order to sell stock becomes a market order when the stock sells at or below the stop price."[7]

It is due to this construction of a stop order that such orders do not furnish the same certainty of limiting a loss as do privileges, "puts" and "calls," and that they are frequently used as a means of driving the market up or down by manipulators who may have succeeded in learning of their existence in large numbers. "Puts" and "calls" under the European plan, it will be recalled, definitely insure the holder of them against any loss in price beyond the commission and the price of the privilege. Since privileges extend over a period of time, they also allow the holder to wait until the end of the stipulated period to decide whether it is more profitable to exercise the privilege or to purchase or sell the security in the market. Although the market price of the security may at one time show a large loss, against which the holder of the privilege is protected, that price, before the expiration of the "put" or "call" period, may have so materially changed as to show a profit. In other words, "puts" and "calls" are a means of insurance during the entire period for which they are issued. Stop orders, on the other hand,

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[7] Constitution of the New York Stock Exchange, p. 85.

terminate when executed, and do not, as in the case of privileges, give the user thereof the benefit of future favorable price movements. Frequently such orders also involve the uncertainty attaching to "at-the-market" orders, that is, it may not be possible to execute them at the "stop" price, in which case they must be executed at the next best price, whatever that may be.

Moreover, if numerous stop orders are found to exist in a given security, they are frequently "uncovered" by manipulators. Let us assume that with a stock selling at 78, numerous stop orders have been placed by holders of such stock at 77, 76, and 75. Knowing that these orders become "at-the-market" orders as soon as the stock in question sells at the above prices, manipulators if they learn of the existence of such orders, may suddenly sell the stock heavily with a view to depressing it from 78 to 77. As soon as the stock reaches 77, all the stop orders to sell at that price come automatically on the market and may serve to depress the price to 76, when the next lot of stop orders would have to be executed, thus possibly further depressing the price to 75 when more orders would have to be executed. In the meantime, those who originally started the selling movement would accumulate the stock represented by the stop orders; and upon it appearing that such orders had been fairly well uncovered might easily bid the stock up to approximately its former price.

If, however, a customer desires to stop a loss, and at the same time does not want to sell the stock at less than the stop price, he can give a "stop-and-limit order" to the following effect: "Sell 100 U. S. Steel common at 78 stop and limit." Or this limit may be varied as follows: "Sell 100 U. S. Steel common at 78 stop, limit 77." In the first case the broker cannot sell for less than 78, and in the latter case he must sell at 78, if possible, and at not less than 77. As in the previous illustration, the broker must regard the stop order as becoming operative when the stop-order price is reached in the market.

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CHAPTER XII

THE SHORT SALE

The short-seller in the stock market has been aptly defined as "a dealer who, becoming convinced that a given security is selling at a price not likely to be maintained, makes a contract to deliver that security with the expectation of obtaining it later at a difference in price which will constitute a profit to himself."[1] Short-selling, it has been explained, is by no means confined to the stock market but is an operation occurring in many branches of business. It represents one of the great forces that prevent the speculative market from becoming one-sided, and constitutes the most effective means of restraining unwarranted marking up and down of prices.[2]

Economic Functions of Short-Selling Summarized.—In various chapters of this volume extended reference is made to the numerous economic functions of short-selling. The practice of short-selling, it was shown, is a prominent factor in resisting any excessive inflation of the general price level of securities and in checking violent declines in time of panic. Through its influence security prices are steadied and extreme fluctuations are reduced. Serious business depressions are largely discounted through its operation so that they do not take the form of a sudden shock to the market, but, instead, are reflected so gradu-

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[1] Henry G. S. Noble's Testimony before the Senate Committee on Banking and Currency on S. Bill 3895, 1914, p. 160.

[2] See the section on "Short-Selling" in the *Report of Governor Hughes' Committee on Speculation in Securities and Commodities.*

ally in the price movements that the holder of securities has ample time to observe the situation and limit his loss.[3] Moreover, the advantages of a continuous market to the small investor depend largely upon the existence of short-selling, because in the absence of this practice odd-lot dealers and specialists could not ply their tradé.[4] All arbitrage transactions must necessarily depend upon a short sale in one or the other of the markets involved.[5] Owners of securities who desire to sell at prevailing prices but who are unable to deliver the certificates at once also find it very convenient to have their broker, when he makes the sale, borrow the securities for delivery purposes. Lastly, short-selling proves extremely useful in the marketing of privileged subscriptions,[6] and in the conversion of bonds into stock.[7]

Principles Governing the Short Sale in the Stock Market.—The short sale is inherently a speculative transaction, since the seller sells a security that he *does not yet own* in the hope that that security will subsequently decline so that he may purchase for delivery on his contract at a lower price than that received from the person to whom he originally sold it, and net the difference. In most respects the principles outlined in the preceding chapters, as regards the execution and legal interpretation of the order and the respective rights of the customer and broker, are also applicable to the short sale. But in certain important particulars short-selling differs radically from a speculative account on the "long" or "bull" side of the market. It is the purpose of this chapter to explain these features.

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[3] See Chapter III on "Discounting Function of the Market."
[4] See Chapter X on "Types of Dealers and Brokers."
[5] See Chapter VII on "Arbitraging."
[6] See Chapter XVII on "The Computation and Marketing of Privileged Subscriptions."
[7] See Chapter XVI on "The Conversion of Securities."

Nature of the Order to Sell Short.—No prescribed type of order is demanded by brokers from customers desiring to sell a security short. Customarily the order will read as follows: "Sell for my account and risk 100 U. S. Steel common at 78, and borrow for delivery." Sometimes the term "short-seller" is used in the contract instead of "and borrow for delivery." Either term is intended to indicate that the seller does not own the securities sold, and that the broker must make arrangements to borrow the same in order to make delivery on the contract on the day following the sale. Frequently, however, the order contains no such intimation, the customer expecting the broker to be governed in his actions by the terms of previous dealings, or intending to declare his position after the broker has contracted to sell the securities and before they must be delivered. When the customer's intention to sell short has been made known to the broker, the order, when fully interpreted, becomes the following: "I order you to contract to sell for regular delivery for me and at my risk on the Stock Exchange of which you are a member, according to its rules and customs, 100 shares of the common stock of the U. S. Steel Corporation at 78 dollars or better for every one hundred dollars' worth of the par value of the shares, and I further order you to borrow 100 shares of the same stock and deliver these according to the rules of your Stock Exchange to the purchaser or purchasers under the contract or contracts of sales." [8]

Nature and Terms of the Loan Transaction.—Since the customer has sold securities that he does not own, and yet must make delivery on the following day, he can place himself in a position to take advantage of the decline in price he anticipates in only one way, namely, by borrowing the securities from some one else for delivery purposes.

[8] Eliot Norton, *Short Sales of Securities through a Stock Broker*, p. 17.

This he instructs his broker to do for him. To facilitate such borrowing, exchanges permit their members to borrow securities from one another on any terms they choose. By custom, however, contracts for the loan of securities are governed in nearly all cases by the following conditions.[9]

1. Although acting as agents for their customers, brokers in borrowing securities from each other, regard themselves as principals in the transaction.

2. The loan is a "call" loan, that is, one that can be terminated on demand by either the borrower or lender of the securities.

3. The borrowed stock is assigned in blank by the lender, thus enabling the borrower, as he is authorized to do, to use the securities as he sees fit. In fact, the title to the securities when they are delivered by the borrower to the buyer is usually tranferred by the latter on the books of the corporation. In a general way, therefore, a loan of securities assumes the form of a purchase from the standpoint of the borrower, and a sale from the standpoint of the lender. The significance of this similarity will later be shown to have an important bearing on the clearing of securities through the stock-exchange clearing-house, since brokers on their clearance sheets record securities they borrow as purchases and securities they lend as sales. In reality, however, the loan transaction is regarded by the parties thereto as a loan in the strict sense of the term, the lender continuing in all respects as the owner of the securities.

4. The loan is secured by the borrower agreeing to keep on deposit with the lender at all times the market value of the borrowed securities as measured by the quotations prevailing on the Exchange of which the parties

[9] For a very detailed account of the conditions and principles underlying the loan transaction involved in a short sale see *Ibid.*, especially pp. 8–13.

to the loan are members. Sometimes, although this is not the general practice, additional security in the form of a margin, usually 10 per cent of the par value of the security, over and above the market price may be demanded by the lender. As the price of the security rises or falls, the borrower either pays to the lender or draws upon him for such sums as represent the increase or decrease in the market value.

5. Since the lender continues as the owner of the securities, having merely lent them, the borrower agrees to pay him all dividends, interest, or other accretions to the securities. Having merely given the borrower the use of the securities, it would be unfair to have the lender lose the income thereon between the time they are lent and their return. As will be explained in greater detail later, dividends and other income on securities are treated in the loan account as increases in the market price of the securities. Assessments levied during the continuance of the loan, on the contrary, must be paid by the lender as the owner of the borrowed securities, since the security that will later be returned to the lender will include the amount of the assessment.

6. On all money pledged by the borrower as security for the loan the lender agrees to pay interest, and the rate customarily paid is the one prevailing for call loans at the time. If the security is scarce for borrowing purposes, the lender may demand that the rate of interest be reduced below the prevailing rate for call money, and if it is still scarcer, he may demand that he receive the market price without the payment of any interest at all, in which case the security is said to "loan flat." It may happen, however, that the security is so scarce that, in order to obtain it, the borrower is actually obliged to pay the lender a premium in addition to the purchase price.

The lending of stock at a very low rate of interest on the money given as security, or lending it flat or at a premium, is usually brought about when the market in the security is in an "over-sold" condition. By this is meant that there has been, in view of the normal supply of and demand for a security, an unusually large amount of short-selling. The borrowing demand for the securities, therefore, in view of the limited floating supply, will be so large that a special inducement must be given the lender in the form of a small interest rate or possibly even the free use of the money representing the market price of the securities. In this respect the loan market for securities has at times been manipulated, that is, securities were purposely made to appear very plentiful for lending purposes in order to encourage short-selling, while later the securities were suddenly withdrawn for lending purposes and made to appear very scarce. Again, it may happen that stocks can not be borrowed at all. In such cases, the market is said to be "cornered." Briefly stated, a corner in a stock exists when a short interest therein finds it impossible to obtain the shares necessary to fulfill delivery on contracts of sale previously made. Such a situation is brought about by an operator or clique of operators obtaining possession of all or nearly all the shares of a given stock that are available for delivery purposes, and thus compelling short-sellers to settle at a price determined by those operating the corner.

It remains to be noted that where a broker sells securities short for a customer, that customer, just as in the case of a speculative purchase, is the principal in the transaction. From this it follows that although the customer's broker, the borrower, collects the interest that the lender pays on the purchase price of the stock, the customer might be considered as being entitled to the interest so received. A canvass of a considerable number of brokerage firms shows a variance in practice as regards giving the customer this interest. Certain firms state that they credit the customer with some portion, such as one-half, of the interest obtained from the lender of the stock. Others give no portion of this interest, except interest on the margin, which the customer may have pledged to protect the broker. They do this on the plea that the short sale involves extra trouble and responsibility not met with in the case of a speculative purchase. In some instances the firms state that special consideration is given to those who are short-sellers on a large scale, the interest factor in such cases being very important.

7. Upon terminating the loan the borrower must return the securities and the lender must repay the money deposited as security plus interest at the agreed rate. The borrower, however, need not give back the identical securities originally borrowed, and in fact could not do so because they were used to deliver on a sale and the title thereto has probably been transferred to the buyer. One certificate of stock is as valuable as another for the same amount and of the same kind of shares, and the lender is therefore satisfied to receive back securities equivalent in kind and amount to those originally lent.

Rights and Duties of the Broker in Conducting a Short Sale for His Customer.—After having contracted to sell securities short for a customer, the broker must borrow the securities in accordance with the foregoing conditions governing the loan. He is authorized to borrow from one or more brokers, or even from other persons, as he sees fit. Upon receiving the security from the lender he must deliver them to the buyer in accordance with all the rules and customs of the Exchange on which the sale was made. He must also, on delivering the securities to the buyer, receive their purchase price, which sum he must place to the credit of the customer on his books, and then hand over to the lender as a pledge for the borrowed securities. He also charges the customer with the commission, any transfer taxes that may be imposed, and all legitimate expenses incurred. By custom the broker is allowed to borrow the securities from another customer for whom he may be carrying them, he being regarded in this act as the agent of such customer. He cannot, however, legitimately lend his own securities for delivery on a customer's short sale, since to do so would violate the principle of law that "the agent cannot deal as a principal with his principal."

In maintaining the loan for the customer the broker is governed by the law of agency, and must exercise due care and at all times act in good faith. But the loan need not be maintained indefinitely; it can be terminated after a reasonable time upon proper notice to the customer. One lender may also be substituted for another by the broker at any time, and full authority is given to him to pay any premium that may be necessary to effect a continuation of the loan.

The Customer's Liability to Protect the Broker.—In the making and maintenance of a loan of securities brokers, as already stated, treat each other as principals, and the borrower not only agrees to return the securities but to pay the lender all dividends and interest that may become payable thereon during the period of the loan, and at all times to keep on deposit with him their market price. Manifestly, the assumption of these obligations justifies the borrowing broker in demanding as security a margin from the customer on whose behalf the obligations were assumed. As in the case of a speculative purchase this margin is usually 10 to 20 per cent of the par value of the securities, but may be more or less, depending upon the demands of the broker. Out of this margin the broker is authorized to take his commission and to pay all legitimate disbursements that he is obliged to make on behalf of the customer. If the price of the securities rises above that at which they were originally sold, the margin is considered as being reduced by the amount of the rise. Whenever, owing to any of the aforementioned reasons, the margin is reduced the customer is bound, when called upon by the broker to do so, to restore it to the agreed percentage. Should the customer fail to respond to such margin calls, the broker can purchase the securities in the open market, return them to the lender, and terminate the transaction. In case, however, the price of the securities falls below that at which they were originally sold, the customer is entitled to reduce his margin by the amount of the decline.

Termination of the Transaction by the Customer.—Although borrowing the stock in his own name, the broker in reality acts as agent for the customer. It follows therefore, that the customer may at any time order the broker to purchase the securities and terminate the loan. The relation between customer and broker in this respect is fully stated by Norton in the following words:[10]

"At any time after the loan has been made the customer has the right to have the loan closed and the transaction brought to an end. It is to enable him to exercise this right that the loan is required to be made so that it can be ended at any time. Though the loan is made in the stock broker's name, yet it is made for the customer, and consequently this right is the right of one of the principals in a call loan to bring it to an end whenever he likes ....

To exercise this right all the customer has to do is to provide the stock broker with the securities requisite to satisfy the loan and direct him to close the loan with them. Since the stock broker is the customer's agent to close the loan, he must obey this direction and must act with due

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[10] Eliot Norton, *op. cit.*, p. 41.

care and good faith. .... The way the customer usually gets and intends from the beginning of the transaction to get the securities needed to close the loan is to buy them. And since it is obviously more convenient to do so through the stock-broker who originally sold them, the customer almost invariably does so."

Operation of the Short Sale Illustrated.—Having in mind the preceding discussion of the principles governing short-selling, the manner of conducting a short sale may now be illustrated. For this porpose let us assume the following transaction:

On October 1, a customer orders his broker "X" to sell short for him on the New York Stock Exchange, regular way, 100 shares of a given stock at 75 (par value of shares $100). The order is executed at this price, the shares being sold to broker "Y." The customer agrees to protect the broker with a margin of 10 points, and further agrees to keep this margin good.

Broker "X" borrows the shares from another broker "A," but on October 8, "A" asks to have the loan discontinued. During the week of October 1 to October 8 call money in New York rules at three and one-half per cent and the stock rises gradually to 86.

On October 8 "X" borrows the stock from "B." On October 9 call money rises to five per cent, and on October 10 to six per cent, but on October 11 reacts to four per cent. On October 11 the stock sells "ex-dividend" $1 a share. The stock in the meantime has declined to 80.

On October 14 "B" asks for the return of the securities and "X" enters into a loan transaction with broker "C." Call money is still ruling at four per cent. On October 15 an assessment of $10 a share becomes due (the stock not being full paid).

By October 21 the stock has declined to 78, and on that date the broker closes the transaction at this price, the customer having given an order to this effect.

According to the terms of the sale, the transaction being "regular way," "X" must deliver the 100 shares to the purchaser "Y" before 2:15 P. M. on October 2, that is, on the following business day. To obtain the shares "X," contracting in his own name, borrows the stock from "A" on the best terms then obtainable, the shares being assigned by "A" to "X" so that the latter may use them as he pleases. Upon receiving the shares "X" gives "A" a check for $7,500, the market price of the stock. Although "A" may insist upon "X" giving him further security for the loan of the stock, such a course is not generally followed among brokers. The $7,500 given to "A" by "X" amounts to nothing more than a call loan secured by the 100 shares as a pledge and can be terminated on any day by either party. For this reason, although "A" (the lender) continues to remain the owner of the 100 shares, "X" as the pledgee, having had the stock assigned by "A," has the right to do as he sees fit with the pledged shares as long as sufficient stock remains under his control. Since "X" 's customer is short of the stock and can be called upon to deliver it, "X" is justified in turning the borrowed stock over to the purchasing broker "Y," who may have it transferred if desired. "X," therefore, delivers the borrowed shares to "Y" in fulfillment of the sale, and receives from him the purchase price of $7,500. The sale and delivery having been completed, "X" charges his customer with the customary commission together with the State and Federal transfer taxes of $4, and credits him with the amount ($7,500) of the purchase money received, the margin of $1,000 deposited, and interest on that margin. It is thus seen that the money received is treated by "X" exactly as though the customer owned the securities that were sold.

When on October 8 the stock has risen to 86, "A" is entitled to another $1,100 from "X," since it is a condition of the loan transaction that the borrower must keep with the lender the market price of the securities borrowed. This additonal sum "X" obtains by calling on his customer for additional margin to the same amount, and the latter having agreed to maintain a 10-point margin is obliged to comply with the demand.

"A," having the privilege of terminating the loan at any time, called upon "X" on October 8 to deliver back the stock. To do so "X" exercises his right to shift the loan transaction to some one else, and borrows the stock from "B," to whom he gives his certified check for $8,600, the then market price of the stock. "X" now terminates his loan with "A" by handing over to him the 100 shares received from "B," and in turn receives back from "A" the $8,600 plus interest at three and one-half per cent upon the different amounts held by "A" between October 1 and October 8.

Since call money ruled at three and one-half per cent when "X" borrowed the stock from "B" on October 8, "B" pays this rate to "X" on the $8,600 deposited. But this loan of money is, as already explained, a demand loan, and it follows that as the interest rate for call money changed, the rate paid by "B" to "X" correspondingly went up or down each day, as the case might be, rising to five per cent on October 9, six per cent on the 10th, and dropping to four per cent on the 11th. But, in the absence of an agreement to the contrary, "X" does not credit the interest thus received from "B" to his customer's account on the ground that its retention by himself is justified because of the additional trouble involved in conducting this type of transaction.

When the stock fell from 86 to 80, "X," being only obliged to keep with the lender the market value of the stock, calls upon "B" to return $600, thus reducing the money loan to $8,000. The customer, likewise, can draw upon "X" for $600, thus reducing his margin to 10 points as had been agreed.

When the dividend of $1 a share is paid on October 11, it is credited by "X" to "B's" account, since "B" is still the owner of the shares, having merely lent them. Since the amount of the dividend is deducted from the market price of the stock as soon as it sells "ex-dividend," "X" on October 11, could technically demand $100 from "B" to offset the drop in price, returning this money to "B" on the day that the dividend is payable. In general practice, however, such minor fluctuations are ignored. "X" must also debit his customer with this $100 dividend, while "B," instead of receiving it from "X," merely deducts that amount from the loan. The shares originally borrowed by "X" from "A," but now owed to "B," it will be recalled, were sold and delivered to "Y," who, having transferred it on the books of the corporation, is entitled to the dividend. "B," however, as owner of the shares he lent, is also entitled to his dividend, although his name no longer stands on the books of the corporation. It follows, therefore, since "B's" shares have been used for "X's" customer to fulfill delivery on an actual sale of the stock and all future dividends thereon to "Y," that the customer is responsible to "B" for all dividends that become payable on the stock during the continuance of the loan.

On October 14 "B" exercises his right to terminate the loan and "X," in order to return the 100 shares, borrows that number from "C," giving him the then market price of $7,900, the price now being 79 because of the payment of the $1 dividend. The stock is handed to "B" who returns to "X" the loan of $7,900 plus interest on $8,600 at three and one-half per cent for one day, at five per cent for one day, at six per cent on $8,000 for one day, and at four per cent on $7,900 for three days.

On October 15 an assessment of $10 per share becomes due, and an adjustment becomes necessary that is just the reverse of that prevailing in the case of dividends. "C," as the owner of the stock, is liable for the payment of this assessment of $1,000. Moreover, since $10 has been paid on each share, the price of the stock rises from 79 to 89. Instead of "C" paying "X" the $1,000 assessment, however, and calling for that sum from "X" to cover the rise in the price of the stock, he simply marks up his loan by that amount, namely, to $8,900. "X," on the other hand, credits his customer with a like amount.

During the interval between October 15 and October 21 the stock, according to our illustration, declined from 89 to 78. As the decline proceeded "X" was entitled to call on "C" for a return of such amounts of money as would keep the loan equal to the market value of the stock. By the time the stock had declined to 78, "C" had been called upon by "X" to return $1,100, thus reducing the loan from $8,900 to $7,800.

On October 21, with the stock at 78, broker "X" is ordered by his customer to close the transaction at that price. This "X" does by buying the stock in the open market. Upon receipt of the shares on the following day from the seller, "X" pays therefor $7,800. The shares thus received are then handed to "C" who returns to "X" the loan of $7,800, plus interest at the rates that have prevailed during the interval. While the stock was declining "X's" customer could also have asked for a corresponding reduction in his margin deposit, but we will assume that such a reduction was not requested.

The transaction having been terminated, "X" will render a statement to the customer crediting him with (1) his original margin of $1,000; (2) additional calls for margin of $1,100 to which he responded; (3) the assessment of $1,000; (4) interest on the assessment and the cash deposited as margin; and (5) the price received for the stock when originally sold, namely, $7,500 less commission and transfer taxes of $4; and debiting him with (1) the dividend of $100, (2) a withdrawal of $600 of margin, and (3) the purchase price of the stock, namely, $7,800, plus the customary commission. As previously stated, brokers sometimes credit their customers with a portion of the interest received on the money loaned on the borrowed stock, but no such assumption was made in our illustration. It should also be stated that, as between brokers themselves and between brokers and customers, it is not customary in everyday practice to insist upon an adjustment in margins to meet all the small and immaterial fluctuations that may occur.

References

Eliot Norton, *Short Sales of Securities through a Stock Broker.*
J. R. Dos Passos, *Treatise on the Law of Stock Brokers and Stock Exchanges*, vol. I, Chap. III, Section 7, pp. 323–334.

CHAPTER XIII

QUOTATION SERVICE OF EXCHANGES

Importance of Speed in Transmitting Quotations.—In probably no other business does promptness play so important a rôle as in the stock market. Arbitraging in all its phases, for example, is dependent upon the making of transactions in at least two different markets, often widely separated, at approximately the same time. Investors residing in all sections of the nation desire to have at least a daily record of the market value of the stocks and bonds they own. Traders in securities demand even more, since it is their desire usually to place their buying and selling orders with reference to the prevailing price, and a few minutes difference in time may represent a material change in this respect. Bankers, brokers, and other creditors, holding numerous classes of security as collateral for loans, likewise find it imperative to know at all times the market value of the securities thus held. As has been aptly said by Pratt:[1] "Most of the tools of Wall Street are time savers," and "the very life of the Street seems to depend upon accurate, immediate, and continuous quotations from the Stock Exchange." While reference was made by Pratt to the New York Stock Exchange, owing to the many important issues listed there, the thought is equally applicable to the numerous minor exchanges of the country. Even with respect to unlisted securities, the immediate quotation service of our organ-

[1] Sereno S. Pratt, *The Work of Wall Street*, p. 182.

ized Exchanges is highly desirable, since price tendencies in these markets are nearly always reflected promptly in the unlisted group.

The Ticker Service.—Continuous quotations are furnished by means of a device known as the "stock indicator" or "ticker." The exact nature of this instrument need not be elaborated upon, owing to its presence for inspection in practically every brokerage house, bond house, bank, or trust company of any importance, as well as in prominent hotels and other public places. Suffice it to say that by means of this instrument stock and bond transactions made on the floor of the Exchange are immediately printed, by means of a system of symbols and abbreviations, upon a narrow ribbon of paper, known as the "tape." The expression "immediately" is here used in a relative sense. It necessarily takes some time to collect and transmit numerous quotations registered in a big market. Accordingly, the impressions on the tape appears slightly later than the actual occurrence of the transactions they represent. On very busy days the New York tape may be even 10 minutes later than the market. Such a condition, however, does not occur with respect to the smaller exchanges. In fact, as regards securities listed on both the New York and other exchanges, the tape recording the transactions occurring on the smaller exchange is apt, on very active sessions of the New York Stock Exchange, to be first in indicating the drift of prices in the New York market. Under normal conditions, however, the ticker service manages to keep remarkable pace with the course of the market, and is rarely more than two or three minutes behind the actual transactions. Reference should also be made to the fact that in the New York market, in the interest of economy of time, two ticker services are now in use, one for stocks and the other for bonds and general announcements.

As the sales take place, reporters employed by the Exchange, obtain the quotations and, referring to the New York Stock Exchange, take them to telegraph stations conveniently located in the Board Room. From here the quotations are sent to a special room occupied by the employees of two ticker companies,—the New York Quotation Company, owned and controlled by the Exchange with a view to supplying its own members with quotations, and the Gold and Stock Company, a private company, operated independently of the Exchange and organized to sell quotations to any client approved by the Exchange.

Use of Abbreviations.—Reference has been made already to the use of an elaborate system of symbols and abbreviations. No other method is practicable, owing to the enormous number of stock and bond issues currently traded in. Were the tape to record the full name of all the corporations, as well as print full words to express the particular security, the number of shares sold, the price, etc., the ticker would soon fall so far behind the market as to be outdistanced by even the daily press. Instead, every effort is made to use abbreviations to the greatest degree possible, consistent with clearness and accuracy. To the novice these abbreviations are meaningless, but to those actively connected with the business each impression on the tape has a definite significance.[2] In fact, many of the abbreviations for corporate names become so generally known to the Street as to result in the application of nicknames to the corporations in question.[3]

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[2] To refresh the memory, the numerous abbreviations are printed on a large card that is located conveniently near the ticker so that tape readers may refer thereto.

[3] Among active stocks on the New York Exchange mention might be made of Missouri Pacific, Northern Pacific, and People's Gas, Light and Coke Company. The ticker abbreviations for these cor-

For a detailed description of abbreviations used by the New York Stock Exchange the reader is referred to Appendix IX of this volume. Over 1,500 stocks and bonds are quoted on the New York ticker. To each of the corporations involved a special abbreviation has been assigned.[4] But in addition to these, numerous symbols are employed to signify the sale of 100 shares, the sale of more or less than 100 shares, the making of an offer or bid without a sale, the reporting of a sale outside of its proper place, the reporting of an error, the recording of three-day contracts, etc. Again, some 57 abbreviations are used to designate certain much-used words and phrases, such as adjustment, assessment paid, clearing house, convertible, deferred, flat without interest, general mortgage, guaranteed, first, second, third, income, mortgage, new series, opening of books, preferred, registered, scrip, sinking fund, stamped, tax exempt, under the rule, when issued, ex-coupon, ex-dividend or interest, etc. We are informed that the number of characters printed on the New York

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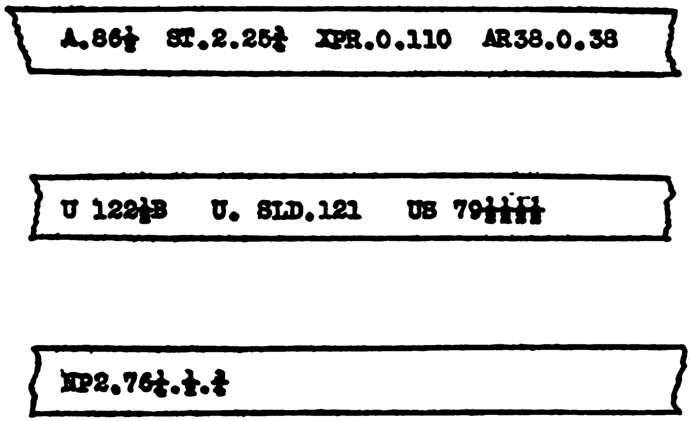
porations are respectively MP, NP, and PO. Hence, the popular nicknames of these corporations are "Mop," "Nipper," and "Post Office." See Sereno S. Pratt, *op. cit.*, p. 185.

[4] These abbreviations are arranged alphabetically. As examples the following abbreviations, listed under the letter W, are cited:

W	Western Union Telegraph Co.
WA	Wabash Ry.
WB	Weyman Bruton Co.
WBR	Weber & Heilbronner
WF	Wells Fargo Express Co.
WHI	White Motor Car Co.
WHP	White Oil
WIL	Wilson & Co.
WK	Westinghouse Air Brake Co. (The)
WKN	Wickwire Spencer Steel Co.
WL	Wheeling & Lake Erie Ry.
WM	Western Maryland Ry.
WOR	Worthington Pump & Machine Corp.
WR	Western Pacific R. R. Corp.
WR	Wisconsin Central Ry.
WW	Woolworth & Co. (F. W.)
WX	Westinghouse Elec. & Mfg. Co.
WY	American Woolen Co. of Mass.

tape averages about 225 per minute and 65,000 per day.[5] In past years the number of impressions on the tape per year has ranged from a minimum of 7,000,000 to a maximum of nearly 13,000,000. Reference should also be made to the fact that the tape serves as a timekeeper for the market. At 14 minutes after two P. M. the words "Delivery Time" are printed on the tape, and shortly after the lever of the instrument will give 15 distinct beats.

FIG. 1.—SAMPLE SECTION OF STOCK TAPE.



At the end of the 15 beats it is 2 hours, 15 minutes P. M., and the close of the recognized time for the settlement of transactions made on the Exchange.

A sample section of stock tape is reproduced in Figure 1. Interpreting the abbreviations used, the several sales read as follows: 100 shares of Atchinson, Topeka and Santa Fe Ry. at 86½; 200 Chicago, Milwaukee & St. Paul at 25¾;[6] an offer of United States Steel preferred, with-

[5] H. S. Martin, *The New York Stock Exchange*, p. 213.
[6] Where more or less than 100 shares are sold the number of shares will precede the price.

out any bid;[7] 100 American Smelting and Refining at 38, and an offer at 38; a bid for Union Pacific at 122½ without an offer;[8] a sale of Union Pacific not reported in its proper place;[9] 100 United States Steel common erroneously reported and to be eliminated;[10] 200 Northern Pacific at 76¼, 100 at 76½, and 100 at 76¾.

Other Agencies for the Distribution of Quotations and Financial News.—Numerous other agencies supplement the ticker service in distributing stock and bond quotations far and wide. In their combined effect all these agencies represent so comprehensive a quotation and news service as to enable even the remotest sections of the country to remain constantly acquainted with the daily happenings in our leading financial centers. Briefly described these supplementary agencies are:

News Tickers.—News tickers are operated on the same principle as the stock ticker, except that the band of paper on which the information is printed is about five and one-half inches in width. They are operated by news bureaus, and distribute current market information, such as stock and bond prices, money rates, dividend declarations, etc., as soon as the information is obtained at the central office. Whereas the stock ticker furnishes quotations promptly, the news ticker serves to acquaint the street with special occurrences that may vitally influence individual securities or the market as a whole. Most of our large cities possess such a service, and its use as an accurate and rapid news distributor is generally regarded as indispensable.

News Bureaus Operating a Bulletin Service.—Such bulle-

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[7] An offer alone without a bid is preceded by an O and a dot.

[8] A bid alone without an offer is followed by the letter B.

[9] When a sale is not reported in its proper place, the price will be preceded by the abbreviation SLD.

[10] When an error has been made by the reporter, or, in printing, the last letter or figure is repeated several times, indicating that the quotation is to be thrown out.

tins, or news slips, are issued every few minutes by certain well known news bureaus,[11] and are designed to supply detailed market information in advance of the various editions of the daily papers. In fact, many of the financial items published in newspapers seem to be reproductions of the information as originally furnished by these news bulletins. As soon as printed, the slips are distributed by messengers to the subscribers for the service. Every conceivable kind of news, deemed important from a market standpoint, such as market tendencies, crop reports, corporation earnings, insolvencies, dividend actions, etc., are fully set forth. When received, the slips are usually kept in pads by brokers and others for the perusal of their clients, who thus at all times during business hours have available a full record of current financial events. It may be added that various subscribers, especially brokerage firms, desire vital information even in advance of the distribution of such news slips, and accordingly the bureaus operating this type of service telegraph the news to such subscribers.

Telegraph, Telephone, and Cable.—The telegraph, telephone, and cable are indispensable to our organized markets, both stock and produce, and their use is universal. As a means of transmitting out-of-town orders and of sending market information very long distances, the telegraph exceeds in usefulness all other agencies. Pratt estimates that 46 per cent of all telegraph messages transmitted in the United States apply to speculative transactions.[12] It is customary for brokerage houses located in the stock-exchange centers to connect their out-of-town branch offices by private wire, and in some instances important houses maintain a considerable number of such private wires.

The telephone serves the same general purpose as the

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[11] The New York News Bureau and Dow, Jones & Company are the two well known agencies operating in the Wall Street district.

[12] Sereno S. Pratt. *op. cit.*, p. 190.

telegraph, except in a more local sense. Pratt summarizes the situation by stating that about 500 members of the New York Stock Exchange maintain private telephonic connection to the Board Room, and that practically all orders executed in the Exchange are received at the Board Room from their offices by telephone.[13] To effect greater speed and convenience all active firms possess private telephone booths on the Exchange. Not only does this enable them to receive orders promptly from their offices, but it serves to keep these offices constantly advised of all the details relating to their transactions, such as price, name of the other party, etc., immediately upon the execution of the orders to buy or sell. The office is thus placed in a position to notify immediately the customer, and to proceed with the completion of its office records.

Just as the telegraph has been instrumental in annihilating distance in this country and in thus bringing all sections within the immediate reach of our large central markets, so the cable has been instrumental in annihilating distance between nations and in bringing practically all sections of the world within easy reach of any of the great international exchanges. The rapidity with which arbitraging between New York and London is conducted has already been explained, and the practice is manifestly dependent upon a highly organized system of cabling orders between these markets. We are told that on the average at least 1,000 cable messages are sent daily from the Wall Street district. To facilitate the practice, elaborate codes have been prepared, so that one or a few words will suffice to convey the fullest instructions. In the interest of secrecy and economy, it may be added, many concerns are using their own private codes.

Newspapers.—Although slower in their operation than

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[13] Sereno S. Pratt, *op. cit.*, p. 192.

the preceding agencies, our daily newspapers constitute the chief reliance of the general public for market news. There is hardly a daily newspaper in the country that does not publish at least a list of quotations, such as opening, high, low, and closing prices, sufficiently large to enable the reader to ascertain the price tendency of the market. In most of our larger cities practically every daily paper devotes one or two full pages to the security and produce markets, while in the metropolitan centers from three to four pages are thus used. In the larger cities nearly all newspapers issue various editions, giving the latest quotations obtainable at the time of printing. It has been estimated that about two million readers regularly consult the financial page of our daily press. It has also been estimated that about one-tenth of newspaper matter refers to security-market transactions.

Trade Journals and Market Reports.—Certain interests in the market, such as bankers, brokers, operators, and investors necessarily desire the benefit of expert analysis with respect to market conditions and the financial standing of individual corporations. Such a special service is rendered to-day by certain trade journals that are devoted almost exclusively to financial matters, by statistical agencies that conduct a regular service for their subscribers, and by the publishers of voluminous manuals that give the financial organization and the income-producing record of practically all corporations whose securities are listed on some exchange. The information furnished by these sources represents the analytical work of experts, and is intended to free the business man from the necessity of consulting an innumerable number of sources of information. In the absence of such a service, it is clear that many firms and individuals would labor under the difficulty of acquiring a large reference library, as well as the expense of employing a group of experts.

Market Letters.—As supplementing all the preceding agencies for the distribution of market news, mention should be made of the immense amount of literature issued by brokerage houses, bond houses, banks, market letter writers, etc. in the form of circular letters and booklets. Many investment houses have statistical departments for the preparation of such material, and at regular intervals send a market letter to all their clients. Moreover, when floating bond or stock issues practically all the syndicate members interested in the flotation circularize their prospective clientele with printed circulars containing a detailed statement of the financial condition of the corporation whose stock or bond issue they are advertising.

Stock-Exchange Regulation of Quotations.—In supplying quotations to their members and the public, stock exchanges have always shown a determined policy of guarding the quotations against misuse and of forestalling their employment by bucket shops or competing institutions. In fact, nearly all instances of litigation with respect to the matter show that the complainant had been denied a ticker service by the Exchange on the ground that he was bucketing orders or otherwise disobeying Exchange regulations.

Control of the quotation service, using the New York Stock Exchange as an illustration, rests with a special standing committee of five members, known as the Committee on Quotations. This Committee, to quote the Constitution of the Exchange, is given "charge of all matters relating to quotations, and shall approve or disapprove any applicant for quotations." Besides furnishing quotations to their own members, exchanges also sell them to telegraph companies which in turn, subject to restrictions imposed by the exchanges, distribute them to subscribers approved by the Quotation Committee of the Exchange. In all instances such quotations are distributed by the telegraph companies under the terms of a contract with the exchange in question, which, in addition to other matters, provides that delivery of quotations must be strictly limited to subscribers approved by the Exchange and that the contract may be terminated at the will of the Exchange.

Non-Official Character of Quotations.—While every effort is made by the various exchanges to furnish their quotations to the public promptly and accurately, it is important to remember that the quotations thus furnished are not guaranteed. To assume responsibility for their correctness would involve any exchange, despite every possible effort in the interest of accuracy, in constant litigation and explanation.

At the close of each day's business a full record of all transactions on the New York Stock Exchange, and this practice is also followed by other leading markets, is printed for general distribution. Publication of this record, however, is a purely private undertaking by a printer who has the Exchange's authorization to perform the service and who is obliged to correct promptly any error that may be discovered. In practice the record has proved so correct as to give it a semi-official standing. Yet, despite this fact, the purely private business character of the record precludes its being regarded as an official record coming from the Exchange.

Legal Control of Quotations by Stock Exchanges.—Attention has been called already to the facts that American stock exchanges possess the right to control the publication and distribution of their quotations, and that such quotations constitute one of the important property rights of the exchanges. The courts in determining the question have taken the position that our Stock Exchanges are "private, voluntary, unincorporated associations"; that their status is essentially private in character; that they "have sought no special privileges from the state except that protection which the law affords to every citizen"; and that they "are, therefore, just as much the master of their own business and of the method of conducting the same as any private individual within the state." The courts have taken the stand that a stock exchange "may make public the transactions which occur within its walls or may refuse all information in respect thereto." So long as no law is violated the courts have held that stock exchanges are privileged to conduct their business as they please.

Despite the unanimity of court decisions, however, some opposition has manifested itself against the contention of the exchanges that they possess absolute property rights in their quotations. Nearly always the claim is that telegraph companies are common carriers and as such render equal service to all who offer to pay therefor the regular charge. Sometimes, even, as during the hearings on Senate Bill 3895,[14] the claim was made that stock exchanges have become so intimately associated with the financial life of the community as to make them *quasi*-public in character. Claims like the foregoing were regarded by the Hughes Committee on Speculation in Securities and Commodities as hampering exchanges immensely in their efforts to deny the use of quotations to those who wish to employ them for improper purposes. Full power of exchanges to approve all subscribers for quotations, and to control the distribution of quotations through telegraph companies or other channels, was conceded by the Hughes Committee as being distinctly in the interest of the public. Recommendation was even made that "a law be passed providing that, so far as the transmission of continuous quotations is con-

[14] Hearings before the Senate Committe on Banking and Currency on S. 3895, 63d Congress, Second Session, 1914.

cerned, telegraph companies shall not be deemed common carriers, or be compelled against their volition to transmit such quotations to any person; also a law providing that if a telegraph company has reasonable ground for believing that it is supplying quotations to a bucket shop, it be criminally liable equally with the keeper of the bucket shop. Such laws would enable these companies to refuse to furnish quotations upon mere suspicion that parties are seeking them for an unlawful business, and would compel them to refuse such service wherever there was a reasonable ground for believing that a bucket shop was being conducted."

References

A. W. Atwood, *The Exchanges and Speculation*, Chap. VIII on "Use of Information on the Exchanges."

H. S. Martin, *The New York Stock Exchange, passim.*

Sereno S. Pratt, *The Work of Wall Street*, Chap. XII on "Tools of Wall Street."

William C. Van Antwerp, *The Stock Exchange from Within, passim.*

CHAPTER XIV

STOCK-EXCHANGE CLEARING HOUSES

Origin of Stock Exchange Clearing Houses.—Stock-exchange clearing systems had their origin some 20 years before the New York Stock Exchange saw fit to establish its system in 1892. The first establishment of such a system occurred in Frankfort, 1867, and the Berlin, Hamburg, Vienna, and London Stock Exchanges adopted the system in 1869, 1870, 1873, and 1876, respectively. In 1886 the Consolidated Stock and Petroleum Exchange of New York introduced its system, which is said to have been "the first system to clear both stocks and money for a board of brokers,"[1] although the Philadelphia Stock Exchange had previously taken some steps along this line.[2]

Until 1892 all attempts to establish a clearing house in connection with America's leading exchange failed, largely because of the fear that a clearing system would reveal to the clerks operating it the business secrets of brokers. In that year, however, the banking interests of New York, having become alarmed at the enormous amount of temporary credit given to brokers through the certification of their checks, threatened to curtail such required certification unless the Exchange adopted some means to reduce its volume. This action on the part of the banks forced the Exchange to adopt a clearing system, and the establishment of its clearing house dates from May 17, 1892. At the start only

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[1] A. D. Noyes, Stock Exchange Clearing Houses, *Political Science Quarterly*, vol. viii, p. 257.
[2] *Ibid.*, p. 259.

four stocks were cleared; by 1893, 21 were on the list, while at present the number is 233.

The General Purpose of American Stock-Exchange Clearing Houses.—The earlier clearing systems assumed the form of the so-called "ringing out" of contracts, which still prevails as one of the methods of settlement on practically all American produce exchanges. "A" having sold stock to "B," which "B" in turn sold to "C," the three brokers could personally adjust their deals so that "A" would make delivery of the stock directly to "C." While the contract price of the two deals might be different, all money balances would be settled individually between the brokers. Such a system manifestly has its drawbacks when considered in connection with a large market, like the New York Stock Exchange, with its active membership of about 500 and with its annual sales of stock ranging from 100 to over 200 millions of shares. To accommodate such a situation it is desirable to have a clearing system that will improve on the "ringing out" plan in the following respects, namely: (1) be applicable to the entire membership of the Exchange; and (2) clear transactions as regards both securities and money.

The clearing-house system of the New York Stock Exchange meets both of these requirements. It has been so arranged as to enable all brokers to clear all their clearing-house transactions on their own clearing sheet. In case the broker's purchases and sales of all the different kinds of securities in which he traded during the day are equal, he finds it unnecessary to receive or deliver any stock, and instead of paying a separate check for each lot of securities bought and receiving separate checks in payment for each lot of securities sold, all his transactions for the day are settled by a single check or draft representing the difference between the total value of the purchases and sales. If the difference shows a debit balance, it is paid by check to the clearing house, and if a credit balance, it is obtained by drawing a draft on the clearing house. In case, however, the broker's total purchases and sales for the day do not balance, only those amounts of the various securities appearing on both sides of the clearing sheet can be cleared. The balances of securities that may appear on one side or the other of the sheet must actually be received or delivered at a fixed "delivery" or "settlement" price, published by the clearing house in advance of the making up of the clearing sheet. The totals of these fixed delivery items are taken care of by a system of debits and credits in the clearing house. As will be explained in detail later, no injustice results from this practice, because the brokerage firm in making up the statement automatically credits or debits itself on the clearing sheet for any loss or profit (for which, of course, it is not responsible), that may arise because the arbitrary settlement price happens to be higher or lower than the contract price. And all such debits and credits by all brokerage houses concerned in the transactions will necessarily offset one another so that the sum total of all checks sent to the clearing house will just equal all drafts upon it.

The New York Clearing House clears stocks and liberty bonds and if a broker has dealings in both, it is necessary for him to make up two clearance sheets because both types of securities cannot be entered on the same sheet.

Legality of Clearing Houses.—Notwithstanding their manifest advantages, the establishment of clearing houses was opposed on the ground that the cancellation of deliveries on contracts appearing on both sides of the clearing sheet is a mere settlement of differences and is contrary to the state law requiring in all contracts "an intent to deliver." Numerous decisions, however, relating to both stock and produce exchanges, uphold the legality of clearing systems in all cases where actual delivery on contracts is *enforcible.* Such enforcement exists under the rules of the exchanges, and all contracts made thereon are entered upon with "intent to deliver" since the seller must consider himself, at the time of contracting, as bound to make delivery if the buyer so requests. As has been stated:[8]

"The clearing house is the agent of both of the parties, and where a selling broker sends to it his account of sold shares, the clearing house in such a case is authorized by the buying broker to accept such shares, and if such an account were to contain nothing but sold shares, the clearing house, as the agent of a buying broker, would simply direct the selling broker to deliver the shares to his (the clearing house's) principal; but where the account contains bought as well as sold shares, the clearing house then, acting as the agent of both the brokers, sets off one transaction as against the other. This the principals themselves might legally do, and consequently it is obvious that their agents may do the same. In fact, the sheets sent to the clearing house by the different brokers are substantially nothing but bills of sales made to them, and sent to their common agent, the clearing house."

The Supreme Court of the United States, in the case of Clews *v.* Jamieson, 182 U. S. 461, (1901), also declared the clearing-house rules of the Chicago Stock Exchange to be legal in their application to all contracts where there is no evidence of an intention to merely settle differences. "To say that such rules afford wrong ground would infer an understanding between the parties doing business subject to them—that their contract was not one of actual sale but merely one to speculate upon 'differences'—is, in our opinion," to quote the Clews *v.* Jamieson case, "to presume an illegal contract against its plain terms, and without any sound basis for the presumption."

[8] Arthur and George Biddle, *A Treatise on the Law of Stock Brokers*, p. 61, 1882.

Clearing houses, however, cannot be used as a cover for fictitious transactions and their records; in fact, quite to the contrary, to quote Dos Passos,[4] "they can (in the absence of proof by the brokers' books, showing the names of parties from whom they bought or to whom they sold stock, that the transactions were real) be used in evidence for the purpose of showing that, as the majority of the alleged transactions were never cleared, they never in fact occurred." Even the practice of "ringing out," prevailing chiefly on produce exchanges and by which brokers who have acted for buyers and sellers in the making of contracts for future delivery cancel their contracts and adjust the differences in price, has been considered legal so long as it is not used to promote a gambling contract.[5]

Management and Organization of the New York Stock Exchange Clearing House.—For many years the New York Stock Exchange Clearing House was run by the Exchange itself. A committee of five, appointed by the Board of Governors, supervised its operation. However, the old Clearing House did not appear capable of handling the demands that were to be made of it, so the Exchange passed an amendment to its Constitution on December 26, 1918, which authorized the Governing Committee to organize a corporation for the purpose of (1) "performing the duties of the existing Stock Exchange Clearing House, and (2) any other functions which the Governing Committee saw fit to assign to it." In pursuance of this amendment a corporation, known as the "Stock Clearing Corporation" was formed during the year 1919, with a capital of $500,000 divided into 5,000 shares, all of which are controlled by the New York Stock Exchange.

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[4] J. R. Dos Passos, *Treatise on the Law of Stock Brokers and Stock Exchanges*, vol. 1, p. 408.
[5] See legal citations in *ibid.*, p. 409.

The new Clearing Corporation greatly increased the services rendered the broker by providing for a means of clearing money balances on securities received and delivered, and also by making provision for the clearing of collateral call loans. The old Clearing House was left intact with the exception of a few modifications and was designated the "Night Clearing Branch." For the purpose of clearing the money balances and the collateral call loans a new section was established, known as the "Day Clearing Branch," and from this point on it will be indicated at which branch the various operations take place.

All transactions in securities designated by the Clearing Corporation must be made through the Clearing House unless otherwise specially stipulated in the bid or offer, or otherwise agreed upon. Members of the Exchange are admitted to clear in their own names if they have an office near the Exchange with a proper clerical force; but members without such facilities may, on the written engagement of a fellow member with proper facilities, have him handle their transactions through the Clearing Corporation. At present there are over 360 clearing members.

Only 100 share lots and multiples thereof can be cleared. The Clearing Corporation designates from time to time which securities can be cleared, the list being confined to those securities that are most active. To pay the expenses of operation a small charge is imposed on (1) every 100 shares on each side of the clearance sheet; and (2) every $1,000 of value of security balances to receive or to deliver. Firms using the Clearing Corporation are also provided with all the forms used, namely, clearing sheets, clearance tickets, tickets for the settlement of balances, drafts, etc. Fines are imposed for delays in delivering such forms or for mistakes in the facts entered thereon.

The Method of Clearing Securities Explained.—In illustrating the operation of the New York Stock Clearing Corporation let us assume that on a given day a brokerage firm "X" makes 15 transactions as recorded in Figure 2. According to the assumed illustration, this firm purchased, respectively, from firms "A," "B," "C," "D," "E," "F," and "G" seven lots of stock, aggregating 1,600 shares, and on the same day sold respectively to firms "H," "I," "J," "K," "L," "M," "N" and "O" an equal number of shares of the same corporations. Now let us see how "X" settles these transactions through the Clearing Corporation.

Comparison of Transactions.—Prior to the sending of the above record or clearing sheet to the Clearing House it is essential that "X" should make sure that there is no misunderstanding between itself and any of the buyers and sellers with whom it made contracts as regards the price and number of shares involved in any of the 15 transactions. Such misunderstandings might easily arise, owing to the usual excitement on the Exchange and the limited memoranda that brokers find it possible to make. Their occurrence, unless promptly discovered in advance of clearing the transactions, will cause much delay to the Clearing House, and will subject the firm at fault to heavy fines.

To avoid all such misunderstanding and to furnish a clear record of the day's business, the rules of the Clearing Corporation, which are held binding by the Stock-Exchange rules, provide that as regards all Clearing House transactions "clearance" or "exchange tickets" must be exchanged between the buyers and sellers. Prior to the establishment of the new Corporation the seller was obliged to send to the office of the buyer an exchange ticket (printed in red on white paper), and the buyer, if he confirmed the correctness of the transaction, gave to the seller in exchange a corresponding ticket (printed in black on yellow paper). This operation has now been centralized by the establishment of a "Distributing Department" in the Night Clear-

FIG. 2.—ILLUSTRATION OF A CLEARING SHEET WHERE NUMBER OF SHARES BOUGHT AND SOLD BALANCE.

Form No. 1

EXD A

CKD

STOCK CLEARING CORPORATION (NIGHT CLEARING BRANCH) No. 876

New York, Sept 15 1921 Office Address, Clearing Sheet of Broker "X"

	Receive From	Shares	Security	Price	✓	Value		Deliver To	Shares	Security	Price	✓	Value
1	Broker "A"	200	Can Pacific	194⅝		38925	51	Broker "H"	200	Can Pac.	195		39000
2	" "B"	200	Grt Northern Pfd	123½		37050	52	" "I"	100	Grt Northern Pfd	123¼		12325
3	" "C"	100	Inter Mt Pfd	62¾		626250	53	" "J"	200	Grt. Northern Pfd	123½		24700
4	" "D"	100	Missouri Pacific	17½		1750	54	" "K"	100	Inter-Mt Pfd	62½		6250
5	" "E"	300	Missouri Pac	17		5100	55	" "L"	400	Missouri Pac.	17		6800
6	" "F"	400	Reading Com	165		66000	56	" "M"	200	Reading Com	165⅛		33025
7	" "G"	200	Union Pac Com	136⅜		31275	57	" "N"	200	Reading Com	165⅛		33025
8							58	" "O"	200	Union Pac Com	155½		31100
9		1600				17636250	59			Balance	Check		13750
10							60		1600				17636250
11							61						
12							62						
13							63						

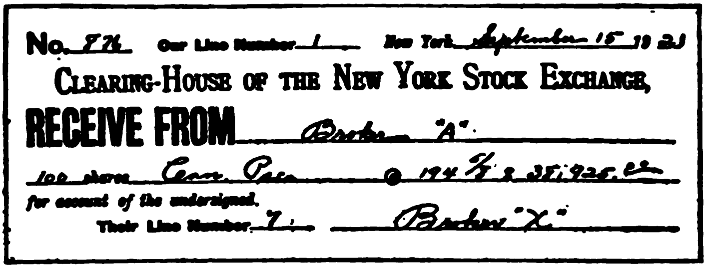
ENTER ON THIS SHEET ONLY THOSE TRANSACTIONS FOR WHICH TICKETS HAVE BEEN EXCHANGED. THE TICKETS MUST AGREE OR BOTH PARTIES WILL BE FINED.

ing Branch. At frequent intervals during the day exchange tickets, similar to those just described, are deposited with the Distributing Department, which maintains a small box for each member, very similar to the ordinary mail box in a post office. The tickets, after being deposited, are assorted by the Distributing Department and placed in the boxes of the various members who call for them at intervals throughout the day. The buyer's ticket is placed in the box of the seller, and in the same manner the seller's ticket is placed in the buyer's box, the two tickets serving to confirm the transaction. All tickets must be turned in to the Distributing Department before 4 P. M. and withdrawn before 4:20 P. M. If the transaction is ex-Clearing House, the old method of comparison, by sending from office to office, is used.

Applying this method to the transactions recorded on page 199, it follows that "X" sends to the Distributing Department a clearing-house ticket signed by itself authorizing the clearing house to deliver to "H" 200 shares of Canadian Pacific at 195, and will receive *via* the Distributing Department in exchange a corresponding ticket, signed by "H," authorizing the Clearing House to receive the stock from "X." Similarly, "X" will send tickets to "I," "J," "K," "L," "M," "N" and "O" and will receive from them corresponding tickets in exchange. On the other hand, "X" will receive from "A" a ticket authorizing the Clearing House to deliver to it 200 shares of Canadian Pacific at 194⅝, and in return will send to "A" a ticket authorizing the Clearing House to receive from "A" that number of shares at the stipulated price. "X" will also receive clearing-house tickets from firms "B," "C," "D," "E," "F" and "G," and will send them tickets in exchange.

The form of these clearing house tickets is illustrated on the opposite page, in Figures 3 and 4, for the first of the assumed transactions, namely, the purchase of 200 shares of Canadian Pacific by "X" from "A" at 194⅝. It will be noted that the tickets include a statement of the number of shares, the price per share, the total pur-

FIG. 3.—EXCHANGE TICKET.


No. 276 Our Line Number 1 New York September 15 1921

CLEARING-HOUSE OF THE NEW YORK STOCK EXCHANGE,

RECEIVE FROM Broker "A"

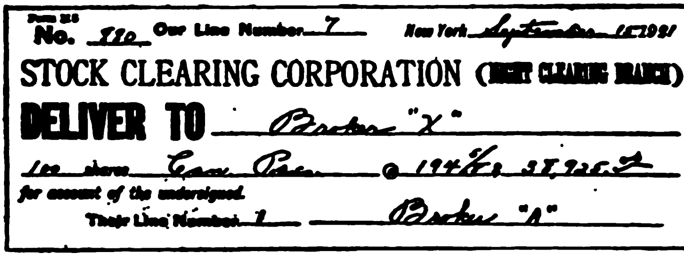
100 shares Can. Pac. @ 194⅝ $ 38,925.00

for account of the undersigned.

Their Line Number 7 Broker "X"

chase or selling price, and the "line numbers" of the two brokers who make the comparison. These numbers correspond with the numbers of the lines on which this transaction appears on the "clearing sheet," which the broker

FIG. 4.—EXCHANGE TICKET.


No. 110 Our Line Number 7 New York September 15 1921

STOCK CLEARING CORPORATION [illegible]

DELIVER TO Broker "X"

100 shares Can. Pac. @ 194⅝ $ 38,925.00

for account of the undersigned.

Their Line Number 1 Broker "A"

sends to the Clearing House, and serve as a great help in looking up items or in checking the tickets with the sheet after they have been inserted in numerical order.

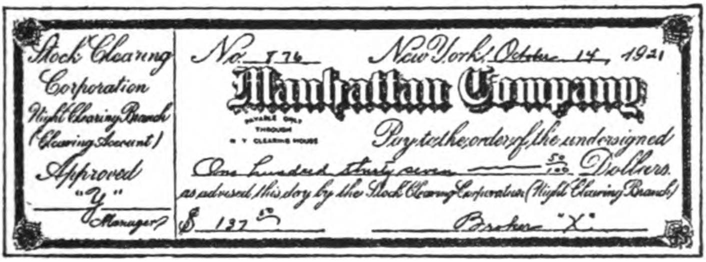
The Clearing Sheet.—When all clearing-house tickets have been exchanged—that is, all the transactions have been verified—"X" is in a position to enter its 15 purchases and sales on the so-called "clearing sheet." This sheet is made up in the form shown in Figure 2, and the illustration there given furnishes an example where the purchases on a given day balance the sales. Although it rarely occurs that the purchases of a broker on a given day balance his sales, the example was purposely used as a simple illustration to demonstrate the practical value of the clearing house.

It should be added that clearing sheets must be prepared and delivered to the clearing house before seven P. M., except Saturday, when the time is four P. M. Transactions are not cleared on Saturday, but Friday's business is compared by exchange tickets on that day and entered on Monday's sheet. The sheet contains a statement of all the broker's transactions for the given day, all securities to be received, either because they have been purchased or borrowed, appearing on the left-hand side, and all securities to be delivered, either because they have been sold or lent, appearing on the right-hand side. The numbers of the lines on the clearing sheet correspond with the line numbers appearing on the exchange tickets for the various transactions and serve to index each item, thereby proving a great help in looking up such items or in checking the tickets with the sheet. These numbers are also valuable for purposes of reference to the transactions in the broker's books of account.

Referring to "X's" clearing sheet (Figure 2) it appears that this firm purchased 200 shares of Canadian Pacific from "A" and sold the same number of shares to "H." As regards Canadian Pacific, therefore, "X's" purchase and sale balances and it would be foolish to compel him to go to the trouble of actually delivering and receiving this stock, providing some plan is effected whereby "X" is sure to pay 194⅝ for the shares purchased and to receive 195 for the shares sold. Similarly, "X" both bought and sold 300 shares of Great Northern Preferred, 100 Interborough Metropolitan Preferred, 400 Missouri Pacific, 400 Reading and 200 Union Pacific. All these purchases and sales balance one another, and there is no necessity for the delivery or receipt of any stock.

But while all the purchases and sales balance one another, it will be noticed that the transactions were made at different prices and that the total sum that "X" promised to pay for 1,600 shares purchased amounts to $186,362.50 while the total sum contracted to be received

FIG. 5.—ILLUSTRATION OF DRAFT ON CLEARING HOUSE IF TOTAL VALUE OF SALES EXCEEDS TOTAL VALUE OF PURCHASES.



for the 1,600 shares sold amounts to only $186,225. In other words, the value of the shares bought exceeds the value of the shares sold by $137.50. This sum firm "X" must pay in order to settle its account with respect to the transactions entered on its clearing sheet, and this it does by giving to the clearing house its check for $137.50. This check accompanies the clearing sheet when it is sent to the clearing house. In case the value of the sales in our illustration had exceeded the purchases by $137.50, this balance would have appeared on the other side of the clearing sheet, and "X" would have drawn a draft (illustrated in Figure 5), for its credit balance on the bank in which the clearing house keeps its account.

The advantages secured by this method of clearing are apparent. Without a clearing system 15 deliveries of stock, involving 3,200 shares, would have been necessary, and 15 checks aggregating $372,587.50 would have been issued. By clearing the business, however, the actual delivery of all the shares is made unnecessary, checks to the amount of $372,450 are dispensed with, and the entire business is settled by giving to the clearing house one small check for $137.50.

As previously indicated, it only occasionally happens that a broker's purchases and sales on a given day balance each other, and to show the more intricate workings of the clearing house it is necessary to illustrate with a clearing sheet where purchases and sales do not equal each other (Figure 6), and where it becomes necessary for the broker actually to deliver balances of stock. In explaining such a situation let us assume that "X" purchases on a certain day from a brokerage firm "A" 200 shares of American Smelting and Refining common at 69, from "B" 200 New York Central at 106, from "C" 300 U. S. Steel common at 61, from "D" 300 Union Pacific common at 156, and from "E" 200 Southern Pacific at 99, and on the same day sells to "F" 200 American Smelting and Refining common at 67½, to "G" 100 New York Central at 108, to "H" 200 U. S. Steel at 62, and to "I" 100 Amalgamated Copper at 67½.

In all 1,800 shares were bought and sold. Of these shares 200 American Smelting, 100 New York Central, and 200 U. S. Steel, or 500 shares in all, appear on both the "receive" and "deliver" sides of the clearing sheet and therefore can be cleared. But it also happens that there are various balances of stock, aggregating 800 shares, that cannot be cleared and that must therefore be delivered. Having purchased 200 shares of New York Central and sold only 100, "X" must receive a balance of 100 New York Central, which balance is entered on the

FIG. 6.—ILLUSTRATION OF CLEARANCE SHEET WHERE SECURITIES BOUGHT AND SOLD DO NOT BALANCE.

Form N 1

EXD______

CKD______

STOCK CLEARING CORPORATION (NIGHT CLEARING BRANCH) No. 876

NEW YORK, Sept. 15 1921 OFFICE ADDRESS, ______ CLEARING SHEET OF Broker "X"

	RECEIVE FROM	SHARES	SECURITY	PRICE	VALUE		DELIVER TO	SHARES	SECURITY	PRICE	VALUE
1	Broker "A"	200	A. S. & R.	69	13800	51	Broker "F"	200	A. S. & R.	67½	13500
2	"B"	200	N. Y. C.	106	21200	52	"G"	100	N. Y. C.	108	10800
3	"C"	300	U. S. S.	61	18300	53	"H"	200	U. S. S.	62	12400
4	"D"	300	U. Pac.	156	46800	54	"I"	100	Amal. C.	67½	6750
5	"E"	200	S. Pac.	99	19800	55					
6						56					
7	Balance to Deliver					57	Balance to Receive				
8		100	Amal C.	68	6800	58		100	N. Y. C.	108	10800
9						59		100	U. S. S.	62	6200
10						60		300	U. P.	156	46800
11	Draft				550	61		200	S. P.	100	20000
12		1300			127250	62		1300			127250
13						63					

right-hand side of the clearing sheet as a "balance to receive." Similarly, "X" bought 300 U. S. Steel, 300 Union Pacific, and 200 Southern Pacific, and as regards the same stocks sold only 200 U. S. Steel. He therefore also has balances of 100 U. S. Steel, 300 Union Pacific and 200 Southern Pacific to receive. Moreover, having sold 100 shares of Amalgamated Copper and not having purchased any of this stock he must regard this 100 shares as a balance to deliver. All the balances to receive are entered on the right-hand side of the clearing sheet and all the balances to deliver on the left-hand side, so that the total shares appearing on each side of the sheet are equal.

The Use of a "Settlement Price" in the Delivery and Receipt of Stock Balances.—The method of clearing the 500 shares in which the purchases and sales balance was explained by the preceding illustration, but what we now want to know is the method of handling the four balances to receive, namely, in New York Central, U. S. Steel, Union Pacific, and Southern Pacific, and the one balance to deliver, namely, in Amalgamated Copper. The actual delivery and receipt of these balances of stock, it is clear, cannot be eliminated. The 100 shares of Amalgamated Copper, as will be shown later, must actually be delivered by "X" to some one designated by the clearing house who has a balance of that amount to receive; and the 100 shares of New York Central, 100 U. S. Steel, 300 Union Pacific, and 200 Southern Pacific must be received from other brokers designated by the clearing house who have balances of those stocks to deliver. Since there are two parties—a buyer and seller—to every stock-exchange transaction, and since all brokers belonging to the clearing house must clear all their business in securities on the clearing-house list, it follows that where one broker has a balance to receive in any given stock there must be some other broker or brokers who have a corresponding balance to deliver, and *vice versa*. These various brokers, having balances of stock to receive and deliver, it is the function of the clearing house to bring together.

But it will be asked, "How can 'X' be expected to deliver balances to or receive them from other brokers named by the clearing house when it has had no business dealings with them and when its contract prices in the stocks under consideration are different from the contract prices of the brokers from whom it is to receive or to whom it is to deliver its balances? How is 'X' to agree with the other firms upon the amount to be paid for these balances?" This difficulty is overcome by the adoption of "settlement" or "delivery" prices that must be used in effecting payments for all balances of stock to be delivered or received. These settlement prices are the nearest full quotations to the last quotation of the day and in our illustration are assumed to be 108 for New York Central, 62 for U. S. Steel, 156 for Union Pacific, 100 for Southern Pacific, and 68 for Amalgamated Copper. "X" receives the balance of 100 shares of New York Central from some broker designated by the Clearing House and is charged for this stock at the settlement price of 108, although it was actually bought at 106. In the same way "X" is debited at the settlement prices for the other balances to be received, and is credited with the settlement price of 68 for the 100 Amalgamated Copper to be delivered. The various sums thus to be debited or credited are entered on the clearing sheet.

An examination of the clearing sheet will show that firm "X," in order neither to gain nor lose because of the adoption of arbitrary settlement prices, is entitled to a payment of $550 from the Clearing House, and this sum it obtains by drawing its draft on the Clearing House for that amount. It is to be remembered, however, that it is quite immaterial what settlement prices are used, because whatever a broker unjustly loses or gains through the use of an arbitrary settlement price as compared with the contract price, will be received by him from the Clearing House or returned by him to the Clearing House. In other words, the draft for $550 represents (1) the difference between the purchase and selling price of the different stocks that could be cleared; and also (2) the difference between the contract price and the arbitrary settlement price for those stocks that could not be cleared and that must actually be delivered and settled for on the basis of the arbitrary settlement price.

To prove that "X" neither derives an advantage nor suffers any loss through the operation of the clearing house in the above illustration, let us follow the transactions in detail. As previously shown 500 shares—200 of American Smelting, 100 New York Central and 200 U. S. Steel—could be cleared since they were both bought and sold. The 200 shares of American Smelting were purchased at 69 and were sold at 67½, "X" thus owing the Clearing House the difference of $300; the 100 shares of New York Central were purchased at 106 and sold at 108, "X" thus being entitled to the difference of $200 from the Clearing House; the 200 shares of U. S. Steel were purchased at 61 and sold at 62, again entitling "X" to the difference of $200 from the Clearing House. As regards the 500 shares that could be cleared, therefore, "X" has a balance of $100 to receive or the difference between the aggregate purchase price of $36,600 and the selling price of $36,700.

On the other hand, 800 shares of stock—100 Amalgamated Copper, 100 New York Central, 100 U. S. Steel, 300 Union Pacific and 200 Southern Pacific—could not be cleared and must be delivered at the arbitrary settlement price. The 100 Amalgamated Copper, although sold by

"X" for 67½, were delivered at the settlement price of 68, "X" thus owing to the Clearing House the difference of $50. "X" agreed to pay 106 for New York Central but when the balance of 100 shares was delivered to him, he was debited with the settlement price of 108. The loss of $200 "X" is entitled to receive from the Clearing House. Similarly, "X" purchased the 100 U. S. Steel at 61 and the 200 Southern Pacific at 99, but when these balances were delivered the Clearing House charged "X" the arbitrary settlement prices of 62 and 100, thus causing him to lose $100 in the case of U. S. Steel and $200 in the case of Southern Pacific. Both these losses "X" is also entitled to receive from the Clearing House. In the case of the 300 Union Pacific the contract price and settlement price happen to be the same and nothing is due to or from the Clearing House. As regards all the balances to be delivered and received the arbitrary settlement prices, because they differ from the contract prices, were responsible for a net loss of $450. Adding to this loss the $100 loss, representing the difference between the purchase and selling price of the 500 shares that could be cleared, it follows that "X" is entitled to receive a total of $550 from the Clearing House. The following table presents the foregoing proof in tabular form:

SHARES CLEARED

	Bought At		Sold At		Due To Clearing House	Due From Clearing House
	Price	Amount	Price	Amount		
200 Am. Smelting..........	69	$13,800	67½	$13,500	$300	....
100 N. Y. Cent'l	106	10,600	108	10,800	....	$200
200 U. S. Steel .	61	12,200	62	12,400	....	200

Shares Not Cleared

Balance to Deliver	Sold at		Delivered at		Due to Clearing House	Due From Clearing House
	Price	Amount	Price	Amount		
100 Amal. Copper..........	67½	$6,750	68	$6,800	$50	....

Balance to Receive	Bought At		Received At		Due to Clearing House	Due From Clearing House
	Price	Amount	Price	Amount		
100 N. Y. Cent'l	106	$10,600	108	$10,800	....	$200
100 U. S. Steel.	61	6,100	62	6,200	....	100
300 Union Pac..	156	46,800	156	46,800	0	0
200 So. Pac....	99	19,800	100	20,000	....	200
Totals.......	...	......	...	....	$350	$900

Net amount due " X " from the Clearing House $550.

Tickets for Delivery or Receipt of Stock Balances.— When the clearing sheet has been prepared and the balances to deliver and receive ascertained, "X" will next enter the balance of 100 Amalgamated Copper at the settlement price of 68 on a white ticket printed in red, which is addressed to the Clearing House and signed by "X," and which states that the firm will deliver that balance at the settlement price. On separate yellow tickets printed in black, and stating that it will receive the balances of securities indicated thereon, "X" will enter 100 shares of New York Central at 108, 100 U. S. Steel at 62, 300 Union Pacific at 156, and 200 Southern Pacific at 100. These statements of balances (exemplified in Figure 7), together with the clearing sheet, the attached draft for $550, and all clearing-house tickets received from the various brokers from whom "X"

FIG. 7.—SECURITY BALANCE SLIPS. *A*. Balance slip. *B*. Receiving slip.

Form M-8

STOCK CLEARING CORPORATION (NIGHT CLEARING BRANCH)

THE UNDERSIGNED WILL **RECEIVE** THE FOLLOWING **BALANCE** OF STOCK AT THE DELIVERY PRICE.

SHARES	STOCK	RECEIVE FROM	
100	N. Y. C.	Broker "S"	108

DATE Sept 21 NAME Broker "X" No. 876

Form M-7

STOCK CLEARING CORPORATION (NIGHT CLEARING BRANCH)

THE UNDERSIGNED WILL **DELIVER** THE FOLLOWING **BALANCE** OF STOCK AT THE DELIVERY PRICE.

SHARES	STOCK	DELIVER TO	
100	Amal. C.	Broker "T"	68

DATE Sept 21 NAME Broker "X" No. 876

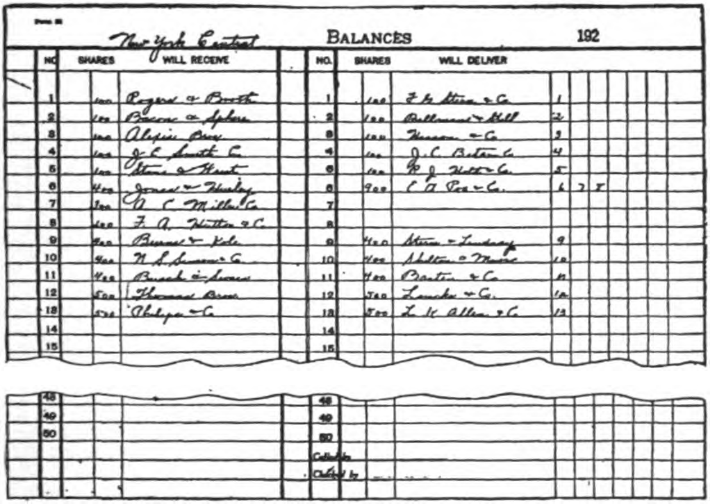
purchased or to whom it sold, are then delivered by "X" to the Night Branch of the Clearing House before 7:00 P. M. All the other brokerage firms will also deliver their clearing sheets, tickets, and statements of balances—these including among others the transactions with "X"—so that the Clearing House has a complete record from both parties to all transactions and is fully authorized to clear the business.

Preparation of "Allotment Sheets." — The Clearing House, having received all the records referred to, can now proceed to audit all the items and make up its "allotment sheets." This involves a comparison of the clearing-house tickets with the clearing sheet, and the sorting of all the statements of balances to be received or delivered so as to facilitate their use in the making of allotment sheets, one of which is prepared for each stock in which dealings have occurred.

The form of the allotment sheet and its use are illustrated by the specimen sheet for New York Central in Figure 8. The sheet consists of two sides, the debit side containing the names of those who will receive stock, and the credit side those who will deliver; and the number of shares to be received or delivered is indicated in connection with each name. Since there are two parties to every transaction, the balances on the two sides of the sheet will always equal each other in the total number of shares involved.

All the lines on each side of the sheet, it will be observed, are numbered, and on the credit side are a number of vertical lines, the purpose of which is to separate the numbers entered on it, which show on what line the name of the party who is to receive the stock is entered. In the specimen sheet for New York Central there are 13 firms with balances of 3,600 shares to receive, and 11 firms with balances of the same amount to deliver. As previously stated, it is the function of the Clearing House to bring together these various firms with balances to deliver or receive. Thus in the first vertical column on the credit side of the specimen sheet, opposite the name of F. G. Stern & Co., appears number "1," which refers to the first line on the debit side of the sheet containing the name of Rogers & Booth. F. G. Stern & Co. having a balance of 100 New York Central to deliver and Rogers & Booth

FIG. 8.—ALLOTMENT SHEET.



having an equal balance to receive, the Clearing House will instruct these two firms, respectively, to deliver and to receive 100 shares at the settlement price. After the name of E. A. Poe & Company, for example, are found the numbers "6," "7," and "8," which represent the lines on the debit side containing the names of Jones & Hurley, A. C. Miller & Company, and F. A. Hutton & Company. The Night Branch of the Clearing House therefore instructs E. A. Poe & Company to deliver its balance of 900 New York Central to the three firms mentioned, the respective amounts of 400, 300, and 200 shares; and likewise instructs these firms to receive said amounts from E. A. Poe & Company. This is indicated on the "security balance slips."

Delivery of Balances.—All allotment sheets having been prepared by the Night Clearing Branch, "X" will call the following day between 9:00 and 9:30 A. M. at the Distri-

FIG. 9.—CHARGE TICKET.

Form No. [illegible]

STOCK CLEARING CORPORATION

(DAY CLEARING BRANCH)

CHARGE TICKET for value of Stock Balance Orders to Receive by No. 696

as per Stock Clearing Sheet (Night Clearing Branch) Dated

Name of Firm Broker "X"

	RECEIVE FROM		Securities	Del'y Price	VALUE
1	"P"	100	N.Y.C.	108	10800
2	"Q"	100	U.S.S.	62	6200
3	"R"	300	U.P.	156	46800
4	"S"	200	S.P.	100	20000
5					
21					
					83800

Examined by

This Total Charge is contingent on all the above Securities being Received.

buting Department of the Night Clearing Branch and receive back his statements of balances filled in to show to whom he must deliver the 100 Amalgamated Copper and from whom he must receive the 100 New York Central, 100 U. S. Steel, 300 Union Pacific, and 200 Southern Pacific. He will also receive back the draft for $550 signed by the manager of the Clearing Corporation under the word "approved," which he deposits in his bank and collects through the Bank Clearing House. This completes the functions of the Night Clearing Branch and from this point the work is taken up by the Day Clearing Branch.

After the brokers have received their orders from the Clearing House indicating to whom they will deliver securities and from whom they will receive securities, they enter such orders on lists provided for that purpose. These lists

FIG. 10.—CREDIT TICKET.

Form No. [illegible]

STOCK CLEARING CORPORATION

(DAY CLEARING BRANCH)

CREDIT TICKET for value of Stock Balance orders to Deliver by No. 876

as per Stock Clearing Sheet (Night Clearing Branch) Dated

Name of Firm Broker "X"

	DELIVER TO		Securities	Sett'y Price	VALUE
1	"T"	100	Amal C	68	6800
2					
3					
4					
20					
21					
					6800

Received by

This Total Credit is contingent on all the above Securities being Delivered.

(Figures 9 and 10), show the names of the members to whom securities are to be delivered or from whom securities are to be received, number of shares of stock or number of bonds, kind of securities, price, which is the settlement price of the previous night's security clearance, money value, and total value of all such contracts. These lists, one for securities to deliver and one for securities to receive, must be delivered to the Stock Clearing Corporation, Day

Clearing Branch, before 10 A. M. These lists act as an authorization to the Stock Clearing Corporation to charge the clearing member's account with the total value of the securities received, and to credit his account with the total value of the securities delivered, contingent upon their receipt and delivery. In our hypothetical case the contingent debit is $83,800 and the contingent credit is $6,800.

Delivery of stock and bonds on security balance orders begins at 10 A. M. and must be completed by 2:15 P. M. and is made directly between the members; the deliverer taking securities representing the security balance orders to the member directed by the Stock Clearing Corporation, Night Clearing Branch, to receive them. As soon as they have been received and examined as to their correctness and the validity of their delivery, the receiving member or his authorized representative must receipt for them. The receipt is in two parts, one being a credit ticket and the other a charge, as shown in Figure 11, which is an illustration of a credit ticket. The charge ticket is very similar except that it indicates who is to be debited.

The time of delivery is stamped on the face of both charge and credit tickets by the receiving member to show the exact time of delivery, as the amount of money represented by such delivery is from that time an accommodation given by the Stock Clearing Corporation. These stamped charge and credit tickets must be delivered to the Stock Clearing Corporation as soon as the delivery has been made. Immediately upon their receipt the Stock Clearing Corporation gives the deliverer credit for the amount of money called for by such delivery, and charges the receiver of the securities for the same amount for the securities so delivered and for which he owes the Stock Clearing Corporation. The contingent debits and credits previously made now become permanent. Accom-

FIG. 11.—CREDIT TICKET.

61 S—3-21—200,000

Blotter Line No. 10
(Receiving Member)

Blotter Line No. 8
(Delivering Member)

Stock Clearing Corporation
(DAY CLEARING BRANCH)
DELIVERY TICKET

Clearing No. 876
(Of Delivering Member)

Broker "X"
(Name of Delivering Member)

Time Received by S. C. C. 12.10

Do not use CARBON ON THIS STUB as name and number will conflict.

Blotter Line No. 8
(Delivering Member)

Blotter Line No. 10
(Receiving Member)

STOCK CLEARING CORPORATION
(DAY CLEARING BRANCH)

CREDIT TICKET

Clearing No. 876
(Of Delivering Member)

New York, Sept 1921

Delivered to Broker "Y"

Credit the value of the following Stock to the account of Broker "X"

100 Shares A. C. @ 65 $ 6500

On Stock Clearing Corporation Stock Balance order.

Delivered by them and Received by the undersigned subject to the rules of the Stock Clearing Corporation.

Total Delivery 100

Shares Delivered 100

Bal. to Deliver X

Broker "Y" #880
(Signature and Clearing Number of the Receiving Member)

Numbers of Certificates
1

TIME RECEIVED
12.10

modation is given in hourly zones and the Clearing Corporation keeps a record that indicates at any hour of the day just how far each member has proceeded with the delivery of securities. The purpose of this is to avoid an excess of accommodation.

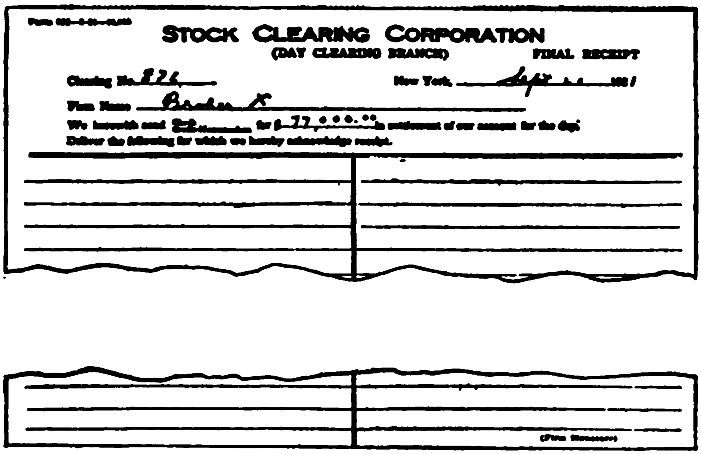
In case of failure to deliver or if a member desires delivery by transfer, provision is made for the settlement to be made ex-Clearing House. This, however, necessitates the removal of these items from the lists of securities to be delivered and received in order that the books of the Clearing Corporation should at all times be in balance.

All that now remains to be done after the settlement of the transactions, which are settled through the Day Clearing Branch, is to make up a so-called "final receipt." This indicates the total of all debits and credits for the day and the balance to be received by the Clearing Corporation from the clearing member or the amount he owes them. If there is a debit balance, the receipt will be accompanied by a check; if a credit balance, a credit memorandum. The time for payment of a check for debit balance or for presenting credit memorandum for credit balance is 2:30 P. M. to 2:45 P. M. or before that time if a clearing member so desires, provided that all obligations to the Stock Clearing Corporation resulting from the day's operations have been settled. A total of debits and credits in our illustration results in a debit balance of $77,000 and, therefore, a check for that amount must accompany the final receipt to the Day Branch of the Clearing Corporation (see Figure 12).

The question at once arises, How can this be correct? By reference to the clearance sheet sent to the Night Clearing Branch on the day previous we find that broker "X" contracted to buy 1,200 shares of various securities at a total of $119,900 and that he sold 600 shares amounting to $43,450. From this it would appear that his purchases exceeded his sales by $76,450 and that he would owe that sum to the Clearing Corporation. The final receipt shows a check for $77,000 but it must be remembered that on the previous day he drew a draft for $550 on the Night Branch of the Clearing Corporation and this makes the net difference just $76,450, which corresponds to the difference between the total of purchases and sales.

The economy of this system is evident. Prior to the reorganization of the Clearing House in 1919 the mem-

FIG. 12.—FINAL RECEIPT.



bers received the security balance slips indicating to whom they should deliver securities and each delivery involved a check from the receiving member. In other words, every balance of securities to deliver necessitated a separate payment, but now only the difference between the values of all the securities to deliver and all the securities to receive of each individual member involve only one credit instrument.

Clearance of Loans.—The clearing of collateral call loans, previously referred to, is one of the most important of the new functions of the Clearing Corporation. The value of this system will be appreciated better after a brief description of the old method. Whenever a broker desired to make a new loan, he always found it necessary to obtain an intermediate credit from his bank until the collateral could be delivered, or if he desired to transfer an existing loan from one lender to another credit was necessary for the purpose of redeeming the hypothecated securities before they could be delivered to the new lender. In either case it meant a temporary unsecured loan that resulted in a large amount of overcertification. By means of the new method the overcertification by banks has been obviated by the Clearing Corporation extending the necessary intermediate credit. To make this possible each clearing member has been compelled to contribute at least $10,000 to a guarantee fund, which is used to aid in the financing of the clearing operations. The total of this sum at any time is not permitted to fall below $10,000,000, so it can readily be seen that the Clearing Corporation is financially capable of extending temporary credit of very large amounts.

If a member desires to place a new loan, negotiations are made on the floor of the Exchange or directly between lender or buyer as formerly. Then if they wish the Clearing Corporation to act for them, they sign a loan agreement that is subject to the approval of the Clearing Corporation. This agreement must be approved or disapproved by the Stock Clearing Corporation within one hour. If not rejected within that time, it is automatically accepted and the Corporation will act for the parties. Booths have been provided in the Day Clearing Branch for the various lenders of money and for the Clearing Corporation tellers designated to handle the accounts of the various clearing members. The collateral is sent to the Day Branch where it is checked up and, if satisfactory, a check is issued to the borrowing broker. The money lender can then obtain the collateral from the Clearing Corporation upon the presentation to it of a check covering the loan.

Similar arrangements are made for the transfer of a loan from one lender to another, for the paying off of loans when terminated by the borrower or called by the lender, and for the substitution, withdrawal, or addition of collateral. It is important to note that in all these transactions the Clearing Corporation extends the intermediate credit and thus performs a banking function. This is made possible by the clearing fund previously referred to. However, the amount of accommodation that any one member may receive is limited in several ways. The amount of unsecured accommodation is dependent upon the size of the member's contribution to the clearing fund; the Clearing Corporation at all times reserves the right to refuse to act in any loan transaction; and it may demand different or additional collateral while it is extending credit on a loan.

At the end of the day the cash debit or credit that results from the handling of loans is entered on the "final receipt" previously referred to under the clearance of security balances. The debits and credits representing these two types of clearance are then totaled and the net difference is taken care of by (1) check to or (2) draft on the Clearing Corporation, as the case may be.

Advantages Derived from Stock-Exchange Clearing Houses.—By greatly reducing the volume of checks and deliveries of stock the system of clearing, it is plain, relieves brokers and banking institutions of much risk, confusion, labor, and loss of time. In our example of a clearing sheet where the number of shares bought and sold did not balance (see Figure 6), the clearing system cut down the number of checks by one-third, and reduced by over 44 per cent the amount of checks that would otherwise have been issued, the number of deliveries that would have been made, and the number of shares that would have been delivered. This showing is conservative, because we are told by Pratt[6] that: "Through the operation of the clearing house 65 per cent of all the shares dealt in are eliminated in deliveries, and more than 90 per cent of the number of checks is done away with." One instance is mentioned by Pratt "where 204,000 shares value at $12,500,000 on one side, were settled by a payment of about $10,000."[7] He further shows the far-reaching importance of the clearing house by summing up its operations in the following table for the boom year of 1901, and adds:[8] "The Stock Clearing House is capable of indefinite expansion; there seems to be no limit to the amount of business it could do. It has handled about 100,000 items in one day. One broker alone has turned in about 1,300 items. If the other 490 firms did the same, there would be 637,000 items in one day. It follows, therefore, that the clearing house can handle at least six times its business in 1901, and that is an underestimate."

New York Stock Exchange Clearing House
Statistics for the Year 1901

Shares cleared both sides, including balances.....	926,347,300
Total value both sides, contracts and balances....	$77,853,500,000
Share balances one side..........................	134,391,000
Value share balances one side...................	10,930,853,000
Cash balances one side..........................	116,849,300
Certification required..........................	10,930,853,600
Certification obviated..........................	17,065,042,800
Certification that would have been required without clearances..............................	27,995,896,400

A noticeable feature of Pratt's table is the amount of certification avoided during 1901, namely, $17,065,042,800

[6] Sereno S. Pratt, *The Work of Wall Street*, p. 167.
[7] *Ibid.*, p. 171.
[8] *Ibid.*, p. 166.

as compared with $10,930,853,600 of certification required. "The average daily saving to the banks in New York in certifications," he estimates,[9] "amounts to more than $50,000,000;" while Van Antwerp states that[10] "the amount of money which the broker must command to meet his daily engagements, represents, on an average, only 25 per cent of the actual capital that would be required were it not for the excellent system thus afforded him." By thus reducing the capital demands of brokers the clearing system does much to reduce the number of failures on the Stock Exchange, especially during panics and periods of great money stringency. On the other hand, in case of insolvency the system is instrumental in saving much time and loss in the making of settlements. Possibly the greatest advantage, however, is the great reduction of overcertification resulting from the clearing of security balances and call loans. An examination of the statistics of clearing-house operations shown below is interesting in this connection.

Stock Clearing Corporation

Statistics of Operations from May 1, 1920 to April 30, 1921

NIGHT CLEARING BRANCH

Shares cleared one side (excluding balances)	251,637,577
Total value one side (excluding balances)	$15,834,778,430
Share balances, one side	124,671,440
Value share balances, one side	$7,285,887,020
Cash balances, one side	55,567,576
Stocks cleared	141 to 220
Bonds cleared	6
Reported sales of cleared stocks	167,720,700
Per cent deliveries on stock balances to total deliveries	48.56 per cent
Total reported sales all stocks	186,843,800
Per cent clearance volume to total volume	89.78 per cent
Bank certification obviated	$8,558,838,610

[9] *Ibid*, p. 167.
[10] William C. Van Antwerp, *The Stock Exchange from Within*, p. 122.

DAY CLEARING BRANCH

Securities delivered one side	112,902,390
Value securities delivered one side	$6,236,487,020
Checks (amount deposited)	$2,399,412,045
Per cent checks deposited	38.5 per cent
Bank certification obviated	$3,837,074,974
Per cent obviated	61.5 per cent
Number of deliveries	585,825
Number of checks drawn	46,218
Per cent of checks drawn	7.8 per cent
Reduction in number of checks drawn	539,607
Per cent reduction in number of checks drawn	92.8 per cent

The clearing of loans is too recent an innovation to furnish accurate figures, but it is estimated that in one year it will result in a reduction of 60 per cent of the certification otherwise required. The benefits of this reduction of certification to the New York banking community are practically inestimable and can readily be appreciated by the bankers and brokers who have long been subject to adverse criticism by the rest of the country because of the overcertification resulting from stock-market operations.

Several other advantages, though of less importance, should also be credited to the clearing house. As previously shown, it audits the great mass of exchange transactions, and in this respect insures accuracy since it is quick to detect errors. Daily clearings also serve much better than the European system of fortnightly settlement of transactions as a precautionary restriction upon brokers against over-extension of credit and over-speculation.

Methods Adopted to Assure Secrecy.—Much of the opposition to the establishment of the New York Stock Exchange Clearing House was based on the supposition that the clearing sheets would disclose the business secrets of brokers to the clerks operating the system. This fear, however, has proved to be unfounded. Not only does the clearing house strictly safeguard all transactions cleared, return all sheets and tickets delivered to it, and decline to keep records of its own, but its machinery for clearing is so devised and operates with such speed that no opportunity is afforded for the acquisition of business secrets.

Perhaps the most effective means of concealing the actions of a broker consists of the arrangement whereby all loans of stock are entered on the clearing sheet. Thus, let us assume that our firm "X," in addition to the business referred to on p. 205, had borrowed from broker "J" 100 shares of U. S. Steel and loaned to broker "K" 100 Union Pacific. On the clearing sheet the 100 U. S. Steel would appear on the debit side with the purchases and would be included in the balance to receive. As shown in Chapter XII on The Short Sale, borrowing of stock corresponds exactly to a purchase as regards delivery of the shares and the payment therefor. Lending of stock, on the other hand, corresponds in form to a sale, and the 100 Union Pacific lent to "K" would therefore appear as a sale on the credit side of the sheet and would reduce the balance of Union Pacific to receive to 200 shares. Employees of the clearing house have no way of knowing whether a broker is buying or borrowing, or selling or lending stocks; and stocks that seem to have been purchased may actually be borrowed to fulfill delivery on a short sale. They are unable to tell the position of "X," for although 400 shares of U. S. Steel would be entered on the sheet as purchased, part or all of this amount may have been borrowed. It is equally impossible to tell whether "X" bought or borrowed 300 shares of Union Pacific, or sold or loaned 100. Large operators, also, usually conduct their deals through several and sometimes many brokers, with a view to concealing their position in the market.

Again, each firm is given a number that appears on all the forms sent to the clearing house, and the procedure of clearing is based largely on the use of these numbers. While the clerks may know many of these numbers, it is impossible to remember all. The work is spread over so many employees that each handles only a small part of the total. Such haste is also required in the process of clearing that little opportunity is given to trace out the position of any one broker's transactions. Furthermore employees of the Stock Clearing Corporation are carefully selected, are under bond, and are thoroughly impressed with the confidential nature of the work of the Stock Clearing Corporation. Since the inception of the Clearing House, there has never been a known leak of any confidential information.

New York Stock Exchange Clearing System Contrasted with Other Systems.—There exist a number of stock clearing arrangements which differ considerably in method from the New York system, but space forbids a detailed description. Thus the Philadelphia system differs from that of New York in two main respects. In the first place, a separate sheet, of distinctively colored paper or printing, is used for each kind of stock, all transactions in a particular stock and no others appearing upon its sheet, instead of one clearing sheet containing all transactions as in New York. Secondly, these sheets, besides providing columns for the number of shares in each transaction, the names of the firms from whom the stock was purchased or to whom sold, and the purchase or selling price, contain on both the debit and credit sides an extra column headed "certification." The brokers' clerks, meeting in the clearing house at a specified time daily, exhibit their sheets to each other, and if the seller's record of the transaction, for instance, is found correct by the buyer's clerk, the latter inserts his initials in the "certification column" of the seller's sheet, thereby confirming the transaction. The seller's clerk is required to make the same certification on the buyer's sheet. In this way all the transactions are compared without the use of separate clearing-house tickets. All the sheets are then delivered to the clearing house which, when it has determined the various balances to be received and delivered by the different brokers, notifies them as to the firms from whom or to whom they must receive or deliver their balances.

Nowhere in Europe does the American system of clearing brokers' accounts both for securities and for money seem to exist. Instead, the work of European stock-clearing houses consists only in the comparison of contracts between brokers who have bought and sold securities, and thus resembles the "ringing out" method prevailing on American produce exchanges.

Stock-exchange accounts in Europe are generally settled on the fortnightly plan, that is, as in London, about every two weeks at the middle and end of each month. The scope of the clearing is therefore very broad, because in the course of two weeks brokers naturally enter into many contracts to buy and sell the same security, and at the settlement time it will be found possible to eliminate a very large proportion of the total deliveries otherwise necessary. As is the case in New York, an arbitrary and uniform settlement price is adopted for the settlement of all accounts, but the clearing of all money exchanges takes place outside of the clearing house. The following is a brief explanation of the London fortnightly system. Each settlement extends over three days, and at a certain hour on the first day all old accounts end and business subsequently transacted falls within the new fortnightly account. Three distinct operations comprise each settlement as regards most classes of securities, and a separate day is devoted to each operation.

On the first day—called "Contango day" or "making-up day"—arrangements are made for the carrying over of stocks to the following account by operators who either are not prepared to pay for stock they purchased or to deliver stock that they sold. This day is, therefore, of importance only as far as speculative accounts are concerned.

On the next day—called "ticket-day" or "name-day" —brokers who have bought stock and wish to take it up hand tickets, each of which bears the amount and name of the security, the name and address of the buying broker's client, the price, and the date and name of the member to whom the ticket is issued, to the jobbers from whom they bought the stock. If these jobbers are not in possession of the securities, having bought them during the same account from some other jobber, they pass them on to the seller after endorsing the seller's name. In this way the ticket passes from seller to seller until it reaches the firm that actually has the securities and intends to deliver them. The passing of these tickets, as explained by Duguid, is greatly facilitated by the Settlement Department of the clearing house. He states:[11]

"It is not every member of the Stock Exchange who belongs to the clearing house, nor is it every security that enjoys the benefit of its operations. But in cases where it can be used, this is the process. On Contango day each member prepared a "clearing sheet" for each security in which he has dealt. This sheet may, of course, show many sales and many purchases, each to or from a different member, but all that the member who has prepared the sheet has to concern himself about—in so far as the securities are concerned, and it should be noted that the clearing house only clears securities, not money—is the delivery or receipt of the differences between his sales and his purchases; the clearing house does the rest. If, for instance, a member's sheet shows that he has bought a total of 6,000 of a certain stock, no matter in how many different bargains with different members, and has sold

[11] Charles Duguid, *The London Stock Exchange*, Chap. VII.

5,000; then, instead of a separate ticket having to pass through his hands for each separate bargain, the clearing house discovers from the other sheets some member who has sold 1,000 more than he has bought of the particular stock in question. The passing of the stock is then adjusted by bringing these two members together. The way in which all bargains which come within the clearing house are cleared off can be easily grasped when it is recognized that for every bargain there are both a buyer and a seller. But the clearing house has nothing to do with the adjustment of the different prices at which securities are bought and sold. In fact, all bargains dealt with by the clearing house are passed through the accounts at a fixed price, the "making-up price," and the securities have to be paid for at that price. The settlement of differences has to be arranged in the accounts between member and member, and this brings us to the business of the last day of the settlement, "pay-day," the real day of settlement."

On the third or last day referred to by Duguid—called "pay-day" or "account day"—all differences must be paid, and all securities to be delivered must be handed over and paid for, although extra time is given for the delivery of registered securities. All differences must be paid by check on some bank holding membership in the bankers' clearing house. "By this rule," Duguid explains, "it is secured that every member has both to pay and receive differences at the same time, and the differences which a member receives are directly pledged, as it were, for payment of those he has to give."

Much has been written by way of a comparison of the relative advantages of the European fortnightly settlement with the American daily settlement. Such a comparison is difficult and probably unfair because of the totally different conditions underlying the organization and nature of the two markets. The American system, by calling for a reckoning each day as contrasted with the postponement of settlement for two weeks under the fortnightly system, serves as a precautionary restriction upon brokers against over-speculation. On the other hand it is argued that the daily settlement system is not at all adapted to the needs of the London Stock Exchange, with its system of brokers and jobbers, with its enormous international business in securities, and with its members in the habit of doing business on a credit and not a cash basis.

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CHAPTER XV

TRANSFER OF SECURITIES

Stock-Exchange Rules Designed to Secure Uniformity and to Eliminate Unnecessary Risk.—To secure uniformity of action and to eliminate unnecessary risk, the form of stock certificates as well as the assignment and transfer of them are governed largely by the rules of the various exchanges as far as listed securities are concerned. These rules were referred to in Chapter IX on the Listing of Securities,[1] but the following requirements of the New York Stock Exchange may again be summarized briefly as introductory to this chapter.

1. Corporations whose shares are admitted to dealings are required by the New York Stock Exchange to maintain a transfer agency and a registry office in the City of New York, Borough of Manhattan, and both the transfer agent and registrar must be acceptable to the Committee on Stock-List. The registrar[2] must file with the Secretary of the Exchange an agreement to comply with its requirements in regard to registration, and it is further provided that a trust company or individual may not act at the same time as both transfer agent and registrar of a corporation. Nor may a company act as registrar of its

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[1] See pp. 116–42.

[2] The registrar is usually a bank or trust company appointed by a corporation to keep a record of its stock and to certify that the name on the certificate is that of the owner of record. In other words, the registrar acts as a check on the transfer agent, and certifies when new certificates are issued that the old certificate has been canceled, thus avoiding the possibility of an over issue or duplication of stock.

own stock. If the stock of a corporation is to be transferred at its own office, a transfer agent must be appointed by specific authority of the Board of Directors to countersign certificates, in said capacity, which individual must be some one other than an officer of the corporation authorized to sign certificates of stock.

2. The entire amount of the capital stock of any corporation listed upon the Exchange must be directly transferable at the transfer office in New York, and, if transfers are made in other cities, the certificates issued in such cities must be interchangeable and identical in form and color with the New York certificates, except as to names of transfer agent and registrar. No change in the form of the certificate, the transfer agent or the registrar can be made without the approval of the Committee on Stock-List.

3. The exact form as well as the manner of making the certificate, is prescribed by the Exchange with a view to giving the greatest possible security against counterfeiting in any manner whatsoever. Various rules also provide that the different classes of securities must contain features that will enable one security or denomination to be readily distinguished from another. Thus, in the case of bonds the imprint of each denomination must be of such distinctive appearance and color as will make it readily distinguishable from other denominations. For each class of stock issued there must be a distinctively engraved plate for 100-share denominations, and certificates issued for smaller amounts must have a plate distinctive in color and design and the certificate must bear the words, "Certificate for less than one hundred shares." Conditions of redemption by sinking fund or otherwise, and of conversion into other forms of securities must be shown in the text of the bond; and in the case of stock the terms of all preferences or privileges, if any, must be stated. A sample

certificate of each issue of stock or bonds must be referred to the Committee on Stock-List for acceptance as to form, character, and recommendations. Furthermore, no stock certificate or bond will be approved by the Exchange, unless engraved by some company whose work the Committee has authorized.

4. The receiver of the shares, the purchaser, is given the option of requiring delivery to be made either in (*a*) certificate therefore or (*b*) by transfer thereof. In case, however, personal liability attaches to ownership, the seller is given the right to deliver by transfer. When the transfer books are closed, the buyer, according to the rules, cannot require delivery by transfer.[3]

5. The blank form of assignment and power of attorney is prescribed by the Exchange, and to constitute a good delivery these must conform to the rules of the exchange. This form makes particular reference to the fact that the assignment must comply exactly with the facts stipulated on the face of the certificate, a matter of importance that will be referred to later in greater detail.

Negotiability of Stock Certificates.—Although stock certificates represent one of the most important forms of commercial paper, they lack nearly all the requisite elements of negotiability,[4] and the courts have therefore been obliged to place stock certificates in the category of non-

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[3] Constitution of the New York Stock Exchange, Article XXV, Section 2.

[4] According to the Negotiable Instruments Law, "an instrument to be negotiable must conform to the following requirements:

1. It must be in writing and signed by the maker to drawer.
2. Must contain an unconditional promise or order to pay a sum certain in money.
3. Must be payable on demand, or at a fixed or determinable future time.
4. Must be payable to order or to bearer; and,
5. Where the instrument is addressed to a drawee, he must be be named, or otherwise indicated therein with reasonable certainty.

negotiable instruments. As is stated by Dos Passos in his explanation of the doctrine of negotiability as applied to stock certificates:[5]

"The importance of this subject to stock brokers, banks, and capitalists cannot be overstated, because dealings in these securities constitute the bulk of their business, and hundreds of millions of dollars are employed in their purchase and sale each week in the city of New York alone. Stock certificates, as we have seen, are not, technically, negotiable instruments. They are not promises to pay money, and, in a word, lack almost every element necessary to constitute negotiability. They are certificates showing that the individual named therein is entitled to a share in the capital stock of a corporation, to its profits and dividends when they are declared, to a proportionate share of its property upon its being wound up or dissolved. The courts have everywhere with marked unanimity placed them in the category of non-negotiable instruments. And it has been held in the State of New York that the Negotiable Instruments Law is not applicable to stock certificates.

The effect of non-negotiability we have already considered, and it is very manifest that if that doctrine were to be applied in its full force and rigor to stock certificates, the consequences to the financial world would be most alarming and serious. But we shall see that while the courts, on the one hand, treat them as non-negotiable, on the other hand, through equitable doctrine of estoppel, stock certificates, with a power to transfer them endorsed in blank thereon, can be dealt in with almost the same immunity as bills, notes, and other negotiable instruments."

To overcome the disadvantages of non-negotiability, the courts permit stock certificates to pass freely from hand

[5] J. R. Dos Passos, *Treatise on the Law of Stock Brokers and Stock Exchanges*, vol. 1, p. 700.

to hand, without an actual transfer in each instance, through the use of an assignment and power of attorney executed in blank and attached thereto. The reverse side of each stock certificate contains a blank form of assignment and power of attorney to transfer, which the owner of the stock may fill out when he delivers it in fulfillment of a sale; or, he may merely sign it in blank at the time of delivery, thus permitting the broker, or the broker's attorney, to fill out the various blank spaces contained in the form. The following is a sample of the blank form of assignment and power of attorney referred to, and it should be noted that it contains three distinct features, namely, (1) the assignment; (2) the provision for the irrevocable appointment of an attorney to make the transfer; and (3) the delegation to this attorney of full powers of substitution.

SAMPLE OF ASSIGNMENT AND POWER OF ATTORNEY.

FOR VALUE RECEIVED .... hereby sell, assign and transfer unto ....
.... Shares of the[6] Capital Stock represented by the within Certificate, and do hereby irrevocably constitute and appoint .... Attorney to transfer the said stock on the Books of the within named Company with full power of substitution in the premises.

Dated ...... 19....

....

In Presence of

....

If the name of the attorney has been filled in the above mentioned form, such attorney may, if he wishes to sub-

[6] On certificates without nominal or par value the word "capital" may be omitted.

stitute another attorney, place the following power of substitution on the back of a certificate:

> I (or we) hereby irrevocably constitute and appoint .... my (or our) substitute to transfer the within named stock under the foregoing power of Attorney, with like power of substitution.
>
> Dated .... 19 ......
>
> ....
>
> In the Presence of
>
> ....

Stock, when transferred from hand to hand by filling out the blank form of assignment and power of attorney, or when using in addition thereto the above-mentioned power of substitution, carries full legal title in most states. In a few states, registry must be made on the books of the company, in order to protect the transferee against the claims of a subsequent attaching creditor of the transferor who serves a writ of attachment upon the company while the stock, although sold, still stands in the name of the transferor. As far as the company is concerned, the transfer of a stock certificate is not completed until the transfer is recorded on the books of the company, and until the transfer is actually recorded the transferee has no voting rights, and the company is protected in paying dividends to the seller, whose name may still appear on the books as owner.

The laws of the several states differ as to the rights which the purchaser of the stock, or the lender of money upon stock, has in case the stock is subject to any lien of the company for indebtedness of the transferor. In some states, the company has no such lien, whereas in other states the company has a lien and can refuse to transfer the stock to the purchaser until the indebtedness of the transferor is satisfied. It is important, therefore, that the purchaser of stock, or the lender of money thereon, should know whether an indebtedness exists on the stock and whether the company acquires the right to a lien, if such is the case. Moreover, owing to the lack of full legal negotiability in the case of stock certificates, owners are protected against loss or theft of such certificates, a rule that does not apply in the same way to bonds payable to bearer. There is a movement on foot, however, that has for its object the establishment of uniformity in the law of the transfer of shares of stock and the giving of substantial negotiability to such certificates.[7]

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[7] Samuel P. Goldman's *Handbook of Stock Exchange Laws* contains the following synoposis of the New York law relating to the transfer of stocks. As he explains, this law complies substantially with the law prepared by the Commissioners for the promotion of uniformity of legislation in the United States, and is a recognition of the necessity of having uniform laws affecting the transfer of stocks and the warranties to be implied against persons making such transfers.

TRANSFERS OF CERTIFICATES AND SHARES OF STOCK

Personal Property Law, Art. VI.

Sec. 162. How title to certificates and shares may be transferred. (*a*) by delivery of the certificate indorsed either in blank or to a specified person by the person appearing by the certificate to be the owner of the shares, or (*b*) by delivery of the certificate and a separate written assignment by such person.

Sec. 163. The powers of those lacking full legal capacity and of fiduciaries are not enlarged.

Sec. 164. Corporations are not prevented from treating the registered holder of shares as owner in regard to dividends, voting, calls and assessments.

Sec. 165. The certificate delivered endorsed or with a separate transfer extinguishes the title of a transferee under power of attorney or assignment not written on the certificate.

Sec. 166. The delivery is effectual although by one having no right of possession or authority from the owner of the certificate.

Sec. 167. The endorsement is effectual in spite of fraud, duress, mistake, revocation, death, incapacity, or lack of consideration or authority.

Sec. 168. Rescission of transfer may be made for the reasons mentioned in Sec. 167 unless the certificate has be n transferred to a purchaser for value without notice, or in the case of waiver or laches by the injured party.

Sec. 169. Rescission of the transfer of a certificate does not invalidate subsequent transfer by transferee in possession to purchaser for

Use of Detached Assignments.—Assignment of a stock certificate upon its reverse is not obligatory in order to make the certificate a good delivery. Instead, a so-called "detached assignment" may be used, which, if properly acknowledged and if accompanying an unsigned deliverable certificate, will remain in force permanently. In form this detached assignment is identical with the one found on the reverse of a stock certificate, except, that, since it is a separate paper, it must include an exact description of the stock certificate to which it refers.

Under various circumstances the use of a detached assignment is preferable to the signing of the stock power

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value, who takes in good faith, and the latter obtains good title to the certificates and the shares represented thereby.

Sec. 170. Delivery of an unendorsed certificate, with intent to transfer it, imposes an obligation to indorse it upon the person making the delivery.

Sec. 171. An ineffectual attempt to transfer amounts to a promise to transfer.

Sec. 172. Warranties—On the transfer of stock the law implies certain warranties. They are (*a*) that the certificate is genuine, (*b*) that the transferor has a legal right to transfer it, and (*c*) that he does not know of any fact impairing its validity.

Sec. 173. The holder for security of a certificate demanding payment of the debt for which it is security does not warrant its genuineness or value.

Sec. 174. No attachment or levy upon shares shall be valid unless the certificate is seized or surrendered or transfer enjoined by the holder.

Sec. 175. A creditor is entitled to the same aid from the courts in reaching certificate owned by his debtor as in the case of property not readily attached or levied upon by ordinary process.

Sec. 176. No corporation shall have a lien upon shares of stock represented by a certificate, nor restrict the transfer of its stock by any by-law or otherwise, unless corporation's right to such lien or restriction is stated upon the certificate.

Sec. 177. The alteration of the certificate whether fraudulent or not does not divest the owner's title to the shares, originally held, and he can transfer good title to the certificate and the shares originally represented thereby.

Sec. 178. The court, in a proceeding brought for that purpose, may order a corporation to issue a new certificate, in place of one lost or destroyed upon the giving of a proper bond. The corporation is not released from liability to a purchaser for value and in good faith of original certificate, who had no notice of the proceedings.

on the reverse of the certificate itself. Thus, when sending stock certificates through the mails uninsured, it is highly important that the same be not assigned in order to avoid loss through possible wrongful conversion. Yet the holder of the certificate may wish the addressee to receive it in deliverable form. This can be accomplished by sending the unsigned certificate in one enclosure, and a properly executed detached assignment, explicitly describing the particular stock, in another. Upon receipt of both enclosures, the addressee will be in position to transfer the security or to deposit it as collateral for a loan. Should one of the enclosures be lost, however, no particular harm results since the detached assignment is valueless without the certificate to which it refers. Similarly, the stock certificate is unavailable for wrongful use since it is not signed.

Detached assignments are also used generally when stock certificates are deposited as collateral. Upon repayment of the loan the lender will return to the borrower, both the certificate and its accompanying detached assignment, which latter paper may then be destroyed. The borrower has thus succeeded in giving the lender full control over the certificate during the life of the loan through an actual assignment, and upon repayment has had his certificate returned to him in unsigned form. Needless to say, owners of stock should never expose themselves to the danger connected with the assignment of stock certificates before they are actually ready to part with the title thereto. Accordingly, whenever depositing a stock certificate as collateral, or when leaving it for sale at some fixed price, a detached assignment should be used. The loan will be repaid and the collateral returned, while the contemplated sale of the certificate may never be effected. By destroying the detached assignment, the owner will always have a "clean" certificate, irrespective of the number of times it may have been deposited as collateral or left with the broker for sale. On the contrary, if the reverse of the certificate is once signed, the owner will remain exposed to the danger connected with possible loss of the certificate and wrongful use thereof by an unscrupulous finder.

Rules Relating to the Assignment, Transfer, and Registration of Stock.—The requirements that transfer offices insist upon, preliminary to transferring title to stock certificates, differ materially with different corporations. But whatever the requirements may be, transfer agents are obliged to act with such care that the regulations of corporations are often regarded as unnecessarily technical. The extreme care exercised is due to the liability that may fall upon the corporation if it does not fully satisfy itself of the genuineness of the power to transfer. In transferring securities the corporation acts on its own responsibility. It assumes the risk of being misled by forgery or fraud and cannot claim, as against the rights of the true owner of the stock, that it has acted with due care and in good faith upon what it considered to be genuine authority. It is for this reason, as will be pointed out later, that corporations find very valuable the practice of having brokers guarantee signatures to assignments and powers of attorney.

To be a good delivery the assignment of the stock must not only comply with the requirements of the Exchange but must be in strict accordance with the face of the certificate, that is, if the stock stands in the name of "John Henry Smith," it must be assigned by John Henry Smith, and all abbreviations, alterations, and enlargements must be avoided.[8] Irregularities, resulting from a failure to

[8] The assignment form required by the New York Stock Exchange upon the reverse of a certificate of stock contains the following: "Notice: The signature to this assignment must correspond with the name as written upon the face of the certificate in every particular

comply with this rule, can only be eliminated by transferring the stock into deliverable form. The same situation is also occasioned if clients, in sending stock to their broker, should assign it to him, instead of only filling in the broker's name in the proper space that provides for the appointment of an attorney, and leaving all other spaces blank except those for the date, signature, and witness. Should the broker have the stock assigned to him by his client, he can only put the stock into deliverable form by first transferring it to his own name.

Various other rules deserve special mention because of their frequent application. Thus if a married woman assigns a stock certificate, it is usually a good delivery only when a joint acknowledgment of an execution of assignment has been made by the husband and wife before a notary public. Sometimes acknowledgment of an assignment before a notary public is also required in the case of stock standing in the name of an unmarried woman without the prefix "Miss," or in the name of a widow. Such notarial acknowledgment, however, is not required when the stock stands in the name of an unmarried woman with the prefix "Miss," and when signed "Miss." Irregular assignments in the foregoing respects again mean that the stock can only be put in deliverable form by first transferring the same on the books of the corporation, usually in the name of the broker.

If the stock stands in the name of a trustee or trus-

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without alterations or enlargement or any change whatever." H. S. Martin in *The New York Stock Exchange* states: "If a certificate of stock has been made out by the Company to a wrong name (such as a misspelling, wrong initials, etc.) the Company must correct the name on the face of the certificate, by writing in 'correct name is.........................,' and this statement must be signed by the transfer agent who certified to the name as originally filled in. Signing the name as wrongly filled in, then properly, only makes a certificate non-deliverable; and a guaranty by a broker that the names are one and the same person *will not cure this defect*."

tees, the assignment, which must be executed by the trustee, must be accompanied by either the original or a certified copy of the instrument under which the trustee is acting. If standing in the name of a deceased person, or the estate of a deceased person, it is customary to require (1) that the assignment be executed by the administrator or executor and that a certificate of their appointment, of a reasonably recent date, together with all necessary papers to show the consent of certain state departments where this is necessary, be filed with the transfer agent; and (2) that in case of transfer with the will annexed, a certified copy of the will be submitted. Furthermore, a transfer by an executor to himself individually will only be recognized on the conditions that the will shows that he is a residuary legatee; that it appears by affidavit of the executor that all legacies claimed against the decedent and his estate have been fully paid with a balance of the assets sufficiently large to pay all remaining expenses of administration; and that the transfer has been specifically authorized by the proper court.

In the case of stocks standing in the name of corporations or institutions, the assignment must be executed by a duly authorized official of such corporation or institution and must be accompanied by certain evidence of the authority of such official to make the assignment. This evidence usually consists of an abstract from the minutes of a meeting of the board of directors or trustees setting forth that at a specified meeting the board, which has full power to sell or direct the transfer of any shares of the stock owned by the corporation, has:

> RESOLVED, That .....*Name of Official*...... be, and hereby is, authorized and empowered to sell, assign, and transfer and set over unto ....
> .... shares of the ....

stock of the ....Company and in the name of this Company, or otherwise, to execute and to deliver all the papers necessary for that purpose; and further

RESOLVED, That the Secretary of this Company be, and hereby he is, authorized and directed to affix the seal of this corporation to any papers executed in pursuance of the foregoing resolution and to attest the same.

The undersigned hereby certifies that the foregoing is a true and correct copy of resolutions adopted at a meeting of the Board of Directors of the .... Company duly held on the .... day of ....19 ....

Dated ....

If the foregoing resolution is a general one for use at any time, certification must be made by the secretary of the corporation to the effect that the resolution is in force at the time of making the transfer. Similarly, if the transfer of securities is authorized by a by-law, the secretary must furnish a copy properly attested as being in force at the time of the desired transfer, and the assignment must be acknowledged before a notary public according to a prescribed form, and must have impressed on it the seal of the corporation.

Guaranty of Signatures by Brokers.—In view of the great care that, as already explained, corporations must exercise in transferring the title to stock certificates, both the corporation and the investing public have been relieved of much inconvenience by the practice of having brokers guarantee the execution of assignments on securities. In view of the broker's responsibility in connection with such guarantees it is important that he should be sure of the genuineness of signatures. Hence, where securities are sent to brokers, it is important that the representative shipping them should place his signature upon the assignment as a second witness unless it already appears as the original witness. If the representative is not certain of the genuineness of the signature, the assignment should be acknowledged before a notary public or guaranteed by some prominent financial institution.

Transferring of Stock Illustrated.—In illustrating the process of effecting a transfer of the title to stock let us assume that "A," the owner of 100 shares of Pennsylvania Railroad stock, has the same sold through brokerage firm "X" on the New York Stock Exchange, and that the shares are purchased by firm "Y" for customer "B". Let us also assume that "B" instructs "Y" to have the stock transferred to his name, and that "Y" requests delivery by certificate and not by transfer. While it does not always happen, owing to the system of clearing transactions already explained, that in transactions involving active securities like Pennsylvania Railroad stock the selling broker delivers the shares to the broker who purchased from him, it is assumed in our illustration that such is the case, and that "Y" calls upon "X" for delivery by certificate.

Following the sale "A" will deliver to "X" the certificate for 100 shares assigned in blank by him and with the signature of a witness endorsed thereon. If "A's" signature is known to firm "X," an employee of that firm will witness the signature; and, if not, the firm would insist upon the signature of a witness known to it as well as "A," or would require that the authenticity of the signature be certified by a notary public or an officer of some well known financial institution. Furthermore, it is necessary to have the signature of the registered holder guaranteed by a member of the New York Stock Exchange or by a member of some firm accorded the privileges of the Exchange. In either case the member thus guaranteeing the signature must be registered as doing business in the Borough of Manhattan. Some member of firm "X" will, therefore, endorse a guarantee of "A's" signature upon the certificate, which will then, upon the business day following the sale, be delivered to "Y" with a bill of sale to which any existing transfer tax is attached.

"Y" having now received the stock certificate with the bill of sale attached, will send it to the office of the transfer agent for Pennsylvania Railroad Stock with instructions that a new certificate be made out in the name of "B." Upon the delivery of the certificate of stock to the transfer office "Y" will receive a receipt therefor. The transfer clerk will, as soon as possible, make the proper entries upon the transfer book and stock ledger; and, after canceling the old certificate and the transfer tax stamps, will issue a new certificate for 100 shares in the name of "B," which will be properly signed by the transfer clerk and the registrar. Broker "Y" will next exchange the receipt received from the transfer office when the stock was deposited for the new certificate standing in the name of his client. In this connection it is important to note that it is essential to have "Y" receive payment in full from "B" before having the shares transferred to his name. Although "Y" may retain the certificate following its transfer to the name of "B," the latter upon the effecting of the transfer is regarded as the owner by the corporation, and it might be difficult to obtain legally the payment of any balance due upon the stock in the event of "B's" death or in case of attempted fraud. In case "A" had filled in the name of "X" as his attorney in the blank form reserved for that purpose, "X" would have signed a power of substitution (substituting "Y") and would have delivered this with the stock certificate, which in turn would have been sent with the stock by "Y" to the transfer office.

If in the above illustration both "A" and "B" live outside of New York and if shipment of the stock is necessary, the following precautionary measures, in addition to the proper witnessing of the signature, could be adopted by the brokerage firms to eliminate the possibility of losing money through fraud, unnecessary expense, or the loss of the certificate. In the first place "A" might ship the stock to his broker "X" by registered mail, uninsured. If this method is pursued, "A" may either sign the stock and after the word "appoint" in the power of attorney fill in the name of "X," or he may ship the stock unsigned and send a detached power of attorney, appointing "X" as his attorney, under separate cover. The loss of either the certificate or the detached power of attorney would involve no risk since a transfer cannot be effected without the delivery of both to the transfer office. Either of the afore-mentioned methods is safe since the certificate can be transferred only by the endorsement of firm "X." Insuring the stock against loss would afford still greater safety, but this method frequently proves difficult to persons living in small towns, and often involves delay as well as extra expense. "Y," on the other hand, will send the stock to "B" by registered mail, and insurance is unnecessary since the stock stands in "B's" name and cannot be negotiated, except through forgery, without his signature.

Lastly, let us assume that "B" had occasion, shortly after its purchase and before any transfer of the stock occurred, to resell the same through firm "Y" to a customer "C," and that "Z," the broker for "C," asks for delivery by certificate and receives instructions from "C" to have the shares transferred to his name. Here it would be convenient to have the stock transferred directly from "A" to "C." This can easily be done since "Y," having received the stock endorsed by "A" and with the signature guaranteed by "X," can deliver it to broker "Z" without additional papers, who can then have it transferred on the books of the corporation to the name of his client. If, however, the stock has been endorsed in a manner requiring the substitution of attorneys, and if "X" has placed the name of "Y" in such power instead of leaving it blank, "Y" must sign another power of substitution, either filling in the name of "Z" or leaving it blank. This power of substitution "Y" would deliver to "Z" with the stock and the power of attorney signed by "X." In either case "Z" would sign a blank power of attorney and send it to the transfer office with instructions to have the title to the shares transferred from "A" to "C."

Method of Effecting Transfer of Stock by Corporations. —Various methods are used by different corporations in transferring stock, and the following plan, representing the system used by one of America's largest railroad corporations, is typical of the general practice. The certificates are kept in the custody of some designated official, and are either kept in a volume with a stub for each certificate, which bears the essential facts concerning the certificate, or are held detached from the stub, in which case upon their issuance the stub is filled out. In either case, when a new certificate is issued to the buyer, the old certificate is canceled by the company and is attached to its original stub.

When the stock certificate and power of attorney are presented to the transfer office, the signature having been guaranteed by the broker, the transaction is first entered on the transfer book. This is usually a loose-leaf book, each leaf containing columns indicating the name of the stockholder, the signature of the attorney, the number of the certificate surrendered, the number of shares surrendered, the name and address of the transferee, and the number of the new certificate issued. The successive transfers are entered one after another, and the book is one of original entry from which postings are made to the stock ledger, which shows at any time the total number of shares belonging to any particular owner, the person transferring the stock being debited with the stock transferred and the transferee being credited. The stock ledger contains the information required by the registrar who signs the new certificate after having satisfied himself that the old one has been canceled and that the name on the new certificate is that of the owner of record. The transactions recorded in the "stock register" are continuous, the successive registrations being entered one after another. Any special facts connected with the registration, such as, for example, the substitution of a new certificate for a lost one, are indicated in the register.

Replacement of New for Lost Certificates.—When certificates of stock are lost, their replacement is attended with much inconvenience and some expense. Before a new certificate is issued to the loser, a corporate indemnity bond is usually required by the corporation, to an amount considerably in excess, usually at least double the amount, of the par value of the shares represented by the lost or destroyed certificate, as a protection against any loss or damage that may arise from the issuance of the new certificate. This surety bond, the cost of which varies with the conditions surrounding the loss, is a protection to the corporation against the future appearance and wrongful conversion of the lost certificate. Advertisement of the loss of the shares must also be made in accordance with the demands of the corporation, — usually once a week for four weeks — in some designated newspaper, and proof of such advertisement must be furnished to some designated authority of the corporation.

References

J. R. Dos Passos, *Treatise on the Law of Stock Brokers and Stock Exchanges*, vol. i. The following pages from Chap. VI: "Negotiable Securities," pp. 648–656; "Non-Negotiable Securities," p. 656; "Requisite Elements of Negotiability," pp. 675–678; "Negotiability as Applied to Stock Certificates," pp. 700–725.

Samuel P. Goldman, *Handbook of Stock Exchange Laws*, pp. 62–90, 213–224.

CHAPTER XVI

CONVERSION OF SECURITIES

Definition and Extent.—Convertible securities, commonly known by the term "convertibles," have been defined as "bonds, stocks or notes which, at the option of the holder, are exchangeable under certain conditions and at some time—present or future—for some other securities issued — usually, but not always — by the same corporation."[1] At a recent date the total outstanding live issues of such securities in the United States, exclusive of Government bonds, were shown to amount to about $1,500,000,000 par value. Of this total, bonds convertible into stock represented nearly 80 per cent, while notes convertible into bonds, and stocks convertible into other stocks, represented approximately 11 and 9 per cent, respectively.

Principal Conditions Governing the Conversion Privilege.—Our limited space forbids an explanation of the numerous conditions governing the conversion privilege that are disclosed by an examination of the numerous outstanding issues of convertibles. Not only has the conversion privilege been extended to practically all kinds of securities, but the conditions under which the privilege can be exercised present the greatest possible variety, there being few issues out of the many in existence that are just alike in this respect. Suffice it to say that such

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[1] Montgomery Rollins, "Convertible Bonds and Stocks" in "Stocks and the Stock Market,' *Annals of American Academy of Political and Social Science*, May, 1910, p. 97.

securities, in the case of bonds, usually stipulate the following with respect to the conversion privilege:

1. A statement as to the price at which the issue may be converted; and, where the issue converts at a price that leaves fractional shares, an agreement as to the method of adjusting such fractions.

2. A statement as to the time when conversion may be effected. Frequently the privilege begins with the issuance and extends throughout the life of the bond. At other times it does not become operative until some future date, and in still other instances may exist only for a limited period.

3. A statement to the effect that at the time of conversion the company will allow accrued interest to the holder of the bond and charge him with the accrued dividend at the current rate on the stock into which the bond is converted, the difference, if any, to be paid in cash by one party or the other. Usually interest and dividend-paying dates are made to coincide. Sometimes, however, corporations differ in respect to the fixing of the time from which the accrued dividend is computed, some fixing this time from the date of the last payment, others from the date when the dividend was last declared, etc.

4. A statement reserving to the corporation the right to call the bond for redemption prior to its maturity. This redemption feature is frequently of the greatest importance, since redemption of the bonds by the company may deprive the holder of a valuable conversion privilege. But, as a rule, conversion may be effected up to or within a stipulated number of days prior to the date named for payment in case the company exercises the right of redemption.

Conditions Prompting the Issuance of Convertibles.—Various conditions may exist that will make the issuance of convertible bonds attractive. Besides securing such bonds both as to principal and interest, corporations can make them speculatively attractive to the prospective purchaser by including the conversion privilege. The holder of the bonds has the assurance that, if well secured, the price of the bond will not fall much below its investment worth, and at the same time is made to feel that he might possibly obtain a large profit through conversion if the stock should rise much above the conversion price. When, therefore, some years ago, many large corporations found themselves in great need of additional funds for the financing of necessary improvements, they resorted to the issuance of convertibles with the hope that the speculative feature, which the convertible plan offers, would serve as an inducement to the investing public. In thus recognizing the speculative feature of convertibles the companies were not mistaken, because huge issues of such securities were successfully floated at prices and at interest rates that possibly could not have been realized by any other method.

In the issuance of convertibles, however, some companies had in mind principally the reduction of their fixed interest charges, which would ultimately take place through the conversion of the bonds into stock. Other managements, when issuing such securities, were actuated chiefly by a desire to retain control of the stock at a time when they were unable or not disposed to purchase enough of any new stock issue to maintain such control. Although the sale of convertible bonds represented a "present sale of future stock," the voting power would not accrue until after conversion had taken place, and by the terms of the bond the right to exercise the convertible feature could be postponed until some distant future date. An increased issue of stock to raise needed funds, on the other hand, might have endangered the control of the corporation by the existing management. Again, various corporations did not care to work a hardship upon their stockholders by unduly depressing the price of their shares through the issuance of a large additional amount of stock. Instead, by issuing convertible bonds, especially where the conversion date is postponed for years to come, the company could not only finance itself at a rate of interest lower than the current dividend on its stock, but would have the assurance that its fixed charges would ultimately decrease or disappear when the conversion privilege became operative. In the meantime, a postponed or gradual conversion of the bonds would not affect the price of the shares nearly so much as would an immediate increase in the stock itself.

Price Movement of Convertibles.—As the quotation of the stock into which the bond may be converted rises above its exchangeable price, the price of the bond will move in sympathy. Thus, the Union Pacific Railroad Company's convertible 4 per cent bonds, due July 1, 1927, were exchangeable at par for the company's stock at 175 any time before July 1, 1917. When the two securities were quoted at these prices, disregarding all accrued interest and dividends, no profit was obtained by converting. If, however, the price of the stock rose above 175 the conversion privilege became valuable, and the price of the bond would also rise, reflecting this value. Thus when, in 1909, the stock rose to 219, the bond at one time sold at 124¼, or very considerably in excess of its intrinsic worth as an investment at four per cent. But if the stock into which the bond is convertible should sell much below its exchangeable price, the value of the bond must be judged from the standpoint of its worth as an investment and its price will not reflect sympathetically the decline in the price of the stock. When Union Pacific stock sold during the panic of 1907 as low as 100, the bonds at no time sold under 78¼, although, if their price action had been entirely sympathetic, they should have declined to 57.14.

In various issues of convertible bonds, however, the conversion privilege does not become effective until some future date. Under such conditions, as Rollins explains:[3]

"There is a marked difference in the price action upon the two classes to be converted. Under the latter conditions, the sympathetic price control of the stock upon the bonds is less marked the more distant the conversion period happens to begin. If not until ten or a dozen years, the price of the stock, however much above its exchangeable value, will but little influence that of the bonds; the latter following more their strictly investment value. But, as the time shortens, the effect increases, until the conversion period begins, when the price of the two securities, if that of the stock is at or above the converting point, must come together. As the conditions of convertibility approach fulfillment, public interest naturally increases, consequently giving a greater impetus to market activity. It not infrequently happens, however, when the conversion period is comparatively near, say three years or less, that the bonds may be purchased at prices not in keeping with a reasonably sure estimate of their future conversion value."

Mention should also be made of the effect that the existence of a large issue of convertible bonds may have at times upon the market value of the stock. The rise of the stock to a point so far above the exchangeable price as to net a considerable profit by converting the bonds and selling the stock thus obtained, may cause conversion on such a large scale and a consequent selling of the shares in the market in such large volume as to depress materially the price of the stock. Moreover, an issue of convertible

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[3] *Ibid.*, p. 104.

bonds may deter an otherwise probable advance in the price of a stock that pays dividends greatly in excess of the rate of interest paid on the bonds. As the bonds, upon their conversion, will greatly increase the outstanding issue of the stock, such increase, because the dividend rate greatly exceeds the interest rate on the bonds, will result in the company's profits being much more heavily drawn upon.

Reducing Current Quotations of Bonds and Stocks to a Common Basis.—In comparing bond and stock prices it is necessary to take into account the difference in the method of quoting the two types of securities. Stocks sell "flat," that is, the price includes the dividend that has accrued since the last dividend date. Bonds, on the other hand, are generally quoted "with interest" or "and interest," meaning that the purchaser must pay the quoted price plus the interest that has accrued since the last interest-paying date. To place stock and bond quotations on the same basis it is essential, therefore, to deduct from the quotation of the stock the accrued dividend. In other words, to ascertain how the price of the convertible bond compares from the standpoint of conversion with the price of the stock into which it may be converted, it is necessary to find the market worth of the stock, exclusive of the accrued dividend, and thus reduce it to a "with interest" basis, which is now almost universally adopted throughout America as the basis for quoting bonds.

To render easy the exclusion of the accrued dividend from the current price of the stock, so-called "accumulated dividend tables" are used, a sample of which is furnished on the opposite page. Such tables are arranged in double columns, representing the rates of dividend upon the different stocks. The single columns under each rate of dividend are respectively headed "interest on $100" and "days," the first containing "the amounts of accu-

Sample Accumulated Dividend Table

(Reproduced from *Convertible Securities* by Montgomery Rollins. For the sake of brevity, the table here presented does not include columns for dividends smaller than 4 per cent, nor for dividends at other than full percentage figures.)

4%		5%		6%		7%		8%		9%		10%	
Days	Interest on $100	Days	Interest on $100	Days	Interest on $100	Days	Interest on $100	Days	Interest on $100	Days	Interest on $100	Days	Interest on $100
11	$\frac{1}{8}$	9	$\frac{1}{8}$	8	$\frac{1}{8}$	7	$\frac{1}{8}$	6	$\frac{1}{8}$	5	$\frac{1}{8}$	5	$\frac{1}{8}$
23	$\frac{1}{4}$	18	$\frac{1}{4}$	15	$\frac{1}{4}$	13	$\frac{1}{4}$	11	$\frac{1}{4}$	10	$\frac{1}{4}$	9	$\frac{1}{4}$
34	$\frac{3}{8}$	27	$\frac{3}{8}$	23	$\frac{3}{8}$	20	$\frac{3}{8}$	17	$\frac{3}{8}$	15	$\frac{3}{8}$	14	$\frac{3}{8}$
46	$\frac{1}{2}$	37	$\frac{1}{2}$	30	$\frac{1}{2}$	26	$\frac{1}{2}$	23	$\frac{1}{2}$	20	$\frac{1}{2}$	18	$\frac{1}{2}$
57	$\frac{5}{8}$	46	$\frac{5}{8}$	38	$\frac{5}{8}$	33	$\frac{5}{8}$	29	$\frac{5}{8}$	25	$\frac{5}{8}$	23	$\frac{5}{8}$
68	$\frac{3}{4}$	55	$\frac{3}{4}$	46	$\frac{3}{4}$	39	$\frac{3}{4}$	34	$\frac{3}{4}$	30	$\frac{3}{4}$	27	$\frac{3}{4}$
80	$\frac{7}{8}$	64	$\frac{7}{8}$	53	$\frac{7}{8}$	46	$\frac{7}{8}$	40	$\frac{7}{8}$	35	$\frac{7}{8}$	32	$\frac{7}{8}$
91	1	73	1	61	1	52	1	46	1	41	1	37	1
103	$1\frac{1}{8}$	82	$1\frac{1}{8}$	68	$1\frac{1}{8}$	59	$1\frac{1}{8}$	51	$1\frac{1}{8}$	46	$1\frac{1}{8}$	41	$1\frac{1}{8}$
114	$1\frac{1}{4}$	91	$1\frac{1}{4}$	76	$1\frac{1}{4}$	65	$1\frac{1}{4}$	57	$1\frac{1}{4}$	51	$1\frac{1}{4}$	46	$1\frac{1}{4}$
125	$1\frac{3}{8}$	100	$1\frac{3}{8}$	84	$1\frac{3}{8}$	72	$1\frac{3}{8}$	63	$1\frac{3}{8}$	56	$1\frac{3}{8}$	50	$1\frac{3}{8}$
137	$1\frac{1}{2}$	110	$1\frac{1}{2}$	91	$1\frac{1}{2}$	78	$1\frac{1}{2}$	68	$1\frac{1}{2}$	61	$1\frac{1}{2}$	55	$1\frac{1}{2}$
148	$1\frac{5}{8}$	119	$1\frac{5}{8}$	99	$1\frac{5}{8}$	85	$1\frac{5}{8}$	74	$1\frac{5}{8}$	66	$1\frac{5}{8}$	59	$1\frac{5}{8}$
160	$1\frac{3}{4}$	128	$1\frac{3}{4}$	106	$1\frac{3}{4}$	91	$1\frac{3}{4}$	80	$1\frac{3}{4}$	71	$1\frac{3}{4}$	64	$1\frac{3}{4}$
171	$1\frac{7}{8}$	137	$1\frac{7}{8}$	114	$1\frac{7}{8}$	98	$1\frac{7}{8}$	86	$1\frac{7}{8}$	76	$1\frac{7}{8}$	68	$1\frac{7}{8}$
183	2	146	2	122	2	104	2	91	2	81	2	73	2

78	2⅛	86	2⅛	97	2⅛	111	2⅛	129	2⅛	155	2⅛
82	2¼	91	2¼	103	2¼	117	2¼	137	2¼	164	2¼
87	2⅜	96	2⅜	108	2⅜	124	2⅜	144	2⅜	173	2⅜
91	2½	101	2½	114	2½	130	2½	152	2½	183	2½
96	2⅝	106	2⅝	120	2⅝	137	2⅝	160	2⅝		
100	2¾	112	2¾	125	2¾	143	2¾	167	2¾		
105	2⅞	117	2⅞	131	2⅞	150	2⅞	175	2⅞		
110	3	122	3	137	3	156	3	183	3		
114	3⅛	127	3⅛	143	3⅛	163	3⅛				
119	3¼	132	3¼	148	3¼	169	3¼				
123	3⅜	137	3⅜	154	3⅜	176	3⅜				
128	3½	142	3½	160	3½	183	3½				
132	3⅝	147	3⅝	165	3⅝						
137	3¾	152	3¾	171	3¾						
141	3⅞	157	3⅞	177	3⅞						
146	4	162	4	183	4						
151	4⅛	167	4⅛								
155	4¼	172	4¼								
160	4⅜	177	4⅜								
164	4½	183	4½								
169	4⅝										
173	4¾										
178	4⅞										
183	5										

mulated dividends expressed in fractions, increasing by intervals of 1/8 per cent, which is the minimum New York Stock Exchange fluctuation," and the second containing "the number of days at which $100 must be at interest at the dividend rate to nearest approximate the fractions opposite." Thus let us assume that Union Pacific on April 8 sold at 155½, and that the preceding dividend date was April 1. Since the stock paid 10 per cent dividends at the time and since eight days elapsed since the last dividend date, we will find, by referring to the 10 per cent column of the accumulated dividend table and opposite number 9 in the column headed "days," the nearest approximation to eight days, that ¼ per cent, representing the accumulated dividend for eight days, expressed by the nearest fraction used on the Exchange in quoting stock, must be deducted from the stock quotation of 155½, thus giving 155¼ as the approximate market worth of the stock, exclusive of dividend accrued. Had 82 days elapsed since the last dividend date, the accrued dividend would have amounted to 2¼ per cent and it would have been necessary to deduct this amount from the price of 155½, giving 153¼ as the value of the stock, reduced to a "with interest" basis.

Ascertaining the Conversion Equivalent.—In determining whether conversion is profitable or not it is necessary to know the "conversion equivalent" — the prices at which the bond and the stock must be quoted to be on a conversion equality—at which conversion is neither profitable nor unprofitable. To illustrate, the convertible four per cent bonds of the Union Pacific Railroad Company, due July 1, 1927, were convertible into stock, until July 1, 1917,[3] on the basis of $175 par value of bonds for each

[3] $73,762,000 of these bonds were issued. $46,926,775 of the bonds were converted into the common stock of the company, leaving $26,835,225 outstanding. The price of the bond ranged from a

$100 par value of stock. When the bonds, therefore, were quoted at 100 in the market and the stock at 175, it follows that there was no profit in converting, since one merely obtained stock at 175 that was selling at the same price. Suppose, however, to use the illustration of Rollins, that Union Pacific stock was quoted at 182⅞ on August 13 and the bonds at 103. Would conversion have been profitable at these prices? In answering this question it is first necessary to deduct from the stock quotation of 182⅞ the accrued dividend since July 1, the preceding dividend date. This, for the 43 days from July 1 to August 13, amounts (to the nearest ⅛) to 1⅛ per cent, since the stock paid 10 per cent annually. Deducting 1⅛ from 182⅞, we find that 181¾ represents the market value of the stock divested of the accrued dividend. The question now is: If bonds may be converted into stock on the basis of $175 of bonds to $100 of stock without any profit, what price must the bonds be quoted at with the stock selling at 181¾ in order that there may be no profit in converting? The bond conversion equivalent would evidently be in the same proportion to 181¾ as 100 is to 175. We have, therefore, the proportion of 100 is to 175 as the bond-conversion price, the unknown quantity, is to 181¾. By working out this proportion we find that the price at which the bond must be selling, in order that conversion may be neither profitable nor unprofitable, is 103.86. From this it follows that, when the price of the stock rises above 181¾ and the bond remains stationary at 103.86, or when the price of the bond falls below 103.86 and the stock remains stationary at 181¾, it is profitable to convert.

minimum of 78¼ in 1907 to a high of 124¼ in 1909. During the first half of 1921 the price has ranged between 81 and 85½.

The Use of Conversion Tables.—To render convenient the prompt finding of the conversion equivalent of any bond when the stock into which it may be converted is selling at a certain price, exclusive of the accrued dividend, so-called "conversion tables" have been prepared for the leading issues of convertible bonds. These tables, as illustrated on the opposite page, simply consist of two columns, the one headed "price of stock," giving the quotations by intervals of one-eighth, the minimum fluctuation on the Exchange, and the other headed "bond equivalent," giving immediately opposite each stock quotation the mathematical equivalent of the bond, that is, the price at which the bond must sell, with the stock standing at the indicated price, in order that conversion may be neither profitable nor unprofitable. A glance at the sample conversion table on page 261 will show that when the stock was worth 181¾, the bond equivalent, found immediately opposite the figure 181¾, was 103.86. Similarly, if the bonds were selling at 88.71, the conversion equality of the stock fell to 155¼, and if selling at only 71.43 the conversion equivalent of the stock correspondingly declined to 125. If the bonds, for example, were selling at either 88.71 or 71.43 and the stock was quoted sufficiently above 155¼ or 125 to pay commissions, or if the stock was quoted at these figures and the bond sold sufficiently below 88.71 and 71.43 to pay commission, a conversion could have been made profitably. Attention should be called again, however, to the fact that, owing to the intrinsic worth of the bond as an investment at 4 per cent on par, the price of the bond was not likely under normal conditions to decline to 88.71 and 71.43 when the stock dropped to 155¼ and 125. But with the stock worth 181¾ and the bonds selling at 103, their conversion equivalent being 103.86, conversion could have been made

Sample Conversion Table for Union Pacific Railroad Company's Convertible 4's, due 1927

(Reproduced in part from *Convertible Securities* by Montgomery Rollins)

Price of Stock	Bond Equivalent	Price of Stock	Bond Equivalent	Price of Stock	Bond Equivalent
125	71.43	165	94.29	190	108.57
125⅛	71.50	165⅛	94.36	190⅛	108.64
125¼	71.57	165¼	94.43	190¼	108.71
125⅜	71.64	165⅜	94.50	190⅜	108.79
125½	71.71	165½	94.57	190½	108.86
125⅝	71.79	165⅝	94.64	190⅝	108.93
125¾	71.86	165¾	94.71	190¾	109.00
125⅞	71.93	165⅞	94.79	190⅞	109.07
135	77.14	170	97.14	195	111.43
135⅛	77.21	170⅛	97.21	195⅛	111.50
135¼	77.29	170¼	97.29	195¼	111.57
135⅜	77.36	170⅜	97.36	195⅜	111.64
135½	77.43	170½	97.43	195½	111.71
135⅝	77.50	170⅝	97.50	195⅝	111.79
135¾	77.57	170¾	97.57	195¾	111.86
135⅞	77.64	170⅞	97.64	195⅞	111.93
145	82.86	175	100.00	200	114.29
145⅛	82.93	175⅛	100.07	200⅛	114.36
145¼	83.00	175¼	100.14	200¼	114.43
145⅜	83.07	175⅜	100.21	200⅜	114.50
145½	83.14	175½	100.29	200½	114.57
145⅝	83.21	175⅝	100.36	200⅝	114.64
145¾	83.29	175¾	100.43	200¾	114.71
145⅞	83.36	175⅞	100.50	200⅞	114.79
155	88.57	181	103.43	205	117.14
155⅛	88.64	181⅛	103.50	205⅛	117.21
155¼	88.71	181¼	103.57	205¼	117.29
155⅜	88.79	181⅜	103.64	205⅜	117.36
155½	88.86	181½	103.71	205½	117.43
155⅝	88.93	181⅝	103.79	205⅝	117.50
155¾	89.00	181¾	103.86	205¾	117.57
155⅞	89.07	181⅞	103.93	205⅞	117.64

SAMPLE CONVERSION TABLE FOR UNION PACIFIC RAILROAD COMPANY'S CONVERTIBLE 4'S, DUE 1927—*Continued*

Price of Stock	Bond Equivalent	Price of Stock	Bond Equivalent	Price of Stock	Bond Equivalent
160	91.43	185	105.71	211	120.57
160⅛	91.50	185⅛	105.79	211⅛	120.64
160¼	91.57	185¼	105.86	211¼	120.71
160⅜	91.64	185⅜	105.93	211⅜	120.79
160½	91.71	185½	106.00	211½	120.86
160⅝	91.79	185⅝	106.07	211⅝	120.93
160¾	91.86	185¾	106.14	211¾	121.00
160⅞	91.93	185⅞	106.21	211⅞	121.07

at a profit of $150, disregarding the payment of commissions. Since $175 par value of bonds could be exchanged for $100 par value of stock, the holder of $17,500 of bonds, worth $18,025 at the price of 103, could surrender the bonds for 100 shares of stock, worth $18,175 at the price of 181¾, and make a gross profit of $150.

Arbitraging in Convertibles.—The holder of a convertible bond need not actually convert it in order to realize the profit attaching thereto when the stock into which the bond is convertible sells considerably above its exchangeable price. By way of illustration, let us assume that seven days following the last dividend date Union Pacific stock sold in New York at 211½. Reference to the accumulated dividend table, under the 10 per cent column, will show that one-quarter per cent of accrued dividend, the nearest statement by one-eighth of the accumulated dividend for seven days, must be deducted from the quotation, thus giving 211¼ as the worth of the stock when quoted on the same basis as the bonds. Further reference to the conversion table shows that with the stock selling at 211¼ the bond equivalent of the "convertible 4's of 1927" is 120.71. Because the stock advanced 36¼ points above its exchangeable price of 175, the price of the bond also advanced sympathetically in the ratio of 100 to 175, or to the extent of 20.71. The benefit of this rise in the price of the bonds the holder could have obtained, without actually effecting a conversion, by simply selling the bonds in the open market and taking his profit.

Holders of convertible bonds are enabled to sell them promptly and take their profits largely because of the existence of dealers who find it profitable to arbitrage between bonds and stocks into which such bonds are convertible, whenever the bonds sell sufficiently below their conversion equivalent to more than justify the payment of commissions. With Union Pacific stock selling, as per our previous illustration,[4] at 211½ and the bonds, let us say, at 120, the operation of the arbitrager may be explained as follows: He first reduces the price of the stock to a "without interest" basis, and finds that 211¼ represents the value of the stock, exclusive of the accrued dividend. He next notes that the bond equivalent is 120.71. He now knows that conversion is profitable since the bond is selling sufficiently below its conversion equivalent to more than pay the commissions. He, therefore, let us assume, buys $17,500 bonds at 120 and, at the same time, sells short 100 shares of the stock at 211½, the equivalent of 211¼ plus the accrued dividend, his intention being to make delivery on his sale of the stock with the 100 shares received by converting the bonds he purchased. His profit on this arbitraging transaction may now be computed as follows:

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[4] Assuming that the conversion privilege of this bond issue had not yet expired.

Commission on $17,500 bonds bought ($15 per $10,000 par value)	$26.25
Commission on 100 shares of stock sold ($20 when price exceeds $125)	20.00
Total commission	$46.25
Sum received from sale of 100 shares at 211¼	$21,125.00
Cost of $17,500 bonds at 120	21,000.00
Balance	125.00
Less commissions	46.25
Profit	$78.75

Because of a favorable adjustment in the price of the bond and the stock it is possible that the arbitrager need not even effect a conversion in order to net a profit. Thus with the stock remaining stationary and the price of the bond rising to 120⅝ the arbitrager might close out both transactions, that is, buy in the 100 shares and sell the bonds at the increased price. Moreover, the arbitrager, if a member of an exchange, would not be obliged to make allowance for the payment of commissions. In any case, irrespective of the plan followed, the practice of arbitraging in convertible securities renders great service. Not only is the market in such securities made more continuous in character by the practice, but the prices of the bond and the stock, where a conversion value attaches to the bond, are constantly made to stand in proper relation to one another. The holder of the bond is, therefore, not only assured a better opportunity to sell, but is (1) relieved of the necessity of constantly ascertaining the conversion equivalent of the bond with every fluctuation in the price of the stock; and (2) enabled to obtain his profit by merely selling the bond in the open market.

Adjustment of Fractional Shares Where Issues do not Convert Evenly.—When conversion is actually effected, some inconvenience might be experienced in cases where the issue converts at a price that necessitates an adjustment of fractional shares. The difficulties encountered will depend upon which of four possible plans the company may have adopted for such adjustment. Assuming a $1,000 bond exchangeable for stock at 130, the holder, upon effecting conversion, is entitled to 7.6923 shares. While the corporation will deliver the seven full shares, some adjustment must be made of the fractional share of .6923.

The settlement for this fractional share, as stated, may be made in any one of four ways. The company may pay cash for the fraction, the holder of our assumed bond being thus entitled to $69.23. Or, instead of paying cash, the corporation may issue convertible bond "scrip" for the fraction, which, when presented in amounts equal to the conversion price of full shares, can be exchanged for stock. Under this plan the holder is obliged either to sell the scrip or to buy an additional amount so that the total may equal the conversion price of a full share. Usually the scrip is non-interest or non-dividend bearing, and must be exchanged for stock prior to the closing of the corporation's books in order to participate in the next dividend. Moreover, the market price of the scrip will fluctuate with that of the stock in accordance with the ratio that its amount bears to the conversion price of a full share of stock.

To overcome the inconvenience just mentioned, some corporations allow scrip to be offered for conversion even though it is not presented in amounts evenly divisible by the conversion price of a full share of stock. This method proves much more convenient because the holder may present scrip in any amount, and after receiving as many full shares as he is entitled to, will receive new scrip for any fractional share that may still remain. Again, corporations may permit the holder to convert the bonds only when presented in amounts evenly divisible by the conversion price of the stock. This method has been characterized as particularly unfair, especially where the bonds are issued only in denominations of $1,000. In the case of the assumed bond, convertible into stock at 130, this method would require the holder, in order to convert, to present not less than $13,000 of bonds, since no other amount is evenly divisible by 130. While bonds might be purchased in the market to make the aggregate holding large enough for conversion purposes, the inconvenience of such a requirement must be apparent.

References

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CHAPTER XVII

"PRIVILEGED SUBSCRIPTIONS" OR "RIGHTS"

Definition, Reasons for, and Importance of "Privileged Subscriptions."—A "privileged subscription," or a "right" as it is commonly known in stock market terminology, may be defined as the privilege given by a corporation to its stockholders to subscribe to additional stock, and sometimes bonds, at a price lower than the current market price of the stock under consideration. Such privileged subscriptions are offered by corporations for a great variety of reasons. Having accumulated a surplus during previous years, the corporation may, by the issuance of new stock, capitalize this surplus. Or the corporation may decide to raise needed funds through the sale of stock because it does not wish to increase its fixed charges, or because the money market may at the time happen to be such that bonds or notes cannot be issued except at excessively high interest rates, or because funds are absolutely necessary to provide for improvements that do not correspondingly increase the income. If for any of these reasons large blocks of stock were thrown on the open market, prices might decline sharply. By offering the shares to stockholders, however, at a price considerably below current quotations, the company is practically assured of success in obtaining the funds and any decline in the market price of the stock will be comparatively small. In the past, privileged subscriptions were also issued by many corporations as a means of capitalizing their present and future earnings, and many instances are on record where leading corporations, whose stock now sells at par or higher, distributed large amounts of stock free, although they possessed no surplus at the time to justify the distribution.

The importance of privileged subscriptions in their relation to the stock market becomes apparent when we note the frequency with which large corporations have used this method of raising capital and of distributing profits. Thus, between February, 1902, and October, 1909, the Canadian Pacific Railway Company increased its outstanding stock by nearly 170 per cent through the issuance of privileged subscriptions; the stock of the Chicago, Milwaukee and St. Paul Railway Company shows an increase by this method between 1882 and 1906 of 254 per cent of common stock plus an additional 101 shares of preferred stock; the Great Northern Railway Company had nearly seven times as much stock in 1907 as in 1893, not taking into account the 495 ore certificates issued to its stockholders in 1906 for each 100 shares of stock held in 1893; the United Gas Improvement Company in 1909 had nearly six times as much stock outstanding as it had in 1896; while between 1887 and 1909 such leading corporations as the Pennsylvania, New York Central, and Illinois Central Railroads, respectively, increased their outstanding stock through privileged allotments to stockholders, by 285, 145, and 263 per cent. Numerous other corporations might be mentioned that have doubled and trebled their outstanding stock during the past two decades and that have offered all allotments to stockholders at prices lower than the current market quotations at the time.

Meaning of the Term "Rights" on Various Exchanges. —The term "right" as used on the New York Stock

Exchange has a meaning different from that prevailing in the Philadelphia market, with the result that these two Exchanges use different methods in quoting the market price of rights. In the New York market a right is "the privilege of one old share to participate in the new issue," while in Philadelphia the term has reference to the "privilege of subscribing to one share of new stock." Thus let us assume that "A" is the holder of 100 shares of stock in a corporation that has given its stockholders the privilege of subscribing to new stock to the extent of 25 per cent of their holdings. In New York, where the term "right" pertains to the privilege of each old share to participate in this 25 per cent allotment, "A" becomes the possessor of 100 rights, each representing his privilege as owner of one of the old shares to subscribe to one-fourth of a share of new stock. "A" must, therefore, be the holder of four old shares, giving him four rights, in order to have the privilege of obtaining one new share at the lower price, and his holdings of 100 shares entitle him to 25 new shares. On the basis of a 25 per cent allotment, therefore, "A" will be regarded as having only one-fourth as many rights in Philadelphia as in New York. But since "A's" four rights in New York, one right to each of four old shares entitling him to one new share, are equivalent in value to his one right in Philadelphia, that is, the right to get one new share, it follows that the mathematical value of each right in Philadelphia is four times as great as the right in New York. Had our illustration assumed an allotment of only 10 per cent instead of 25 per cent "A," as holder of 100 old shares, would again have been the possessor of 100 rights in New York, one right per each old share, entitling him to 10 new shares. In Philadelphia he would have had only 10 rights, one right per each new share he is entitled to, and the right in Philadelphia would be quoted at 10 times the New York price.

Computation of the Mathematical Value of Rights.— Since the new shares are allotted at a price lower than the current market price of the stock, it follows that the right to such favorable subscription is of value to the holder of the old shares. This value will depend, of course, upon the price at which the old shares are selling above the subscription price of the new shares, and can easily be computed. Thus, on January 2, 1912, the Canadian Pacific Railway Company granted to its stockholders the privilege of subscribing to new stock to the extent of 10 per cent of their holdings at a price of $150 a share, although the current market price of the stock at the time the allotment was given was $242 a share. In other words, the holder of 10 shares of Canadian Pacific stock was permitted to subscribe to one new share at a price $92 below the price at which the stock was then selling. Apparently such a large difference between the subscription price and the market price indicates that the right to participate in the new issue has a considerable value. The computation of this value in the New York market may be illustrated as follows:

10 shares of old stock at $242 per share...... =	$2,420.00
1 new share at $150........................ =	150.00
Total cost of 11 shares (old and new shares combined) .... =	$2,570.00
Average cost of 1 share ($2,570 ÷ 11)........ =	$233.63

The value of each right in New York, that is, the right pertaining to each of the old shares to participate in this favorable subscription, is the difference between $242, the price of the old stock, and $233.63, the average price per share of all the stock, new and old combined, or $8.37 or about 8⅜. The same computation might be made, and is usually made, on the basis of 100 shares; that is, the price of 100 shares at $242 ($24,200) plus the price of 10 new shares at $150 ($1,500), or $25,700, divided by 110 (the new and old shares combined) equals $233.63, which, subtracted from $242, again gives $8.37 as the value of the right attaching to each of the 100 old shares that were allowed to participate in the allotment.

Meaning of the Terms "Rights On" and "Ex-Rights." —As previously explained stock quotations on American exchanges always include the accumulated dividend, that is, the current price, exclusive of all other factors, should gradually increase week after week as the dividend is being earned. Then, when the stock sells "ex-dividend," its price, *other things being equal,* should drop by the amount of the dividend. In the same way the issuance of rights is discounted in advance, and the value is included in the market quotation for the stock. Rights are "declared," as a rule, a month or even longer before they are actually issued, the corporation's announcement stating that the privilege of subscribing to the new stock is given to stockholders as they shall stand registered on the books of the company at the close of business on a certain stipulated date. Until this date the stock sells "rights on," the value of the right being included in the price of the stock; while on the next day the stock sells "ex-rights," the value of the right being excluded from the price of the stock since its purchase on this day or thereafter no longer entitles the buyer to the privilege of subscribing to the new shares. The price of Canadian Pacific stock, referring to our previous illustration, should therefore, exclusive of all other factors, have opened about 8⅜ a share lower on the day when the stock sold "ex-rights" than it closed on the preceding day. The actual issuance of the new stock, however, may not take place until a month or even longer after the date on which the stock sells "ex-rights." Corporations usually permit stockholders to pay for the new shares on the installment plan, allowing interest upon the installments, and usually the new shares are issued at a price so much lower than the market price that it is possible for the subscriber to borrow the funds necessary to pay for the new shares and then use them as collateral to secure the loan.

Extent to which Privileged Subscriptions are Discounted by the Market.—It rarely occurs that the declaration of rights by a corporation is not previously discounted in the market quotations for the stock. This may be shown by selecting any considerable number of privileged subscriptions, using corporations whose shares are regularly quoted, and tabulating the high and low quotations by months for a period beginning, say, four months previous to the announcement of the privilege and ending, say, four months after the right to subscribe ceases. Such a list will show that in the great majority of cases, making proper allowance for the general upward or downward trend of the market as a whole, the stock begins to discount the prospective issuance of rights months before official announcement thereof is made, and that the highest quotations are reached, with few exceptions, shortly before or immediately after the publication of the news. Immediately following the advertisement of the rights, and sometimes even before such advertisement, a well defined selling movement generally commences and continues until the expiration of the period during which subscription is allowed. The general upward trend of the market, however, or local conditions affecting the particular stock, may be strong enough in individual instances to reverse the usual tendency. Many examples of rights may be mentioned where the stock declined from the time that rumors of the new financing were first heard. This is especially the case in stocks that are extremely large in the outstanding amount, whose ownership is widely distributed, that are selling only slightly above par, and that can show but little more than present dividend requirements. Under such conditions the ability of the market to absorb a new issue is frequently questioned, and the rumor or announcement of the privileged subscription is often the signal for the starting of a heavy selling movement in the particular stock.

Past records also show that, in the great majority of instances, the issuance of rights has been discounted within a much shorter item than is generally the case with dividend increases. Several reasons may be offered as an explanation for this. In the first place, the average investor does not consider privileged subscriptions as regular income in the same sense that he so regards dividends. Instead, privileged subscriptions are considered by most investors as a sort of bonus, the granting of which cannot be counted on in the same way that one can look forward to the securing of regular dividends. Even if the corporation has been pursuing for years a policy of financing by this method, there is no assurance that such a course will be pursued in the future, and discounting such action on the part of the corporation long in advance is hardly considered safe. The return from rights is much less certain to the investor than the returns from dividends. The latter are paid regularly and the investor is better able to anticipate with reasonable assurance the amount he will receive and the time of payment. This cannot be said of rights. It is impossible for the great mass of investors to know when they are coming, or how much they will be worth. Their issuance depends upon the action of the corporation, and what that action will be in the future is difficult to tell. Merely because a corporation has been liberal in the past in authorizing stock allotments is not regarded by the average investor as sufficient cause for the stock to be constantly selling at a price level that indicates an expectation of profits from rights in the future at the same rate as prevailed in the past.

Procedure Followed by Corporations in Offering Privileged Subscriptions.—Briefly outlined, corporations usually adopt the following method in announcing the subscription allotment and in issuing the new stock:[1]

1. The corporation announces by circular to its stockholders the detailed conditions governing the issuance of the new stock, that is, the reasons for the issue, the extent of the allotment, the subscription price, the date when the stock will sell "ex-rights," the date when the right to subscribe to the new stock will cease, the terms of payment, the dates and method of issuing and surrendering "warrants" and "assignable receipts," and the manner of converting or redeeming fractional shares. Thus, in connection with its stock allotment, under date of April 9, 1913, the Pennsylvania Railroad Company announced by circular to its stockholders that "the privilege of subscribing for the said stock at par, fifty dollars per share, on May 31, 1913, on which date the privilege will cease, is hereby given to stockholders as they shall stand registered on the books of the company at the close of business, May 5, 1913, to the extent of 10 per centum of their then respective holdings." The circular further provided that "the right to receive stock shall not accrue to any stock-

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[1] For sample of a corporation's announcement of a privileged subscription, see Appendix VI.

holder under this privilege, unless the terms of subscription are fully complied with and payments made at the dates hereinbefore stated, and no subscription or assignment of the privilege will be recognized unless made on the forms furnished by the company."

It should be stated here that the stockholder can dispose of his privilege as soon as the proposition to increase the capital stock is announced, or even while such proposed increase is merely rumored. Frequently rights are actively dealt in on the curb as soon as rumors of a prospective allotment of stock begin to circulate, and since no deliveries can be made in the regular way, contracts are drawn between the buyer and seller in which the seller agrees to make delivery "when, as, and if issued." Contracts continue in this form until official advice of the issue is given, when they are changed to read, "when, and as issued." As soon as the rights are issued, however, they are transferred to the Exchange, provided the stock is listed. Transactions on the Exchange call for delivery "regular way" except in the larger issues, when a special day for delivery is set.

2. Following the detailed announcement of the terms of subscription, the corporation will issue "warrants"[3] specifying the amount of stock to which each stockholder is entitled to subscribe under the privilege. If the amount of stock to which any stockholder is entitled involves a fractional lot, a separate "fractional warrant" is issued. In the circular referred to, the Pennsylvania Railroad Company announced that "warrants" would be mailed about May 15 to the addresses indicated on the permanent dividend mailing orders filed in the office by the stockholders, unless other instructions were received prior

[3] For sample copy of a "warrant" see Appendix V.

thereto. In other words, stockholders of record at the close of business on May 5 received these "warrants," unless they subsequently parted with their right to subscribe to the new issue; but no payment to the corporation was required until May 31.

The warrant, it is apparent, is merely an evidence of the right of the holder thereof to subscribe to the amount of new stock designated therein. Each warrant is numbered and dated, and is issued for a designated "Par Amount $......." It usually reads as follows:

This is to certify that (**here follows name and address of the holder**) or Assigns, is entitled to subscribe at the rate of $........ per Share of $........ par value, for .... par value of the stock of the .... Company, pursuant to the provisions of the circular dated ...., signed by ...., Treasurer of the .... Company.

Following this introductory portion, the warrant contains a description of the most important conditions announced in the circular issued to stockholders, especially the conditions governing the payment for the stock in full or by installments, interest and dividend payments, the issuance of subscriptions or assignable receipts, and the date after which the warrant will be void and of no value. Moreover, the warrant states that "failure to pay any installment when and as payable will operate as a forfeiture of all rights in respect of the subscription, and the installments previously paid." Provision is also made for the sale and transfer by assignment of the warrant, executed in the form described and printed thereon. Two such forms are printed on the reverse side of the warrant, the first to be filled out and signed by the stockholder if he wishes to take the stock himself, and the second, which is an assignment requiring a witness, if he desires to dispose of the subscription privilege. If the stockholder wishes to subscribe for only a portion of the stock covered by the warrant and dispose of the balance, or desires to dispose of a portion to one person and the balance to another, the corporation will, upon the return of the original warrant, issue new warrants in accordance with the instructions submitted.

3. Referring again to the recent Pennsylvania Railroad Company's stock allotment, the warrants, accompanied by payment in full or of the first installment, were required to be returned to the company on May 31, 1913, or the privilege was declared void and the warrants of no value. In other words, until the 31st of May the warrants would pass by delivery. Thereafter "subscription" or "assignable receipts" took the place of the warrants. According to the company's circular announcement, which information was repeated in the warrant, payments could be made in full or in three installments, as follows:

In full, at the time of making the subscription on the 31st of May, 1913.

The first installment of 30 per cent, or $15 per share, at the time of making the subscription on the 31st of May, 1913.

The second installment of 30 per cent or $15 per share, on the 30th of August, 1913.

The third installment of 40 per cent or $20 per share, on the 29th of November, 1913.

When the first installment is paid, the "warrant" is surrendered and an "assignable receipt" is issued in its place, which in turn must be surrendered to the company upon payment of the second installment. When the second installment is paid, an "assignable receipt" covering both the first and second installments is issued, which in turn must be surrendered to the company upon payment of the third installment. When payment in full is made on the date of subscription, or whenever payment of the three installments is made as allowed, stock certificates for whole shares are mailed to the stockholders. The circular further announced that full-paid stock receipts for fractions of shares will be issued, which will not carry any dividend or interest until converted into stock. They could be so converted only when the fractions surrendered made whole shares, provided such surrender was made on or before January 31, 1914, on which date such fractional receipts not converted would be redeemed in cash at the rate of $50 per share, without interest.

Until May 31, 1913, when the first installment of 30 per cent of the subscription price had to be paid under the terms of the allotment, the warrants, as already stated, would pass by delivery. If on that date payment for the new shares was made in full, the subscriber received the new shares, which could then be delivered in the same manner as any other stock. But if only the first installment is paid, the subscriber receives an assignable receipt and a market is usually made at once in "first-paid receipts." This market in first-paid receipts continues until the date for payment of the second installment arrives when such receipts are delivered only against cash sales. On that date the first-paid receipts are surrendered to the company which issues "second-paid receipts" in their place, these then becoming the part-paid stock. Receipts are issued in that way against each payment except the last, when the company usually delivers stock against the final payment. But this is not always the case, and sometimes "full-paid receipts" are issued which are traded in until they can be exchanged for stock.

Methods that Stockholders may Adopt in Disposing of Their Rights.—Having explained the method of procedure that corporations follow in announcing and distributing allotments of new stock, we may next consider the various methods open to stockholders who wish to dispose of their privilege. Any one of the following courses of action may be selected, depending upon the special circumstances attending each allotment of stock:[3]

1. *The stockholder may sell his rights* since a market for them is made as soon as the corporation announces its stock allotment. He need not even wait for the receipt of the warrants since the sale is made on the basis of a contract that provides for payment against delivery when the rights are issued. Owing to the practice of arbitraging, the price of rights is bound to follow the price of the stock, and, as already noted, the stock as well as the rights generally sell at their highest price, other things being equal, at about the time the privileged subscription is declared. Stockholders, therefore, by selling their rights as soon as their issue is announced, will generally obtain for them a better price than could be secured if sold later.

Not only does this plan generally serve to give the best price to stockholders, assuming they intended to sell their new shares in any case and not take them up as a long-time investment, but it affords the additional advantage of making the proceeds of the sale immediately available. Profits, in other words, are realized at once, instead of deferring their receipt until the issuance of the new shares, "An uncertain future profit" is converted by this immediate sale into "a certain present profit." But in using this plan it must be remembered that, as explained in connection with arbitraging in rights, the current quotations on rights do not represent their full value. Instead rights

[3] The various methods which may be adopted in this respect are described in detail by Dr. T. W. Mitchell in his article on "Stockholders' Profits from Privileged Subscriptions," *Quarterly Journal of Economics*, February, 1905.

generally sell slightly under their actual worth. This follows from the fact that rights are usually sold to speculators and arbitragers who are only willing to offer a price that will assure them a margin of profit. For this reason stockholders in disposing of their rights do not receive all that the premium on the stock warrants, and, in some instances, could probably make a more profitable transaction by adopting the next plan to be described.

2. *The stockholder may sell such an amount of his original holdings of stock as equals the number of new shares to which he is entitled, and replace the shares sold with the new stock when issued.* This method keeps his investment intact, and enables him to realize on his sale the full market price of the stock instead of compelling him to sacrifice a sum equal to the discount that is connected with the sale of rights. He gets the immediate use of the proceeds of the sale and loses no interest on the money borrowed to pay his subscription. There is also no uncertainty under this plan as to the amount of profit accruing.

As opposed to these advantages it should be recalled that, judging from the past, the stock is usually quoted at its highest when the allotment of new stock is first advertised. To be entitled to the subscription privilege pertaining to all the shares held, the stockholder under this plan, would be obliged to wait until the stock sold "ex-rights" before selling any portion of his holdings. But by waiting until that time he is apt to lose the full benefit of the better price usually prevailing when the privileged subscription is first announced, and the subsequent depreciation would in all likelihood more than offset the discount in price that he usually sacrifices to speculators and arbitragers when they buy his rights.

3. *The stockholder may subscribe for his allotment of the new shares with the intention of selling them after they have been issued by the corporation.* Under this plan the

the subscribing stockholder must take the new shares upon their issuance and pay for them in accordance with the terms of the subscription privilege. Payment for the shares will in all probability necessitate borrowing of money and payment of interest until the stockholder can realize on the new shares. The interest-paying period may extend over a considerable time, and under the terms of various subscription privileges the stockholder may be required to pay all of the subscription price sometime before the new shares are received, while if payment is allowed in installments, the interest paid by the corporation on such installments may be less than the rate paid on the borrowed funds. Even following the issuance of new shares, the holder may be obliged to wait a long time before an opportunity presents itself to sell them at a profit. Or, if obliged to dispose of the new shares for some reason, the shareholder may have to sell at a price much below that which might have been received at the time the subscription was announced. If, however, the stockholder exercises the subscription privilege for investment purposes, his act may prove extremely profitable in the long run. But even in this case, especially where the corporation makes frequent allotments, one disadvantageous feature frequently presents itself, namely, the holder may allow too large a part of his capital to become invested in one property, thereby making too large a portion of his income dependent upon the business prospects of that one concern.

4. ***The stockholder may immediately sell short the amount of stock to which he is entitled, borrow stock to fulfill delivery on his contract, and return this stock loan when the new shares are issued.*** Such a transaction would be conducted in all respects like an ordinary short sale. If a stockholder's subscription allotment amounts to 100 shares, he will instruct his broker to sell that amount short at the current price and to borrow the 100 shares from some other broker for

the purpose of delivery. The broker will retain the proceeds of the sale and pledge the same with the lender as security for the stock loaned. He will also ask the customer to deposit a margin of, let us assume, $1,000 as security. Then, upon the issuance of the new shares, the stockholder will instruct his broker to use them in repaying the stock loan, whereupon the broker will credit to the customer a sum representing the proceeds of the sale plus the $1,000 margin with interest thereon, less the customary brokerage commission. The profit to the customer will consist of the difference between this sum, after deducting interest on the money borrowed to pay for the subscription and to provide for the $1,000 margin on the one hand, and the subscription price for the new shares on the other.

Under this plan the stockholder is afforded the opportunity of selling his stock at a better price than could be obtained at the time of the issuance of the new shares. Although he is short of the stock, his right to obtain the new stock serves as a protection. The plan, however, may seem complicated to the average investor and in exceptional instances may result in much inconvenience. A sharp advance in the price of the stock would necessitate giving the broker additional margin to protect the short sale, which would have the effect of reducing the profits of the transaction because of the loss resulting from a possible difference in the rate of interest paid and received on the extra margin. The creation of an overextended short interest in the stock might cause it to become so scarce for borrowing purposes as to cause the stock to lend flat, or even at a premium, thus further decreasing the profit. A still greater danger is the possibility of a corner in the stock which, by making it impossible to borrow the stock at all, might necessitate a settlement, or a purchase of the stock, at a greatly increased price. It is also the general practice not to pay any interest to the customer on the proceeds of the short sale that have been pledged with the lender of the stock, although the customer is liable for the payment of all dividends that may become due during the continuance of the loan.

Arbitraging in Rights.—Holders of rights, who wish to sell them in the market, are greatly assisted through the operations of arbitragers in rights. In other words, a certain group of dealers arbitrage by selling short the outstanding shares of a given issue and buying the "rights" to receive an equivalent amount of new shares of the same issue. The practice may be illustrated by referring to the Pennsylvania Railroad Company's issue of rights at par ($50) to the extent of 10 per cent. At the time the stock was selling at 57¾, or $5,775 for 100 shares. The holder of 100 shares was thus given the privilege of subscribing to 10 shares at par, so that 110 shares could be acquired at a total cost of $6,275, or an average per share of $57.045. The difference between $57.75 and the average cost of $57.045, or $.705, is the mathematical value of the right in New York.

Arbitragers are willing to buy rights provided they obtain them slightly below their mathematical value, and in order to permit of a continuous market in such rights exchanges usually permit minimum fluctuations between prices of one-sixteenth instead of the customary one-eighth. Accordingly, let us assume that an arbitrager is offered 2,000 rights at 60 cents, costing him $1,200. In accepting this lot of rights the arbitrager immediately sells short, as a hedge, 200 shares of the stock at the current price of $57.75, or for $11,550. He then waits until he receives the 200 shares of stock, to which his 2,000 rights entitle him, from the corporation at the par value of $50, or at a total cost of $10,000. These shares he will then return to some lending broker to replace the 200 shares that he was obliged to borrow in order to fulfill delivery on his original short sale. The stock received from the corporation has cost the arbitrager $10,000, and the rights $1,200. Moreover, he has lost the interest on $1,200 for, let us say, two months, amounting to $12, thus making a total cost to the arbitrager of $11,212. Since the stock was sold short at $11,550, our arbitrager has made a profit of $338, *less* (1) the State and Federal transfer taxes, (2) any commissions that the operation may cost him, and (3) the value of 200 rights which, as a short seller of 200 shares, he owes to the lender. It may be added that by conducting such operations arbitragers greatly help in creating a continuous market in rights for those who wish to sell rights, and also keep the quotations of rights in line with the quotations of the stock already outstanding.

Extent of Profits Derived from Privileged Subscriptions in Case They Are Held over a Series of Years.—As Dr. T. W. Mitchell states in his article on "Stockholders' Profits from Privileged Subscriptions":

> "It is not to be denied that the proceeds from these privileges in many instances constitute a very material addition to the current dividends which are received by the stockholders, and that they are to be reckoned on when one is estimating the yield on his investment. But these extraordinary gains come in at irregular intervals. To obtain any accurate idea of their extent, it is necessary to state them in the form of equivalent returns coming in at regular intervals, like dividends."

While the future value of such privileges cannot be foretold, two excellent presentations of the approximate value of past privileges have been published.[4] Both show that by subscribing to and holding all the new shares offered the stockholders in many of our leading corporations,

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[4] *Ibid.*, and B. B. Burgunder, "The Declaration and Yield of Stockholders' Rights," published in the volume on "Stocks and the Stock Market," *Annals of the American Academy of Political and Social Science*, 1910.

which have repeatedly made allotments, have been given an excellent opportunity to reduce the average cost of their holdings. Full subscription to all privileges over a series of years has in many instances proved exceedingly profitable, since such subscriptions may be said to compound like interest, each successive percentage allotment of new stock increasing the basis for future allotments.

B. B. Burgunder, with a view to showing the profitableness of past privileged subscriptions, selected a substantial number of leading corporations for the purpose, and, in connection with each, computed the "net annual yield on the cost" that accrued to a stockholder who purchased 100 shares of the stock in a certain year and subsequently took and held all new stock allotments until November, 1909.[5] The net annual yield, as computed by Burgunder, includes not only the average annual dividend return, but also the market gain on all the holdings, between the date of purchase and November, 1909, spread as an annuity over the period under consideration. Since the profit to the stockholder will vary greatly as the price of the stock fluctuates in the market, November, 1909, was selected as a fair basis for the computation, because the quotations at that time represented a normal market with prices neither reflecting a boom nor a depression. The computation, furthermore, assumes that all the new stock was paid for by the stockholder with money borrowed at 5 per cent, and that, since the dividend return upon the stock issued was generally greater or lower than the assumed interest rate on the borrowed money, the difference between the two rates was treated in the computation as either a profit or a loss. Arranged in the form of a table, Burgunder's computation for 13 corporations shows the following:

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[5] B. B. Burgunder, *op. cit.*, pp. 79–85, and 87–96.

Company	Date of Purchase	Net percentage Yield on Cost to November, 1909
American Telephone and Telegraph Company	1901	6.818
Atlantic Coast Line Railroad Company	1902	7.622
Baltimore and Ohio Railroad Company	1900	10.031
Canadian Pacific Railway Company	1901	25.03
Chicago, Burlington and Quincy Railroad Company	1880	8.14
Chicago, Milwaukee and St. Paul Railway Company	1882	7.326
Chicago, Rock Island and Pacific Railway Company	1880	6.924
Great Northern Railway Company	1893	33.113
Illinois Central Railroad Company	1887	7.809
New York Central Railroad Company	1893	7.526
Pennsylvania Railroad Company	1887	6.191
Northern Central Railroad Company	1900	10.691
United Gas Improvement Company	1896	19.665

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B. B. Burgunder, "The Declaration and Yield of Stockholders' Rights," published in "Stocks and the Stock Market," *Annals of the American Academy of Political and Social Science*, May, 1910, pp. 72–96.

Thomas W. Mitchell, "Stockholders' Profits from Privileged Subscriptions," *Quarterly Journal of Economics*, February, 1905, pp. 230–244, and 257–269.

PART III

FACTORS AFFECTING SECURITY PRICES AND VALUES

CHAPTER XVIII

THE MONEY MARKET IN ITS RELATION TO SECURITY PRICES

Price Movements and Price Factors Classified.—When considering the various factors that influence security prices, it is important to recognize the distinction between *price* and *value*. The first term refers to the current market quotations of the security in question, which are constantly changing and which show great variations in the course of even a day, a week, or a month. *Value*, on the contrary, has reference to the worth that an individual places upon a security in view of its income producing power, that is, its so-called *intrinsic worth*.

Numerous illustrations may be cited to show that prices frequently depart far from inherent worth as measured by earning capacity, sometimes for long periods of time. On the one hand, we observe the numerous temporary fluctuations that constantly occur in practically all the securities admitted to dealing — the ceaseless backing and filling of prices during periods of a day, a week, a month, or even several months — and most generally the result of temporary conditions that in no way indicate any change in the real worth of the security under consideration. But in contrast to such temporary fluctuations there are the so-called primary price movements, which extend to the market as a whole and often require several years to run their course. The stock market is essentially "a market for incomes," and prices tend in the long run, despite many variations, to coincide approximately with true worth. Temporarily, however, many factors are instrumental in bringing about enormous fluctuations in prices, sometimes as regards individual securities and at other times with respect to practically the entire list. Briefly classified, these price factors may be grouped under the following heads:

1. The intrinsic earning power of the corporations whose securities are under consideration.
2. The condition of the money market.
3. Financial panics and business depressions.
4. Manipulation.
5. Rising commodity prices and other factors influencing the general level of prices over considerable periods of time.
6. Current events, such as wars, conflagrations, etc., of a character not easily susceptible to discounting.

Prices of Individual Securities Ultimately Controlled by Intrinsic Earning Power.—In the past, stock-market prices, viewing the matter from the standpoint of a period of years, have reflected approximately the earning power of corporations. Moreover, owing to this factor we often have the price of individual securities, or a group of securities, move greatly out of line, either above or below, with the general prevailing price level for other securities. The physical condition and the earning power of corporations are indicated by their financial reports, and the detailed data contained therein may be regarded as "comparative statistics," to distinguish them from so-called "fundamental statistics" that refer to the present and prospective business situation in general as reflected by certain well recognized barometers of trade which, while showing the trend of the present, also serve, when properly interpreted, as a guide for the future.[1]

Investors or speculators, when desiring to determine the approximate safety of securities as judged by the corporation's record, or to make a selection between several investments, will necessarily want to analyze the past showing of the corporations involved. The intrinsic value of both stocks and bonds, although representing entirely distinct classes of equities, must be ascertained by much the same methods of analysis. Such analysis of corporate financial reports, however, represents a highly specialized science of so many ramifications as to require a separate volume for full explanation. Suffice it to say that the important question to be ascertained from such an analysis is that of "permanency," or "the result of the decade" that averages the record for both poor and prosperous years.

A good financial report should contain detailed information along at least three distinct lines, namely: (1) the physical characteristics, involving a statement of the location and extent of the property owned, the volume and character of the business conducted, the volume and description of equipment, and in the case of certain corporations, the character of the contiguous territory; (2) an income account presenting a detailed statement of the gross earnings, operating expenses, net operating revenue, income from investments and other sources, fixed charges of all kinds, appropriations for equipment and betterments, dividend payments, and sums carried to profit and loss; and (3) a balance sheet dealing with the financial characteristics of the corporation and giving a detailed description of the capital assets, current assets, capital liabilities, and current liabilities. Each of the aforemen-

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[1] See Roger Babson's *Business Barometers for Anticipating Conditions*, and M. T. Copeland's "Statistical Indices of Business Conditions," *Quarterly Journal of Economics*, vol. 29, 1915, pp. 1–41.

tioned parts of a financial report is essential to a proper analysis, since all bear an intimate relationship to one another. In analyzing these various kinds of data it is essential (1) not to judge a property on the basis of one or even a few years' showing; and (2) to bear in mind that, since all things are relative, comparisons must be made on the basis of certain fixed standards.[2]

Relation Between the Security and Money Markets.—So close is the relationship existing between our security and money markets, and so huge is the volume of credit required in stock-market operations, that the condition of the money market probably constitutes, with the one exception of intrinsic worth as judged by earning power, the most important of all the factors affecting prices. Its vital significance will become more apparent in the next Chapter on Financial Panics and Business Depressions, the underlying cause of which in the past has been over-extension of the credit system, a situation that can be corrected only through drastic liquidation. The close connection between our stock and money markets is indicated by the following factors:

1. *The Large Volume of Margin Transactions.*—A very large proportion of the stocks held are purchased and carried on margin, that is, on money borrowed from the banks or brokers with the stock as collateral. Customarily, on active stocks the banks will lend to 80 per cent of the market value of the stock. Whether we believe in margin dealing or not, the fact is that an exceedingly large proportion of the total credit outstanding in our important financial centers is thus borrowed. Even bond houses, in taking up issues of bonds with a view to distributing them

[2] For a detailed outline of a railroad report and for a statement of principles governing the interpretation of the various parts of such a report see John Moody, *How to Analyze Railroad Reports* and *Analysis of Industrial Investments*.

to the public, originally obtain these bonds on borrowed money which is largely taken out in the form of "call" or "demand" loans. The volume of margin transactions is particularly large in the United States, as compared with foreign countries. Moreover, the volume of such transactions is usually largest during periods of great prosperity, or at the very time when security prices and money rates are highest.

2. *The Practice of Over-Certification.*—To a large extent brokers must resort to the practice of "over-certification." As previously explained, securities purchased to-day on "regular way" contracts must be delivered and paid for on the following day. But the seller of these securities will not deliver them until payment is made, while the buying broker, being called upon to carry these stocks on margin, is unable to pay for them until he can obtain the necessary credit from the banks which, in turn, involves the pledging of the securities. In other words, the securities will not be delivered until paid for, and payment cannot be made until they have been obtained so that they may be deposited as collateral. Some one must take the first step, if the transaction is to be consummated, and in practice the banker does this either by permitting the broker to overdraw his account on some agreed basis, by extending to him the privilege of having his checks over-certified, or, where the law does not permit this, by extending to him temporary credit. In either case, however, the understanding is that as soon as the securities have been paid for and obtained, they will be delivered to the banker as collateral for the loan. The clearing-house system, it has been explained, was introduced largely to reduce the necessity for such over-certification and has been instrumental in doing this to a very large extent. Thus, with respect to transactions on the New York Stock Exchange between May 1, 1920 and April 30, 1921, the Stock Clearing Corporation

was instrumental in obviating over $8,500,000,000 of bank certification.

3. *Arbitraging in Interest Rates.*—It is customary for many of the principal buyers of securities to arbitrage between the interest rate on borrowed money and the interest or dividend return on the securities purchased with the borrowed funds. When demand loan rates in New York are low, ranging from two to four per cent, while at the same time standard, dividend-paying stocks are selling on, let us say, a five to six per cent basis, it becomes profitable for a dealer in securities, who expects money rates to continue easy, to borrow money at the prevailing low rates with a view to buying such securities and thus netting the difference between the two rates. This practice often absorbs an enormous volume of credit. It may, however, prove a severe strain on the holders of securities if, for some reason, rates for demand loans should rise to a much higher figure than that received from the purchased securities. In that case, instead of the holder of the securities netting a difference in interest rates, he may be obliged to pay a carrying charge which, if demand loan rates remain high for a long period of time, may occasion drastic liquidation in the market.

4. *The Large Volume of Demand Loans Based on Stock and Bond Collateral.*—Frequent reference has been made to the practice of employing demand loans extensively for security-market purposes. Such demand or "call" loans in this country are one-day loans, subject to termination at the will of either party. Of course, these loans in nearly all instances are allowed to run from day to day, the interest rate being merely changed to meet the prevailing rate for credit in the call-loan market. As contrasted with this system, leading European countries have a so-called "fortnightly settlement system," according to which loans are renewed and the new rate of interest determined at the

end of each two weeks. This means that borrowers of such loans in Europe are certain of the interest rate for a period of two weeks and, in case conditions in the money market are such as to foreshadow a radical increase in interest rates, ample time is given in which to make new arrangements. In this country, however, our daily call-loan system does not give the borrower such an advantage, since either party may terminate the loan at will. In case of a stringency in the money market, which makes necessary a calling of loans, the bankers will first of all seek relief by calling in their demand loans that are protected by readily salable stock and bond collateral. If these call loans cannot be paid promptly, there will necessarily be a sale of the collateral securing the loans, a practice that has frequently been responsible for wide declines in the leading speculative stocks dealt in on our exchanges. At such times the daily call-loan system leads to the greatest uncertainty in interest rates, such rates frequently rising in a single week from 6 to 30 per cent. Several times during the last 20 years call rates have risen to 100 per cent and more, as for example during the panic of 1907 when such rates ranged for several weeks between 50 and 100 per cent. Even during the recent period of liquidation, despite the existence of the Federal Reserve System, such rates rose on several occasions to 30 per cent. During periods of money stringency, the security market is made to bear the brunt of the situation because call loans are protected so largely by stock and bond collateral enjoying the benefit of a continous market.

Various Bank Statements Issued.—In view of the aforementioned close dependence of the security market upon credit conditions, it is highly important that there should be available at frequent and regular intervals some authoritative statement of banking conditions that will serve as an index by which borrowers may judge not only the available supply of credit but also the future tendency of money rates. Numerous statements of this character are available and are commonly called "bank statements." From a stock-market point of view the most important of these statements is *The New York Weekly Bank Statement,* showing the condition of the New York City Clearing House members, and published in, at least, its summarized form in every important daily paper of the country. Owing to its frequent appearance and its comprehensive showing of credit conditions in the nation's leading stock-market center, this statement is generally regarded as constituting the best barometer by which to judge the supply of credit for security-market purposes.

The charge is sometimes made that the New York Weekly statement is local in its application, and not truly representative of the credit situation from a national point of view. Generally speaking, this criticism has not been borne out by actual facts. But in any case a large number of other bank statements are issued periodically which, when considered in their entirety and in connection with the New York statement, serve to give a very comprehensive idea of money-market tendencies. Thus the leading financial journals publish the weekly returns of New York state banks and trust companies not in the New York City Clearing House arrangement. Other leading American financial centers, like Boston and Philadelphia, also issue weekly statements. Mention should also be made of: (1) the periodic report of the Comptroller of the Currency, with respect to all the national banks of the country, some 8,152 in number; (2) the "Combined Statement of Principal Federal Reserve Member Banks," numbering some 813; and (3) the "Combined Statement of the Twelve Federal Reserve Banks." Attention should also be called to the English, French, and German bank statements, which are published weekly and which are often important because of the close international relationship that exists between the New York and European money and security markets.

Nature of the New York Weekly Clearing House Statement.—The New York Weekly Clearing House Statement appears every Saturday at noon. Only the "increases" or "decreases" in the various items of the statement, as compared with the items of the previous week, appear on the tape. The full statement, however, is given out later and appears in the evening and morning papers. The following is a sample of the New York Clearing House "actual" statement for two consecutive weeks:

WEEKLY STATEMENT OF NEW YORK CITY CLEARING HOUSE BANKS AND TRUST COMPANIES
(000 omitted)

"Actual" Statement	Week ending September 24, 1921	Week ending October 1, 1921
Loans, Discounts and Investments	$4,243,431	$4,297,170
Cash in vault	70,004	66,626
Reserve with legal depositories	493,929	456,793
Net Demand Deposits	3,524,302	3,567,728
Time Deposits	169,359	169,982
Bank Circulation	32,389	32,431
Reserve Required	463,240	468,901
Surplus Reserve	30,699	12,111(deficit)

Referring to the statement of October 1, 1921, it will be noticed that the combined reserve of the New York Clearing House members fell short of the legally required reserve by $12,111,000, that is, there was a "deficit" in the reserve instead of a "surplus." The required reserve is found by taking 13 per cent of the "demand deposits" and three per cent of the "time deposits." The sum of these two happens to be greater than the reserve actually held ($456,793,000) by the amount of $12,111,000, hence the deficit to that amount. In computing the reserve requirements for the statement of New York state banks and trust companies, it should be noted that the legal reserve requirement is 18 per cent of the demand deposits in the case of the banks and 15 per cent in the case of trust companies.

Various Forms in Which the New York Weekly Statement Appears.—Four different forms of the weekly statement are furnished to the public, namely, the "average," "actual," "summarized," and "detailed" forms. The average statement obtains its name from the fact that it is based upon a system of averages. Each clearing-house member ascertains its loans, deposits, reserve, etc., for each working day of the week, and reports an average of these daily items to the clearing house. The "average" system, therefore, does not present the *actual* condition of the banks on the day when the statement is submitted, but merely the *average* condition, that is, the sum total of the daily items, divided by the number of working days in the week. It may happen frequently that the average statement may show no loss in the deposit or reserve items, while according to the "actual system" a considerable loss may appear, owing to the fact that a large amount of currency has been withdrawn on Friday, the last day of the week for New York bank-statement purposes. This heavy withdrawal of money will count for only one day in the week's average, whereas the actual condition on the last day will present an entirely different result. The same situation may also occur with respect to other items in the statement. Although the actual statement shows the actual condition of affairs at the time of the statement's appearance, the average statement, when compared with the actual showing, is valuable in indicating about the time of the week when material changes took place in the several items.

As a general proposition, the average showing follows the actual one, that is, important changes of this week, indicated mainly by the actual statement, will be reflected in the average showing of next week.

While the summarized statement, as it appears on the tape and is subsequently published in the daily press, gives a general view of money-market conditions, when compared with the statements of previous weeks, it is important to bear in mind that it is merely an average and does not show the condition of particular banks. Yet brokers and other large borrowers are especially anxious to know the standing of banks from which they have borrowed demand loans. They desire to know whether the condition of their particular bank is such as to indicate a policy of expansion or contraction in loans. If the item of loans, as regards their particular bank, has been greatly increased, and the reserve holdings are insufficient or barely sufficient to meet the legal reserve requirement, the borrower may anticipate the calling of loans or an increase in rates to follow, thus making more difficult the carrying of stocks.

To give borrowers such specific information, a "detailed" bank statement is published in the leading financial journals, shortly after the general summary appears, giving the various items for each of the clearing house members. When money is dear or when we are in the midst of a financial crisis, the showing made by the "detailed" bank statement will present the greatest disparity between the cash holdings of the various banks and the deposits. Thus the detailed statement of the New York Clearing House banks for the memorable week ending October 26, 1907, or at a time when we were in the midst of a highly strained money market, showed that certain banks had a reserve considerably in excess of 30 per cent, and in one important instance of nearly 40 per cent. On the contrary, a very large number of the 52 banks that were members of the clearing house at that time showed a reserve far below the legal requirement. Only 26 out of the 52 held a reserve that exceeded the 25 per cent limit required at that time; five just about met the requirement; in a considerable number of instances the reserve held approximated only 20 per cent; while in a few instances it was reported as low as from 13 to 6 per cent. It is thus natural that in times of money stringency, when rates on demand loans are exceedingly high, and when banks must husband their cash resources, that borrowers of call money on a large scale should be anxious as to the standing of individual banks. It is also frequently the case that such borrowers wish not merely to know the condition of their own bank, but also the condition of a few of the largest banks. In fact, some journals have made it a policy, especially in times of credit stringency, to give separate figures for the largest banks, because of their predominant position in the New York money market.

Interpretation of the Most Important Items of the Bank Statement.—Having explained the intimate connection between our security and money markets and the nature of bank statements, it remains to call attention to the importance of the most noteworthy items. To the item of "surplus reserve" the financial community attaches great importance. As soon as the reserve held by the banks closely approaches or falls below the legal requirement it means that the bankers must undertake to strengthen their position. There is at once talk of stringent money and bear prices. If, however, the statement shows a large surplus reserve, money is easy and security holders feel secure. Yet too large a surplus may be a bad sign, indicating a small demand for money as the result of business stagnation. If the statement as a whole reports a serious deficit, the security market may experience a flurry or even a panic, especially when a large volume of credit has been used to finance highly speculative securities. If loans were always made on a sound basis, a deficit in reserve would not occasion so much alarm, but such has not proved the case during previous periods of prosperity and wild speculation.

The loan and deposit items of the bank statement must also be viewed in their relation to business conditions. Thus, during a period of business depression we should expect to see an increase of cash holdings and an increase of deposits as compared with loans. On the contrary, during a period of great prosperity a large increase in loans and deposits has nearly always indicated that underlying business conditions were becoming unsound, and that the time had arrived for the exercise of caution. Practically every violent stock-market depression in this country has been caused principally by an over-extension of credit, and in nearly all cases the New York bank statement showed an abnormal increase in loans as compared with deposits and cash holdings. In a few instances, the stock market has moved independently of a strained money market for some months, but this has been the exception and not the rule. Almost invariably an unusual expansion in loans as compared with deposits and cash holdings has resulted in much higher rates on demand loans, with the result of heavy liquidation in the securities constituting the collateral behind these loans. When it becomes impossible to renew call loans, even at exorbitant rates of interest, stocks are indiscriminately thrown on the market, causing wide declines especially in the leading speculative issues, and often ending in a financial panic, the disastrous consequences of which might know no limit were it not for the concerted buying support rendered at that time by leading financial interests and by those who have previously sold short and are now anxious to take their profit.

The best bank statement is one that, viewed in the light of the past, shows a normal relationship of the loan and deposit items to one another. Under the old banking system, that is, before the adoption of the Federal Reserve system, the item of deposits in the New York weekly statement exceeded loans by a comfortable margin during normal times, and cash holdings ranged usually between 22 and 25 per cent of the loans. Whenever loans exceeded deposits materially and the cash holdings, as compared with loans, fell considerably, the effect upon call-loan rates was marked and, with few exceptions, there occurred drastic liquidation in the security market.

Many writers have traced the close relationship between our money and security markets as reflected by the weekly bank statement.[3] Thus in 1893 the ratio of loans of the New York Clearing House banks to deposits rose to 109 per cent and the percentage of cash to loans fell to the remarkably low figure of 13 per cent. Call rates ruled high during many weeks, at one time rising to 74 per cent. Time-loan rates also exceeded 6 per cent most of the time, and the price of representative stocks experienced a tremendous decline. Following this drastic liquidation, and owing to the business depression which affected all industries, the deposit and cash items of the banks piled up at an unprecedented rate and the respective percentages, instead of being 109 per cent and 13 per cent, as they were in 1893, stood at 80 per cent and 30 per cent. Call money became a drug on the market, and call rates averaged for months between three-quarter to one and one-half per cent. In the meantime, the price of representative stocks had a tremendous rise. By 1896, however, deposits and cash holdings again declined to such an extent that the percentage of loans to deposits rose to 102 per cent, while

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[3] See Thomas Gibson's *The Cycles of Speculation*, Chap. IV on Money.

cash to loans declined to 10 per cent. Call-loan rates at one time rose to 127 per cent and the price of representative stocks fell approximately 30 per cent. Following this wave of liquidation, deposits and cash again accumulated until in 1898 the ratio of loans to deposits fell to 83 per cent, while the ratio of cash to loans increased to 30 per cent. At the time, and continuing until 1903, stock-market prices enjoyed a tremendous appreciation. By that year, however, owing largely to prosperous business conditions and the great speculative wave of 1901 and 1902, the bank statement again began to show a strained credit situation. By the close of 1902, loans nearly equaled deposits, whereas the percentage of cash to deposits declined to about 19 per cent. This strained money market continued during all of 1903, with the ratio of loans to deposits at one time standing at 101 per cent. Call-loan rates rose as high as 35 per cent and the price of represented stocks fell approximately 30 per cent. Owing to the dull business conditions following the stock-market depression of 1903, money again accumulated in the banks during all of 1904, the respective percentages being 90 per cent and 25 per cent. Call-loan rates varied between one half of one and three per cent, and the stock market once more entered a period of rising prices, which, with periodical setbacks, continued until the close of 1906. By the close of that year, the bank statement reflected an exceedingly strained credit market and all the earmarks of a coming panic were at hand. At the beginning of 1907, the ratio of loans to deposits again rose to 102 per cent, while by November the ratio stood at 109 per cent. The percentage of cash to loans fell to 17 per cent at the beginning of 1907 and by November declined to 14 per cent. Heavy liquidation in the security market continued throughout the year until the price of representative stocks showed a decline of approximately 40 per cent from their high of 1906. Following this panic money again accumulated in the banks until the deposits greatly exceeded the loans, and during 1908 and 1909 the security market witnessed an unusual rise. In 1910, however, the ratio of loans to deposits again rose to 103 per cent and the percentage of cash to loans fell to 19 per cent, and the whole of that year was characterized by a declining security market.[4]

The introduction of the new Federal Reserve System will result, of course, in a material change in the percentages referred to. As compared with previous conditions, the new banking system greatly increases the power of the banks to extend credit in times of financial stringency. Unfortunately, however, the new system has not been in operation sufficiently long to warrant a statement of what the aforementioned ratios are likely to be under each of the major stages of our recurring business cycles. But while the percentages will greatly change, there is no reason to believe that the fundamental principles outlined with respect to loans, deposits, and cash have been altered in any vital particular. Thus at the close of 1915, just before the last industrial boom, deposits of the New York Clearing House members exceeded the loans by nearly nine per cent, the deposit and loan items for December of that year being $2,422,994,000 and $2,226,078,000, respectively. From that time on, however, loans showed a striking tendency to increase faster than deposits, until for the month of January, 1920, loans of the New York Clearing House banks stood at $5,119,900,000 and the deposits at only $4,026,862,000. In other words, loans exceeded the deposits by $1,093,038,000, or over 27 per cent. Even by the beginning of 1919, loans exceeded deposits

[4] For a detailed statement of the aforementioned percentages and the extent to which security prices increased or decreased, see *ibid*.

by nearly 800 millions, or 20 per cent. The drastic stock-market liquidation of 1920 and 1921, from which we have not yet begun to recover, is again pointed to as confirming the principles already explained.

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CHAPTER XIX

FINANCIAL PANICS AND BUSINESS DEPRESSIONS

The Cause of Panics and Depressions.—Probably no phase of the stock market, unless it be that of manipulation, has claimed the attention of so many writers as our constantly recurring financial and business depressions. Attention has no doubt been attracted to this phenomenon because of the drastic character of the liquidation involved. In fact, the movement of prices accompanying our economic crises is in the nature of an upheaval, and often the decline of a single year will suffice to cancel all the appreciation of the preceding five or ten years. This is true of both security and produce prices, since our economic crises are caused by influences intimately associated with both types of markets.

While secondary causes may contribute to make economic crises more severe, or to shorten or prolong the duration of the same, the real underlying cause is over-speculation with borrowed funds, leading to an over-extension of our credit system. The situation is commonly referred to as one of "inflation," requiring "deflation" as its remedy. With scarcely an exception, writers on the subject regard such over-extension of credit as the primary cause, and it is for this reason that the regular appearance of some index showing the condition of the credit market, such as comprehensive bank statements, is of such vital importance. In fact, economic crises, as pointed out by Professor E. D. Jones, had their origin with the beginning of the credit system. When credit has been over-extended through speculation along all lines of business activity, and not merely in the security market, and much of this credit has been foolishly granted, as seems always to be the case during periods of great prosperity, a period of liquidation must follow to correct the situation.[1] Or, as some state the matter: too much action, as compared with normal, is sure to result in reaction.[2] Credit implies confidence on the part of creditors that debtors will be able and willing to repay loans, and it is with this thought in mind that Professor Jones, in his chapter on Credit and Speculation, makes the following statement:

"To understand the dangers inhering in the use of credit it is necessary to observe the sensitiveness of the instrument. Depending as it does on confidence, it is as changeable as the course of public thought. .... The extension of credit is accompanied by the realization that if any large part of the mechanism of trade should meet with disaster capable of shaking confidence, the result would be the withdrawal of credit and the consequent stringency in the money market. A nervous watch is, therefore, maintained for such occurrences and the dread of the headlong rush for liquidation, in which some must inevitably be crushed, always lurks in the background of modern industry."

Effect of Economic Crises on Stock-Market Prices.—The drastic character of stock-market liquidation preceding our business depressions is illustrated by the following table of important common stocks. The table refers to the last three depressions, namely, those of 1907, 1914, and 1920-1921, and the several columns give the high price for 1906, the low for 1907, the high for 1909, the low for 1914, the high for 1916 and the low for 1920-1921 (to August).

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[1] See E. D. Jones, *Economic Crises*.

[2] This is the theory that underlies the Babson "Barometer Letter" and the "Babsonchart."

FLUCTUATIONS IN THE COMMON STOCKS OF LEADING AMERICAN CORPORATIONS

(Nearest full Quotation)

	High 1906	Low 1907	High 1909	Low 1914	High 1916	Low 1920, or 1921 (to August)
HIGH DIV.DEND PAYING RAILROADS:						
Atchison, Topeka and Santa Fe	110	66	125	89	109	76
Canadian Pacific	201	138	189	153	184	101
Chicago and Northwestern	240	126	198	122	135	60
Delaware and Hudson	235	124	200	139	156	83
Great No thern	190	107	158	112	127	60
Illinois Central	184	116	162	103	110	85
Lehigh Valley	86	48	113	59	87	47
Louisville and Nashville	156	85	162	125	140	97
New York Central	156	89	148	77	114	64
Northern Pacific	232	101	151	97	119	61
Pennsylvania	74	52	76	51	60	32
Reading	82	35	86	68	115	61
Union Pacific	195	100	219	112	153	110
NON-DIVIDEND PAYING RAILROADS:						
Erie	44	12	39	12	44	10
Kansas City Southern	37	14	50	20	32	18
St. Louis Southwestern	28	11	35	27	32	11
Southe-n Railway	43	10	34	14	37	17
Texas Pacific	40	17	40	11	22	14
LEADING INDUSTRIALS:						
American Smelting and Refining	174	58	105	50	124	33
American Sugar	157	93	136	97	126	63
United States Steel Corporation	50	22	95	48	130	70

The foregoing table comprises both high-priced dividend-paying and low-priced non-dividend stocks. In nearly all cases the highest prices were reached in the year preceding the decline, and both groups of stocks show an enormous shrinkage preceding the business depression. Our economic crises, in other words, severely affect the prices of all classes of securities, both the good and the bad. Estimates have been made to indicate that the market value of New York Stock Exchange securities depreciated approximately $6,000,000,000 between December, 1906, and November, 1907. During the recent decline of 1920-1921 it is safe to conclude that the depreciation amounted to even more. Owing to forced liquidation, even gilt-edged bonds will decline from eight to ten per cent in price in the course of the few months that the credit situation is most acute. The securities enumerated in the table are only a few to indicate what occurred throughout practically the entire list of stock-exchange securities, and the same slump, it may be added, also took place in the unlisted group.

Analyzing our list more in detail, it appears that the average price of the group of well known, high-dividend paying railroad stocks declined from a high of 165 in 1906 to a low of 91 in 1907, or 45 per cent; then rose to an average high of 153 in 1909, or 68 per cent; then declined to a low of 101 in 1914, or 34 per cent; then rose to a high of 124 in 1916, or 23 per cent; and then declined to the unusual low of 72 in 1920-1921, or 42 per cent. In the case of certain individual stocks, however, the increases or declines were much greater than the average referred to. For the group of non-dividend railroads the increases or declines seem much smaller when considered absolutely, yet from a relative standpoint, expressed in percentages, such securities are affected much more during our economic crises than are the high-priced, dividend-paying securities. Thus the average price of our non-dividend group of stocks, comparing the average high price of 38 for 1906 with the average low of 13 for 1907, declined 66 per cent; then rose to an average high of 40 in 1909, or 20 per cent; then declined to a low of 17 in 1914, or 58 per cent; then increased to a high of 33 in 1916, or 94 per cent; and then declined to 14 in 1920-1921, or 58 per cent. With respect to three very important and nationally representative industrials the average price declined 54 per cent between 1906 and 1907, then increased 93 per cent between 1907 and 1909, then declined 51 per cent between 1909 and 1914, then increased 95 per cent between 1914 and 1916, and again declined 57 per cent between 1916 and 1920-1921.

Such tremendous fluctuations in the price of standard stocks should be a warning of the great dangers connected with dealing on margin. Many of the indicated price movements, occurring within the course of a single year, represent the wiping out of from three to five margins of 20 points each. The folly of putting up the major portion of one's resources on margin transactions must be apparent. And even where purchases are outright, the aforementioned figures are conclusive proof of the wisdom of spreading one's investment account over numerous securities instead of placing sole dependence in one or a few. In the interest of safety of principal, it is infinitely better for the average humble investor to buy one share in each of 10 corporations than to invest all in 10 shares of a single concern.

One other important thought is suggested by the aforementioned violent fluctuations, and the matter is mentioned because of the general desire on the part of many unthinking persons to buy large quantities of "cheap" non-dividend stocks, that is, those selling much below their par value. The stock market, it must always be borne in mind, discounts the future, and when a stock with a par of $100 sells at $10 or $5 it means that the combined judgment of the speculative world has registered an unfavorable opinion on the stock in question. In all probability a receivership has been discounted. Yet many either do not know this fact or ignore it, and rush in to buy a large lot of such stock. It must be apparent that it would be much better for a person with $1,000 to buy 10 good shares, selling at $100 a share because they are regarded as good, than to buy 20 times that many no-good shares, selling at 1/20 of par, because they are regarded unfavorably by the thinking element in the market. Most generally, the purchasers of such low-priced stocks soon become acquainted with the peculiar feeling associated with assessment payments. Instead of receiving dividends on 10 shares, our purchaser of cheap stocks is likely to pay an assessment on 200 shares. It may be argued, of course, that our foregoing table indicates tremendous advances in the average price of such securities during periods of prosperity, namely, 208 per cent for our group between 1907 and 1909, and 94 per cent between 1914 and 1916, and that the chances for speculative gain are therefore very inviting. But admittedly, this is a very hazardous chance. In 1907 and 1914 it happened that the period of business depression proved to be comparatively short. Should the opposite occur and the business depression be long drawn out, as in 1893 for example, corporations whose securities sell at very low prices are usually the first to succumb to insolvency.

As has been repeatedly emphasized in this volume, the stock market discounts business conditions from six months to two years in advance. Thus in 1907, the violent slump indicated in the preceding table occurred between December, 1906, and November, 1907, or the very period when business was being conducted on a scale larger than at any previous time in our history. The long and severe decline of 1920 also coincided with record-breaking business throughout the country. In both instances the depression in general business followed the decline in the security market. When business showed signs of slowing down in 1907, stock-market liquidation had run its course, and when business was at its worst in 1908 the security market, again discounting the future, was rising toward the higher level indicated in the third column of our table.

Importance of the "Factor of Safety."—Attention has been called to the importance of interpreting price variations in terms of percentages instead of absolute amounts. From this standpoint, any tabulation will show that the greatest declines by far during periods of business depression occur in the stocks of companies whose "factor" or "margin of safety" is small, that is, whose expenses of operation and fixed charges are so large as to leave only a small balance of net income for distribution to the stockholders. In fact, every security, be it a bond or a stock, should be considered with respect to the amount of the net income, after proper maintenance has been allowed for, available for the payment of interest or dividend on the particular security under consideration. So important is this factor that elaborate tables have been prepared for the convenience of investors, giving the margin of safety for the securities of numerous corporations. Bond houses likewise emphasize this factor when advertising their security issues.

Despite its importance, this factor is ignored by probably a majority of investors. Its importance, in view of the far-reaching effect of business depressions upon the net income of our corporations, is well illustrated by the following brief table in Gibson's *Cycles of Speculation*.[3] The figures used aim to show the effect that "a 20 per cent decline in gross and net earnings" will have as regards (1) a corporation with fixed charges equal to 75 per cent of net income; and (2) a corporation with fixed charges of only 25 per cent. On the basis of the estimates used, the 20 per cent decline in earnings resulted in a decrease of 80 per cent in

[3] Thomas Gibson, *The Cycles of Speculation*, p. 116.

the surplus of the first corporation, but of only 26 per cent in that of the second.

		Suppose a 20 per cent Decline
Say Earnings............	$1,000,000	$800,000
Expenses (70 per cent)	700,000	560,000
Net................	$300,000	$240,000
If Fixed Charges 75 per cent =	225,000	225,000
Surplus for dividends.....	$75,000	$15,000 (Case I)
Decrease............	....	80 per cent
If Fixed Charges 25 per cent =	75,000	75,000
Surplus.............	$225,000	$165,000 (Case II)
Decrease..................		26 per cent

Periodicity of Business Depressions.—Until recently at least, a belief prevailed that panics and depressions recurred at regular intervals of about 10 years.[4] This belief was caused no doubt by the fact that for many years economic crises, both in this country and in leading European countries, occurred at approximately regular intervals. Thus following the Civil War we have had such crises occur in 1873, 1883, 1893, 1903, 1907, 1913-1914, and 1920-1921. It is also worthy of note that depressions in the United States have either been concurrent with, or were immediately preceded or followed by a similar phenomenon in other leading countries.

Too much importance, however, should not be attached to the particular number of years comprising the so-called "trade cycle." The panic of 1907 with its accompanying business depression of 1908, and the stock-market decline of 1920 with its accompanying business depression of 1921, are certainly exceptions to the so-called "ten year cycle" commonly referred to by writers. Similarly, our

[4] E. D. Jones, *op. cit.* This and other theories are discussed in the chapter on "Periodicity."

business depressions of the past have differed greatly from one another in the length of time they have lasted, sometimes spending their force in one year and at other times extending over two, three, and even four years.

The Trade Cycle Described.—Expressed in the form of a diagram, the so-called "trade cycle" really assumes the form of a sort of semi-cycle, that is, the four, five, or more years of trade improvement usually collapses within a year or two. In other words, the downward movement has in the past been much more rapid than the upward one. The following outline indicates the main stages of a typical trade cycle, beginning with the period of business depression and then following in order to the periods of reviving business, of new enterprises, of intense prosperity, and finally, of violent security and commodity liquidation.[5] In connection with each of these periods, mention is made of leading conditions as they relate to (1) business, (2) banking, and (3) the security market. There is no intention, however, to give the impression that the several stages referred to can be sharply separated. Instead, they blend into one another and at times some of the conditions usually attributed to a particular stage may appear somewhat earlier or later. Nor is there any intention to indicate the duration of any of the stages, because the theory of regularity of time is no more applicable here than it is with respect to the cycle as a whole.

1. PERIOD OF BUSINESS DEPRESSION:
   (*a*) *Business.*—Great dullness in business. Heavy liquidation in the commodity markets, and a severe curtailment of production. Merchants and manufactur-

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[5] This natural division of the cycle has been generally adopted by most writers on the subject. See especially *ibid.*, and R. W. Babson, *Business Barometers for Anticipating Conditions.*

ers, confronted with heavy losses, resulting from declining commodity prices, seek to cancel their contracts for purchases at higher prices. Profits are greatly reduced. Purchases for future delivery are placed only sparingly, and merchants buy only what can be immediately marketed. Many employees discharged or placed on part time. Decreased income of both employers and employees means decreased purchasing power, and smaller purchasing power means smaller sales and reduced production. A general effort at economy is everywhere present, thus further curtailing production. Few or no investments are made in new enterprises, while existing industries eliminate improvements and cut down on maintenance. Extreme caution prevails in all lines of business. Newspapers give us our daily dose of blue news. Insolvencies are numerous and employment problems serious.

(*b*) *Banking.*—The ratio of deposits and cash to loans greatly increases. Money tends to become a drug on the market. Interest rates are therefore low, especially on demand loans.

(*c*) *Security Market.*—The market has discounted the depression. The worst is known and liquidation has run its course. While dull and low in price, the market is firm and in a "sold out condition." Those who know are accumulating securities at low prices from those who do not know in anticipation of better times to come. Many who are poorly fortified financially are still forced to sell securities because of losses in their regular business. Manipulation occurs in certain securities to convey the impression of weakness to the unknowing. Little effort is made to bid up prices, owing to the desire on the part of discerning buyers to accumulate large lines at prevailing low prices. The general public acts on the basis of what is seen, heard, and read, and is, therefore, frightened out of the market. Low interest rates make it possible for large operators to accumulate extensive lines of good securities. Prices of good bonds and stocks are showing a strong tendency to rise.

2. PERIOD OF REVIVING BUSINESS:

(a) *Business.*—Some apparently important event, or events, enthusiastically taken up by the press, tends to revive confidence, which is the basis of credit. The discerning, in expectation of better times, begin to acquire raw materials, finished goods, and industrial plants in advance at low prices. The liquidation in commodity markets has not only run its course, but in certain lines prices show distinct signs of improving, which improvement is loudly heralded in the press. Sellers are now beginning to fix prices instead of having buyers do this as in the preceding stage. Buyers are purchasing quickly what in the previous stage would have been acquired cautiously. Labor has also been liquidated, and is now in the proper frame of mind to work. Industries generally are gradually increasing their output to normal capacity. Unemployment is disappearing, and owing to the spirit of economy acquired in the previous stage, capital is rapidly accumulating.

(b) *Banking.*—Cash holdings are rapidly accumulating and pressure of capital is beginning to assert itself. The ratio of deposits and cash to loans is very satisfactory, although loans are increasing in view of reviving business. Interest rates are low and credit abundant. There is accordingly much arbitraging between interest and dividend returns on good securities and the low interest rates on borrowed funds.

(c) *Security Market.*—Arbitraging between the return on securities and interest on loans, as noted, is very prevalent. Operations of the "irresistible speculator" are becoming more and more apparent. Having accumulated large lines of stocks during the previous period, large operators are now bidding prices up. Stock and bond prices are rising rapidly, partly because a brighter future is being discounted and partly because of the advantages of the aforementioned arbitraging. The general public, still vividly recalling the enormous declines of the recent past, are skeptical and by no means convinced of a permanent improvement.

3. PERIOD OF NEW ENTERPRISES:

(a) *Business.*—The momentum of the preceding stage reaches a point where industries are working to their full capacity and where the volume of business offered is such as to require the establishment of new projects. The promoter now appears on the scene with his numerous propositions in mining, real estate, manufacturing, etc. Sufficient capital has accumulated to assure the successful distribution to the public of the necessary stocks and bonds. Business men are also pyramiding, that is, building their plants larger and larger with borrowed funds. Commodity prices genrally are also rising materially.

(b) *Banking.*—Loans are rapidly increasing at the expense of cash holdings and also increasing faster than deposits. A goodly proportion of these loans are unwisely placed and will later be lost. Credit is also finding its way to an increasing extent in properties that are not liquid in character. Interest rates are hardening although not yet exceptionally high.

(c) *Security Market.*—Stocks have reached a high level and are active. Previous accumulations by those who discounted the situation correctly are already being liquidated in part. The public is thoroughly interested. Bonds have reached their top, and influenced by rising interest rates on money, are showing a distinct tendency to decline.

4. Period of Intense Prosperity:

(a) *Business.*—Great prosperity in business generally. A real-estate boom. Continued flotation of new enterprises on a large scale. Industries working overtime and yet unable to handle the business. Practically all industries are in the market for additional funds, and securities are readily sold to a willing public that acts on the basis of the very favorable news of the day. Continued pyramiding in all lines of business on a large scale. Attitude quite general that good times will last indefinitely. Labor exceedingly scarce, wages high and rapidly increasing, and strikes numerous. Great inefficiency of labor nearly everywhere. Commodity prices exceedingly high. An alarming absence of thrift, and a spirit of wastefulness. Newspaper comment exceedingly rosy, and universal condemnation of all who dare to call attention to the hazards of the situation.

(b) *Banking.*—Loans increasing alarmingly as compared with deposits and cash holdings. The proportion of unwise loans increasing rapidly. Interest rates, both time and call, very high. Demand loans, supported by stock-exchange collateral, are frequently liquidated to prevent time-loan rates from soaring too high.

(c) *Security Market*.—Bond prices have declined materially, and show a very weak tendency. Violent activity in the stock market without, however, any radical change in the average price level, which as yet is only declining gradually. Just as during the period of business depression stocks were dull and firm and were being accumulated, so now they are active and weak and are being distributed. Those who know with respect to the future are now anxious to convert their securities into cash, just as during the period of business depression they were anxious to change their cash into securities. Manipulation is very prevalent and the market is made to look strong in spots in order to facilitate distribution in other places. Financial news is very rosy and favorable interviews by prominent persons very numerous. Frank statements with respect to the future are certainly not invited and the street has little use for pessimistic talk. The general public is again acting on what is seen, heard, and read. Those who know are succeeding, therefore, in distributing their holdings to those who do not know. Their work is facilitated by the publication of large corporate earnings, numerous dividend increases, and luscious melon cuttings. Many sales are made by those, who, anticipating much lower prices, are selling short securities that they do not own, but this group it may be added does not talk.

5. PERIOD OF VIOLENT LIQUIDATION IN THE SECURITY MARKET:

(a) *Business and Banking.*—Industrial conditions are still booming and all the earmarks noted for the preceding period are still apparent. Money rates are exceedingly high and bank loans have outdistanced deposits. In their effort to reduce loans, banks are calling demand loans and there is much liquidation of the stock and bond collateral securing such loans. Owing to credit stringency new security flotations are meeting with difficulty, although innumerable corporations are in the market for funds.

(b) *Security Market.*—What was known by the limited few only a few months previously is now gradually percolating into the lower ranks of intelligence about such matters. Dreams of still higher stock-market prices, it is gradually being realized by the rank and file, are not to become realities. At first prices decline slowly, but as they continue to reach a lower and lower lever, one strata of security holders after another becomes wise. Before long they nearly all seem to be of one mind, and nearly all desire to do the same thing, namely, sell. The momentum of liquidation increases until the market often experiences periods of demoralization. At such times short-sellers fortunately enter the market as a stabilizing force to cover on their short contracts in order to take their profits. Leading financial interests also step in to support such markets with buying orders. But despite such temporary and wholesome checks, spread more or less over the course of one or two years, the liquidation continues until the general price level reaches a point sufficiently low to induce the discerning element in the market to again undertake the accumulation of securities. Following this drastic liquidation, which has sometimes but not always been accompanied by serious banking difficulties, the country will again enter into the period of industrial depression with which we began this outline of the trade cycle.

Barometric Indices of Trade.—The approximate determination of which of the aforementioned periods of the trade cycle the country is experiencing is necessarily a statistical one. For this purpose various groups of statistics, so-called "barometers" or "indices" of trade, are commonly consulted and periodically published in the leading financial journals. Whatever may be thought of the value of this data from the standpoint of forecasting future conditions, a matter that vitally affects stock-market prices, since the stock market is essentially a discounting agency, there can be no question that a correct compilation of the data furnishes a fairly accurate view of the condition of trade for the time being, and furnishes the basis upon which security owners, when comparing the present showing with that of previous periods, may exercise their judgment as to the future. The following list gives the principal barometers of trade as publised periodically:[6]

New building permits in the leading cities.
Total bank clearings of the United States.
Bank clearings, exclusive of New York City.
Number and liabilities of business failures.
Labor conditions.
Bank statements.

[6] For a detailed statement of the figures for all of these as well as some additional barometers see Babson's Desk Sheet of Statistical Tables and Charts. The figures are here given by months for a period of nine years and kept up to date by the issuance of a new sheet each month.

Exports of merchandise.
Imports of merchandise.
Money rates.
American and foreign commodity prices as judged by various standard commodity index numbers.
Shares traded on the New York Stock Exchange.
Bonds traded on the New York Stock Exchange.
Composite price of representative bonds and stocks.
Crop statistics.
Production and price of pig iron.
Unfilled tonnage of United States Steel Corporation.
Production and price of copper.
Idle car figures.
Railroad gross earnings per mile.
New securities issued.
New incorporations.

An examination of the statistical record of the various indices of trade for any of our recent trade cycles indicates that almost invariably the best showing is made at the time when the security market is undergoing its most violent liquidation, that is, when it is discounting an industrial depression. Thus with reference to the severe stock-market decline during practically all of 1920, it is noteworthy, for example, that the number of business failures for the first eight months of that year aggregated only 4,423, a most excellent showing, whereas during the first eight months of 1921,[7] when the stock market had apparently been thoroughly liquidated, such failures numbered 12,078. Similarly, for the first eight months of 1920 total bank clearings aggregated $303,000,000,000, the highest on record by far, while during the first eight months of 1921 they totaled only $234,000,000,000. For

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[7] The latest figure available at the time of writing.

the same two periods, pig iron production stood at 24,354,-000 and 11,247,000 tons, respectively; unfilled tonnage of the United States Steel Corporation, 10,361,142 and 5,820,-953 tons; copper production, 816,000,000 and 388,000,000 pounds; and idle-car figures, a net shortage of 124,226 in August, 1920, and a surplus of 294,420 for the corresponding month of 1921. Other indices likewise show the record-breaking business conditions of 1920 and the severe business slump of 1921. In other words, when business conditions are the best, as revealed by statistics extending over several of our previous cycles of trade, there is ample reason for the exercise of caution as regards the future.[8]

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[8] Various attempts have been made to combine a considerable number of trade indices into a "composite plot." Not satisfied with what the figures show for the present state of business, certain attempts have been made to deduce rules that, in view of the showing indicated by the data for the time being, are considered by the authors of these composite plots as a valuable aid in judging future tendencies. In fact, this phase of the subject has probably received the thought of more thinkers on stock-market affairs than any other. Two such plans have claimed the greatest amount of discussion, namely, those developed by Roger W. Babson and James H. Brookmire, and referred to in the list of references attached to this chapter.

CHAPTER XX

MANIPULATION OF SECURITY PRICES

Relative Importance of the Factor.—Manipulation is difficult to define and conveys the idea of artificially influencing prices. Some writers have defined the term as meaning: "Putting prices up or down by virtue of ability to do so". Perhaps no other phase of the market has been so widely discussed in recent years as this one. Yet, in its effect upon prices in the long run manipulation has less bearing than the other factors discussed in this volume. Its effect upon individual securities is often very important, but as regards the market as a whole, except in relatively few instances, the influence of manipulation is moderate. Substantial changes in stock-market prices, covering long periods of time, are primarily due to changes in the value of the properties represented, and manipulation, as an independent factor in price-making and running counter to natural market tendencies, is only secondary in importance.

Fraudulent Methods of Manipulation.—*Circulation of False Information.*—Reference is had to (1) the fraudulent management of properties and the issuance of fraudulent or deceptive reports or prospectuses, and (2) the spreading of false "tips," rumors, or news. While important in the past, the first of these methods is constantly assuming smaller proportions owing to the standardization and the more frequent publication of detailed accounts on the part of corporations. The second method, however, is still exerting its baneful influence to an alarming degree. From the standpoint of the Exchanges improper advertising, employment of representatives of the press, and the circulation in any manner of rumors of a sensational character are strictly forbidden to all members.[1] But the enforcement of proper conduct upon exchange members will not prevent outsiders from continuing the objectionable practice. Improvement in this direction can be affected only through a better informed public and a higher standard of honor by newspapers, journals, and other publications in the acceptance of financial news for distribution.

"Wash Sales" and "Matched Orders."—Although generally used interchangeably, probably because the resulting consequences are similar, these two terms really have reference to different practices.

Wash sales are purely fictitious in character, that is, pretended sales. One party, for example, who wishes to have a given stock appear in the official quotation list at a higher price than could be established through *bona fide* sales, will arrange with some other person to take the stock when offered for sale at the inflated price. The buyer, however, will not be held responsible financially since he acts merely as a co-conspirator with the seller who wishes to inflate the quotation. Besides inflating the quotation of the stock fictitiously, this method may result in one of two things: (1) it may keep the stock quoted in case it is an inactive security; or (2) it may arouse a sufficient interest

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[1] See Constitution of the New York Stock Exchange, p. 80 relating to the publication of any advertisement of other than a strictly legitimate business character, and the prohibition of the use of catch phrases; p. 102, relating to the direct or indirect employment of representatives of the press with a view to obtaining advance or confidential information; p. 103, relating to the prohibition in any manner of rumors of a sensational character by members of the Exchange or their firms; and p. 76, relating to the remuneration of all employees by fixed salaries, not varying with the business.
Also see the New York Laws, relating to the fraudulent issue of stocks and bonds (Penal Code, Sec. 591, as amended by L. 1892, Chap. 662, Sec. 19).

in the stock on the part of the unknowing, owing to its apparent activity and strength, to cause many to purchase at the inflated price. Wash sales are to-day prohibited by exchanges throughout the country. To illustrate, the rules of the New York Stock Exchange provide that:[3]

"Fictitious transactions are forbidden. A member of the Exchange or a member of a firm represented thereon who shall give or with knowledge execute an order for the purchase or sale of securities which would involve no change of ownership, shall be deemed guilty of conduct or proceeding inconsistent with just and equitable principles of trade, and punished as prescribed in Section 6 of Article XVII of the Constitution."

Matched orders refer to the practice of using two (or more) brokers, one to buy and the other to sell the same stock at the same time, and in this way to get prices either to rise higher or decline lower than would be the case if the market were influenced solely by *bona fide* bids or offers. The transactions, however, are actually made on the floor of the exchange by the various employed brokers who, in executing the orders, may be entirely ignorant of the fact that their client has given opposite but corresponding orders to other brokers. In fact, success in this type of manipulation depends largely upon the operator's ability to conceal his purpose, which is either to liquidate or to accumulate the security in question when the desired price level has been established. Extensive campaigns of this sort are frequently conducted by pools, that is, a number of manipulators will combine their interests under a pool manager and, subject to the terms of some agreement, the manager will employ numerous brokers to accomplish the purpose of the pool or syndicate.

[3] Constitution of the New York Stock Exchange, 1920, p. 50.

It is apparent that the effect of such tactics is similar to that produced by means of wash sales. Although the purchases and sales are actually made, there is really no *bona fide* change of ownership involved, since the same owner, who is giving the opposite but corresponding orders, is either buying from, or selling to, himself. As in the case of wash sales, matched orders are used artificially to inflate or depress prices with a view to making the stock appear active when otherwise it might be inactive and to cause unknowing participants in the market to be misled, owing to the apparent activity and strength or weakness of the stock, into buying or selling the security in question. Matched orders are prohibited by exchanges,[3] but the enforcement of the rule among members of the exchange will not prevent outside operators from resorting to the practice through the employment of brokers who might be entirely unaware of the actions of their principals. In 1913 the State of New York passed legislation directed against this practice,[4] but the efficacy of such legislation is very doubtful since the orders may emanate outside the State of New York and the brokers involved be ignorant of the fact that the sales and purchases do not represent a *bona fide* transfer of ownership.

Manipulative Campaigns Planned with Reference to Future Conditions.—When accumulating or distributing large lines of stock, individual operators or "pools" will often resort to the most successful methods of accomplishing their purpose without attracting attention. Thus, after a violent period of liquidation, an operator may wish to accumulate a large line of one or more stocks in anticipation of a future rise. Time is required to make

[3] *Ibid.*, relating to the prohibition of the execution of any order that does not involve a change of ownership.

[4] Laws of 1913, Chap. 253.

such an accumulation, since bidding for the stock will tend to raise the price unduly. Our operator will purchase whenever weakness develops, but should the price manifest an undue tendency to rise prematurely he will sell in order to depress the price. In other words, he buys and sells day after day, but is careful, since his purpose is accumulation, to buy gradually more than he sells. By skillful maneuvering he may make the market appear weak to the general public at the very time when a careful analysis would show it to be firm. Generally, following a period of great decline in prices, such operations may cause the market to seesaw back and forth within comparatively small price limits and for so long a period of time as to tax the utmost patience of the average speculator or investor. Gradually the desired line of securities is accumulated, whereas the unknowing, influenced by the apparent weakness of the market and their impatience at not seeing the market improve, dispose of their holdings.

Again, following a long and substantial rise in prices, an operator may wish to distribute the line of securities he has accumulated at lower prices. Time is again required to accomplish such distribution. To throw the securities upon the market in large quantities would tend to depress prices unduly before our operator has accomplished his purpose. Accordingly, our operator will this time follow the plan of selling whenever strength develops, but should the price show an undue tendency to fall prematurely he will buy in order to steady or raise the prices. He will again sell and buy day after day, for months, if necessary. But this time he is careful, since his purpose is distribution, gradually to sell more than he buys. Thus, again by skillful manipulation, he may make the market appear strong to the general public at the very time when careful analysis would show it to be displaying a weak tendency. Following a period of great increase in prices, such operations may again cause the market to seasaw back and forth within comparatively small price limits. The desired line of securities is gradually distributed, whereas the unknowing, influenced by the apparent strength of the market, become buyers.

Manipulation of this sort has been referred to as belonging to "the higher type," and to constitute "the fine art of buying and selling stocks to the best advantage."[5] Better to conceal his purpose, this type of manipulator usually employs a considerable number of brokers, buying through some and selling through others at the same time. So many orders may be given, and his position with the several brokers he uses may be changed so frequently, as to make detection of his market position impossible. But through all the labyrinth of his numerous deals he is careful to make his profits exceed his losses so that the net result of all his transactions will be satisfactory. To dispose of one particular stock it may be necessary for this manipulator to strengthen the market by purchases in other directions. Or, as the saying is, certain stocks will be sold under cover of the strength of others. Referring particularly to this type of manipulation, Sereno S. Pratt draws the following excellent analogy:

"The manipulator in stocks is like the manipulator in politics, who pulls the wires, which are generally underground, in order to control conventions and make nominations. But the politician, while thus engaged, can not entirely ignore the potency of public policies, and can not defy too long the will of the people, or he may be overwhelmed. So the manipulator in stocks, by pulling concealed wires and by a scientific arrangement of his forces as intricate and fascinating as a game of chess, is able to

[5] Sereno S. Pratt, *The Work of Wall Street*, p. 365.

make prices. But he must nevertheless not go too far from the true basis of value, or even he may be overwhelmed in the market."

Manipulation Designed to Make a Market for New Issues.—When unaccompanied by matched orders, this method is not necessarily objectionable, and may actually prove beneficial.[6] Experience has shown that large issues of new securities must, as a rule, be sold in the first instance to some underwriting syndicate, which will, in turn, dispose of the issues to middlemen, and through them, in the course of time, to investors. Market conditions must, however, seem attractive in order to induce investors to purchase the securities. Moreover, the sale of the individual security will be benefited if investors observe its regular appearance in the quotations of some exchange.

To effect these purposes, the flotation of large issues is often preceded by the judicious preparation of the general market. A declining market may be supported by purchases or may even be given a rising tendency to inspire confidence. When a portion of the issue has been floated, the quotation may be supported with buying orders so as not to have a decline in price produce suspicion among investors and thus interfere with the disposal of the balance. Again, by bringing about a proper movement of prices in one issue, the disposal of analogous issues may be facilitated. Frequently corporations also find it advantageous to maintain the price of their securities, particularly with a view to bolstering their credit. As reported by the Hughes Committee: "If the securities are really good and bids and offers *bona fide*, open to all sellers and buyers, the operation is harmless and is

[6] This view was taken by the Hughes Committee on Speculation in Securities and Commodities

merely a method of bringing new investments into public notice."

Technical Position of the Market.—Readers of the financial press will frequently see reference made to the terms "oversold" or "overbought" market, "floating supply" of stock and "technical position of the market." "Floating supply" of any stock refers to that portion of said stock that has not been definitely taken up by investors, and that is thus normally available (floating about) in the speculative market for either buying or selling purposes at ordinary price fluctuations. "Oversold" or "overbought" condition of the market means that there has been, in view of the normal floating supply of a given stock, or of the speculative market generally, an unusually large amount of short-selling or of buying on margin, particularly if those who are thus speculating are not strongly fortified financially. Should this oversold or overbought condition be discovered, the opposing interest in the market will seek to compel the shorts to cover or to force a decline in the market.

Such a situation, commonly known as the "technical position" of the market, is rendered worse at times by the existence of (1) pyramiding, and (2) an unusually large number of stop-loss orders. Pyramiding represents the dangerous practice of buying and selling on margin and of using the successive profits as margins for new transactions as the market continues its rise or decline. The result of the practice is that the operator of the pyramid accumulates or goes short of an excessive amount of stock on slender margin, since all of his paper profits have been utilized as margins to acquire or dispose of more stock of the same issue. A limited price movement will, therefore, often exhaust the pyramider's margin and compel liquidation. Again, if many stop orders exist in the market, some just a point or two below the current quotation, and others at successive intervals of an eighth in the price, and this fact becomes known or is believed to exist, the market may be depressed by short-selling until the stop limits are reached, when the stock represented by the stop orders will automatically come on the market and depress prices further. Those who originally depressed the market through short-selling will thus find it easy to cover by buying the supply of stocks coming on the market because of the execution of the stop orders. Should there be many stop orders in the market for the protection of short-sellers, the process would be reversed, and the manipulators would raise the price by buying until the stop limits are reached, when the execution of the stop orders will automatically increase the demand and raise the price further.

Many of the daily and weekly fluctuations in the market are attributable to the manipulative tactics of those who take advantage of the technical position of the market. With comparatively few exceptions, however, price fluctuations occasioned by such market positions are not severe and long continued. The most notable exception —the so-called corner — is the next subject for discussion. Strictly speaking, corners represent an aggravated technical condition of the market, since there is no available supply whatever of the stock to meet the demands of short-sellers in fulfilling their contracts.

Corners—*Definition of Corners.*—This type of manipulation has been responsible for some of the most violent price upheavals recorded in the annals of organized stock and produce markets. Corners can be operated only because of the existence of a short interest in the market. In fact, the term is simply an abbreviation of the more comprehensive expression of "cornering the shorts." This situation is brought about by an operator, or a pool of operators, who succeeds in obtaining possession of all, or virtually all, of the shares of a given issue of stock available for delivery purposes upon outstanding short sales. Such short sales are first induced on a large scale by apparently unwarranted high prices or other methods, the purpose being to bring about a large volume of short sales with a view to making delivery in fulfillment of these sales impossible since the operator of the corner is in possession of all the stock and will refuse to sell except at his own price. Thus, assuming the given issue of stock to comprise 200,000 shares, in which instance, the operator of the corner may acquire all these shares and at the same time buy another 100,000 shares from short-sellers. In the meantime, however, while inducing short-selling on the part of the unsuspecting public, the true situation is kept extremely secret. Short-sellers must depend, of course, upon a continuous market for the borrowing or purchasing of stock for the purpose of fulfilling delivery. To camouflage the situation the operator of the corner will, therefore, usually lend his own stock freely and on ordinary conditions. Through matched orders, the operator being both buyer and seller, he will also produce the impression that there is a real continuous market in the stock.

When the time arrives for consummating his nefarious purpose, the operator will call in all the stock he has loaned to short-sellers. Nor can any stock bc purchased, because the operator is in possession of it all, and does not offer it for sale. The operator, in other words, possesses all the stock called for by the contracts made by the shorts, that is, the shorts are cornered. The only means of escape is to negotiate with the operator and settle with him at his own price, whatever that may be, or to repudiate their contracts.

While repudiation is permitted by law, such practice has not been countenanced by the various exchanges. The result has been that in the case of certain large corners the victims have been obliged to obtain the means for settlement with the operator by selling their holdings of other securities, with the consequence that while the cornered stock rose to a prohibitive price, the balance of the market would experience a violent decline, if not, as in the Northern Pacific corner, utter demoralization.

In the case of produce markets, however, rules have been adopted which provide that in case of a corner a reasonable settlement price can be established by a properly constituted committee, thus protecting the short interest against the arbitrary whim of the manipulator. Such rules, it is believed by many, will remove the incentive for operating a corner, since the decision of the committee will have in view the establishment of a fair settlement price. The Hughes Committee also recommended that "the Stock Exchange might properly adopt a rule providing that the Governors shall have power to decide when a corner exists and to adopt a settlement price so as to relieve ignorant persons from the injury or ruin which may result thereform. The mere existence of such a rule would tend to prevent corners." But while this method of handling the problem may be resorted to easily in the produce markets, its application in the stock market presents difficulties. Who is to say what constitutes a fair price for a given stock, especially when different contending interests, for the sake of obtaining control of a property through the voting power attaching to the stock, as was the case in the Northern Pacific corner, are willing to pay almost any price for that purpose?

Illustrations of Corners.—Numerous corners mark the history of the American stock market, and notable illustrations date back as far as 1835. In 1836, we are advised that the New York Stock Exchange appointed a committee to investigate corners, while a similar investigation of the subject was conducted by the New York Legislature in the early '80s.[7] During the period of the World War, it is not at all unlikely that the unusually high prices of some industrial stocks had their basis in the existence of a corner, but the matter was so engineered as not to involve a serious issue. The last illustration to cause notoriety was the alleged corner in Stutz Motor Car Company, when the price of the stock rose to over 700.

All corners may be classified under one of two kinds: namely, (1) those that are deliberately engineered for the purpose of fleecing the shorts by forcing them to settle at some abnormal price; and (2) those that have their origin under some pardonable circumstances, such as a fight for control, and are not deliberately designed for mulcting purposes. But while corners of the second class are more to be condoned than those of the first, their disastrous consequences may nevertheless be equally great.

The Northern Pacific corner of May 9, 1901, is probably the most notable stock corner in American history and may be regarded as an example of a corner that was unintentional in character and not deliberately engineered. This corner had its origin in the desire of two powerful financial groups — the so-called Hill-Morgan and Harriman interests—to obtain control of the Chicago, Burlington and Quincy Railway system, with a view to obtaining an entrance for their own railway systems into Chicago. In this contest, the Hill-Morgan interests succeeded in acquiring substantially all the stock of the Burlington system. The Union Pacific interests, represented by the

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[7] Sereno S. Pratt, *op. cit.*, p. 369. Pratt cites the following notable corners: Morris Canal corner, 1835; Harlem Railway corner, 1835 (although only 7,000 shares of stock had been issued, 60,000 shares had been obtained from the shorts); two more corners in Harlem in 1863 and 1864; Prairie du Chien corner in 1865; Michigan Southern corner in 1866; Gold corner in 1869; corner in Northwest in 1872, when the shorts were obliged to settle at $230; Lackawanna corner in 1884; and the Northern Pacific corner in 1901.

Harriman group, asked to be permitted to participate in this deal with the Hill-Morgan interests, representing the Great Northern and Northern Pacific Railroads. Such participation, however, was refused.

The Harriman interests thereupon undertook to acquire control of the Northern Pacific Railroad because of its half interest in the control of the Burlington System. Both interests purchased all the Northern Pacific stock obtainable. On January 21, 1901, Northern Pacific stock was quoted at $77 (using full quotations); on April 2, the price had risen to $101; on April 30 to $117; on May 3 to $115; on May 6 to $133; on May 7 the price fluctuated between $127 and $150; on May 8 between $145 and $180; while on May 9 the lowest quotation was $160 and the high quotation $700, although it is stated that settlements were made at $1,000 per share. These quotations distinctly show that as the price of Northern Pacific stock rose the inflation was resisted by the shorts. In all nearly 636,000 shares of Northern Pacific common stock were sold during the week and nearly 90,000 shares of preferred stock. Many traders, not knowing that the two opposing interests were each attempting to secure a majority control, went short of the stock and thus placed themselves in a position where they were unable to buy or borrow the stock for purposes of delivery on their contracts.

At the time of the corner, according to published estimates, the Hill-Morgan interests held about $42,000,000 of the $80,000,000 of common stock (a majority), and $76,000,000 of common and preferred stock combined. The Harriman interests, it is estimated, held $37,000,000 of the common and $41,000,000 of the preferred, or a total of $78,000,000, that is, a majority of the common and preferred stock combined. It is stated that both interests had purchased more than the necessary majority of the stock, but of course a considerable amount of this could not be delivered. Although the Harriman interest had the majority of all the stock, it so happened that the common stock possessed the right to retire all of the preferred stock at par, which was done. Owing, however, to the large amount of stock held by the Harriman interests the whole matter was compromised later on a satisfactory basis.

This corner furnishes an excellent example of the effects that a really great corner may produce upon stock market prices generally. Persons caught short of Northern Pacific stock were obliged to liquidate other holdings, many of which were financed on a margin. Sales for the day exceeded 3,000,000 shares, a volume of transactions greater than has ever been recorded for any other daily session in the history of the New York Stock Exchange. In this particular instance, the effect of the corner upon the remaining market was disastrous through such forced liquidation. The following brief list of quotations indicates the disastrous decline that occurred on May 9, and the equally great recovery toward the close of that and the following day. Had it not been for the concerted action of leading financial interests to restore prices be-

	High on May 9	Low on May 9	High on May 10
Atchison (preferred)	$104\frac{1}{2}$	70	98
Canadian Pacific	$105\frac{1}{2}$	87	$103\frac{1}{2}$
St. Paul (common)	165	134	$158\frac{1}{2}$
Delaware and Hudson	165	105	160
Illinois Central	135	124	137
Missouri Pacific	103	72	108
New York Central	153	140	155
Pennsylvania	147	137	$149\frac{1}{2}$
United States Steel	47	24	45

fore the close of the market on that day to practically the level that prevailed before the commencement of the panic, it is reasonably certain that numerous important financial failures would have occurred.

The famous gold corner of 1869, usually associated with "Black Friday," may be cited as an example of a corner deliberately planned. It appeared in 1869 that the Government possessed by far the largest portion of the gold in existence in New York, and it appeared to the members of a certain syndicate that if the Government could be prevented from selling any of its large holdings, estimated at approximately $100,000,000, the floating supply of gold in New York used by speculators in making their deliveries, estimated at about $20,000,000, could be cornered, and the price of gold raised to any figure desired by the syndicate. According to reports the syndicate had all arrangements completed for the corner by September, 1869. President Grant had been decoyed beyond the reach of the telegraph and the Treasury Department had been persuaded to stop selling gold. Active buying started at 133½ on Wednesday morning, the syndicate, according to reports, having already purchased more gold than was obtainable in New York, with the exception of that held in the United States Sub-Treasury. By Thursday morning, according to reports, the syndicate had secured contracts for approximately $100,000,000 of gold from short-sellers, and it was estimated that the total short interest in the market was considerably larger than this figure. On Friday morning gold opened at 143½; by eleven o'clock it had been forced to 150; five minutes later to 160; and then to 162½. Many firms settled at this figure but others refused settlement. Suddenly it was announced that the Government was selling its big supply of gold. The price fell abruptly to 131½ and many firms went into bankruptcy. One of the leading firms participating in the operation of the corner settled at 135, and is estimated to have lost some $13,000,000, besides disclaiming responsibility for the acts of many of its brokers.

Corners in Produce Markets.[8]—In these markets corners have occurred with probably even greater frequency than in the security market. With few exceptions, such corners are deliberately created.[9] Moreover, in these markets, corners are usually operated with reference to a particular delivery month, and the particular grades deliverable on contracts according to the rules of the exchanges.[10] Short-sellers in our produce markets, when selling for forward delivery in a future month, must deliver on the last business day of that month, and can only deliver those grades allowed by the rules of the exchange on which the contract was made. This gives the opportunity to some unprincipled manipulator secretly to buy up the product, say wheat, available for delivery purposes on the particular exchange under consideration, and then to buy considerably more from short-sellers. Toward the close of the month, if the secrecy of the operation can be maintained, short-sellers will find themselves in a position

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[8] An excellent explanation of the method of operating a corner in the produce market is found in Samuel *v.* Oliver (130 Ill. 73), and in the Matter of Chandler (13 Am. Law Reg. n. s. 310).

[9] In rare instances, we find the corner due to unforeseen and unavoidable circumstances. Thus, during the war it is alleged that short-sellers were cornered through the heavy purchases of American wheat by certain of the Allied Governments, with the result that the price rose to $3.50 per bushel on various exchanges. It is also stated that when it became apparent that wheat was unobtainable for the fulfillment of contracts, the said Governments, interested only in obtaining wheat, released the sellers from their obligations.

[10] Some attempts have been made from time to time, actually to corner the national supply of some leading staple such as wheat, cotton, copper, etc. Leading examples are the Leiter corner in wheat and the Sully corner in cotton. Almost without exception, such daring attempts at the cornering of the entire national supply of a leading product have ended in disastrous failure for the operators. The wonder is that such attempts should be repeated in view of the dismal record of the past.

where they must deliver on the last business day of the month, but are unable either to purchase the wheat or to secure shipment, owing to the lack of time to obtain it from outside markets. No alternative remains but to settle the contracts with the operator of the corner at a price of his own choosing.

Because of such possibilities, the number of grades of wheat, corn, oats, cotton, coffee, etc., that may be delivered on exchange contracts, have been made sufficiently large to prevent frequent cornering. Corners in the produce market are, therefore, rendered extremely difficult, except for a particular monthly delivery period, when the operator of the corner, having quietly obtained control of the supply, may succeed in hiding his purpose from short-sellers to so late a day in the month as to make it impossible for them to have enough grain, etc., shipped into the particular local market within time to enable them to fulfill delivery on their short sales. But even here it is necessary to control various grades and not merely one. Thus, in the cotton market while the contract calls for "middling" cotton, the seller is nevertheless enabled to deliver a large number of grades either better or poorer than the particular grade stipulated. Hence, to operate a corner in the produce market it becomes necessary to acquire control not merely of one grade of the commodity but of several.

Illegality of Corners.—Owing to their nefarious and non-commercial character, corners are opposed by both court and statute law, as well as by the rules of the various exchanges. In the Matter of Chandler, 13 Am. Law Reg. 310, affords an excellent illustration wherein those who had contracts with Chandler, the operator of a corner, with a view to breaking the price that he was endeavoring to maintain, were refused the right to recover their claims from the bankrupt estate of Chandler on the ground that they well knew that he was working a corner. Similarly, in Samuel *v.* Oliver, 130 Ill. 73, the appellants, brokers of the exchange, were denied reimbursement for commissions and other payments from their principals who were operating a corner. The court held:

"If in executing the instructions of these principals it became necessary for appellants to pay the money to adjust differences, they, if guilty of no fraud or violation of law, will be entitled to reimbursement by their principals. If appellants had not aided or assisted appellees in cornering the wheat market and in manipulating that market for an illegal or fraudulent purpose, so as to enable the latter to control the same for their own profit, and to the injury of all persons having occasion or knowledge of the wrongful and illegal purposes of the appellees they would have been entitled to reimbursement."

To make a corner profitable, the operator buys from short-sellers what he knows cannot be delivered since all the available supply is already controlled by him. Moreover, to maintain the inflated price of the stock and to deceive the public into believing that there is a continuous market therein, he will resort to the practice of matching orders. Hence, the importance of the Exchange Rules and the New York Law of 1913, already referred to, which prohibit execution of any orders which do not involve an actual change of ownership.

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CHAPTER XXI

FACTORS INFLUENCING THE GENERAL LEVEL OF PRICES OVER CONSIDERABLE PERIODS OF TIME

Increasing Commodity Prices.—To the list already explained, two more very important price factors must be mentioned, namely, increasing commodity prices and the condition of the crops.[1] These two factors affect security prices in general over considerable periods of time. Increasing or decreasing commodity prices, particularly, exert their influence gradually over periods of 10 years or more, and without much regard for locality or the investment safety of the securities in question. Their effect, in fact, may be so gradual, especially when other factors operate temporarily to confuse the viewpoint, as to escape the attention of investors. Yet when viewed over the course of years, this factor stands out as one of the most pronounced forces occasioning a rise or decline in the price level of various classes of securities.

Numerous causes — such as a rising standard of living, tariff legislation, price control through combination and labor unions, growth of population, extravagance in expenditures, waste and fraud in distribution, uneconomical marketing, etc. — contribute to the increase or decrease of the commodity price level, and for our purpose need not be discussed. Of the numerous contributing factors, however, the great majority of writers regard the world's

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[1] Many regard crop conditions as a short-time price factor. Bumper crops, or crop failures, however, exert an influence extending over two years or more.

increasing gold supply as the principal cause of the irresistible trend since 1900 towards a higher price level for commodities, a lower price level for bonds, and a price level for stocks, either downward or upward, depending upon the type of stock under consideration. But while the large majority of writers on the subject regard this factor as a basic cause affecting the general price level, all attach importance to other contributory causes. Referring to the last 30 years, it is contended that gold has been produced in such enormous quantities[2] as to depreciate its value. Other things being equal, it is argued that a depreciation in the value of gold, the basis of our medium of exchange, is reflected in a general rise of commodity prices, that this brings with it a rise in interest rates, which in turn produces a marked effect on the price level of bonds and certain classes of stocks irrespective of the element of investment safety. As outlined by one authority[3]:

"It is obvious that apart from the minor oscillations in any one commodity a general change in the level of prices can be explained only by a cause which attaches equally

([2]) GOLD PRODUCTION OF THE WORLD
(000 omitted)

Year	Fine Ounces	Year	Fine Ounces	Year	Fine Ounces
1890	5,749	1903	15,853	1912	22,549
1895	9,615	1904	16,894	1913	22,250
1896	9,784	1905	18,396	1914	22,040
1897	11,420	1906	19,471	1915	22,759
1898	13,878	1907	19,977	1916	21,971
1899	14,838	1908	21,430	1917	20,290
1900	12,315	1909	21,963	1918	18,427
1901	12,626	1910	22,022	1919	17,600
1902	14,355	1911	23,348	....	.....

[3] E. R. A. Seligman, *Journal of Commerce and Commercial Bulletin*, January 3, 1910.

to all prices. Now, price in general is value expressed in terms of money; hence a general change in the price level means a change in the value of money. But the value of money, like the value of everything else, depends on the relation of the supply of money to the demand for money. From the point of view of supply the answer is easy. The standard of the civilized world is now, and has been for some time, gold. . . . Gold, in other words, is being turned out in such enormous quantities that it is falling in value. But a fall in the value of gold, other things being equal, is tantamount to a rise in general prices."

Turning to the application of increasing commodity prices to security prices, we find that different classes of securities are affected in different ways. These may be considered as follows:

Effect of increasing commodity prices on bonds and preferred stocks, which, while possessing the advantage of certainty, have the disadvantage of a definitely limited income. —While bonds and preferred stocks, assuming such as have an unquestionable investment worth, possess the advantage of certainty in principal and income, they have the disadvantage of yielding an income that is *definitely limited.* It follows, therefore, that as commodity prices and interest rates rise, the possessor of low-interest or low-dividend bearing bonds or preferred stocks is placed at a great disadvantage. In the last analysis the buying of a bond represents "the purchase and holding of a value safely stored against future requirements." Present value —"present command over goods and services"—is "exchanged for a similar command over future goods and services." When, therefore, a $1,000 five per cent bond was bought 10 years ago, the purchaser has had the misfortune to see his fixed principal of $1,000 and his fixed income of $50 dwindle enormously in value, that is, from the standpoint of the goods or services, now greatly increased in price, that can be purchased with these fixed sums. Bonds are purchased to yield an income, and said income is desired to purchase goods and services. When such goods and services are increasing in price, while the income from the bond, with which they are to be purchased, is fixed, it follows that the bondholder is losing in purchasing power. As a medium of exchange the bond is becoming less valuable and this smaller value is reflected in the declining price registered in the market. In fact, many investment accounts are originally adjusted to yield a certain definite income, and must later be readjusted when such income becomes insufficient to meet current requirements owing to advancing commodity prices. This is done by exchanging the low interest bearing securities for those commanding a higher yield.

There is little reason to invest in bonds yielding only 4 or 5 per cent when money can be made to command higher rates of interest or to buy more goods and services elsewhere. The natural consequence is that dissatisfied bondholders will sell their bonds until the price reaches a point sufficiently low to make the interest yield fairly commensurate with current interest rates on good investments. With the current investment return at 5 per cent a bond, having 10 years to run to maturity, will sell at $1,000; but with the current investment market on a 7 per cent basis, our 5 per cent bond will sell at a price sufficiently low to make the annual $50 interest return approximately equivalent to 7 per cent on the present purchase price of the bond, making due allowance for the gain in appreciation of the bond to its par value at the time of its maturity 10 years hence. Thus we are told at one time that the bond market is on a 4 per cent basis, meaning that good investment bonds are selling at prices to yield that return, while at other times we are told that the bond price level is such as to yield 5, 5½, 6, 7, or even more per cent. The same reasoning applies to preferred stocks since their dividends are also limited, but to a less degree since the rate of income allowed on this type of security in the past has usually been considerably larger than in the case of most bonds.

Many illustrations might be cited to show the effect that rising commodity prices and higher interest rates have upon gilt-edged, low interest bearing bonds. Thus British Consols were selling at 113⅞ in 1896 and dropped as low as 86½ in 1906 during a most prosperous business era. In the United States the same situation asserted itself. Thus between the years 1901 and 1907 many of the best three and one-half and four per cent railroad bonds, gilt-edged both as to principal and income, declined from $200 to $250 per $1,000 bond. Yet this period of 1901 to 1907 was one of the most prosperous business epochs in American history and was characterized by a tremendous rise in the prices of various other classes of securities. Common stocks experienced a rise in price of from 30 to 40 per cent during this period, whereas bonds of the same corporations declined from 15 to 20 per cent. Again, between 1913 and 1920, 20 representative bonds,[4] paying interest rates of from three and one-half to five per cent, declined from a monthly average price of 96.4 for January, 1913, to 69.4 for May, 1920, or a decline of 28 per cent, or $270 per $1,000 bond. It is interesting to note that the price average for these bonds stood at 107 in March, 1905.

Effect of Increasing Commodity Prices upon the Common Stocks of Railroads and Most Public-Service Corporations.—The effect of high interest rates and commodity prices upon this class of securities may be offset by returns in the form of higher dividends or undivided profits or improvement in the property. These securities do not

[4] Babson's Bond Average.

stand at the same disadvantage as do bonds and preferred stocks, since their income is not rigidly limited. But, while the return is not definitely fixed, railroad common stocks are seriously handicapped in another respect for which increasing commodity prices are largely responsible. All materials necessary for building, equipping, or maintaining railroad properties will cost more and more as commodities and labor rise in price. This handicap would be overcome if transportation, the commodity sold by railroads, could also be advanced equally. This, however, is a difficult thing to do in view of popular prejudice, the general prevailing agitation against increasing railway rates, and the tardiness and reluctance with which Government rate regulatory commissions have recognized the effect of economic forces. In this respect, it may be added, that street railway and gas companies, as well as similar public-service utilities, are at a special disadvantage, and in many instances have been almost entirely unable to raise their rates, with disastrous consequences to the price of their common stock. It should be added that the objection mentioned with respect to bonds does not apply equally in the case of convertible bonds. If bonds are given the privilege of conversion into common stock at will, then any special profit that changed conditions give to the stockholder may also be shared by the bondholders. The same may also be said of participating preferred stock, when the stock by its terms is given the right to participate with the common stock in the increased earnings of the company.

Effect of Increasing Commodity Prices upon the Common Stock of Industrial Corporations.—The price of common stock of industrial corporations will be affected differently, because here rising prices for commodities do not interfere so seriously with the earning power of corporations that produce and sell commodities, the price of which is not regulated by law. With respect to such corporations an increase in the price of commodities that they are compelled to buy is apt to be counterbalanced by the advance in price of what they manufacture. In some cases even, especially where the corporation represents a monopoly, there may actually be a gain for the corporation because the price of what is manufactured may possibly be advanced to more than counterbalance the increase in cost of raw materials and labor. Of course, railroad companies, and the same is true of public utilities, that own valuable properties other than transportation facilities, such as coal lands and the like, may benefit by virtue of such ownership.

Crop Prospects in Their Relation to Security Prices.—Of current events that have a vital bearing upon security prices, few approximate in importance the annual condition of the nation's agricultural crops. The average value of these crops aggregates annually between 9 and 10 billions of dollars. This huge mass of new wealth, besides furnishing directly a very large share of the high revenue producing tonnage of the nation's railroads, also vitally affects numerous manufacturing and distributing industries whose securities are listed on exchanges. In fact, so intimate is the relation between the volume of our crops and our industrial life that many writers regard the condition of the crops as the greatest fundamental barometer for indicating the earning capacity of our railroads and industrial enterprises, and the stock market, it should be recalled, is essentially a market for incomes.

While mining and forestry products are important, these are fairly regular on the average and are subject to control in accordance with the demands of business requirements. The products of the soil, however, are mainly dependent upon climatic conditions, and their output is, therefore, uncertain to an unusual degree. As is indicated by the following table, the annual yield of leading agricultural staples, such as wheat, corn, and cotton, frequently vary from 10 to 30 per cent compared with the preceding year. The significance of this fact becomes apparent when we realize that with respect to our four leading agricultural staples, during the last 10 years, winter wheat has shown a maximum fluctuation between two seasons of 193,000,000 bushels, spring wheat of 196,000,000, corn of 678,000,000, and cotton of 5,163,000 bales. Assuming 1,000 bushels to the carload, the aforementioned variation in our three leading cereals, it is apparent, represents a stupendous change in the volume of our railroad traffic.

ANNUAL YIELD OF LEADING AGRICULTURAL STAPLES
(000,000 omitted)

Year	Winter Wheat (bushels)		Spring Wheat (bushels)		Corn (bushels)		Cotton (bales) (000 omitted)	
	Production	Percentage increase or decrease with preceding year	Production	Percentage increase or decrease with preceding year	Production	Percentage increase or decrease with preceding year	Production	Percentage increase or decrease with preceding year
1912	400	–	330	–	3125	–	13,703	–
1913	524	+31.0	240	−27.3	2447	−2.17	14,156	+ 3.3
1914	685	+31.0	206	−14.2	2673	+ 9.2	16,135	+13.9
1915	674	− 1.6	352	+70.9	2995	+12.0	11,192	−30.6
1916	481	−28.6	156	−55.7	2567	−14.6	11,450	+ 2.3
1917	413	−14.1	224	+43.6	3056	+15.1	11,302	− 1.3
1918	565	+36.8	356	+58.9	2503	−14.8	12,041	+ 6.5
1919	730	+29.5	205	−42.4	2859	+14.2	11,421	− 5.1
1920	578	−20.8	209	+ 1.9	3232	+13.0	13,366	+17.0
1921*	544*	− 5.4	213*	+ 1.9	3032*	− 6.2	8,203*	−38.6

* August Government estimate for 1921.

Moreover, while the aggregate crop for the entire nation may show an average fluctuation not to exceed 10 to 20 per cent, the fluctuation in any particular staple, or for a given staple in a particular section of the country, may show a much greater variation, thus vitally influencing manufacturing industries dependent upon the said staple, or seriously impairing the earnings of railroads dependent for their income upon traffic developed in their particular territory. On many occasions stock market quotations have shown a relative shifting in the prices of the shares of different groups of railroads, because one group was seriously affected by a crop shortage or benefited by a crop increase as compared with another. It should also be noted that certain agricultural crops enter largely into our export trade and, therefore, to a large extent represent a long haul for the railroads.

Considerations like the above emphasize the importance of the *volume* of the respective crops rather than their price. At times, however, numerous speculators, heavily interested in the produce market, also assume large commitments in the security market at the same time. Accordingly, there occur instances where a serious price movement in the grain or cotton markets will have a depressing effect upon security prices. The parties interested in the produce market, in other words, might be forced to liquidate their securities in order to meet their losses in the produce market, or *vice versa*. But as stated, the security market is most vitally concerned with the prospects of the volume of the crop. Since this is an uncertainty during the entire process of the growth of the crop — good prospects at the beginning of the season often changing materially later — speculators must keep a constant watch over the situation during the "crop-growing season." The prospects in this connection are discounted from week to week. It consequently follows that much of the news in the speculative market should be "crop news," and it is not at all surprising, in view of the variety of crops raised, the vast extent of the crop-growing area, the varying climatic and other conditions in different parts of the country, and the difficulties incurred in obtaining first-hand information and in arriving at an approximate conclusion as to the average showing throughout the nation, that each year should have its share of crop scare rumors.

Were it not for some fairly accurate and unbiased system of crop reporting, first-hand information would be limited to a very few. The average person would be at the mercy of a flood of rumors, and manipulation would exist on a scale infinitely greater than at present. For these reasons, as well as because of the fundamental importance of the subject from a business standpoint, it is highly essential to have the Government issue reports that, as is the case to-day, indicate the condition of about 95 per cent of the acreage and 80 per cent of the total of the nation's agricultural output.[5]

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[5] For an explanation of the intimate relationship between security prices and crop prospects, see Thomas Gibson's *The Elements of Speculation*. For an explanation of the Government crop-reporting system, the economic functions performed by its reports, the sources of data used, the methods of preparing and disseminating the reports, and the method of interpreting "condition figures" in order to arrive at the total yield, see Nat C. Murray's "Crop Reporting System," published in "American Produce Exchange Markets," *Annals of the American Academy of Political and Social Science*, 1911.

PART IV

LEGAL PRINCIPLES GOVERNING THE STOCK EXCHANGE BUSINESS

CHAPTER XXII

PRINCIPLES AND USAGES RELATING TO THE EXECUTION OF ORDERS

Numerous legal questions arise in the conduct of the stock-brokerage business. It is the purpose of this and the next three chapters to consider those legal principles with which the customer is most vitally concerned. In the interest of clearness such legal phases may be grouped conveniently under (1) principles and usages relating to the execution of orders; (2) rights and duties of broker and customer in margin transactions; (3) rules governing the re-pledging of securities; and (4) the extent to which customers' margins and pledged securities are protected in case of the broker's insolvency.

General Legal Nature of the Order.—In the execution of an order the broker acts as agent for his employer, the customer. Legally, the order serves a two-fold purpose, namely, (1) to express the customer's intent, and (2) to invest the broker, the customer's agent, with full authority to complete the transaction he has been asked to make. With respect to the first of these purposes, it is essential that the customer should make his order so clear as to avoid all misunderstanding on the part of the broker. Probably no vocation involves so many customs and technical terms as the brokerage business, and by law the customer's failure to understand or even know of the existence of such usages does not excuse him from being bound by them. With respect to the second purpose, the customer must necessarily authorize the broker, when executing the order, to observe the rules and customs of the exchange of which he is a member.

Assuming that the broker executes the order in strict compliance with its terms, and the customs and usages of the market, the customer is legally bound to assume all consequences that necessarily result from the authorized performance of his proposal (the order) to the broker. As summarized by Eliot Norton,[1] the customer agrees, in consideration of the broker's acceptance of the order "to reimburse and indemnify the broker for all outlays, expenses, liabilities, and losses necessarily or reasonably incurred in acting as his agent. This very obviously involves an offer to supply the stock broker with the securities or money needed to perform in the event of his contracting to buy or to sell; also an implied offer to pay the stock broker a commission in accordance with the requirements of the rules of his stock exchange."

Legal Interpretation of the Order.—Orders to buy or sell are generally given in the smallest number of words, and with certain firms the practice is simply to have the order blank contain the words "buy" or "sell." Irrespective of the wording used, however, the meaning of the order, according to the courts[2] must include all of the rules and usages prevailing in the market. According to the first case "a principal sending an order to a broker doing business in an established market or trade, for a transaction in that trade, thereby confers upon the broker authority to deal according to any well settled usage in such trade or market." The form of the order usually assumes some such wording as: "(buy) or (sell) for my account and risk 200 A. R. at 40." This order, however, must

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[1] Eliot Norton, The Purchase or Sale of Securities through a Stock Broker, published in "Stocks and the Stock Market," *Annals of the American Academy of Political and Social Science*, 1910, p. 34.

[2] See Bibb *v.* Allen, 149 U. S. 481, and Clews *v.* Jamieson, 182 U. S. 461.

be amplified in order to give its true legal meaning. The wording of the order is, therefore, repeated with references to the insertions that are legally understood to be included:[3]

(1) Buy (2) for my (3) account and (4) risk (5) 200 (6) A.R. (7) at 40 (8) (9).

(*1*) *"I Order You to Contract to Buy."*—It is all-important to bear in mind that an order does not actually constitute a purchase or sale. Instead, it is simply *"an executory contract of sale,"* that is, a contract to make a purchase or sale. Although having contracted with some other broker for the purchase or sale of stock, the agreement may never be actually performed for some such reason as the inability of the other broker to deliver or receive the securities in question. Under such circumstances the customer cannot insist that his broker must deliver or receive the stock involved in the order to buy or sell. The broker has simply agreed with his customer to contract to buy or sell the stock in question. For reasons, over which he had no control, the actual purchase or sale, which he had contracted in good faith to perform with some other broker, could not be consummated.

(*2*) *"Immediately on the Exchange of which You Are a Member According to All its Rules and Customs."*—In the absence of a special agreement to the contrary, all orders to buy or sell must be executed in the open market on the floor of the Exchange, and attention has already been called to the fact that every Exchange compels all transactions on its floor to be made in strict compliance with its rules and usages. The broker not only agrees with the customer to observe all such regulations, but the latter

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[3] See Eliot Norton's article on "The Purchase and Sale of Securities through a Stockbroker," in "*Stocks and the Stock Market*," in *ibid.*

must also necessarily agree, if he wishes the order executed on the Exchange, to allow his broker to comply with all requirements imposed upon him by the Exchange of which he is a member, and which he expressly agreed to observe at the time of his election to membership. Prompt execution of all orders is also understood. Execution of the order at the earliest possible moment is essential if the customer is to obtain the best possible price, and neglect of duty in this respect will subject the broker to liability for any resulting damage.

(*3*) "My account" means *"for me and on my behalf."*

(*4*) "My risk" is to be interpreted as meaning *"I (the customer) to assume the risk of any failure on your part, using due care and diligence, to perform the executory contract."* The customer, in other words, does not require the broker to guarantee that any contract to buy or sell, which he may make in pursuance of his order, will actually be performed by the broker with whom he has contracted.

(*5*) *"Regular way delivery."*—When no reference is made in the order to the time when the securities, which the broker is instructed to contract to buy or sell, shall be delivered, it is understood that he should contract to buy or sell for "regular way delivery," that is, for delivery upon the business day following the day upon which the purchase or sale is made.

(*6*) *"200 shares of the common stock."*—The figure 200 refers to the number of shares of the particular stock that the broker is to contract to buy or sell. In law the broker is entitled to buy or sell a smaller quantity of shares than is set forth in the order.[4] By usage, however, it is customary not to split into "odd-lots," lots for less than 100 shares, an order for the purchase or sale of 100 shares or multiple thereof. Thus in the order under

[4] See Marye *v.* Strouse, 5 Fed. 483.

consideration the broker may contract to buy two 100-share lots from two other brokers. Should the corporation have both preferred and common stock listed on the Exchange, and should the order fail to specify the kind of stock intended to be bought or sold, it is presumed, unless the stipulated price clearly indicates a different intent, that the order has reference to the common stock.

(7) *"Of the American Smelting and Refining Company at 40."* To save time, especially in transmitting quotations, numerous abbreviations are used to represent the full names of corporations as well as the various kinds of stocks and bonds.[5] Symbolic references must be given the meaning customarily accepted in the market, and the broker is protected if he observes such abbreviations correctly. In our sample order, the letters "A. R." stand for The American Smelting and Refining Company.

The figure 40 refers to the number of dollars per share at which the broker shall contract to buy the stock. Should the order stipulate no price, it is understood that the broker is ordered to contract to buy or sell the security at the best price, that is, "at the market price." The order, however, may expressly state that it shall be executed "at the market." In that event the broker agrees to contract to buy the stock at the lowest possible price, or to sell it at the highest price obtainable.

(8) *"Or better."*—Should the order specify a fixed price, these words are presumed to be read into the agreement. Thus our sample order instructs the broker to contract to buy American Smelting and Refining common stock at "40 or better." With respect to the price, proper service to the customer always implies that the broker must contract to buy or sell at the best possible price, that is, a lower price than may be stated in the order to

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[5] See Chapter XIII, on "The Quotation Service of Exchanges."

purchase, and a higher price than that stipulated in the order to sell. The price of 40 in our sample order may have been based upon the last quotation for 100 shares. Yet, by the time the order to buy reaches the floor of the Exchange, the current quotation may have changed to 39½. The customer has a right to this better price if it can be obtained, and the broker is never entitled to more than his commission and all legitimate expenses. No secret profits may be made by the broker out of any transaction entrusted to him for execution.[8]

(9) *"This order to remain in force for this day only."* —Unless the order expressly states that it is to remain in force for a longer period, it is understood that the broker's authority to contract to buy or sell is limited to the day on which the order is given. Brokers are always very careful to have customers specify the time limits during which their orders are to remain in force. Very commonly orders specify some particular period of time during which they are to remain in force, or are made to read "good until countermanded." In the absence of some agreement covering the matter, brokers also follow the general custom of canceling orders and of requesting new instructions from the customer when the stock to be purchased or sold sells "ex-dividend" or "ex-rights."

The foregoing explanation shows that legal principles and usages constitute an important part in the interpretation of an order to buy or sell through a stock broker. Rewritten with a view to including the aforementioned ideas, our sample order would read as follows:

I order you to contract to buy immediately on the Exchange of which you are a member, according to all its rules and customs, for me and in my behalf, (I, the cus-

[8] See Illingworth *v.* DeMott, 59 N. J., Eq. 8.

tomer, to assume the risk of any failure on your part, using due care and diligence, to perform the executory contract) regular way delivery, 200 shares of the common stock of The American Smelting and Refining Company at 40, or better, this order to remain in force for this day only.

Other Important Obligations of the Broker.—In addition to the foregoing, the following three important duties of the broker are also implied:

1. The customer must be given full notification of every transaction setting forth "a description of the securities purchased or sold, the name of the person, firm, or corporation from whom they were purchased, or to whom they were sold, and the day, and the hours between which the transaction took place."[7] This is now a statutory requirement in New York,[8] although with the exception of stating the time of execution, brokers have always followed a custom of giving the aforementioned data to their customers. Proper accounts, showing the names of all persons with whom he has dealt for his customer, must also be kept by the broker, and presumption of value against him is assumed in case of failure to comply with this requirement.

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[7] Samuel P. Goldman, *A Handbook of Stock Exchange Laws*, p. 48.

[8] See Laws of 1913, Ch. 593. The statute provides that a person engaged in the business of purchasing or selling as broker stocks, bonds, and other evidence of debt of corporations, companies, or associations shall deliver to each customer on whose behalf a purchase or sale of such securities is made by him a statement or memorandum of such purchase or sale, a description of the securities purchased or sold, the name of the person, firm, or corporation from whom such securities were purchased, or to whom the same were sold, and the day, and the hours between which the transactions took place. A broker who refuses to deliver such statement or memorandum to a customer within twenty-four hours after a written demand therefor, or who delivers a statement or memorandum which is false in any material respect, is guilty of a misdemeanor, punishable by a fine of not more than five hundred dollars, or imprisonment for not more than one year, or both.

2. Correspondents or branch office managers of a stock broker are his legal agents in transactions between himself and a customer. Accordingly, the broker is bound by the acts of such correspondents or managers, although there may be a violation of some private instruction unknown to the customer.

3. A broker is legally forbidden to buy his customers' securities or to sell his own securities to the customer, except by consent, that is, he "cannot act as principal and agent in the same transaction without his customer's consent."[9] Such dealing is regarded by the courts as opposed to public policy, irrespective of whether the customer has actually been injured or the transaction is tainted with fraud. Nor may the broker represent both buyer and seller in negotiating a purchase or sale.[10]

Usages in the Stock-Brokerage Business.—Various references have been made in the preceding pages to usages prevailing in our organized exchange markets. The number of such usages, however, is so large as to preclude more than a summary of the most important ones. Suffice it to state, therefore, the general rules that permit or prohibit usages in the stock-brokerage business. The legal rules relating to the doctrine of usage in this business are very ably discussed at great length by Dos Passos in Chapter IV, on Usages of Stock Brokers.[11] The principal points, as outlined by Dos Passos are:

1. "The usage of a business is never permitted to make an *entire* or *new* contract for the parties." The purpose of usage is to supply deficiencies and omissions.

2. The interpretation of technical terms and abbreviations depends upon the usage of the business. Expert testimony must explain the meanings of the terms used

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[9] See Porter *v.* Wormser, 94 N. Y., 443.

[10] See Levy *v.* Loeb, 85 N. Y., 365.

[11] J. R. Dos Passos, *Treatise on the Law of Stock Brokers and Stock Exchanges*, vol. i, Chap. IV, pp. 410–474.

and the broker is protected if the usage, as understood by the trade, has been complied with. Definitely expressed contracts, however, cannot be varied by usage.

3. Usages cannot be opposed to "fixed rules of law," may not be opposed to public policy, and may not be unreasonable. If, however, a usage does not conflict with the aforementioned three principles it is permissible as forming a part of the contract, and is presumed to enter into the intent of the contracting parties.

4. A customer, when employing a broker, may presume that he has engaged him with reference to "the customs of brokers." Likewise, a stock broker when employed may presume implied authority to observe all the rules and usages of the exchange of which he is a member. As already stated, the courts have gone so far as to read into every order, even if given in the form of a brief telegraph message the entire constitution and by-laws of the exchange of which the employed broker is a member.

5. A contract may be interpreted by introducing the usages of a particular firm, provided such usages are known to the party upon whom it is sought to make them binding. But a broker cannot legally bind his client to such particular usages when they do not follow the ordinary and customary method, unless there is an express agreement with the customer covering the usages in question.

6. The usual obligations of a broker may be changed by special agreement with his client. In other words, a special contract may be entered into limiting the liability of the parties in any respect that is not contrary to law or to the specific requirements of the exchange of which the broker is a member.

Brokers Must Exercise Due Care and Diligence.—Whether acting as agent or pledgee, the broker is required to use due care and diligence in executing his customer's orders and in taking care of pledged securities. The only difficulty is to define the degree of care that must be exercised. Eliot Norton defines due care and diligence as follows:[13] "The degree of care which a stock broker must show is to be measured by the standard of care which a faithful and intelligent stock broker thoroughly versed in his business would show." In this connection the widely known case of Isham *v.* Post (141 N. Y. 100) is also worthy of special study. Here it was held that "those who dealt with him (the broker) contracted for and had a right to expect a degree of care commensurate with the importance and the risks of the business to be done, and a skill and capacity adequate to its performance." The court gave this general ruling even though the facts showed that in this instance the service to be rendered by the broker was to be gratuitous.

Briefly stated, this case involved an action brought by the plaintiff, as trustee, to recover from Post, the broker, $25,000 alleged to have been placed in his hands to be loaned for the plaintiff and to be returned on demand. Post loaned the money, taking as collateral certain stock certificates that had been raised by a forgery so as to represent a much larger number of shares than they were issued for, with the result that a large loss occurred since the firm borrowing the money became insolvent. It also appears from the facts of the case that the loan was made to a firm in good repute and standing at the time, and that the original certificates were genuine and lawful, having been issued six years previously to a member of the firm. Moreover, the loan was made by Post's managing clerk, who, although having had an extensive experience in such transactions, and having handled many of the certificates of the stock in question, admitted that he took the certificates as collateral without close scrutiny. The trial court

[13] Eliot Norton, *op. cit.*, p. 37.

found that Post was negligent in making the loan upon the security of the certificates on the following three grounds, namely, that he took them without close examination, without presenting them for verification at the office of issue or registry, and without inquiry as to the solvency of the borrowing firm. With reference to each of these contentions the trial court was overruled, the higher court maintaining that the broker's duty does not extend to inquiry into the solvency of firms generally reported to be responsible, and that the broker cannot be held responsible for loss through a forgery so cleverly made that a reasonable examination will not indicate anything on the face of the certificates to arouse suspicion.

Brokers Communications not Privileged.—With respect to secrets of state, communications or other information confided by a client to his legal advisers, or knowledge gained by a physician in attending a patient, wise public policy demands that certain kinds of evidence need not be furnished in case of legal controversies. Numerous attempts have been made to establish the principle that communications and transactions between broker and client should receive similar treatment. Such consideration, however, has been refused by the courts.[18] Although communications and transactions between brokers and clients are observed as strictly confidential, they cannot, from a legal point of view, be considered as privileged in legal proceedings.

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[18] See Dos Passos, *Stock Brokers and Stock Exchanges*, vol. i, pp. 400–404.

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Isham *v.* Post (141 N. Y. 100).

CHAPTER XXIII

THE LEGAL NATURE OF A SPECULATIVE PURCHASE

Financial Nature of a Speculative Purchase.—A very large proportion of the total business on American exchanges consists of margin transactions, where the purchaser pays only partially for the securities, the broker holding the stock as a pledge and borrowing the balance of the purchase price. In such transactions the customer advances a certain percentage of either the purchase price or the par value of the stock. The percentage required, called the margin, will depend upon the nature of the security under consideration, the character of the market at the time, and the individual wishes of the broker. Some securities, because of their high price, speculative character, or inactivity in the market, fluctuate much more within a short time than securities having the advantages of a continuous market, and, therefore, a larger margin will be required. Usually, but not necessarily, brokers in financing margin transactions advance a certain amount of their own capital, the balance of the purchase price being advanced by the bank with whom the purchased securities are hypothecated as collateral for the loan. As regards good collateral, bankers usually require a margin of at least 20 per cent in excess of the loan. It should be emphasized, however, that the respective amounts advanced by the three parties concerned in the financing of a speculative transaction—customer, broker and banker—vary at different times to meet general market conditions or the conditions pertaining to particular securities, the broker exercising his judgment in the matter.

Form of the Order in a Speculative Transaction.—As regards the execution of the order the rights and duties involved are the same as those stated in the preceding chapter in connection with the order for an outright purchase or sale. Owing to the credit relation between broker and customer in a margin transaction, however, the order must take the form of a more elaborate agreement than that already discussed. While the wording of orders used by different firms varies, the full form generally used may be illustrated by the following:

....................19....

To (*Name of firm*)

....

(*Address*)

....

Please BUY for account and risk of the undersigned

....

....

This order to remain in force until..............inclusive,

You may, at public sale, or at the

(New York Stock Exchange)
(Philadelphia Stock Exchange)

or elsewhere, sell without notice, and may buy in, at any public or stockboard sale, all stock purchased for me when all your liability for, and all indebtedness to you of the undersigned shall not be satisfactorily secured; it being understood that you reserve the right to determine such security. It is further understood that you shall have the right to hypothecate said stock and any other securities held by you as collateral to my account, and that with or without other collateral for such loans, and on such terms as you may see fit for the general purpose of your business.

And I hereby authorize you, whenever demand shall be made upon me by mail or otherwise for the payment of the full purchase price and accrued interest of the stock bought under this order, and said request is not immediately complied with, to sell it as hereinabove provided. It is further to be understood, and I hereby agree, that the above mentioned conditions shall apply to all future transactions between myself and the above named firm, whether orders are given verbally or otherwise.

I further agree that all regular statements of account current, as rendered me from time to time, are acknowledged to be correct unless notice is given to the above firm, within three days after receipt, of any exceptions thereto.

(Name)............................
(Address).....................

Many brokerage firms have order blanks that are much briefer than the foregoing, and in some instances the blanks merely contain either the word "buy" or "sell." But whatever the form of the order, it is understood that the foregoing conditions shall be observed.

The conditions contained in the above-mentioned order have been inserted with a view to protecting the broker against the operation of the law of pledgor and pledgee, which the courts have held governs transactions where securities are purchased on a margin and are held by the broker as a pledge against the advancement of a part of the purchase price. According to the law of pledgor and pledgee, as will be explained later, the broker cannot sell a customer's securities without "reasonable notice" for more margin unless there is an express understanding with the customer to the contrary, hence the stipulation that the stock may be sold *without notice* if the customer's liability for all indebtedness to the broker shall not be satisfactorily secured.

Where the client is "long" of stock, the position of the broker as pledgee has caused the courts to hold that the pledged stock must be sold at a public sale just as any other pledged article. A stock exchange, in this connection, has repeatedly been held by the courts not to be a place of public sale, since exchanges "are essentially private, no one being allowed to enter the room but members." Although technically correct, this construction is clearly untenable from a practical point of view, since our exchange markets are in all essential particulars public markets that command the best prices obtainable for securities. Exchange markets, as already explained, are continuous markets that give to buyers and sellers the advantages inherent in a large market where numerous buyers and sellers are always present, and where clients may be represented by brokers of their own choosing to carry out their wishes. Certainly at no public auction can securities be sold to such advantage, and it should be noted that buyers at public auctions are usually guided in their bids by the quotations prevailing on the regular exchanges. In case, however, a customer is "short" of stock and his margin becomes so impaired through a rise in price as to compel liquidation, the courts have been obliged to give a ruling to the effect that the broker can "buy in" on the exchange, although no special clause giving this right to the broker has been inserted in the order. It would be ridiculous to compel the broker to purchase at a public auction, at which no one may be present with the kind, or requisite amount, of stock that he wishes to buy. In the case of a sale, however, the courts regard a stock exchange as a place of private sale, hence the stipulation in the order that the stock may be sold "at public sale, or at the .... exchange, or elsewhere" and may be bought in "at any public or stock board sale."

Rights and Duties of Brokers and Customers in a Speculative Transaction.—The case of Markham *v.* Jaudon (41 N. Y. 235)[1] involves a full description of the nature of a speculative purchase and the respective rights and obligations of customer and broker in such a transaction. This case is important in that it constitutes an excellent text on the subject of margin transactions and, with a single exception, the measure of damages in case of wrongdoing or negligence on the part of a broker, contains the leading principles of the present law governing such transactions.

According to the facts of this case the brokers purchased for the plaintiff certain shares of stock that were to be held on margin subject to the customer's orders. The plaintiff deposited with the brokers a stipulated margin upon the purchase of the stock, and maintained that without his knowledge or consent and without due notice to him the brokers sold the stock and converted it to their own use, thereby causing a loss which he, the plaintiff, now sought to recover.

The brokers, on the other hand, alleged that they had an understanding with the plaintiff to the effect that a margin of 10 per cent of the par value of the stock should always be kept with them, and that since the plaintiff failed to maintain this margin they were at liberty to sell the stock on the exchange at the market price and in accordance with the usages and customs of the business. They further asserted that a large decline had occurred

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[1] Besides the majority opinion, this case contains two dissenting opinions. The case is worthy of careful study since it analyzes in detail the nature of a speculative transaction and constitutes a text on the subject. The dissenting opinions in the case are also very instructive, and were fully reported "at the request of many leading members of the profession" because, as the case states, "numerous contracts are daily made in the City of New York, frequently involving enormous amounts, and also, because of the fact that this is the first full consideration in the court of last resort, of the legal relations of the parties in such contracts."

in the value of the securities, that a call for more margin was made, that the plaintiff failed to supply it, that a notice was sent to the customer that unless he supplied the additional margin the stocks would be sold, that an exhaustion of the margin had occurred, that the customer concealed himself so that notice could not be served, and that thereupon the stock was sold. After applying the margin, it was asserted by the brokers, a balance still remained due them from the plaintiff. All questions of fact involved in the transaction were referred to the jury and it was shown that the plaintiff was familiar with the customs of brokers in the City of New York but that no notice had been given to him of the time and place of the sale of the stock. It should also be stated that about two months after the brokers had sold the stock the plaintiff repudiated the sale and required a sale and accounting as of that date, the stock having in the meantime advanced greatly in price. The jury, in the main, upheld the contentions of the plaintiff and awarded damages of $4,850.

In the appeal the court found it necessary to analyze the powers and obligations of the parties to the contract in question, and it is in this respect that the case is worthy of careful study. The court outlined the powers and obligations of broker and customer in a speculative transaction as follows:

The broker undertakes and agrees in such a transaction:

1. To buy for the customer the stocks as indicated in the order.
2. To advance all the money required for the purchase beyond the 10 per cent furnished by the customer.
3. To carry or hold such stocks for the benefit of the customer so long as the margin of 10 per cent is kept good, or until notice is given by either party that the transaction must be closed. Any apprecia-

tion in the value of the stock belongs to the customer and not to the broker.

4. At all times to have in his name or under his control, ready for delivery, the shares purchased, or an equal amount of other shares of the same stock.
5. To deliver such shares to the customer whenever required by him, upon receipt of the advance and commissions accruing to the broker.
6. Or to sell such shares upon the order of the customer upon payment of all advances and commissions, and to account to the customer for the proceeds of the sale.

The customer undertakes and agrees in this contract:

1. To pay the required margin.
2. To keep such margin good according to the fluctuations of the market.
3. To take the shares purchased on his order, whenever the brokers may require it, and to pay the difference between the percentage advanced by him and the amount paid therefor by the broker.

Having stated the duties and obligations of broker and customer in a speculative transaction, the court next outlined the two-fold relation of the broker and customer in such a transaction. With reference to the execution of the order, the legal position of the broker was held to be such as to make his acts those of an agent. To complete the purchase the broker must, however, for the benefit of his customer, advance his own or borrowed funds to pay the balance of the purchase price. He must also carry the stock for the benefit of the purchaser until he is ordered by him to sell. In rendering these services, the court held that the broker does not act as an agent whose engagement is simply to buy and sell. The plaintiff insisted that the relation between the parties to the transaction is that of principal and agent as far as the execution of the order to purchase is concerned, but that in advancing the money to complete the purchase the relation of debtor and creditor is created, and that the brokers, therefore, become subject to the law of pledgor and pledgee. The brokers, on the other hand, contended that the relationship of the parties is wholly by force of a mutual and dependent contract, that is, that the agreement to carry the stock was dependent on the plaintiff furnishing them with the means to do so, and that in case this was not done, the obligation to hold the stock ceased and the right to sell it was complete. The majority opinion of the court held in favor of the plaintiff and stated its position in the following words:[2]

"In the case of a pledge it is well settled, that upon default by the debtor, the property in the subject of the pledge, does not thereby become absolutely vested in the creditor, but that the general property still remains in the debtor. To cut off his claim, the creditor may resort to judicial process, or he may sell, without judicial process, upon giving notice to redeem, and giving notice of the time and place of sale."

The court concluded that, although the formality may not have been followed in detail, a speculative transaction in fact involves the delivery of the stock to the customer, and then the redelivery of the stock to the broker as a pledge for the advance of the balance of the purchase price. Holding stock on margin, it was held, is essentially the same as giving collateral as a pledge for a loan. As the majority opinion states:[3]

"The contract between the parties to this action, was in spirit and effect, if not technically and in form, a contract

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[2] Markham v. Jaudon, pp. 240, 241

[3] *Ibid.*, p. 243.

of pledge. To authorize the defendants to sell the stock purchased, they were bound first to call upon the plaintiff to make good his margin; and, failing in that, he was entitled, secondly, to notice of time and place where the stock would be sold; which time and place, thirdly, must be reasonable."

The court further explained that the broker had no right to sell the stock without a reasonable notice to the customer, the lower court having decided that such notice had not been given.

The dissenting opinions in this case are also instructive and were purposely reported in full. In one of these opinions it is held that the construction of the court, which vests the title in the customer as pledgor and holds that the interest of the brokers can only be that of pledgees, places the broker entirely at the mercy of the customer in respect to the performance of his agreement as to the proper maintenance of the margin. This construction was regarded as requiring the broker, although the whole margin is exhausted, to retain the stock, although rapidly depreciating, until the customer can be found and a reasonable notice of the time and place of sale be given to him with a view to affording him an opportunity to save himself from loss by redeeming the stock. In the meantime, the risk of loss from further depreciation is placed entirely upon the broker.

A study of the dissenting opinions shows two main lines of objections to the majority opinion of the court, namely, (1) that the application of the law of pledgor and pledgee leaves the broker without protection, especially in view of the hazardous understanding connected with a margin transaction, and also because the broker ought to be released from further liability when the other party to the agreement has not complied with its provisions as regards the maintenance of the margin; and (2) that the measure of damages adopted in this particular case was excessive and wrong in principle, since the plaintiff was held to be entitled, not to the value of the stock at the time of the sale, but the highest price the stock attained between the sale and the time of the trial.

As regards the first objection, the majority opinion conceded that there was much in the reasoning presented, but held that the nature of the margin transaction brought it clearly within the scope of the law of pledgor and pledgee, since the customer is the legal owner of the stock and the broker simply holds the same as a pledge against the advances made. If the nature of the business requires the broker to be especially protected, the broker must secure himself by a special contract giving him the right to sell without notice. It is in view of this ruling, affirmed many times since, that the order to buy or sell in a speculative transaction contains the provision that the broker "may at public sale, or at the stock exchange, or elsewhere, sell without notice and may buy in, at any public or stock board sale, all stocks purchased for me, when all your liability for, and all indebtedness to you of the undersigned shall not be satisfactorily secured; it being understood that you reserve the right to determine such security." It will be observed that in the sample order given the broker further protects himself by having the agreement contain the following conditions:

1. That the broker shall have the right to hypothecate the stock involved in the transaction, as well as any other securities held by himself for a customer on account, on such terms as he may see fit.

2. That the customer, upon demand, agrees to pay the full purchase price of the stock and accrued interest and that if this is not done the broker shall have the right to sell

the stock without further notice at any public or private sale. The agreement to have the customer take up the stock at any time at the demand of the broker was fully affirmed in the case of Markham *v.* Jaudon.

3. That the customer will consider all future transactions to be governed by the same conditions as the particular one covered in the order, whether such future orders are given verbally or otherwise; it being common practice to sign an abbreviated order or to give an order by telephone.

Measure of Damages.—As regards the second objection—the measure of damages in case the broker wrongfully converts securities or otherwise acts contrary to law in transacting his client's business—the finding in the case of Markham *v.* Jaudon has been overruled by later decisions. In Markham *v.* Jaudon the measure of damages was defined as being fixed by the "highest market price of the property between the wrongful conversion and the trial." It was soon seen that the application of this rule would work great hardship in many cases. In fact, in Markham *v.* Jaudon the customer owed the broker at the time he was sold out, but by the time of the trial the price of the stock in question had risen to such an extent that, in accordance with the above-mentioned rule, he was awarded nearly $5,000.

In the case of Baker *v.* Drake, 53 N. Y. 211, and Gallligher *v.* Jones, 129 U. S. 193, a different ruling, and the one now prevailing, was adopted. The facts of the last case are particularly instructive. A customer in Virginia City ordered the broker by telegraph to sell certain mining stocks, then being carried for him by the broker, and with the proceeds of the sale to buy certain other mining stocks. The broker received the order in time to execute the same in compliance with all its terms, but no longer desired to do business with the client. Instead of executing the order, he waited for several days and then gave notice by letter of his refusal to comply. Later, and without any order from the customer to do so, the broker sold the stock he was carrying at a price such as to net a loss of $1,200. The stock that the customer had ordered the broker to buy had, by the time of the wrongful conversion, more than doubled in value, so that if the transaction had been carried out as ordered the customer would have made $6,125. The broker was found guilty of neglect, and the damages were at first fixed in the lower court "by the highest market price of the securities (in this case two securities) between the time of the wrongful conversion and the trial." The United States Supreme Court, however, reversed the ruling of the lower court and decided to the following effect:[4]

[4] Dos Passos, in his *Treatise on the Law of Stock Brokers and Stock Exchanges*, vol. ii, pp. 921–924, in reviewing the measure of damages for the conversion of securities by a broker makes the following statement:

"Formerly, in an action against the stock broker for the conversion of stocks, the same rule of damages was applied which existed in actions for the conversion of ordinary personal property—viz., the highest price of the same between the date of the conversion and the time of the trial. . . . This rule was adopted by Mr. Sedgwick in his learned treatise on the law of damages, when applied to actions for the non-performance of contracts to deliver merchandise or stocks, as being purely conjectural, and based on the highly improbable assumption that the plaintiff would have retained the property, if the contract had been complied with, till the period of its highest value, and have thus realized the latter price.

"But, despite its glaring injustice, the rule remained in full force in the State of New York until the year 1873, when it was overturned by the widely known case of Baker *v.* Drake after an elaborate and close examination of the subject and cases by Mr. Justice Rapallo.

"The theory of the old rule was, that when a broker had sold the stock of his client without notice and thus committed a conversion, the latter might, within a reasonable time after notice of the act, begin suit; and that he was entitled to avail himself of the extreme fluctuations of the stock market, and select the date, at any time between the time of the conversion and the end of the trial, at which the converted stock had reached its highest point, and that the law would fix the latter as the measure of damages to which he was entitled.

"The hardship which arose from estimating the damages by the highest price up to the time of trial, which might be years after the transaction occurred, was often so great, that the Court of Appeals of New York was constrained to introduce a material modification in the form of the rule, and to hold the true and just measure of damages in these cases to be the highest intermediate value of the stock between the time of its conversion and a reasonable time after the owner has received notice of it to enable him to replace the stock. This modification of the rule was very ably enforced in an opinion of the Court of Appeals delivered by Judge Rapallo, in the case of Baker *v.* Drake, 53 N. Y. 211, which was subsequently followed in the same case, and in Gruman *v.* Smith, 81 N. Y. 25; Colt *v.* Owens, 90 N. Y. 368; and Wright *v.* Bank of Metropolis, 110 N. Y. 237.

It would be a herculean task to review all the various and conflicting opinions that have been delivered on this subject. On the whole, it seems to us that the New York Rule, as finally settled by the Court of Appeals, has the most reason in its favor, and we adopt it as a correct view of the law."

"The consequence of applying such a rule to the transactions of Wall Street was most alarming and unjust; and it seemed only necessary to present the question in its full aspect and extent to an intelligent court to have it reversed . . . In the case of Baker *v.* Drake it appeared that the plaintiff had bought stock on speculation through the defendants, who acted as his brokers, to an extent of over $66,000, and had advanced as margin the sum of $4,240; and at the time of the conversion by the illegal sale there was, at the market price of the stocks on that day, a surplus of only $558 due the plaintiff. At the time the plaintiff began his action against the defendants the shares would have brought some $5,500 more than the sum for which they had been sold; but after the commencement of the action, and before the trial, the stock underwent alternate elevation and depression, and reached its maximum point in August, 1869. . . . Mr. Justice Rapallo reasoned that this enormous profit could only have been arrived at upon the unfounded supposition that plaintiff would not only have carried the stock through all its fluctuations until it reached its highest point, but that he would have fortunately seized upon the precise moment to sell, and escaped the subsequent decline, by a sort of 'supernatural power of prescience.'"

What constitutes "reasonable time" depends upon the circumstances of each case. According to a New York decision (71 N. Y. App. Div. 304, 1902) "it may be stated as a general rule that the customer is entitled to a reasonable opportunity to consult counsel, to employ other brokers and to watch the market for the purpose of determining whether it is advisable to purchase on a particular day or when the stock reaches a particular quotation, and to raise funds if he decided to repurchase."

Dividends, Assessments, and Interest.—In a margin transaction the broker merely holds the stock as a pledge subject to the orders of the client, who becomes the owner of the stock as soon as it is purchased. As a consequence of ownership, it follows that the customer is entitled to all dividends or other benefits accruing on the stock and is liable for all assessments or calls. The broker, however, is legally entitled to collect the dividends thereon on the theory that "any increase of the pledged property is likewise pledged." He also has the right to have the securities bought by him on margin transferred to him or any one of his selection. But such transfer neither deprives the client, the legal owner, of the dividends or profits, nor exempts him from assessments, although the broker may have paid the same as the stockholder of record.

Upon the funds advanced to the client in paying for the stock purchased, the broker may, unless there is an understanding to the contrary, charge the legal rate of interest, even though the money is borrowed at a lower rate. By usage he may also charge the client with any extra interest that a stringent money market may compel him to pay. This, however, is not allowed when the broker is himself the lender of the funds used to finance the transaction for his client, in which case the rate of interest that may be charged is limited to that allowed by statute. All other expenses actually incurred in the interests of the client may also be recovered by the broker.

Voting Power of the Pledgor.—The broker, as we have seen, is privileged to transfer stock bought on margin to his own name and to hypothecate it for loans. To what extent, therefore, has the client a right to vote the stock thus pledged? This matter is generally regulated by the statutes of the several states. In New York, as set forth in the general corporation law of the State, voting power is granted only to the holder of record, and the broker may, therefore, vote the stock if he has transferred it to himself. But it has been held that the pledgor may, upon showing that his rights will be prejudiced, invoke the equitable powers of the Supreme Court to grant him a proxy and to restrain the pledge from voting the stock.[5]

The several states, however, are not uniform in their regulation of this matter. Massachusetts provides by statute that the pledgor may vote the stock if the certificate states the fact that the stock has been issued as a pledge. Otherwise, the corporation may refuse to accept the vote of the pledgor, although, as in New York, the pledgee may be required in equity to give a proxy. Some states provide by statute that the pledgor has the right to vote his stock. As concluded by Dos Passos, in his review of the various statutes,[6] "it may be stated as a general proposition that equity will intervene to protect the right of the pledgor."

Safekeeping of the Pledge.—Emphasis has already been placed upon the principle, laid down in Markham *v.* Jaudon, that it is the duty of the broker "at all times to have in his name or under his control, ready for delivery, the shares purchased, or an equal amount of other shares of

[5] See *ibid.*, vol. i, pp. 247–249.
[6] See *ibid.*, p. 249.

the same stock." This, however, does not mean that the broker must transfer the stock to his client's name, or even to his own. Instead, he may legally transfer the stock to any name he pleases, so long as he has the stock under his control with a view to meeting the demands of his client. Horton *v.* Morgan, 19 N. Y. 170, states the principle as follows:

"As the broker was to hold the shares as security for the balance of the purchase money, which he had advanced, it was proper and entirely consistent with the nature of the transaction that he should take the title in his own name; . . . and we do not see anything unlawful in his transferring it to his clerks if it remained under his control, and if it was ready when called on by the plaintiff to transfer it to him upon the advance being paid."

In case of loss of the securities by theft or otherwise, the broker is not liable unless such theft or loss is due to a want of ordinary diligence or care on his part, and the degree of proper care is a question for the jury. Where securities, belonging to a third party are misapplied by one of the partners, while they are in the custody of the brokerage firm, the remaining partners are liable to the client, although the wrongful conversion or misapplication of the securities was unknown to them. Similar liability also attaches where the clerk of a broker wrongfully converts securities unless the wrongful act could have been prevented by ordinary care on the part of the client, provided, however, that the broker exercises due and reasonable care as to the duties of the clerk.

Circumstances under which a Broker May Close a Speculative Transaction.—Where the demand for more margin is not complied with, and where the right to sell without notice at either public or private sale has been reserved, the broker clearly has a right to terminate a margin transaction immediately. There are various other circumstances, however, under which a broker may exercise the same right. Thus, in the absence of an express agreement to the contrary the broker may, upon reasonable notice, require his client to take securities carried for him and thus close the transaction. This principle is upheld chiefly on the ground that the client has a reciprocal right to close an account. Moreover, the courts hold that the broker has earned his commission by making the transaction.

In the event of a client's bankruptcy the broker also possesses the right to sell the bankrupt's securities held on margin, and it is the broker's duty to take notice of the fact of bankruptcy. In a prominent case, in *re* Daniels, 13 National Bankruptcy Register 46, it was held that where a broker continued to hold the stock of a client after such bankruptcy for an unreasonable time and then sold it without application to or consent of the assignee or bankruptcy court, the bankrupt's estate was not properly chargeable with the loss. On the other hand, it should be noted that a broker is not obliged to sell in case of the exhaustion of the margin. Instead, the broker may hold the stock and rely upon the customer's liability without security, unless there is an agreement to the effect that the security should be sold when the margin is exhausted.[7]

The broker is also justified in closing an account in the event of the death of his client. In New York, however, the broker, if acting in good faith, may continue the account until the appointment of a legal representative.[8] As has been pointed out, this case represents an exception to the general rule that the death of the principal terminates the agent's authority.

[7] Little *v.* McClain, 152 App. Div. 197.
[8] Hess *v.* Rau, 95 N. Y., 359.

References

J. R. Dos Passos, *Treatise on the Law of Stock Brokers and Stock Exchanges*, vol. i, pp. 241–264, dealing with the "Disposition of stock when purchased; safely keeping same; liability to keep identical stock purchased, etc."; pp. 264–275, dealing with "Dividends, profits, assessments, calls, and interest"; pp. 275–283, dealing with the "Rights of client to control and take up Stock"; pp. 334–336, dealing with "Compulsory sale by broker for failure to put up margins to meet the fluctuations of the market"; pp. 336–346, dealing with "The form of the notice"; pp. 902–938, dealing with the "Measure of damages."

Samuel P. Goldman, *A Handbook of Stock Exchange Laws*, Part III, dealing with "The Broker and his Customer," pp. 73–113.

Markham *v.* Jaudon, 41 N. Y. 235–259.

CHAPTER XXIV

LEGAL PRINCIPLES PERTAINING TO THE RE-PLEDGING OF STOCK EN BLOC

Broker's Right to Pledge Stock Purchased on Margin.—The law is well settled on the point that a broker may pledge stock purchased for a customer on margin, and that the broker's pledgee has a good lien thereon and is entitled to sell the stock without notice to the customer. The only obligation upon the broker in thus hypothecating margined stock is, as already shown in the discussion of the case of Markham *v.* Jaudon, that he keep the identical or a like kind and amount of the securities *under his control,* and that he be ready at all times to deliver to the customer the identical or an equivalent number of similar shares whenever the latter tenders the unpaid portion of the purchase price together with all accompanying charges.

Rights of a Bona Fide Pledgee from a Broker.—According to the law of New York a *bona fide* second pledgee may enforce his lien by sale without notice to the owner of the securities, and acquires rights superior to those of the first pledgee. This principle was upheld in Rothschild *v.* Allen (90 App. Div. 233) and Fisher *v.* Mechanics and Metals National Bank and Stoppani *v.* Hotschin *et al.* (Misc. Reps. 89 N. Y. 587). The last case involved the right of a customer to recover securities from a bank that, it was alleged, were procured by a broker through false representation and were then pledged with a bank as security for a loan. According to the plaintiff the broker had induced him, through fraudulent representations in the form of a false accounting, to deposit an unnecessarily large amount of marginal securities consisting of certificates of stock endorsed in blank and unregistered bonds, and had in turn pledged these securities as collateral for a bank loan. The court decided in favor of the bank, and against the customer, on three main grounds. In the first place the court made use of the principle that: Where one of two innocent parties must suffer through the act of a third party, that one must bear the loss whose act made possible the conversion. In this case the customer had assigned the stock in blank, that is, had made possible the wrongful conversion. Therefore the bank, an innocent pledgee, should be protected.

The court also considered the plaintiff's contention that obtaining property by false representation is larceny under the statute and should constitute an exception to the ruling held by the court. The court, however, held that: "This argument ignored the reason for the exception in the case of common-law larceny, which involves a taking against the will of the owner. Obviously, there can be no estoppel by virtue of an act that is done unintentionally against one's will." Lastly, the court held that the bank was not put on inquiry and notice by virtue of the fact that the pledged certificates of stock stood in the name of the customer and not in the name of the broker.

Broker's Right to Pledge Stocks en Bloc.—While numerous questions have arisen in connection with the hypothecation of customers' securities purchased on margin, one deserves special mention, namely, the broker's right to pledge stocks *en bloc*. Some court decisions hold that a broker may hypothecate margined stocks *en bloc*, while others rule that the broker cannot mingle the customer's margined stock with other securities and obtain thereon a loan in excess of the customer's indebtedness.

The courts of most states have held that a broker may borrow money by commingling the margined stocks of various clients and sub-pledging them *en bloc*. In New York, however, until 1912, the court held that a client's margined stock could not be thus commingled by the broker with other securities and then pledged *en bloc* for an amount larger than the client's indebtedness on his stock, and that a practice to the contrary constituted a wrongful conversion of the securities. Four important New York cases [1] relate to the legal principles governing this important subject, and of these the first and particularly the last are the most important, because they represent the previous and present law on the subject in New York.

In Douglas *v.* Carpenter, the first case in date, the court established the following four principles:

"A stock broker who is carrying securities which he has purchased for a customer "on margin" is not required to keep on hand the identical securities purchased for the customer, but fulfills his obligation if he at all times keeps in his possession or under his control a like amount of similar securities in such situation that the customer may, by paying the amount due the broker on the securities, obtain them at any time.

He may lawfully pledge the customer's securities, separate and apart from other securities, for an amount not exceeding the indebtedness of the customer to him, but any disposition of the securities which will deprive the customer of his right to their immediate possession upon his payment or tender of the amount of his indebtedness to the broker, amounts to a conversion.

Accordingly, if the broker, for his own benefit, mingles the customer's securities with others, and rehypothecates

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[1] The cases referred to are the following: Douglas *v.* Carpenter, 17 N. Y., App. Div. 329 (1897); Rothschild *v.* Allen, 90 N. Y., App. Div. 233 (1904), affirmed 180 N. Y., 561; Strickland *v.* Magoun, 119 N.Y. App. Div. 113 (1907); Mayer *v.* Monzo, 151 N. Y., App. Div. 866 (1912).

them for a greater amount than the customer's indebtedness to him, not having in his possession a like amount of similar securities, he is guilty of a conversion.

It would not do to say that the plaintiffs might go into the market and buy other securities of a like kind and amount on payment or tender being made by defendant, because the plaintiffs might not have the funds to purchase the new securities and the only reliance the defendants would have would be the personal financial responsibility and ability of the plaintiffs, whereas he had a right to rely upon the securities themselves, and if they were retained he could get them, whether the plaintiffs were financially responsible or not."

The ruling just referred to, was followed in Strickland *v.* Magoun as late as 1907, but in 1912 this important decision was overruled in Mayer *v.* Monzo, 151 N. Y. App. Div. 866. This case is particularly important, partly because it represents the law to-day, and partly because the dissenting opinion reviews the facts and conclusions of the preceding cases. It, therefore, represents a connected summary of the New York law on this important phase of the brokerage business.

The majority opinion in this case is brief, but a study of the comprehensive dissenting opinion will prove very enlightening. Justice Clarke, in dissenting from the majority opinion, reaffirmed the position taken in the preceding three cases, namely, that a broker who commingles a customer's margined stock with other securities for a loan exceeding the customer's indebtedness to him, and at the same time has no other like stock of equal amount in his possession or under his control, is guilty of a wrongful conversion for the reason that the customer is placed in a position where he cannot redeem the same from the broker's pledgee by tendering the amount due to the broker. In other words, Justice Clarke took the position that the practice involves the loss of control of the pledged stock by the broker. The majority opinion of the court, however, takes an entirely different position, as is indicated by the following significant passage:

"That it is a conversion *ipso facto* to commingle stocks belonging to different customers and to obtain a loan on all, in excess of the amount due from any one of the customers whose stocks are thus commingled, I do not concede. It is settled that a broker who buys stocks for a customer upon margin, and to whom the customer still owes a part of the purchase price, is entitled to pledge the stocks so bought for so much of the purchase price as his customer still owes. The broker's whole duty to his customer under such circumstances is either to have on hand or under his control the stocks which he is carrying for his customer, but he is not required to do both, that is, to have the amount of stocks under control and also, an equal amount on hand. The customer's right to receive his securities accrues under such circumstances only when he tenders the amount he still owes and demands his stock. The refusal of such a demand constitutes the conversion. If the broker has the stock under his control (even if it be pledged), and can resume possession by paying the amount borrowed thereon, not exceeding the amount which the customer owes on account of the purchase, there has been no conversion."

Justification for Commingling Stocks en Bloc.—It is contended by many that enforcement of the principle laid down in Douglas *v.* Carpenter would make it exceedingly difficult, if not impossible, for brokers to conduct their business along modern lines. Hypothecating a client's margined securities for more than he actually owes to the broker at the time has also received considerable attention from legislative bodies in recent years. In 1913 the State of New York enacted a law making it a felony, punishable by a fine of not more than $5,000 or by imprisonment for not more than two years, or both, for a broker to pledge securities belonging to a customer on which he has a lien for indebtedness due to him for more "than the amount due to him thereon, or otherwise disposes thereof for his own benefit, *without the customer's consent.*" Section E of the Senate bill to regulate stock exchanges[2] provided that members of exchanges coming within the scope of the proposed legislation should be forbidden under penalty of expulsion from hypothecating any securities belonging to their customers or others for any amount in excess of the sum at the time owing by such members thereon. But instead of using the words "without the customer's consent," the bill contained the far-reaching provision that brokers should be forbidden from "entering into any arrangement or agreement with such customer or others for such use of their securities."

The necessity for, and practicability of, legislation like that proposed in the Senate Bill has been seriously questioned in many quarters. On the one hand it is asserted that the matter of hypothecating margined securities should be one of arrangement between broker and customer, and that the customer should have the right to give or refuse his consent. The customer who refuses, it is argued, can easily find a bank in any city willing to accept delivery of good securities, and to loan directly to the customer 80 per cent of their market value. Having arranged with the bank for the requisite loan, the customer can direct his broker to purchase the securities and to deliver the certificates directly to the bank. In this way all danger of rehypothecation is avoided, with the difference, however, as pointed out in the testimony of H. H. Boyesen:[3] that "the only consequence to the man who

[2] Senate Bill 3895, 63d Congress, Second Session.

[3] Testimony in the Hearings before the Senate Committee on Banking and Currency on S. 3895, p. 258.

objects to having his securities rehypothecated is that probably the banker will not allow him as big an equity, which is the equivalent of a margin in the broker's language, as the broker would. In other words, the bank will, to use the broker's term, require a 20-point margin, where the broker will, to use the bank's term, require only a 10 per cent equity."

Since the above-mentioned method is open to customers who object to the rehypothecation of their securities by brokers, it is argued that it is an "invasion of private rights" to prohibit by law the other class of transactions. It is asserted that it is impracticable for brokers to comply with a law that absolutely prohibits the rehypothecation of securities for an amount in excess of what is actually due on them. Brokers having 50 or 100 accounts would be compelled, according to the argument, to make arrangements with the banks whereby each customer's securities would have to be kept in a particular envelope, each stating the amount owing by the customer. Moreover, many of the accounts may be very active; and assuming one of the accounts to involve 100 different stocks, many of them being held for a considerable period, it would follow, as testified[4] by Boyesen, that:

"Every time the customer wants to withdraw a part of the margin, or deposit, which he has made the broker will arbitrarily have to alter on those envelopes the statement of the amount due from the customer. Every time those corporations pay a quarterly dividend he will have to rush to the bank, or send some one to the bank, and mark down the amount of the loan due. On 100 stocks he would have 400 trips a year to the bank to alter the amount due by reason of the receipt of dividends.

Every time his customer desires to draw a check on his

[4] Hearings before the Senate Committee on Banking and Currency on S 3895, p. 259.

account, or to come in and say, 'I want $100,' the broker would have to rush to the bank and readjust his loan. It would make business altogether too burdensome and cumbersome to make it practicable.

Then, too, take this case: I say to a broker, 'Here is $10,000. I think the market is going up. You can buy me 100 Steel to-day, and I will let you know what else I want afterwards.' My broker could not in that case, I having paid him $10,000, and the Steel being worth perhaps $6,500, borrow on it at all. Then I order the broker to buy another 100 shares of Steel, and he then can take both certificates to the bank, assuming they are worth $13,000, and marks my name and the amount of $3,000 owing on them on the envelope containing them. Then I go out of town, and I telegraph him to buy me 100 Northern Pacific. How is the broker to know how much is due on the Northern Pacific, and how much on each of the two lots of 100 shares of Steel? I go on transacting business that way, buying and selling. The broker has no legal right, arbitrarily, to apportion the amount between the loan on each security. I do not see how he could possibly do it, and I have discussed this provision with bankers, who tell me that they would not be willing to do a stock-exchange loaning business on any such basis."

References

J. R. Dos Passos, *Treatise on the Law of Stock Brokers and Stock Exchanges*, vol. i, pp. 218–264.

Samuel P. Goldman, *A Handbook of Stock Exchange Laws*, pp. 95–100, dealing with the Pledging of Margined Stock.

Mayer *v.* Monzo, 151 N. Y. App. Div. 886 (1912).

CHAPTER XXV

EXTENT TO WHICH CUSTOMERS' MARGINS AND PLEDGED SECURITIES ARE PROTECTED—IDENTIFICATION OF SECURITIES

Claims of Different Classes of Customers in Case of the Broker's Insolvency.—The respective claims of various classes of customers against an insolvent broker's estate present an interesting study and have been the subject of numerous court decisions. The subject is complicated because of the different positions of various customers; some having delivered money to the insolvent broker, and others securities; some being interested in margin transactions while others have purchased or sold securities outright without having received the securities or money at the time of insolvency; and some having entrusted securities to the broker for safekeeping. In case of a broker's insolvency, the burden of deciding the manner of distributing the moneys in bank or elsewhere, and the securities actually held by the broker or hypothecated by him with the banks, rests with the courts. In unraveling the many conflicting claims that usually arise it should be noted that, while creditors generally share equally in the bankrupt broker's estate, special circumstances may exist that give certain customers a prior claim over others. The main rulings of the courts in this respect may be classified as follows:

1. Should the broker repledge a customer's stocks for more than the original debt, the owner (the customer) can recover from the sub-pledgee only upon payment of the broker's full debt. This principle is well illustrated

by the well known case of McNeil *v.* Tenth National Bank, 46 N. Y. 321. According to this case, the plaintiff, the owner of 134 shares of Tenth National Bank stock, delivered the certificate to G. B. & D., his stock brokers, to secure his account. A blank assignment and power-of-attorney to transfer the stock had been signed by the plaintiff whose indebtedness on account was $3,000 and interest. G. B. & D., without authority and without the plaintiff's knowledge, pledged the stock with other securities, to secure an advance of $45,000. The defendant, at the request of G. B. & D., paid the advance and received the securities. Subsequently, the securities were sold, leaving something over $15,000 of the advance unpaid. In deciding that the defendant was entitled to hold the stock for the full amount remaining unpaid, the court states:

"Where the owner of property confers upon another an apparent title to, or power of disposition over it, he is estopped from asserting his title as against an innocent third party, who has dealt with the apparent owner in reference thereto, without knowledge of the claims of the true owner. The rights of such third party do not depend upon the actual title or authority of the one with whom he dealt, but upon the act of the owner, which precludes him from disputing the title or authority he has apparently conferred."

2. In the event of the broker's insolvency, stock carried by him for a customer goes to the customer and not the broker's assignee. This principle is illustrated in Willard *v.* White, 56 Hun 581. Here a firm of stock brokers in New York City were the correspondents of a firm of brokers operating in Syracuse, and as such, executed orders given by the latter firm to purchase stocks. The purchases were made for customers of the Syracuse firm, although the New York brokers were not informed as to the

purpose for which purchases were made. The New York brokers held money and securities as margin to protect them for advances that they made on the purchases of stock; likewise they held the securities purchased by them subject to a monthly statement of account against the Syracuse firm. The Syracuse firm having failed, action was brought by the New York brokers, in equity, to determine the rights of the customers of the insolvent firm in the margins held by the plaintiffs. Following the failure, however, the New York brokers, for the purpose of reimbursing themselves for advances made, sold many of the stocks standing to the credit of the Syracuse firm. In its opinion the court held:

"The customers of the Syracuse firm, upon making a tender to it of the balance due upon the purchase of their particular stocks (after deducting the amount which had been paid by such customers, at the time of their purchase), were not entitled, as against the New York brokers, to the stocks which had been pledged with that firm as a general collateral to secure its account for advances with the Syracuse firm. The surplus remaining in the hands of the New York brokers, after the payment of their claim against the Syracuse firm, from the proceeds of the sale of these stocks, properly belonged, not to the assignee of the Syracuse firm, but to the parties on whose behalf these stocks had been purchased."

It is interesting to note that the court in this instance also held as follows:

"The owner of stock which had been pledged by him with the Syracuse firm as collateral to purchases made through the New York brokers, and which had been improperly placed by the Syracuse firm with the New York brokers as a general collateral to secure the account of the former, had a better equity than those customers for whom stocks had been purchased on a margin through the New York brokers, which were also held by the New York brokers as a general collateral to the indebtedness of the Syracuse firm."

3. Special circumstances may give one customer a prior claim over other customers. Thus it may frequently be shown that the broker has received from the customer the full purchase price for the outright purchase of securities. If the purchase has been made and the broker is in possession of the certificate at the time of his failure, the certificate must, as soon as properly identified, be immediately delivered to the customer. In case the securities have not been purchased at the time of the failure, and the purchase price can be shown to have been deposited in the bank, the customer is entitled to have the said sum repaid.[1]

4. Where securities have been given by a customer to a broker for safekeeping or for sale and who thereupon appropriates them and places the proceeds of the unauthorized sale in his bank account. In such instances, the courts, following the "doctrine of tracing trust funds," will hold that where a broker mingles a customer's funds with his own, the money withdrawn by the said broker from his account is his own, thus entitling the customer to the remaining balance. This rule is illustrated by *in re* Mulligan, 116 Fed. 715, and is strongly emphasized by Garrard Glenn in his article on "Rights of the Customer of an Insolvent Broker."[2]

5. Where a broker mingles stock of different owners and "hypothecates them all *en bloc*, some rightfully and some wrongfully," it becomes necessary to determine the superiority of equities that grow out of the broker's act. Here the courts follow the principle that "the customer whose stock is wrongfully hypothecated has the superior

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[1] *In re* Mulligan, 116 Fed. 715.
[2] *Columbia Law Review*, May, 1912, pp. 422–442.

equity and is entitled to have prior payment to make good his losses, providing his stock or its proceeds can be traced.'"[3] As pointed out by Goldman:[4]

"It is necessary first to trace the property of the customer, either money or securities. But having done so, another difficulty arises, namely, other customers may have been similarly defrauded and their securities or money similarly misappropriated or converted. Those whose property or money cannot be traced under the circumstances remain the unfortunates, and the conflict of equities lies only between those who have been successful in so doing. As between the latter, the court will divide the claimants into two classes, those whose money has been misappropriated, or "whose securities have been wrongfully hypothecated" and "those whose securities have been rightfully pledged"; superior rights are granted in the first class of claimants, and the securities of the second class, whose rights are "clearly inferior," can secure satisfaction of their claims only after those in the first class are made whole so far as the specific securities or money traced will allow."

The division of claimants into the two aforementioned classes is well illustrated in Matter of Mills (125 App. Div. 730), where a customer, Beach, left for safekeeping with her broker 300 shares of United States Steel Common stock owned outright and endorsed in blank. Subsequently, the broker used these shares together with securities of two other customers, named Henck and Townsend, which, however, had been bought on margin by the broker and were being held by him as security for the unpaid balance of the purchase price, as collateral for a loan of $35,000 from the Colonial Bank of New York. Following the assignment of the brokerage firm, the Colonial Bank, without notice of the claims of Beach, Henck, or Townsend, sold a sufficient amount of the deposited col-

[3] Samuel P. Goldman, *A Handbook of Stock Exchange Laws*, p. 110.
[4] *Ibid.*, p. 210.

lateral to pay the indebtedness, and after the sale had in its possession a balance of $560, in addition to certain securities that it had been found unnecessary to sell in order to satisfy the loan. The Bank had sold all of the securities belonging to Beach and a part of those belonging to Henck, Townsend, and other margin creditors. Beach thereupon demanded that the assignee sell the securities that the bank had not sold, and that the entire proceeds derived from the sale, including the cash turned over by the bank to the assignee, be delivered to her. Henck and Townsend, however, opposed this contention and demanded that the assignee return to them their respective securities held by him. Justice McLaughlin held:

"I am of the opinion that the appellant Beach is entitled to the entire proceeds, or so much thereof as may be necessary to make good her loss in the sale of her stock. She does not stand, either legally or equitably, in the same position as the appellants Henck and Townsend. She had simply deposited her certificate of stock with Mills Brothers and Company for safe keeping. She owed them no money and had never had any other dealings with them, and their use of this stock was a larceny. No title to it, as against her, could be acquired by any one except a person who had, in good faith, purchased the stock or loaned money upon it, relying upon the apparent title that she had conferred upon the insolvent firm."

The conclusion of the court was, therefore, to the effect that:

"When, after the insolvency of the depositories, their creditor sells the stock wrongfully pledged, together with other stock originally held by the insolvents as security for purchases on margins and thus rightfully pledged, the owner of the converted stock is entitled to have her claims first satisfied in full out of any surplus remaining after the sale by the creditor, and is not required to share *pro rata* with those whose stock was pledged for margins. This, although prior to the insolvency, the owners of the stock pledged for margins tendered payment and demanded its return."

Prohibition of Transactions by Brokers after Insolvency.—With respect to the transaction of business after insolvency is known to exist, the position of the broker is analogous to that of the banker who continues to receive deposits after he knows his bank to be insolvent. It is clear that huge losses might unnecessarily be incurred by customers who are ignorant of the insolvency of the firm with which they continue to deal. Innocent customers should certainly be protected against such a contingency. It is for this reason that New York has enacted a statute prohibiting any broker, under a heavy penalty, from accepting money or securities from customers, after he knows of his insolvency, except for purposes of liquidating the customer's existing indebtness. The statute[5] referred to provides:

"A person engaged in the business of purchasing and selling as broker, stocks, bonds, or other evidences of debt of corporations, companies, or associations who, knowing that he is insolvent, accepts or receives from a customer ignorant of such broker's insolvency, money, stocks, bonds, or other evidences of debt belonging to the customer otherwise than in liquidation of, or as security for, an existing indebtedness, and who thereby causes the customer to lose in whole or in part such money, stocks, bonds, or other evidences of debt, is guilty of a felony punishable by fine of not more than five thousand dollars or by imprisonment for not more than two years, or by both. A person shall be deemed insolvent within the

[5] Laws of 1913, Chap. 500.

meaning of this section whenever the aggregate of his property shall not, at a fair valuation, be sufficient in amount to pay his debts."

Liability of Broker When Coöperating with an Insolvent Broker.—Where a broker continues to coöperate with another broker, known by him to be insolvent and not to be acting in good faith with his clients, he is liable for his acts to the customers of the insolvent broker. Such liability was imposed in the highly interesting case of Austin *v.* Hayden, (Michigan) 137 N. W. 317. According to the facts of the case a Detroit firm continued, following its insolvency, to accept orders for speculative transactions, and used its New York correspondent to make the purchases and sales and to finance them. In protecting its correspondent, the Detroit firm committeed many gross irregularities and wrongly pledged the securities of some of its customers. Having grounds for suspicion, the New York correspondent saw fit to audit the affairs of the Detroit firm. But despite the insolvent condition revealed by this audit, the correspondent continued to do business with the Detroit firm on the theory, no doubt, that it could do so legally and that its only care need be in securing sufficient collateral for its advances. The court, however, held that the correspondent was liable, equally with the Detroit firm, to the customers of the insolvent broker, since it knew of the insolvency and still continued to coöperate with the insolvent firm in buying stocks on margin and in accepting as security stocks that it knew belonged to the clients of the insolvent firm.

Identification of Securities.—Application of the various principles referred to, in our discussion of the claims of different classes of customers in case of the broker's insolvency, depends largely upon the ability of owners of securities properly to identify their securities, thus frequently giving rise to numerous questions as to the marshalling of securities or proceeds between the customers in case a broker becomes insolvent.

The principles of identification are fully set forth in the case of Skiff *v.* Stoddard, 63 Conn. 198.[6] The discussion as given in this case comprises nearly every possible contingency, some of the securities, at the time of insolvency, being in the hands of the brokers, others in the hands of pledgees, and still others in the possession of the insolvent firm's New York agents who were holding them as security for advances to the insolvent firm. It also appears from the facts of the case that in nearly all instances the customer's accounts showed an indebtedness to the firm, that the customers desired to pay their indebetedness with a view to obtaining their securities, but that the stocks in possession of the firm were not sufficient in all instances to meet the full demands of its customers. The defendant, trustee in insolvency, denied the right of the customers to thus redcem their securities. The case deserves special study because nearly all possible contingencies are carefully classified and discussed. In the opinion of the court the burden of identification is placed upon the pledgor who is seeking to retake his own. The following extract from the opinion presents the conditions of identification governing the several classes of plaintiffs:

"If we look at the conditions which the claims of the several plaintiffs present, we find that nearly every possible contingency exists. These may be classified as follows:

Class 1. Where it can be shown that the precise certificates of stock or evidences of title originally purchased

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[6] Discussed by Dos Passos, *Treatise on the Law of Stock Brokers and Stock Exchange*, vol. i, pp. 285–293.

in the execution of a plaintiff's order were held for him by the Brokers at the time of their assignment.

Class 2. Where it appears that certain particular certificates of stock or evidences of title were by the Brokers being carried in fulfillment of a plaintiff's order, although it may be impossible to establish that such certificates or evidences of title were the precise ones originally purchased in the execution of that order.

These classes present no difficulty. The plaintiffs making such identification are clearly entitled to redeem. This identification being a strict one of precise property, it, of course, follows that it must take precedence of any general identification such as remains to be considered, and gives to the fortunate pledgor the first right to that which is so identified.

Class 3. Where no more precise identification is possible than that the Brokers were carrying a block of stocks of a particular kind sufficient to satisfy the demands for that kind of stock of all their customers, including themselves.

The problem of identification and distribution as related to class three is not a difficult one. If the Brokers were at the time of their failure carrying a block of certain stock, and the orders of their customers taken together called for them to carry that amount of stock, the identification of that stock as being stock carried for these customers, the requisite amount for each, is clearly reasonable and sufficient. The shares being all alike and merely representing an ownership of a certain undivided interest in a corporation, the interests of all concerned are satisfied by a distribution to each pledgor of his proper number of shares.

Class 4. Where it appears that the Brokers were carrying a block of stocks of a particular kind not capable of the precise identification contemplated in classes one and two, and the whole amount of unidentifiable shares is insufficient to satisfy the demand of all their margin buying customers, including themselves, but sufficient to satisfy the demands of all such customers, exclusive of themselves, either as individuals, or as a partnership.

This class presents the same problem as class three, modified only by the additional factor that the shares in the Broker's hands were insufficient to meet the demands of their customers and themselves together. The Brokers had the right to do as they pleased with their own. For their customers they were bound to hold and carry the requisite stocks. If they did not have on hand what was called for by their customers' contracts and their own purchases, it will be presumed in the absence of evidence to the contrary that the situation arose in a way consistent with their right and duty and that the stocks on hand were held for their customers. This presumption, however, must yield to the fact. If it appeared that certain shares were at the time of the assignment specifically held by the insolvent firm upon the purchases of, or for itself, or its members, and thus, and not otherwise, actually carried, the right thereto of the trustee or administrator of such purchaser and owner would be as clear as that of a plaintiff who is able to make a like strict identification. Should the exercise of this right by the defendant as trustee of the insolvent Broker reduce the amount of any kind of stock remaining below that required to satisfy the demands of customers, the distribution would fall under the principles of class five to be considered. Otherwise each customer would take his full quota of stock.

Class 5. Where it appears that the Brokers were carrying a block of stocks of a particular kind not capable of the precise identification contemplated in classes one and two, and the whole amount of such unidentifiable shares is insufficient to satisfy the demands of all their margin-buying customers exclusive of themselves either as individuals or as partners.

Our previous discussion has eliminated certain of the features of this class. There remains the single question as to what shall be done when it appears after all efforts at precise identification have been exhausted, and after the claims of the Brokers as purchasers have been cut off, that there remains a block of stock insufficient to meet the demands of all the pledgors of that stock. There is a shortage which must fall to the loss of somebody . . . It is not possible to show to whom it, share by share, does belong. The shares are all alike. We think that the identification is sufficient to justify, and that equity requires the division of the stock *pro rata* among all those for whom the Brokers were holden to carry such stock. This course fully protects the creditors of the Broker. No stock is taken from the assets of the firm to which it was ever by any possibility entitled. It gives the pledgors their rights so far as may be and in an equitable manner."

References

J. R. Dos Passos, *Treatise on the Law of Stock Brokers and Stock Exchanges*, vol. i, pp. 285–293.

Garrard Glenn, "The Rights of the Customer of an Insolvent Broker," *Columbia Law Review*, May, 1912, pp. 422–442.

Samuel P. Goldman, *A Handbook of Stock Exchange Laws*, Part III on "The Broker and His Customer."

Skiff *v.* Stoddard, 63 Conn. 198.

APPENDICES

APPENDIX I

CLASSIFICATION AND DESCRIPTION OF STOCK CERTIFICATES

[Summary based on "Stocks and Their Features—A Division and Classification," by John Adams, Jr., published in "Stocks and the Stock Market," *Annals of the American Academy of Political and Social Science*, May, 1910, pp. 42–62. This analysis by Adams is based mainly on an examination of stock issues listed on the New York Stock Exchange at the time of the preparation of the article. The article gives examples of various corporations with a view to illustrating the various types of described stocks.]

I. Classification According to Par Value.

1. *Par value ranging from $1,000 per share, in the case of certain bank and trust-company stocks, to one cent per share in the case of certain oil or mining shares.* In the majority of instances the par value of listed stocks is $100 a share, but many important corporations have issued stock with a par value of $50 or $25. With many important mining corporations the par value of stocks is $10, $5, or $1. Where several kinds of stock have been issued by the same corporation, the par value is usually the same. Numerous instances, however, exist where the preferred stock is either one-half or double that of the common stock.
2. *Stocks without any par value.*—The issuance of no par value shares seems to be on the increase. Here each certificate simply represents its designated share of the total issue. Dividends take the form of a designated number of dollars per share.

II. Classification of Stock Certificates with Reference to Their Issue.

1. *Unissued stock.*—Such stock may be defined as "that which has been authorized but not yet disposed of, that is, it merely represents the right to admit new stockholders and has no value in itself. It has no active stock rights and is not an asset of the corporation. It usually is reserved for various corporate purposes, such as the conversion of bonds or the purchase of new lines or plants."
2. *Issued and outstanding stock.*—Such stock has not merely been authorized but has actually been issued. It has passed into the ownership of some holder other than the issuing corporation.
3. *Treasury stock.*—Such stock has been issued, but is not outstanding. It has been defined as stock "issued and outstanding which has come into possession of the corporation which received it by purchase, donation, or in liquidation of a debt. If it has been issued full paid, it remains so, even if sold again below par, and it is considered an asset of the corporation for bookkeeping purposes. But such stock, so long as it is held by the corporation or its representatives as treasury stock, neither participates in dividends nor in the meetings of the corporation as treasury stock; though it still represents a paid for interest in the property of the corporation."

III. Classification of Stock Certificates According to Whether They Are Full Paid or Assessable.

1. *Full paid stock* is "stock which has been fully paid for as required by law in money, property, or labor. Such stocks indicate the fact on their face that they are 'full paid and non-assessable,' and in the absence of any special statute on the subject carry with them no legal liability."
2. *Assessable stock* is "stock which has not yet been fully paid for by its subscriber. The legal status of

assessable stock is such that creditors of the corporation can hold the owners of the shares liable for the difference between the amount actually paid in and the par value of the stock. The laws of certain states are such as to make stockholders liable for assessments for certain debts, even though the certificates are marked 'full paid and non-assessable.' Moreover, by law, certain stocks, such as national-bank stock, for example, are liable to creditors for double the par value of the shares."

IV. Classification of Stock Certificates According to the Rights and Limitations Attaching Thereto.

1. *Common stock.*—"This term refers to the junior issue, when there is preferred stock, or stock analagous to preferred. Sometimes it has a real preference in regard to voting, for there are instances where the preferred gives up the right to vote as a consideration for its receiving regular dividends. The usual provision is that if such disbursements are discontinued for a certain period, varying with the individual corporation, the preferred stock shall resume its voting power. Common stock generally has the right to receive all the surplus remaining for dividends after the preferred has been paid its stipulated percentage. It is evidently, therefore, not an advantage to the common stock to have any preferred stock ahead of it."
2. *Deferred stock.*—"Such stock refers to certain issues commonly, in England, but only infrequently met with in the United States. The name itself is largely explanatory of its nature. It is an issue on which dividends are deferred until dividends on some other variety of stock, or interest on some particular bonds, have been paid. The common stock of companies possessing this issue is usually divided into two parts—one, the 'B,' or ordinary stock, and the deferred, or 'A' stock, which re-

ceives no dividends until a certain fixed rate has been paid upon the 'B' stock. Both of these issues are junior, of course, to the 'preference' stock, as it is called in England. The corporations which possess this class of stock are usually English either in their inception, location, or management."

3. *Preferred stock.*—"This stock may have a preference in any one, any two, or all three, of three particulars, i.e., dividends always; assets, generally; and voting power at times. It may also be 'callable,' 'convertible,' or 'participating.' " Preferred stock may have preference as regards:

   (1) *Dividends.*—"Such stock always has a preference over the common as regards dividends, which may be either 'cumulative' or 'non-cumulative.' "

      (*a*) *Cumulative dividends* are "in the nature of a fixed charge, because if the corporation is unable to pay the dividend in one year, it must be paid in succeeding years, together with the dividends for those years, before the common stock can receive anything. No such duty attaches to non-cumulative stock."

      (*b*) *Non-cumulative dividend* implies that "if the dividend cannot be paid this year, the rights of the common stock to share in next year's earnings are in no wise impaired. Sometimes dividends do not become cumulative for a few years, in order to give the corporation an opportunity to become firmly established before it must meet the fixed cumulative dividend obligation."

   (2) *Assets.*—As compared with the common stock, preferred stock often enjoys preference as to assets upon a dissolution of the corporation. "Practically every large industrial concern has its preferred stock protected by giving it this

preference should it ever become necessary to distribute the corporate assets. The practice, however, is not so common in the case of railroads, as among industrials. Various plans of preference are provided for. Thus the arrangement may be to the effect that the preferred stock has the first claim on all assets up to $100 a share, and then shares the balance with the common after that issue has received $100 or some other stipulated amount per share. In a few instances, the preferred stock is given a preference to an amount over par, like $115 a share. In most cases, too, unpaid cumulative dividends must be settled for out of assets before the common stock can receive anything."

(3 *Voting power.*—"Often the common stock possesses a superior voting right. In some instances, however, though not so often as the common stock, the preferred stock carries the entire voting power. On the other hand, the preferred stock often has a voting preference in regard to special matters — usually in case of the creation or increase of funded debt or the enlargement of the preferred issue itself. More than a majority of the issue, usually two-thirds to three-fourths, is required to sanction such changes."

(4) *Creation of dividend funds.*—"Various corporations safeguard the dividends of their various classes of preferred stock by creating special so-called dividend funds. The difference between a first and second preferred stock is this: that while both are senior to the common stock, the first preferred ranks ahead of the second in regard to receiving dividends, and in some cases priority as regards assets also. There are instances where corporations have as many as three classes of preferred stock. Moreover, a

few corporations have made provision for the accumulation of a certain fund out of which dividends on the preferred shall be paid during times of business depression, when earnings are not sufficient to meet such payments. Thus the corporation may provide a separate fund of, say $2,000,000 of prior lien bonds, the proceeds of which may be drawn upon to the extent that net profits shall not be sufficient to insure the dividend payments on the preferred stock for a designated period, like three years. Or, the corporation may promise the preferred stockholders that a surplus of, say $1,000,000 shall be accumulated out of earnings before any dividend shall be paid on the common stock. Such dividend funds serve as a protection to the preferred stockholders, for if there were no surplus when net earnings are little above the amount needed for preferred dividends, it might not be deemed advisable to declare such dividends unless there were such a surplus fund to fall back upon for working capital."

(5) *Special features.*—Preferred stocks may possess any one or more of three special features, that is, may be "callable," "convertible," or "participating."

(*a*) *Callable feature.* — "Corporations may have hopes that in time their business will so improve that by issuing bonds at a low interest rate or by selling additional common stock they can retire the preferred stock, probably yielding a higher rate of dividend, and thus leave the common stock in a much better position. Hence, the callable feature may be inserted. This is never obligatory on the corporation but merely optional with the directors. It is the opposite of the convertible feature which depends on the stockholder's option.'' The callable feature presents a great variety. Thus the stock may be called at par, or at a premium like 105, 110, or 125. Often the callable feature may be exercised only "if and when allowed by law," or if some other preferred issue has first been redeemed or converted, or "only by vote of two-thirds of the directors," or "subject to conversion for thirty days after notice." "It is generally considered a disadvantage to have a stock callable as the holder must then seek new fields for his capital usually just when the investment begins to look attractive."

(b) *Convertible feature.*—Unlike the callable feature, it is usually advantageous for a stock to possess the convertible feature. Here the stockholder possesses the option, and not the company. The stockholder, in other words, is given the right, under certain definitely stated conditions, to convert his preferred stock into common stock, or into some other issue of preferred stock, or partly in common stock and partly in some other issue of preferred stock, or possibly into some bond issue.

(c) *Participating feature.*—"This feature is of the utmost importance, for it is practically only in this class of preferred stocks that the holder has an income unlimited except by the company's earning power. In cumulative preferred stocks he is nearly always limited to his fixed percentage, but here he shares with the common stock the surplus remaining after a certain amount has been paid on that class." The participating feature presents a great variety. Sometimes the feature provides that after the common stock has received the same dividend paid to the preferred stock, both types of stock shall share *pro rata* in any surplus. Another variation is to the effect that following the receipt of a certain dividend by the common stock the preferred shall receive three per cent, then the common three per cent, then both stocks to share equally. Sometimes the preferred is given merely an extra one or two per cent after the common stock has been given a certain dividend, while under still other instances, the preferred stock is to receive, say, "one-half per cent for each one per cent paid on the common stock over seven per cent."

2. *Stock Analagous to Preferred.*

(1) *Interest bearing stock.*—"This is really only another name for preferred stock, because interest (instead of dividends) must be paid upon it before there can be any disbursement on the common stock. Such issues are obsolete to-day and no examples are found in the various manuals."

(2) *Special stock.*—"Under certain Massachusetts statutes, especially the Acts of 1855 and 1882, manufacturing and other corporations by vote of three-fourths of their stockholders at a meeting called especially for this purpose, may authorize the special stock which must never exceed two-thirds of the actual capital, bearing semi-annual dividends not exceeding four per cent, and subject to redemption at par after a fixed date, which must be expressed on the certificate. The holder of such stock is in no case liable for the debts of the corporation. Instances of such stock are rare and crop out now and then because of law suits over the

rights of the stockholders. The nearest modern analogy is the callable preferred stock, but it also resembles in some ways a short-term note, for the obligation to pay dividends is absolute, not as in interest bearing or ordinary preferred stock, contingent on there being sufficient profits so to do, and it is also usually redeemable in a short time."

(3) *Guaranteed stock.*—"This term is properly applied to the stock of a company, the dividends on which are guaranteed by another corporation, provided there are sufficient earnings to meet them, but not otherwise. It is sometimes erroneously employed as describing preferred stock, that is, the corporation guaranteeing the dividends on its own stock. Guaranteed stocks usually arise from a consolidation or lease of one road, or industrial corporation, with or to another." The terms of the guarantee may vary greatly. Usually a different percentage of dividend is guaranteed, but frequently the guarantee is limited to the payment of "net earnings."

(4) *Founders' stock.*—"Such stock is practically unknown in this country, though it may exist in certain small corporations. It may be defined as stock ranking ahead of preferred stock, entitled to a certain fixed dividend and then to a certain proportion of the surplus after dividends on all classes of stock have been paid. Assume a corporation with $100,000 six per cent Founders' stock, $4,900,000 six per cent preferred, and $5,000,000 common stock, and a balance for dividends for the year of $1,000,000. The Founders' stock will receive $6,000, the preferred $294,000, and the common, say, $250,000. The surplus for the year would then be $450,000. The Founders' stock is entitled to a

certain proportion of this — fixed by the articles of incorporation — usually one-fourth to one-half. This type of stock was formerly common in England but is now looked upon with disfavor. Such stock was usually given to promoters, or to persons of influence in consideration of their lending the weight of their names to new corporations, and is naturally, highly valued by its fortunate possessors."

5. *Debenture stock.*—"This class of stock may be said to be on the margin between mortgage bond issues and regular stock issues. To the ordinary person a debenture signifies a 'non-mortgage bond.' But it is also used to describe a stock. It differs from other stock in that the company promises, generally in the form of a covenant, to pay interest on specified dates. This interest has priority over dividends on any class of stock whatever, whether guaranteed or not. Such issues are common in England and Canada, but rare in the United States, though debenture bonds are well known here. Such stocks may be issued on the irredeemable plan, or provision may be made for their redemption after a certain date."

APPENDIX II

SAMPLE FORM OF COMMON STOCK CERTIFICATE

Registered in New York: *May 27, 1921.*

THE AMERICAN EXCHANGE NATIONAL BANK.

Registrar.

Cashier.

100 *100*

No. *A 764322* Shares *100*

THE PENNSYLVANIA RAILROAD COMPANY ....

Incorporated under the laws of the Commonwealth of Pennsylvania, April 13, 1846

THIS CERTIFIES THAT..........*John Doe*............is entitled to...........*ONE HUNDRED*..........Shares in the Capital Stock of THE PENNSYLVANIA RAILROAD COMPANY transferable only in person or by Attorney on the books of the said Company. Witness the Seal of the Company and the signatures of the President and Treasurer at Philadelphia, this *twenty-seventh* day of......*May*......*1921.*

....

For President.

....

Assistant Secretary.

COUNTERSIGNED:

....

For Treasurer.

....

Transfer Clerk.

This certificate is transferable either in New York or Philadelphia. This certificate is not valid until countersigned by the Transfer Agent and the Registrar.

SHARES $50 EACH

(See other side)

(Printed on reverse side of stock certificate)

NOTICE:—The signature of this assignment must correspond with the name as written upon the face of the certificate, in every particular, without alteration or enlargement, or any change whatever.

KNOW ALL MEN BY THESE PRESENTS, that.............., the undersigned, for value received, have bargained, sold, assigned, and transferred, and by these presents do bargain, sell, assign, and transfer, unto

....

....

..............Shares of the Capital Stock of THE PENNSYLVANIA RAILROAD COMPANY, and do hereby constitute and appoint

....

true and lawful Attorney, irrevocable, for ....and in..........name and stead, but to the use of the above-named assignee, to make and execute all necessary acts of assignment and transfer of the said stock on the books of the said Company, and Attorneys one or more to substitute with like full power for the purposes aforesaid, hereby ratifying and confirming all that said Attorney, or his substitute or substitutes, shall lawfully do by virtue hereof.

IN WITNESS WHEREOF, ...have hereunto set......hand and seal, this....... day of..........one thousand nine hundred and...............

....

Signed, Sealed, and Delivered
in presence of

APPENDIX III

SAMPLE FORM OF PREFERRED STOCK CERTIFICATE

Certificate for *100* shares — Certificate for *100* shares

No. 2648 — Shares *100*

THE PHILADELPHIA ELECTRIC COMPANY

Incorporated under the laws of the State of Pennsylvania.

Eight per cent cumulative preferred stock. Authorized, 600,000 shares, par value $25 each. Common stock, authorized 2,000,000 shares, par value, $25 each.

THIS CERTIFIES THAT.........*John Doe*........ is the owner of.........*100*.........full paid and non-assessable shares of the par value of twenty-five dollars ($25) each of the EIGHT PER CENT (8%) cumulative preferred capital stock of The Philadelphia Electric Company, transferable only upon the books of the Company in person or by duly authorized attorney upon surrender of this certificate properly endorsed. The holders of the preferred stock shall be entitled to receive cumulative preferred dividends from and after the date of original issue thereof at the rate of eight per cent (8%) per annum, if when and as declared by the Board of Directors, out of the surplus or net earnings of the Company, payable quarterly on the fifteenth days of December, March, June and September of each year, the first dividend which the holders of said preferred stock shall be entitled to receive to be a dividend at said rate for the period ending December

15, 1920. No dividend shall be declared or paid at any time upon any shares of any other stock of the Company unless and until all dividends then accumulated or accrued to date for the current and all preceding quarterly periods since the date of the original issue of the preferred stock shall have been declared, and have been paid in full or set apart for payment out of the Company's surplus and net profits; whereupon the Board of Directors may declare and pay dividends on shares of any other stock of the Company out of the surplus and earnings of the Company then remaining. The holders of preferred stock shall not be entitled to receive any dividend or share of surplus or profits whether payable in cash or otherwise, in excess of said cumulative preferred dividends at the rate of eight per cent (8%) per annum. The Company shall not authorize or issue any stock having any preference or priority over the authorized preferred stock. Any holder of record of preferred stock may at his option convert his preferred stock into common stock of a like amount par value on any quarterly dividend date, upon thirty days' previous notice in writing to the Company of his intention to make such conversion, and upon surrender to the Company of the certificates representing said preferred stock duly endorsed for transfer, which certificates shall at the time of such conversion be canceled and the preferred stock represented thereby shall not be reissued. Such holder of preferred stock shall be entitled to receive any dividend thereon payable on the date of such conversion, and certificates representing the common stock to be issued to him on exchange shall then be delivered to him in his name as holder of record. The holders of record of preferred stock shall have full and unrestricted voting power. The Company may at its option on any quarterly dividend date redeem all but not less than all of the outstanding preferred stock, upon sixty days' notice, in writing, given by mail to each holder of record of said preferred stock at his post office address appearing upon the books of the Company and by publishing such notice at least once during each of the eight calendar weeks immediately preceding such dividend date in two daily newspapers of general circulation, published in each of the cities of Philadelphia and New York at the price of twenty-eight dollars ($28) per share and all unpaid accumulated and accrued preferred dividends. Upon the date designated in such notice payment shall be made to the holders of record at the office of the Transfer Agent in the City of Philadelphia. Upon presentation and surrender of their stock certificates duly endorsed for transfer, and from and after said date the holders of said preferred stock shall not be entitled to receive any dividend accruing thereafter or to exercise any voting power or other rights as stockholders of the Company but notwithstanding such call for redemption any holder of said preferred stock shall retain his right to convert the same into common stock of the Company upon thirty days' written notice to the Company, as hereinbefore provided on the date fixed for such redemption. In the event of any involuntary dissolution of the Company or involuntary sale or transfer of its property and assets, the holders of preferred stock shall be entitled to receive in full from the assets of the Company the par value of their preferred shares together with all unpaid accumulated and accrued dividends thereon, whether such dividends shall have been declared or not before any payment shall be made to the holders of any other stock of the Company; and in the event of a voluntary dissolution or distribution of the Company's property and assets, the holders of said preferred stock shall be entitled to receive in cash the sum of twenty-eight dollars ($28) per share of said preferred stock and all unpaid accumulated and accrued dividends hereon whether such dividends shall have been declared or not, before any payment shall be made to the holders of any other stock of the Company; but the holders of said preferred stock shall not be entitled to receive any payment or distributive share of the Company's property or assets except to the extent hereinbefore provided. This certificate shall not be valid or enforceable until countersigned by the Transfer Agent and registered by the Registrar.

Registered: Philadelphia, Pa., *Jan. 15, 1921.* Continental-Eq itable Title and Trust Company. Registrar.

(SEAL) .... *Trust Officer.*

IN WITNESS WHEREOF, THE PHILADELPHIA ELECTRIC COMPANY has caused this certificate to be duly executed in its name and behalf, and its corporate seal to be hereto affixed by its duly authorized officers this.......... *15th* day of......*January*......*1921.*

THE PHILADELPHIA ELECTRIC COMPANY

By

ATTEST:

....
President.

....
Treasurer.

Countersigned: Philadelphia, Pa., *Jan. 15, 1921.* THE LAND TITLE & TRUST COMPANY.. Transfer Agent.

By .... *Secretary.*

APPENDIX IV

SAMPLE FORM OF BOND CERTIFICATE

$1000 . $1000

UNITED STATES OF AMERICA
COMMONWEALTH OF PENNSYLVANIA

Number A 23329

THE PENNSYLVANIA RAILROAD COMPANY

TEN-YEAR SEVEN PER CENT SECURED GOLD BOND

THE PENNSYLVANIA RAILROAD COMPANY (hereinafter called the Railroad Company), a corporation of the Commonwealth of Pennsylvania, for value received, hereby promises to pay to the bearer, or, if this bond be registered as to principal, then to the registered holder on April 1, 1920, the sum of
............ONE THOUSAND DOLLARS............
in gold coin of the United States of America of or equal to the standard of weight and fineness as it existed on April 1, 1920, and to pay interest thereon from April 1, 1920, at the rate of seven per cent per annum, payable semi-annually in like gold coin on April 1 and October 1 in each year, on presentation and surrender as they shall severally mature of the coupons hereto annexed. Both principal and interest of this bond are payable at the office or agency of the Railroad Company in the Borough of Manhattan, in the City and State of New York, or at

the option of the holder hereof, at the office of the Railroad Company in the City of Philadelphia, in the Commonwealth of Pennsylvania, and payment thereof will be made without deduction for any tax, assessment or governmental charge (other than income taxes on the holder hereof levied by the Government of the United States of America) which the Railroad Company or the Trustee under the Trust indenture hereinafter mentioned may be required to pay or to retain therefrom under any present or future law of the United States of America or of the Commonwealth of Pennsylvania. This bond is one of a series of bonds (coupon and registered), limited to the aggregate principal amount of fifty million dollars ($50,000,000) at any one time outstanding, known as the Ten Year Seven Per Cent Secured Gold Bonds of the Railroad Company, all issued and to be issued under and equally secured by a Trust Indenture, dated April 1, 1920, between the Railroad Company and Girard Trust Company, as Trustee (herein termed the Trust Indenture). For a description of the nature, and the extent of the security and the terms and conditions upon which the bonds are secured, reference is made to the Trust Indenture. This bond shall pass by delivery unless it shall be registered as to principal in the name of the owner at said office or agency of the Railroad Company in the Borough of Manhattan in the City and State of New York, or at the office of the Railroad Company in the City of Philadelphia in the Commonwealth of Pennsylvania, such registration being noted on the bond by or on behalf of the Railroad Company. After such registration no transfer shall be valid unless made at such office or agency by the registered owner hereof, in person or by his duly authorized attorney, and similarly noted on the bond; but the same may be discharged from registration by being in like manner transferred to bearer, and thereupon transferability by delivery shall be restored; but this bond may again from time to time be registered or transferred to bearer as before. Such registration, however, shall not affect the negotiability of the coupons, which shall continue to be transferable by delivery merely. The holder of this bond, at his option, may surrender the same for cancellation, with all unmatured coupons appertaining, in exchange for a registered bond without coupons, as provided in the Trust Indenture, and on payment, if the Railroad Company shall require it, of the charges therein provided for, and such registered bond may in turn be reexchanged for a coupon bond.

In case an event of default, as defined in the Trust Indenture, shall happen, the principal of the bonds may become or be declared due and payable in the manner and with the effect provided in the Trust Indenture. No recourse shall be had for the payment of the principal of or the interest upon this bond, or for any claim based hereon or otherwise in respect hereof or of the Trust Indenture, against any stockholder, officer or director, past, present or future, of the Railroad Company, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise, all such liability being by the acceptance hereof and as part of the consideration for the issue hereof expressly waived, as provided in the Trust Indenture. This bond shall not be valid or become obligatory for any purpose until it shall have been authenticated by the certificate, hereon endorsed, of the Trustee under the Trust Indenture.

IN WITNESS WHEREOF, The Pennsylvania Railroad Company has caused this bond to be signed by its President or one of its Vice-Presidents, or other officer or person duly authorized by its Board of Directors to sign for the President and on behalf of the Railroad Company, and its corporate seal to be hereunto affixed and to be attested by its Secretary or an Assistant Secretary, and coupons for said interest, bearing the fac-simile signature of its Treasurer, to be attached hereto, as of the first day of April, 1920.

(SEAL)

THE PENNSYLVANIA RAILROAD COMPANY

Attest: By

....
For President.

....
Assistant Secretary.

Stamps required By Act of Congress, February 24, 1919, affixed to original obligation represented by this Board.

SAMPLE OF COUPON ATTACHED TO AFOREMENTIONED BOND

October, 1921.

THE PENNSYLVANIA RAILROAD COMPANY...... ....will pay to bearer, at its office or agency in the Borough of Manhattan, New York, N. Y., or at bearer's option, at its office in the City of Philadelphia, Pa., THIRTY-FIVE DOLLARS in United States Gold coin, without deduction for United States or Pennsylvania taxes (other than United States income taxes), being six months' interest then due on its ten-year seven per cent secured gold bond.

No. A 23329

....
Treasurer.

APPENDIX V

SAMPLE FORM OF A STOCK ALLOTMENT WARRANT

STOCK ALLOTMENT 1913 WARRANT
THE PENNSYLVANIA RAILROAD COMPANY

No. F

OFFICE OF THE TREASURER, BROAD STREET STATION

Philadelphia, Pa., May 5, 1913.

THIS IS TO CERTIFY THAT....................is entitled to subscribe for................of the Capital Stock of this Company in accordance with resolution of the Board of Directors, April 9, 1913, upon surrender hereof at this office, or at the office of the Company, 85 Cedar Street, New York, on May 31, 1913.

Payment for this subscription must be made at par, $50.00 per share, in full, or in three installments, as follows:

In full, $50.00 per share, or first installment, $15.00 per share, at the time of making the subscription, on May 31, 1913.

Second installment, $15.00 per share, on August 30, 1913.

Third installment, $20.00 per share, on November 29, 1913.

Unless this Warrant is surrendered at either of the offices as above on May 31, 1913, accompanied by payment in full, or of the first installment, the privilege will be void and the Warrant of no value.

COUNTERSIGNED:

____
Treasurer.

____
Allotment Clerk.

NOTE: On the back of this Warrant are two forms: the FIRST, to be signed when subscription is made; the

SECOND, which is an assignment requiring a witness, to be signed if it is desired to dispose of the privilege.

SUBSCRIPTION

Date.......................**1913**

Treasurer, The Pennsylvania Railroad Company:

The undersigned hereby subscribes for the stock covered by this Warrant.

Signature ______________________________

Address ______________________________

____

ASSIGNMENT

Date.......................**1913**

Treasurer, The Pennsylvania Railroad Company:

For value received the right to make the within subscription, together with all right, title and interest in this Warrant is hereby assigned to

____

____

Address ______________________________

Signature of Stockholder ______________________________

Address ______________________________

____

Witness:

Signature ______________________________

Address ______________________________

____

Note: **When assignments are executed by Administrators, Executors, Trustees, Guardians, Attorneys, etc., proper evidence of their authority to so act must be on file with the Company.**

APPENDIX VI

COPY OF ANNOUNCEMENT OF DECLARATION OF RIGHTS

THE PENNSYLVANIA RAILROAD COMPANY

TREASURER'S OFFICE

General Office, Broad Street Station

Philadelphia, Pa., April 9, 1913.

TO THE STOCKHOLDERS OF THE PENNSYLVANIA RAILROAD COMPANY.

At a meeting of the Board of Directors held this date the following resolution was adopted:

"RESOLVED, that,—pursuant to the consent and authority given and conferred by appropriate action duly taken by this Company's stockholders for increasing its Capital Stock,—to provide the necessary capital for substantial additions, betterments and improvements to and in the Company's railroads, equipment, property and facilities, and the funds necessary to meet maturing obligations of the Company and for other proper corporate purposes, an increase of this Company's capital stock equal to ten per centum of the aggregate amount thereof which shall be issued and outstanding at the close of business on the 5th day of May, 1913, is hereby authorized and directed, and the same shall be issued and disposed of in manner following:

The privilege of subscribing for the said stock at par, $50 per share, on May 31, 1913, on which date the privilege will cease, is hereby given to stockholders as they shall stand registered on the books of the Company at the close of business, May 5, 1913, to the extent of ten per centum of their then respective holdings.

Warrants specifying the amount of stock to which each stockholder is entitled to subscribe under this privilege, will be issued by the Treasurer.

The subscription privilege may be sold and transferred by assignment of the warrant executed in the form prescribed and printed thereon.

The terms of subscription will be as follows:

Payments may be made in full or in three installments, viz:

In full, or $50 per share, at the time of making the subscription, on May 31, 1913.

The first installment, 30 per cent, or $15.00 per share, at the time of making the subscription, on May 31, 1913.

The second installment, 30 per cent, or $15.00 per share, on August 30, 1913.

The third installment, 40 per cent, or $20.00 per share, on November 29, 1913.

The warrants accompanied by payment in full or of the first installment, must be returned to the Treasurer on May 31, 1913, otherwise the privilege will be void and the warrants of no value.

Upon payment of the subscription there will be issued:

When the first installment only is paid, assignable receipts; which must be surrendered to the Treasurer upon payment of the second installment.

When the second installment is paid, assignable receipts covering both first and second installments; which must be surrendered to the Treasurer upon payment of the third installment.

When payment in full is made, or when payment of the third installment is made, stock certificates for whole shares, which will be mailed to the stockholders by registered mail.

Full-paid stock receipts for fractions of shares will be issued which will not carry any dividend or interest until converted into stock. They will be so converted only when the fractions surrendered make whole shares, provided such surrender is made on or before January 31, 1914, after which date such fractional receipts not converted will be redeemed in cash at the rate of $50 per share without interest.

Fractional receipts will pass by delivery.

Upon payment of the third installment, there will be issued a check for interest at the rate of six per centum per annum on the first installment from May 30, 1913, and on the second installment from August 30, 1913, both to November 29, 1913, which will amount to $0.68 per share.

The right to receive stock shall not accrue to any stockholder under this privilege unless the terms of subscription are fully complied with and payments made at the dates hereinbefore stated, and no subscription or assignment of the privilege will be recognized unless made on the forms furnished by the Company."

In accordance with the foregoing, stockholders will be entitled to subscribe for additional stock to the extent of one-tenth of the number of shares in their names at the close of business, May 5, 1913.

For illustration:

Holders of	Entitled to Subscribe for	Installments Payable			Full Payment
		31st May, 1913	30th Aug., 1913	29th Nov., 1913	
1 Share...	1/10 of a share	$1.50	$1.50	$2.00	$5.00
2 Shares..	2/10 of a share	3.00	3.00	4.00	10.00
3 Shares..	3/10 of a share	4.50	4.50	6.00	15.00
4 Shares..	4/10 of a share	6.00	6.00	8.00	20.00
5 Shares..	5/10 of a share	7.50	7.50	10.00	25.00
6 Shares..	6/10 of a share	9.00	9.00	12.00	30.00
7 Shares..	7/10 of a share	10.50	10.50	14.00	35.00
8 Shares..	8/10 of a share	12.00	12.00	16.00	40.00
9 Shares..	9/10 of a share	13.50	13.50	18.00	45.00
10 Shares..	1 share....	15.00	15.00	20.00	50.00

Warrants will be mailed about May 15th to the addresses indicated on the permanent dividend mailing orders filed in this office by the stockholders, unless other instructions are received prior thereto.

Warrants not provided for as above may be obtained at this office not later than May 31, 1913.

On the back of these warrants will be two forms:

The first, *the subscription,* to be signed by the stockholders, if they take the stock themselves.

The second, *an assignment,* to be filled out and signed by the stockholders, if they dispose of the privilege.

Stockholders who may wish to subscribe for a portion of the stock covered by a warrant and dispose of the balance, or who may wish to dispose of a portion to one person and the balance to another, should return their warrants to this office or the office of the Company, 85 Cedar Street, New York, to be exchanged for other warrants, specifying the number of warrants desired in exchange and the number of shares to be covered by each.

Fractions desired to complete full shares, or fractions which holders desire to dispose of, will not be sold or purchased by the Company.

The subscriptions and respective installment payments must be made in accordance with the provisions of the action of the Board of Directors as stated above.

Checks or drafts should be drawn in favor of *The Pennsylvania Railroad Company* and for the exact amount of the payment.

All communications in relation to the foregoing should be addressed to the undersigned at Philadelphia.

Treasurer.

APPENDIX VII

LISTING REQUIREMENTS OF THE NEW YORK STOCK EXCHANGE

COMMITTEE ON STOCK LIST

NEW YORK STOCK EXCHANGE

November 1, 1920.

The Committee will meet Mondays at 3:15 p.m.

An application, *conforming to these requirements*, signed by an executive officer of the applying corporation, voting trustees, or depositary committees, and nine printed or typewritten copies must be filed with the Secretary of the Exchange at least five days prior to date set for consideration.

Applications must be accompanied by the required papers and agreements, and by a check for one hundred dollars for each $1,000,000, or portion thereof, of each class of security, or for each 10,000 shares, or portion thereof, of stock without nominal or par value; checks to be drawn to the order of "Treasurer, New York Stock Exchange." In addition, companies making application are required to pay cost of printing. Printer's bill will be submitted directly to the applicant.

An application for listing of Governmental, State, County or Municipal securities should be signed by a properly accredited official or by financial representatives.

Specimen applications furnished on request.

REQUIREMENTS FOR ORIGINAL LISTING

Stock

For form of certificates eligible to be listed under this classification, and list of papers to be furnished, see pages 4, 6, 7 and 8.

Every application for an original listing of capital stock shall recite:

A Title of corporation.

B (1) State authorizing incorporation; (2) (*a*) date, (*b*) duration, (*c*) rights.

C (1) Business; (2) special rights or privileges granted directors by charter or by-laws.

D (1) Whether capital stock is full paid; (2) non-assessable; and (3) liability attaching to shareholders.

E (1) Issues (by classes), dividend rate and par value; (2) total amount of each, authorized and issued; (3) increases and authority therefor, including (*a*) action by stockholders, (*b*) by directors and (*c*) by public authorities, etc.; (4) amount unissued, (*a*) options or contracts on same, (*b*) specific reservation for conversion.

F If preferred stock; (1) whether cumulative or non-cumulative; (2) preferences, including (*a*) voting power; (*b*) dividends; (*c*) distribution of assets on dissolution or merger; (*d*) redemption; (*e*) convertibility.

G Voting power of obligations of debt.

H (1) Purpose of issue; (2) application of proceeds; (3) amount issued for securities, contracts, property; description and disposition; (4) additional property to be acquired, with particulars, as required by paragraph *M*.

I (1) History of corporation; (2) of predecessor, companies, or firms, with location and stock issues; (*a*) conditions leading to new organization.

J Tabulated list of constituent, subsidiary, owned or controlled companies showing (*a*) date of organization; (*b*) where incorporated; (*c*) duration of charter; (*d*) business and (*e*) capital stock issues (by classes), par value, amount authorized, issued, owned by parent company.

K (1) Mortgage, and (2) other indebtedness, (*a*) date, (*b*) maturity, (*c*) interest rate, (*d*) redemption by sinking fund or otherwise, (*e*) amount authorized, and (*f*) amount issued; (3) similar information regarding mortgage and all indebtedness of constituent, subsidiary, owned, or controlled companies.

L Other liabilities, joint and several, (1) guaranties, (2) leases, (3) traffic agreements, (4) trackage agreements, (5) rentals, (6) car trusts, etc., (7) similar description of other easements; (8) terms of each, and provision for payment; (9) similar information as to constituent, subsidiary, owned or controlled companies.

M (1) Description, location, nature and acreage of property, (*a*) owned in fee; (*b*) controlled; (*c*) leased; (2) railroads, mileage completed, operated and contemplated; (3) equipment; (4) character of buildings and construction; (5) tabulated list of franchises showing (*a*) where granted, (*b*) date, (*c*) duration, (*d*) purpose; (6) timber, fuel or mining lands, water rights; (7) similar information as to constituent, subsidiary, owned or controlled companies.

N Policy as to depreciation.

O (1) Character and amount of annual output for preceding five years; (2) estimated output (character and amount) for current year; (3) number of employees.

P (1) Dividends paid; (2) by predecessor, and constituent, subsidiary, owned or controlled companies.

Q Financial statements; (1) earnings for preceding five years, if available; (2) income account of recent date for at least one year, if available; (3) balance sheet of same date; (4) similar accountings for predecessor, constituent, subsidiary, owned or controlled companies; (5) corporations consolidated within one year previous to date of application, income account and balance sheet of all companies merged and balance sheet of applying corporation;

(6) if in hands of receiver within one year previous to date of application, (*a*) income account and balance sheet of receiver at time of discharge, and (*b*) balance sheet of company at close of receivership.

R Agreements contained on page 5.

S Fiscal year.

T Names of (1) officers; (2) directors (classified) with addresses; (3) transfer agents and (4) registrars, with addresses.

U Location of principal and other offices of corporation.

V Place and date of annual meeting.

In addition to the above, applications from corporations which own or operate mines must recite:

A Patented and unpatented claims, by numbers.

B (1) Geological description of country; (2) location and description of mineral and other lands; (3) ore bodies; (4) average value of ore; (5) character; and (6) methods of treatment.

C History of workings, (1) results obtained; (2) production each year.

D (1) Ore reserves compared with previous years showing separately as to character and metal content; (2) estimate of engineer as to probable life of mines; (3) probabilities by further exploration.

E (1) Provisions for smelting and concentration; (2) cost of (*a*) mining, (*b*) milling and smelting, (*c*) transportation; and (3) proximity of property to railway or other common carrier.

F Properties in process of development; income account if available, guaranties for working capital and for completion of development.

G Total expenditures for preceding five years for acquisition of new property, development, proportion charged to operations each year.

H (1) Policy as to depletion; (2) acquisition of new property; (3) new construction and development.

I Annual reports for preceding five years, showing number of tons of ore treated, average assay, yield, percentage of extraction, recovery per ton of ore.

In addition to the above, applications from corporations which own or operate oil and gas wells must recite:

A (1) Brief history of oil field; (2) character and gravity of oil.

B (1) Total area of oil land (developed and undeveloped), (*a*) owned, (*b*) leased, (*c*) controlled, (*d*) proven, (*e*) under exploitation, (*f*) royalties.

C (1) Number of wells (oil or gas) on each property, (*a*) in operation, (*b*) drilling, (*c*) contemplated; (2) average depth of wells drilled (*a*) shallowest, (*b*) deepest, (*c*) probable life; (3) whether oil sands are dipping.

D (1) Gross daily production—initial and present; (2) annual gross production from each property for past five years, if available; (3) estimated output for current year.

E (1) Storage, capacity and location; (2) (*a*) amount of oil stored, (*b*) character, (*c*) value, (3) pipe line, (*a*) gauge, (*b*) capacity, (*c*) mileage.

F (1) Refineries, (*a*) capacity, (*b*) acreage, (*c*) employees, (*d*) products and by-products.

G Properties in process of development, income account if available, guaranties for working capital and for completion of development.

H Total expenditures for preceding five years for acquisition of new property, well drilling and development, proportion charged to operations each year.

I (1) Policy as to depletion; (2) acquisition; and (3) development of new properties.

(Note: For requirements as to voting trust or stock trust certificates, or certificates of deposit, see Page 3.)

Bonds

For form of securities eligible to be listed under this classification, and for list of papers to be furnished, see pages 4, 6, 7 and 8.

An application for an original listing of bonds shall recite all information required for listing stock, *and*

A (1) Amount, denominations and numbers; (2) full title; (3) amount authorized and outstanding, authority therefor, including (*a*) action by stockholders, (*b*) directors, and (*c*) public authorities, etc.; (4) whether bonds are coupon (registerable as to principal) or registered, interchangeable or exchangeable; (5) exchangeability or convertibility into other securities, and terms.

B Names and addresses of trustees.

C (1) Date of issue and maturity; (2) interest rate; (3) places at, and dates for payment of interest and principal; (4) where registerable or transferable; (5) kind and standard of money, and options; (6) tax exemption; (7) whether redeemable or purchasable in whole or part, showing (*a*) dates, (*b*) price, (*c*) duration of published notice.

D Provisions for declaration of principal due and payable in event of default of payment of interest, or other defaults, and waiver; percentage of outstanding bonds controlling trustee.

E Purpose of issue and application of proceeds, similar to that called for by Paragraph *H* of the Requirements for Listing Stock; provisions as to additional issue.

F Disposition of bonds refunded, redeemed or purchased for sinking fund, and mortgage securing same.

G Mortgage or indenture provisions for (1) serial issues; (2) values in United States gold coin; (3) issuance in foreign languages and (4) that the English version governs; (5) terms of exchangeability of bonds payable in foreign places for bonds payable in United States or vice versa.

H (1) Security—Mortgage, indenture of trust, or other agreement; and, (2) liens; (*a*) properties covered, (*b*) mileage of railway lines, (*c*) buildings, (*d*) equipment, (*e*) securities, (*f*) rights, (*g*) privileges; (*h*) titles, (*i*) franchises, (*j*) leases, etc.; (3) other liens covering same or any part of same properties, (4) guaranty and terms.

I Any unusual additions or limitations.

Requirements for Listing of Additional Amounts

For list of papers to be furnished, see page 4.

Refer to previous applications and last application by number and date; and recite:

A Title of corporation and name of State authorizing incorporation.

B (1) Securities applied for; (2) amounts authorized; (3) authority for issue, including (*a*) action by stockholders, (*b*) by directors and (*c*) by public authorities, etc.

C (1) Purposes of issue; (2) application of proceeds; (3) amount, description and disposition of securities exchanged for new issues; (4) additional property acquired or to be acquired, with particulars as required by paragraph *M* of the Requirements for Listing Stock.

D (1) Dividends; (2) also by constituent, subsidiary, owned or controlled companies, since previous application.

E Changes, if any, in (1) charter, (2) by-laws, or (3) capitalization.

F Details as to property acquired and property disposed of, since last application.

G (1) Character and amount of output since last application; (2) estimated output (character and amount) for current year; (3) number of employees.

H Income account and balance sheet of recent date, also for constituent, subsidiary, owned, or controlled companies, or a consolidated income account and a consolidated balance sheet.

I Names of officials, location of offices, place and date of annual meeting, fiscal year, as covered by Paragraphs *S*, *T*, *U*, *V*, of Requirements for Listing Stock.

(Note: "When a corporation purposes to increase its authorized capital stock, thirty days' notice of such pro-

posed increase must be officially given to the Exchange, before such increase may be admitted to dealings.")

(Note: "When the capital stock of a corporation is increased through conversion of convertible bonds already listed, the issuing corporation shall give immediate notice to the Exchange and the Committee on Stock List may, thereupon, authorize the registration of such shares and add them to the list.")

Requirements for Listing of Certificates of Deposit, Voting Trust or Stock Trust Certificates, Etc.

For form of certificates eligible to be listed under this classification, and for list of papers to be furnished, see pages 4, 6, 7 and 8.

Every application for the listing of certificates of deposit, voting trust or stock trust certificates, etc., shall recite:

A (1) Name of applicant; (2) amount applied for; (3) additional amounts to be listed; (4) depositary, (5) security deposited; (6) whether listed; (7) registrar.

Applications for each class of deposited securities shall be separate and certificates issued of distinctive colors.

B (1) Date of agreement; (2) names of committee, or voting trustees; (3) terms of trust; (4) powers and duties of committee, trustees, or depositary.

C Reasons for deposit.

D (1) Duration of trust or deposit; (2) extensions or limitations; (3) final date of deposits; (4) provision for deposits without penalty for approximately thirty days after listing, or if no time limit for deposit of securities without penalty, is fixed, an agreement that approximately thirty days' notice of such limitation of time shall be published and given to the Stock Exchange; (5) date of presentation of plan; (6) provisions for dissent and withdrawal; (7) percentage necessary to adoption; (8) pro rata charges; (9) provisions for return of securities (or equivalent); (10) provision for payment of interest, dividends, etc.

E Agreement to deliver definitive securities at termination of Voting Trust or Voting Trust to be extended.

F Agreement to have definitive securities listed.

(Note: Applications to list voting trust or stock trust certificates and certificates of deposit for securities not a delivery on the Stock Exchange, must, in addition, comply with the requirements for Listing Stock.)

Papers to be Filed with Applications

In addition to application for listing, the following papers must be filed:

For Stocks:

1. Ten copies of charter, with amendments to date, one copy attested by proper public authority.
2. Ten copies of by-laws, with amendments to date, one copy attested by an executive officer of corporation.
3. Ten copies of leases, franchises, easements and special agreements, one copy of each attested by an executive officer of corporation.
4. One copy of resolutions of stockholders and directors and copy of proper public authority authorizing issue, each attested by an executive officer of corporation.
5. One copy of resolutions of stockholders or directors, and copy of proper public authority, authorizing issue of stock on conversion for other securities, attested by an executive officer of corporation.
6. One copy of resolutions of stockholders or directors directing specific reservation of authorized stock for conversion, attested by an executive officer of corporation.
7. One copy of resolutions of stockholders, board of directors or executive committee, attested by an executive officer of corporation, authorizing, by name, official to appear for listing securities (form may be had on application).
8. Opinion of counsel (not an officer or director of the corporation) as to legality of (*a*) organization, (*b*) author-

ization, (*c*) issue, and (*d*) validity of securities. ***The Committee will not accept the opinion of an officer or director of an applying corporation nor of a firm in which the officer or director is a member, as counsel on any legal question affecting the corporation; nor will it accept the opinion of an officer or director of a guarantor corporation, nor of a firm in which the officer or director is a member, on any legal question affecting the issuance of guaranteed securities.***

9. Detailed distribution of securities and five copies (form may be had on application).

10. One copy of resolution appointing transfer agent and registrar, attested by an executive officer of corporation.

11. Certificate of registrar of amount of securities registered at date of application.

12. Report of qualified engineer covering actual physical condition of property at recent date.

13. Map of property and contemplated extensions.

14. Specimens of all securities to be listed.

15. Questionnaire.

For Bonds:

16. All papers required for listing stocks and also ten copies of the mortgage or indenture, one copy (*a*) certified to by trustee, (*b*) with copies of all certificates of proper recording.

17. Trustees' certificate required on Page 6.

18. One copy of resolutions of stockholders or directors, and copy of proper public authority, authorizing issue of stock on conversion of bonds, attested by an executive officer of corporation.

19. One copy of resolution of stockholders or directors directing specific reservation of authorized stock for conversion, attested by an executive officer of corporation.

20 Certificate of disposition of securities redeemed or refunded.

21. Certficate as to collateral deposited.

22. Certified copy of release or satisfaction of underlying mortgages.

For Securities of Reorganized Corporation:

1. All papers required above for listing stocks and bonds. *Opinion of counsel shall state that proceedings have been in conformity with legal requirements, that title to property is vested in new corporation and is free and clear from all liens and incumbrances, except as distinctly specified; and also as to equities of securities of predecessor corporation.*

2. Certified order of court confirming sale on foreclosure or other authority for reorganization.

3. Certified copy of plan of reorganization.

4. Income account; balance sheet at close of receivership, if available.

5. Balance sheet at date of organization.

For additional amounts:

1. Nos. 4, 5, 6, 7, 8, 9, 11, of papers required for original listings.

2. Nos. 1, 2, 3, 10, 12, of said papers for stock, *if any changes have occurred therein since last listing.*

3. Nos. 15, 16, 17, 18, 19, 20, 21, of said papers for bonds, *if any changes have occurred therein since last listing.*

4. Certified copy of proper public authority for increase.

For Certificates of Deposit, Voting Trust, etc.:

1. Papers required above for listing stocks or bonds.

2. Certified copies of any legal proceedings and court orders.

3. Ten copies of deposit or trust agreement, one certified to by proper authority.

4. Ten copies of circulars, issued by trustees or committee, one certified to by proper authority.

5. Amounts deposited.

6. Detailed distribution (form may be had on application).

Agreements

To be made part of all applications:

1. Not to dispose of its stock interest in any constituent, subsidiary, owned or controlled company, to allow any of said constituent, subsidiary, owned or controlled companies to dispose of stock interests in other companies unless for retirement and cancellation, except under existing authority or on direct authorization of stockholders of the company holding the said companies.

2. To publish at least once in each year and submit to the stockholders, at least fifteen days in advance of the annual meeting of the corporation, a statement of its physical and financial condition, an income account covering the previous fiscal year, and a balance sheet showing assets and liabilities at the end of the year; also annually an income account and balance sheet of all constituent, subsidiary, owned or controlled companies; or a consolidated income account and a consolidated balance sheet.

3. To maintain, in accordance with the rules of the Stock Exchange, a transfer office or agency in the Borough of Manhattan, City of New York, where all listed securities shall be directly transferable, and the principal of all listed securities with interest or dividends thereon shall be payable; also a registry office in the Borough of Manhattan, City of New York, other than its transfer office or agency in said city, where all listed securities shall be registered.

4. Not to make any change in listed securities, of a transfer agency or of a registrar of its stock, or of a trustee of its bonds or other securities, without the approval of the Committee on Stock List, and not to select as a trustee an officer or director of the company.

5. To notify the Stock Exchange in the event of the issuance of any rights or subscriptions to or allotments of its securities and afford the holders of listed securities a proper period within which to record their interests after authorization, and that all rights, subscriptions or

allotments shall be transferable, payable and deliverable in the Borough of Manhattan, City of New York.

6. To notify the Stock Exchange of the issuance of additional amounts of listed securities, and make immediate application for the listing thereof.

7. To publish promptly to holders of bonds and stocks any action in respect to interest on bonds, dividends on shares, or allotment of rights for subscription to securities, notices thereof to be sent to the Stock Exchange, and to give to the Stock Exchange at least ten days' notice in advance of the closing of the transfer books or extensions, or the taking of a record of holders for any purpose.

8. To redeem preferred stock in accordance with the requirements of the Stock Exchange.

9. To notify the Stock Exchange if deposited collateral is changed or removed.

10. To have on hand at all times a sufficient supply of certificates to meet the demands for transfer.

The Committee recommends a date be fixed as record for dividends, allotment of rights and stockholders' meetings, without closing the transfer books.

Notice of rights, allotments, subscription privileges, etc., to bondholders and shareholders, should be as of a date after authorization.

Forms for warrants may be had on application.

Trustees of Mortgages

The Committee recommends that a trust company or other financial corporation be appointed trustee of mortgages, indentures, and deeds of trust; and when a State law requires the appointment of an individual as trustee, a trust company or other financial corporation be appointed as co-trustee.

Each mortgage, indenture, or deed of trust should be represented by a separate trustee.

The Committee will not accept as trustee:

(*a*) An officer or director of the issuing corporation;

(*b*) A corporation in which an officer of the issuing corporation is an executive officer.

The trustee shall present a certificate accepting the trust and certifying (1) securities are issued under the terms of the mortgage or indenture, giving the numbers and amount certified; (2) collateral is deposited; (3) disposition of prior obligations. For additional issues of bonds, the trustee must certify that (1) increase is in conformity with terms of mortgage or indenture; (2) additional collateral deposited; and (4) disposition of prior obligations.

The company and trustee shall notify the Stock Exchange of the holding, cancellation, or retirement of securities, by redemption, through the operation of sinking fund or otherwise.

The trustee must notify the Stock Exchange if deposited collateral is changed or removed, and furnish a list of collateral substituted.

A change of trustee shall not be made without the approval of the Committee.

Transfer and Registry

Every corporation whose securities are listed upon the Stock Exchange must, in accordance with the rules of the Exchange, maintain (*a*) a transfer office and (*b*) a registry office, both in the Borough of Manhattan, City of New York. The transfer agency and registrar *shall not be identical,* and both must be acceptable to the Committee. A company cannot act as registrar of its own stock.

Where a stock is transferred at the company's office, the transfer agent or transfer clerk shall be appointed by specific authority of the board of directors to *countersign* certificates, in said capacity, and shall be other than an officer who is authorized to sign certificates of stock.

The entire amount of the capital stock of a corporation listed upon the Stock Exchange *must be directly transferable* at the transfer office of the corporation in the Borough of Manhattan, City of New York. When a corporation makes transfer of its shares in other cities. certificates shall be interchangeable, and *identical in color and form, with the New York Certificates,* except as to names of transfer agent and registrar; and the combined amounts of stocks registered in all cities shall not exceed the amount authorized to be listed.

Interchangeable certificates must bear a legend reciting the right of transfer in New York and other cities.

The registrar must file with the Secretary of the Stock Exchange an agreement to comply with the requirements in regard to registration and *not to register any listed stock, or any increase thereof, until authorized by the Committee.*

Certifications of registry must be dated and signed by an authorized officer of the registrar.

A change in the form of a security, of a transfer agency, or of a registrar, shall not be made without the approval of the Committee.

Forms of Certificates, Engraving, Etc.

General Requirements

(See Specific Requirements below.)

All securities for which listing upon the Exchange is requested, except as otherwise herein stated must be engraved and printed in a manner satisfactory to the Committee from at least two steel plates by an engraving company whose work the Committee is authorized by the Governing Committee to pass upon; the name of the engraving company must appear upon the face of all securities and also upon the face of coupons and the title panel of each bond. Securities must bear a vignette upon their face.

Said plates shall be: (1) *A border and tint plate* from which should be made a printing in color underlying important portions of the face printing; (2) *A face plate* containing the vignettes and descriptive or promissory portion of the document, which should be printed in black or in black mixed with a color. The combined effect of the impression from these plates must be as effectual security as possible against counterfeiting.

The printing of securities should be in distinctive colors, to make classes and denominations readily distinguishable.

All certificates, except as otherwise stated herein, must provide for transfer and for registration with dates; when a corporation makes transfers of its shares in other cities, certificates shall be identical in color and form, with the New York certificates, except as to names of transfer agent and registrar; interchangeable certificates must bear a legend reciting the right of transfer in New York and other cities.

The Committee recommends that the text of securities shall provide for transfer, in person or by duly authorized attorney, upon surrender of the security properly endorsed.

A change in the form of a security, transfer agency, registrar, or trustee of bonds, shall not be made without the approval of the Committee.

The Committee will object to any security upon which an impress is made by a hand stamp, except for a date or power of substitution.

Bonds

(In addition to the General Requirements above outlined, the following apply specifically to bonds.)

All bonds must be fully engraved and printed in a manner satisfactory to the Committee; face of bonds and coupons must bear a vignette.

The text of bonds should recite conditions of issuance, terms of redemption, by sinking fund or otherwise, convertibility, default, interchangeability or exchangeability of coupon and registered bonds, and conversion into other securities.

Bonds, in the text and on the reverse must recite payment of principal and interest and transfer and registration in the Borough of Manhattan, City of New York. Coupons must recite payment of interest in the Borough of Manhattan, City of New York.

Registered bonds must carry a power of assignment in such form as the Committee may approve.

The Committee recommends that registered bonds be made interchangeable with coupon bonds.

Registered bonds interchangeable with coupon bonds and coupon bonds exchangeable for fully registered bonds shall bear a legend reciting the fact.

Coupon bonds issued in denominations of less than $1,000 should provide for exchangeability into coupon bonds of $1,000, the smaller bonds to bear a legend reciting such privilege.

Registered bonds made such by detaching coupon sheets are not eligible for listing.

Forms of Legends for Bonds:

For a coupon bond of a thousand dollars exchangeable for coupon bonds of smaller denominations:

"The holder of this bond may, at his option, on surrender and cancellation and on payment of charges, as provided in the indenture, receive in exchange coupon bonds of this issue for an amount aggregating $1,000 in denominations of $......... of numbers not contemporaneously outstanding."

For coupon bonds of smaller denominations exchangeable for a $500 or a $1,000 coupon bond:

"The holder of this bond may, at his option, on surrender and cancellation of this bond and others of the same issue aggregating $500 or $1,000 and on payment of charges, as provided in the indenture, receive in exchange a coupon bond of this issue of a number not contemporaneously outstanding, for the amount aggregated."

For registered bond(s) issued for coupon bond(s) of denomination(s) of less than $1,000:

"This bond is issued in exchange for coupon bond(s) of this issue numbered .... in denominations of $......... not contemporaneously outstanding, aggregating the face value hereof and coupon bond(s) of this issue bearing the said number(s) and of the same denomination(s) will be issued in exchange for this bond upon surrender, cancellation and payment of charges provided in the indenture."

For registered bond(s) issued for $1,000 coupon bond(s):

"This bond is issued in exchange for coupon bond(s) of this issue numbered .... for $1,000 (each), not contemporaneously outstanding, and coupon bond(s) of this issue bearing the said number(s) will be issued in exchange for this bond upon surrender, cancellation and payment of charges provided in the indenture."

Stock

(In addition to the above General Requirements, the following apply specifically to stock certificates.)

The border and tint plate for one-hundred share certificates of stock shall have *said denomination engraved thereon in words and figures; the plates for smaller amounts shall bear some engraved device whereby the exact denomination of the certificate may be distinctly designated by perforation;* also conspicuously upon the face *"Certificate for less than one hundred shares."*

Certificates for every class of stock shall recite preferences of all classes.

Certificates of stock should recite (1) ownership; (2) par value; (3) whether shares are *full* paid and (4) nonassessable; (5) preference as to dividends; (6) distribution of assets upon dissolution or merger; (7) terms of redemption; (8) convertibility; (9) voting power, or (10) other privilege; and (11) must bear the following legend:

This certificate is not valid until countersigned by the transfer agent, and registered by the registrar.

The following form is required upon the reverse of a certificate of stock:

For value received..........hereby sell, assign and transfer unto..............................
....
..................................shares
of the * capital stock represented by the within certificate and do hereby irrevocably constitute and appoint
..................................attorney
to transfer the said stock on the books of the within named company with full power of substitution in the premises.

Dated......................19....

....

In presence of

....

Notice: The signature to this assignment must correspond with the name as written upon the face of the certificate in every particular without alteration or enlargement, or any change whatever.

* On certificates without nominal or par value, the word "capital" may be omitted.

Certificates of Deposit, Voting Trust Certificates, etc.

In addition to the General Requirements above outlined, certificates of deposit and voting trust certificates must conform in every particular to the Specific Requirements as to stock certificates, except that the descriptive portion of a certificate of deposit may be typed, satisfactorily to the Committee.

Temporary Securities or Subscription Receipts

Temporary securities or subscription receipts must conform to the General Requirements above outlined and to the Specific Requirements as to stock certificates, except that the text may be typed satisfactorily to the Committee.

Removals or Suspensions in Dealings of Listed Securities

Whenever it shall appear that the outstanding amount of any security listed upon the Stock Exchange has become so reduced as to make inadvisable further dealings therein, the Committee may direct that such security be removed from the list and further dealings therein prohibited.

"The Governing Committee may suspend dealings in the securities of any corporation previously admitted to quotation upon the Exchange, or it may summarily remove any securities from the list."

Secretary.

Chairman.

APPENDIX VIII

SAMPLE OF A CORPORATION'S REPORT AS ISSUED BY THE COMMITTEE ON STOCK LIST OF THE NEW YORK STOCK EXCHANGE.

A—5353

COMMITTEE ON STOCK LIST, NEW YORK STOCK EXCHANGE

STANDARD OIL COMPANY

(Organised under the laws of New Jersey)

COMMON STOCK

New York, December 20, 1920.

Standard Oil Company, hereinafter referred to as the "Company," hereby makes application to have listed on the New York Stock Exchange $98,338,300 of Common Sock (of an authorized issue of One Hundred Ten Million Dollars), consisting of 3,933,532 shares of the par value of Twenty-five Dol'ars per share, on official notice of issuance in exchange for outstanding shares of Common Stock of the par value of One Hundred Dollars each, as hereinafter recited, with authority to add $11,661,700 additional of said Common Stock on official notice of issuance and payment in full, making thė total amount applied for $110,000,000.

All of said stock will be, when issued, full-paid and non-assessable, and no personal liability will attach to the holders thereof.

The stock applied for is to be issued pursuant to resolutions of the Board of Directors dated November 24, 1920, reading as follows:

"WHEREAS, the Board of Directors of this corporation, under and in pursuance of the provisions of an Act of the Legislature of the State of New Jersey entitled 'An Act concerning the corporations of this State and the participation of their employees and those actively engaged in the conduct of their business in their stock, profits, welfare work or management, approved April 15, 1920, has formulated a plan for the issue and sale of stock of the corporation to Trustees on behalf of its employees and those actively engaged in the conduct of its business, as follows:

STANDARD OIL COMPANY

(New Jersey)

STOCK ACQUISITION PLAN PURPOSES

The purposes of this Plan are to enable the Employees of the Company and those actively engaged in the conduct of its business to become stockholders therein on favorable terms, and to assist such Employees in paying for their stock. Included in the Plan are the Employees of the Company's subsidiaries and those actively engaged in the conduct of the business of such subsidiaries.

TERM OF THE PLAN

The Plan shall be in operation during the term of five years from December 30, 1920, unless sooner terminated in the manner hereinafter provided.

THE FUND

The purposes of the Plan shall be effectuated through the establishment and operation of a Fund, to be constituted by joint deposits by the Employees, the Company and its subsidiaries, as hereinafter provided. To such deposits shall be added whatever interest is earned by the Fund and whatever dividends are received from stocks held therein.

THE TRUSTEES

The Fund shall be administered by three Trustees, to be appointed by the Board of Directors, which Board shall at all times have power of removal and substitution.

Said Trustees may adopt and from time to time alter and amend rules and regulations for the carrying into execution of this Plan, and their decision shall be final as to all questions of interpretation and applications of the Plan, accounting values, interest and withdrawal accruals and as to all other matters arising in the administration of the Plan.

ELIGIBILITY

The term 'Employee,' as used herein, means any person who on December 30, 1920, or on the 30th day of December in any year during the existence of the Plan, has been in the regular and continuous employ of the Company, or of any of its subsidiaries, or who has been actively engaged in the conduct of its or their business for the term of one year or more, and includes officers and directors. All Employees, as thus defined, shall be eligible to share in the benefits of the Plan.

PARTICIPATION BY THE EMPLOYEE

Any Employee may become a participant in the Fund by making deposits therein in the following manner:

He shall authorize the Company, or the subsidiary by whom he is employed, to deduct from the amount due him as current compensation for services on each pay day, whether monthly or otherwise, a sum not in excess of twenty per cent thereof, and to pay the same over to the Trustees, to be placed in the Fund to his credit; which deduction and payment over shall thereupon be made.

THE COMPANY'S DEPOSITS

Concurrently with the making of any such deposit by or on behalf of an Employee, the Company, or the subsidiary by whom he is employed, shall, out of its own moneys, pay into the Fund to the further credit of such Employee, a sum equal to fifty per cent of his deposit.

INVESTMENT OF FUND

So far as practicable, the Trustee shall, from time to time, apply the money's remaining in the Fund to the purchase from the Company of its common capital stock at a price to be fixed as hereinafter provided.

PRICE OF STOCK

The price at which the Trustees may from time to time purchase stock from the Company, for the purposes of the Fund, shall be fixed by the Directors as of January 1st in each year. Such price shall not be above nor more than ten per cent below the average market price of the stock for the previous three months. The price so fixed shall govern as to all such purchases during the year. Provided, however, that in no case shall the price be fixed below the par value of the stock.

TITLE TO STOCK PURCHASED

The stock so purchased shall be issued in the name of the Trustees, who shall hold title to the same and shall possess all voting and other rights pertaining thereto. Said stock shall be apportioned to the depositing Employees in proportion to their deposits and shall be entered in their deposit accounts with the Trustees. However, the rights of Employees in the said stock and the said cash deposits shall be only as hereinafter declared.

WITHDRAWALS

(a) An Employee who remains in the service of the Company, or of any of its subsidiaries, may, if he so elects, withdraw from the Fund at any time, and shall thereupon be entitled to receive bace from the Trustees the amount of money deposited by him in thk Fund, with interest at the rate of six per cent per annum, or, at the option of the Trustees, the equivalent thereof in the common stock of the Company, to be reckoned at the average cost of such stock to the Trustees. Such withdrawing Employee shall not be eligible to again participate in the Fund for the period of one year.

(b) An Employee who leaves the service of the Company, or of any of its subsidiaries, voluntarily, or is discharged for good cause (of which the Trustees shall be the sole judges), shall thereupon cease to be a participant in the Fund, and his account shall be closed by returning to him the amount he has deposited in the Fund, with interest at the rate of six per cent per annum, or, at the option of the Trustees, by assigning to him the equivalent thereof in the common stock of the Company to be reckoned at the average cost thereof to the Trustees.

(c) An Employee who is retired under the Company's Annuity Plan, or who quits the service of the Company, or of any of its subsidiaries, on account of total disability, or for other satisfactory cause (of which the Trustees shall be the sole judges) or who is discharged for no fault of his own shall receive the full amount of stock and / or cash then standing to his credit on the books of the Trustees, and shall thereupon cease to be a participant in the Fund.

(d) In case of the death of a participating Employee while in the service of the Company, or of any of its subsidiaries, the full amount of stock and / or cash then standing to his credit on the books of the Trustees shall be paid and assigned to such beneficiary or beneficiaries as he shall have designated, or, failing such designation, to his Estate.

GENERAL PROVISIONS

On withdrawal or on the termination of the Plan, any sum standing to the credit of a depositing Employee less than the value of a share of stock shall be paid in cash.

All stock and / or moneys accruing from the withdrawal of participants in the Fund shall enure to the benefit of the participants remaining at the termination of the Plan and shall thereupon be credited proportionately to their respective accounts.

The interest of an Employee in the Fund shall be considered and treated as personal and shall not be subject to assignment or transfer; nor shall any other person acquire any right therein or thereto.

Payment in accordance with the terms of this Plan on the death or withdrawal of an Employee, or on the termination of the Plan, shall be in full satisfaction of all claims against the Fund and the Trustees and against the Company under this Plan.

AUDIT

The accounts of the Fund shall be audited at least once a year by an independent auditor, to be appointed by the Board of Directors.

TIME OF DELIVERY OF STOCK

Except as otherwise hereinbefore provided, no Employee shall be entitled to receive stock or cash from the Fund before the termination of the Plan; but on such termination, the Fund shall forthwith be liquidated by the distribution of all the stock and cash therein to and amongst the then participants as their respective interest may appear.

SUBSIDIARIES

This Plan shall not be binding on any subsidiary of whose outstanding stock the Company owns less than the whole (except qualifying shares) until the same shall have been ratified and adopted by the directors and stockholders of such sibsidiary in a manner satis'actory to the Trustees.

AMENDMENT OR ABOLITION OF PLAN

This Plan may be recalled, abolished, revised, amended, altered or changed in the manner provided by an Act of the Legislature of the State of New Jersey entitled 'An Act concerning the corporations of this State and the participation of their employees and those actively engaged in the conduct of their business in their stock, profits, welfare work or management,' approved April 15, 1920.

AND WHEREAS, the authorised common stock of Standard Oil Company is one million (1,000,000) shares, of the par value of One Hundred Dollars ($100) each, whereof only nine hundred eighty-three thousand three hundred eighty-three (983,383) shares have been issued, leaving sixteen thousand six hundred seventeen (16,617) shares unissued; and

WHEREAS, it is proposed to increase the authorised common stock of the Company to One Hundred Ten Million Dollars ($110,000,000) par value and to change the par value of the shares of such common stock to Twenty-five Dollars ($25) per share, making the authorised common stock of the Company Four million four hundred thousand (4,400,000) shares of the par value of Twenty-five Dollars ($25) each, where are only Three million nine hundred thirty-three thousand five hundred thirty-two (3,933,532) shares will then be issued and outstanding, leaving Four hundred sixty-six thousand four hundred sixty-eight (466,468) shares unissued and available for use under such Plan:

THEREFORE, be it RESOLVED

(1) That, in the opinion of the Board of Directors of Standard Oil Company, the adoption of the fore-going plan is advisable.

(2) That the Board of Directors of Standard Oil Company deems it advisable and hereby declares it to be advisable:

(a) To increase the capital stock of the corporation by increasing its authorised common stock from One hundred million Dollars ($100,000,000) par value to One hundred ten million Dollars ($110,000,000) par value;

(b) To change the par value of the shares of the common capital stock of the corporation from One hundred Dollars ($100) per share to Twenty-five Dollars ($25) per share;

(c) To the foregoing ends, to amend Article Fourth of the corporation's Amended Certificate of Incorporation to read as follows:

'Fourth: The total authorised capital stock of the corporation is Three hundred ten million Dollars ($310,000,000), of which Two hundred million Dollars ($200,000,000), divided into two million shares of the par value of One hundred Dollars ($100) each, shall be preferred stock and One hundred ten million Dollars ($110,000,000), divided into four million four hundred thousand shares, of the par value of Twenty-five ($25) each, shall be common stock. From time to time either class of stock may be increased or decreased or one or more additional classes of stock may be created with such preferential, special or qualified rights as may be determined by the Board of Directors and the stockholders having voting rights, to the extent and in the manner permitted by the General Corporation Act of the State of New Jersey; provided, however, that any additional class of stock so created shall be subordinate to the preferred stock now authorised in respect of payments of dividends and of payments on liquidation or dissolution.

The holders of the preferred stock shall be entitled to receive, when and as declared by the Board of Directors, dividends from the surplus or net profits of the corporation at the rate of seven per centum per annum, and no more, payable quarterly on dates to be fixed by the by-laws of the corporation or by resolution of the Board of Directors. Dividends on the preferred stock shall be cumulative, and shall be paid or set apart for payment before any dividend on any stock of the corporation shall be paid or set apart; so that, if in any quarterly dividend period, dividends at the rate of seven per centum per annum shall not have been paid upon or set apart for the preferred stock, the deficiency shall be fully paid or set apart for payment before any dividend shall be paid upon or set apart for any other stock of the corporation.

Whenever full cumulative dividends on the preferred stock for all previous years shall have been declared and shall have become payable, and the accrued quarterly installments for the current year shall have been declared, and the corporation shall have paid such cumulative dividends for previous years, and shall have paid or set apart from its surplus or net profits a sum sufficient to pay such accrued quarterly installments for the current year, the Board of Directors may declare dividends on the common or other stock of the corporation payable then or thereafter, out of the remaining surplus or net profits.

In the event of any liquidation or dissolution of the corporation, whether voluntary or involuntary, the holders of the preferred stock shall be entitled to be paid in full, both the par amount of their shares and the dividends accumulated and unpaid thereon, before any amount shall be paid to the holders of any other stock, but shall not be entitled to share further in the assets of the corporation or the proceeds of liquidation. After the payment to the holders of the preferred stock of its par value and the unpaid accrued dividends thereon, the remaining assets and funds of the corporation shall be distributed and paid to the holders of the common or other stock according to their respective rights.

The holders of preferred stock shall not be entitled to receive any dividend or share of profits beyond the seven per centum aforesaid, whether payable in cash, stock or property; nor shall they have any pre-emptive right to subscribe for any new issue of stock of any class now or hereafter authorized or issued.

The holders of preferred stock shall have no voting powers whatsoever, nor shall they be entitled to notice of any meeting of stockholders of the corporation.

The preferred stock as an entirety shall be subject to redemption and may be redeemed at the option of the corporation, at any time after three years from the issue thereof, on any quarterly dividend payment date, by payment for each share of stock so to be redeemed of one hundred and fifteen per centum (115%) of the par amount thereof and in addition thereto of all dividends accumulated and unpaid thereon. Not less than thirty days' nor more than sixty days' previous notice of such redemption shall be given in such manner and form as may be prescribed by the Board of Directors. From and after the date fixed in any such notice as the date of redemption (unless default be made by the corporation in the payment of the redemption price pursuant to such notice) all dividends on the preferred stock shall cease to accrue, and all rights of the holders of record thereof as stockholders of the corporation, except the right to receive the redemption price, shall cease and determine.'

(3) That so much of the said unissued common stock and of any additions thereto through the proposed increase of stock or division of shares as may be necessary to effectuate said Plan, be issued and sold to the Trustees provided for in the Plan, in the manner, upon the terms and for the purposes therein defined."

Said resolutions were adopted at a meeting of stockholders held on December 20, 1920, and amended certificate of incorporation was filed the same day in the office of the Secretary of State of New Jersey, at Trenton, N. J.

Subsequent to the stockholders' meeting of December 20, 1920, the Board of Directors, by resolution on the same date, provided for the exchange of four shares of Common Stock of the par value of Twenty-five Dollars each for each share of Common Stock of the par value of One Hundred Dollars outstanding, and the issuance of $11,661,700 of Common Stock of the par value of Twenty-five Dollars per share, as follows:

"(1) RESOLVED, that the proper officers be and they hereby are authorised and directed to call in and cancel the present outstanding One hundred Dollar shares of Common Stock and to issue in exchange therefor the same number of dollars par value in common shares of the par value of Twenty-five Dollars each:

"(2) RESOLVED, that the proper officers be and they hereby are authorized from time to time to sell and issue to the Trustees provided for in the Company's Stock Acquisition Plan, in the manner, upon the terms and for the purposes therein defined, so much of the $11,661,700 par value of common stock not required for exchange in pursuance of the foregoing resolution as may be necessary to effectuate said Plan, the Trustees' certificate to be conclusive as to the number of shares so necessary."

There has been no substantial change in the properties of the Company since the date of the last application.

STANDARD OIL COMPANY (NEW JERSEY) AND AFFILIATED COMPANIES CONSOLIDATED INCOME ACCOUNT FOR THE YEAR ENDED DECEMBER 31, 1919

Gross earnings:		
Sales	$435,606,850.67	
Miscellaneous income	1,498,831.08	$437,105,681.75
Less Costs and Expenses:		
Costs	$401,456,799.28	
General taxes	1,877,913.58	
Depreciation	3,821,785.75	407,156,498.61
		$29,949,183.14
Income from other sources:		
Steamships	17,653,363.62	
Interest	4,289,347.25	
Sundries	299,574.10	
	$22,242,284.97	
Less General Expenses	6,635,256.11	
		15,607,028.86
		$45,556,212.00
Deduct:		
Federal income and excess profits taxes for 1918 paid during 1919		27,840,622.95
Standard Oil Co. (N. J.) Own Net earnings		$17,715,589.05
Add dividends received:		
From other than affiliated companies		2,918,736.85
		$20,634,325.90

Add proportion of earnings:

Of affiliated companies before deducting Federal income and excess profits taxes for 1918, paid during 1919:

123/240	of	American Petroleum Co.	$1,461,001.07
4475/4500	"	Bedford Petroleum Co.	45,046.54
51%	"	Clarksburg Light and Heat Co.	105,893.55
100%	"	Compania Transcontinental de Petroleo, S. A.	799,943.96
4119/13000	"	Connecting Gas Co.	44,639.50
1077/1360	"	Det Danske Petroleums Aktieselskab	1,167,023.42
99.868%	"	East Ohio Gas Co.	3,591,160.71
100%	"	Gilbert and Barker Manufacturing Co.	963,185.83
100%	"	Hope Natural Gas Co.	2,147,913.37
232398/300000	"	Imperial Oil, Limited	6,824,157.59
100%	"	Interstate Cooperage Co.	64,994.06
50%	"	Marion Oil Co.	2,457.94
49995/50000	"	Oklahoma Pipe Line Co.	1,063,681.49
60%	"	Pennsylvania Lubricating Co.	252,882.77
100%	"	Peoples Natural Gas Co.	2,593,992.66
3440 3600	"	River Gas Co.	30,215.04
100%	"	Romano-Americana	484,248.44
11/15	"	Societa Italo-Americana pel Petrolio	640,629.17
4993/5000	"	Standard Oil Co. of Brasil	2,469,721.93
99943/100000	"	Standard Oil Co. of Louisiana	12,746,583.48

30%	" Taylorstown Natural Gas Co.		4,735.77	
49945/50000	" Tuscarora Oil Co., Limited		1,339,078.84	
247/250	" Underhay Oil Co.		20,879.11	
29993/30000	" West India Oil Co.		5,469,992.57	
49.8%	" West India Oil Refining Co.		574,319.73	
			$44,908,378.54	
Less proportion of losses:				
249995/250000	of Carter Oil Co.	$550,242.93		
100%	" Hope Construction and Refining Co.	133,879.40		
56%	" Humble Oil & Refining Co.	713,520.12	1,397,642.45	
			$43,510,736.09	
Deduct proportion of Federal income and excess profits taxes of affiliated companies, for 1918 paid during 1919			15,990,719.88	27,520,016.21
				$48,154,342.11

NOTE: The above statement does not include income and excess profits taxes for the year 1919, but includes taxes paid during 1919, for account of 1918.

Statement issued to stockholders April 14, 1920, excluded taxes for 1918, and included Federal income and excess profits taxes for 1919.

CONSOLIDATED SURPLUS ACCOUNT FOR THE YEAR ENDED DECEMBER 31, 1919

Surplus—January 1, 1919		**$464,204,725.81**
Add:		
Net earnings Standard Oil Co. (N. J.) Own as per statement		**17,715,589.05**
Dividends received:		
From affiliated companies	**$15,018,756.90**	
From other than affiliated companies	**2,918,736.85**	**17,937,493.75**
Difference between net value of affiliated companies and amount at which same are carried on books of Standard Oil Co. (N. J.) as per balance sheet, December 31, 1919	**$186,384,327.23**	
Less Difference between net value of affiliated companies and amount at which same were carried on books of Standard Oil Co. (N. J.), December 31, 1918	**165,939,302.08**	**20,445,025.15**
		$520,302,833.76
Less Dividends paid during year 1919		**21,218,559.00**
Surplus, December 31, 1919, as per Balance Sheet		**$499,084,274.76**

CONSOLIDATED BALANCE SHEET AS OF DECEMBER 31, 1919

ASSETS

Real Estate Plant and Equipment:			
Refinery:			
Real estate	$7,607,727.36		
Plant and equipment	51,290,397.04		
Incomplete construction	16,992,176.56		
Furniture and fixtures	105,295.14		
		$75,995,596.10	
Marketing:			
Real estate	$1,141,670.44		
Plant and equipment	3,813,356.58		
Incomplete construction	2,156,877.81		
Furniture and fixtures	96,754.62	7,208,659.45	
		$83,204,255.55	
Less Reserve for plant Dep'n		26,718,636.54	
Total real estate and plant		$56,485,619.01	
Floating equipment	$42,945,222.83		
Less Reserve for depreciation	5,354,059.38	37,591,163.45	
Stable and motor equipment		1,760,741.34	
Loan delivery equipment		805,178.02	
Iron barrels, cans, etc		549,512.14	
Furniture and fixtures, general office		100,980.15	
Total Standard Oil Co. (N. J.)			$97,293,194.11
Real estate, plant and equipment of affiliated companies			214,979,935.91
Total real estate, plant and equipment			$312,273,130.02

Investments:			
Stock investments in other than affiliated companies	$9,924,002.00		
Government Bonds (U. S. and foreign countries) and other marketable investments	62,110,291.85	$72,034,283.85	
Stocks owned by affiliated companies	$15,959,281.14		
Government Bonds (U. S. and foreign countries) and other marketable investments owned by affiliated companies	12,628,417.68	28,587,698.82	
Total investments			100,621,982.67
Inventories of merchandise (at cost or less):			
Standard Oil Co. (N. J.)		$69,165,424.20	
Affiliated companies		116,584,948.93	185,750,373.13
Accounts receivable:			
Standard Oil Co. (N. J.)		$146,714,945.78	
Affiliated companies		90,181,111.48	236,896,057.26
Cash:			
Standard Oil Co. (N. J.)		$1,219,593.13	
Affiliated companies		16,599,462.08	17,819,055.21
Total Assets			$853,360,598.29

LIABILITIES

Capital stock:			
Preferred		$98,338,300.00	
Common		98,338,300.00	
Total Capital Stock			$196,676,600.00
Accounts payable:			
Standard Oil Co. (N. J.)		$40,514,318.57	
Affiliated companies		116,491,064.42	
Total accounts payable			157,005,382.99
Marine insurance reserves			594,340.5
Surplus:			
Standard Oil Co. (N. J.)		$311,908,234.28	
Add value of affiliated companies	$350,442,092.80		
Less value at which same are carried on books of Standard Oil Co. (N. J.)	164,057,765.57	186,384,327.23	
		$498,292,561.51	
Reserve for annuities		791,713.25	
Total surplus			499,084,273.76
Total Liabilities			$853,360,598.29

The Company agrees with the New York Stock Exchange as follows:

To have on hand at all times a sufficient supply of certificates to meet the demands for transfer.

The fiscal year of the Corporation is the calendar year.

The annual meeting of the stockholders is held at the office of the Company at Bayonne, New Jersey, on the first Tuesday of June in each year.

The Directors of the Company, elected annually, are as follows: A. C. Bedford, New York City; W. C. Teagle, New York City; F. H. Bedford, Brooklyn, N. Y.; F. W. Weller, New York City; F. D. Asche, Hollis, L. I.; S. B. Hunt, New York City; Walter Jennings, New York City; George H. Jones, Brooklyn, N. Y.; O. T. Waring, Plainfield, N. J.; T. J. Williams, East Orange, N. J.; J. A. Moffet, Jr., New York City.

The Officers of the Corporation are: Chairman of the Board, A. C. Bedford; President, W. C. Teagle; Vice-President, F. H. Bedford; Vice-President, F. W. Weller; Vice-President, F. D. Aschei, Vice-President, S. B. Hunt; Treasurer, George H. Jones; Assistant Treasurer, Frank Wilson; Assistant Treasurer, R. P. Resor; Secretary, C. T. White; Assistant Secretary, Frank Wilson; Assistant Secretary, M. H. Eames; Assistant Secretary, R. P. Resor; Comptroller, C. G. Fay; Assistant Comptroller, L. E. Freeman; Assistant Comptroller, A. M. Pressinger.

The Transfer Agent of the Company is the Guaranty Trust Company of New York, 140 Broadway, New York City.

The Registrar of the Company is the Equitable Trust Company, 37 Wall Street, New York City.

STANDARD OIL COMPANY,
By F. D. Asche, *Vice-President.*

This Committee recommends that the above-described $98,-338,300 of Common Stock of the par value of $25 per share be admitted to the list, on official notice of issuance in exchange for outstanding shares of Common Stock of the par value of $100 each, with authority to add $11,661,700 of said Common Stock of the par value of $25 per share, on official notice of issuance and payment in full, in accordance with the terms of this application, making the total amount authorized to be listed $110,000,000.

ROBERT GIBSON, *Chairman.*

Adopted by the Governing Committee, December 22, 1920.
E. V. D. COX, *Secretary.*

APPENDIX IX

TABULAR OUTLINE OF "TAPE" ABBREVIATIONS AND THEIR MEANING, USED IN CONNECTION WITH THE TICKER SERVICE OF THE NEW YORK STOCK EXCHANGE

NOTES

Bonds of companies that have no abbreviation on the card will be abbreviated as plainly as possible, and all will be printed with the bond designation added, as per "Words and Phrases" list. A single price after the name of a bond indicates a sale of $10,000 bonds at that price.

One price following the name of a stock signifies a sale of 100 shares at that price, thus: ST. 170.

When more or less than 100 shares are sold, the number of shares sold will precede the price, thus: ST. 2, 170; 10 shares, 170.

An offer alone, without a bid, is preceded by an O, and a dot, thus: ST. O.170.

A sale and offer, thus: ST. 170, O.170.

A bid alone, without an offer, is followed by the letter B, thus: ST. 170B.

When a sale is not reported in its proper place the price will be preceded by the abbreviation SLD, thus: ST. SLD. 170.

When the amount sold and the price are so nearly alike that they may be taken for two sales, the amount of the sale will be followed by the letter S. and a dot, thus : ST. 168 S. 170, meaning St. Paul, 168 shares at 170.

When an error has been made by the reporter, or in printing, the last letter or figure is repeated several times, indicating that the quotation is to be thrown out, thus: ST. $170\frac{1}{2}\frac{1}{2}\frac{1}{2}\frac{1}{2}$.

Three-day contracts will be printed thus: ST. 200, 170.3.

At 14 minutes after two p.m. the words "Delivery Time" will be printed on the tape, and shortly after, the lever of the instrument will give 15 distinct beats. At the end of the 15 beats it is 2 hours, 15 minutes p.m., and the close of the recognized time for the settlement of transactions made in the Exchange.

Transactions in United Kingdom of Great Britain and Ireland Notes made in variations of not less than $^1/_{16}$ of one per cent are printed as follows:

A sale at $98^{13}/_{16}$ appears as 98.13.

Transactions in Liberty Bonds made in variations of not less than $^1/_{50}$ of one per cent are printed as $^2/_{100}$ as follows:

A sale at 99 and $^{44}/_{50}$ appears as 99.88.

Abbreviations for Various Stocks

Abbreviations	Names	Location Post No.
	A	
A	Atchison, Topeka & Santa Fe Ry	2
AAC	All America Cables, Inc	13
AB	New York Air Brake Co	9
ABK	American Brake Shoe & Foundry	17
ABL	Atlanta, Birmingham & Atlantic Ry	2
ABN	American Bank Note Co	5
ABS	American Beet Sugar Co	8
AC	American Telegraph & Cable Co	10
ACC	American Cities Co	11
ACD	Allied Chemical & Dye Corp	9
ACL	American Coal Co. of Allegheny	12
ACS	Amer. Ship & Commerce Corp	15
ACT	Acme Tea Co	18
ADG	Amalgamated Sugar Co	16
ADN	Air Reduction Co	14
ADO	Associated Oil Co	5
ADS	American Druggist Syndicate	16
AE	Adams Express Co	12
AF	American Car & Foundry Co	17
AFG	American-La France Fire Engine Co	8
AFI	Atlantic Refining Co	8
AFU	Atlantic Fruit Co	14
AG	Atlantic Gulf & W. Indies S. S. Lines	8
AGR	American Agricultural Chemical Co	15
AH	Allis Chalmers Mfg. Co	9

Abbreviations	Names	Location Post No.
AIC	American International Corp	6
AK	Alaska Gold Mines Co	1
AKO	Atlas Tack Corp	7
AL	American Linseed Co	7
ALI	Nat. Aniline & Chemical Co	9
ALK	Mathieson Alkali Works	18
ALO	American Locomotive Co	7
ALT	Chicago & Alton R. R. Co	12
ALY	United Alloy Steel	1
AM	American Express Co	12
AMS	American Sumatra Tobacco Co	3
AN	Ann Arbor R. R. Co	20
ANO	Austin, Nichols & Co	5
ANR	Alliance Realty Corp	7
AO	American Cotton Oil Co	10
AR	American Smelting & Refining Co	18
ARO	American Radiator Co	17
ARZ	American Safety Razor Corp	17
AS	Albany & Susquehanna R. R.	3
ASN	Assets Realization Co	17
ASP	General Asphalt Co	4
ASU	American Shipbuilding Co	9
ASY	American Smelters Securities Co	18
AT	American Tobacco Co	15
ATB	American Tobacco, "B" stock	15
ATT	American Telephone & Telegraph Co	10
AU	Auto Sales Corp	18
AW	American Writing Paper Co	9
AWH	American Wholesale Corp	8
AX	Atlantic Coast Line R. R.	1
AY	Allegheny & Western Ry	3
AZ	American Zinc, Lead & Smelting Co	14

W

W	Western Union Telegraph Co	10
WA	Wabash R. R.	3
WB	Weyman Bruton Co	17
WBR	Weber & Heilbroner	7
WC	Wisconsin Central Ry	7
WF	Wells Fargo Express Co	12
WHI	White Motor Car Co	9
WHP	White Oil	4
WIL	Wilson & Co	17
WK	Westinghouse Air Brake Co. (The)	9
WKN	Wickwire Spencer Steel Co	17

Abbreviations	Names	Location Post No.
WL	Wheeling & Lake Erie Ry	6
WM	Western Maryland Ry	7
WOR	Worthington Pump & Machine Corp	13
WR	Western Pacific R. R. Corp	2
WW	Woolworth & Co. (F. W.)	19
WX	Westinghouse Elec. & Mfg. Co	17
WY	American Woolen Co. of Mass	7

X

X	U. S. Steel	2
XPR	U. S. Steel, Pr	1

Words and Phrases

A	Assented, Class A.
AJ	Adjustment.
APD	Assessment paid.
B	Bonds, Class B, or (in fig.) Bid or Buyer.
BNK	Bank.
C	Bonds, Class C (in fig.). Coupon or following a sale, Cash.
CB	Currency Bonds.
CH	Clearing House.
CLT	Collateral Trust.
CMP	Compromise.
CN	Consolidated or Consols.
CT	Certificates.
CV	Convertible.
CY	Currency.
D	Debenture or Division.
DE	Deferred.
E	East or Eastern.
EXT	Extended or Extension.
FD	Funding.
FLT	Flat, without interest.
GB	Gold Bonds
GM	General Mortgage.
GNT	Land Grant.
GTD	Guaranteed.
I	First.
II	Second.
III	Third.
IMP	Improvement.
IN	Income.

Abbreviations	Names	Location Post No.
LL	Leased Line.	
MAT	Matured.	
ML	Main Line.	
MTG	Mortgage.	
N	New or North.	
NB	New Bonds.	
NF	Non-fundable.	
NS	New Series.	
O	(In figures) Offered.	
OB	Opening of Books.	
PR	Preferred.	
PUR	Purchasing Receipt.	
REG	Registered.	
RE	Real Estate.	
S	South, Southern, Stock, Series or (in figures), Seller or Shares.	
SB	Small Bonds.	
SC	Scrip.	
SF	Sinking Fund.	
STA	Stamped.	
T	Terminal.	
TE	Tax Exempt.	
TR	Trust Receipts.	
TX	Tax.	
UN	Unified.	
UR	Under the Rule.	
W	West or Western.	
WI	When Issued.	
X	Ex-coupon, dividend or interest.	

Abbreviations for Various Bonds

A

ABM	Atlanta Birmingham	Bond
ADK	American Dock & Improvement Co	"
AEO	Atch., Top. & S. Fe, Eastn. Okla	"
AGS	Alabama Gt. Southern	"
AJS	Atch. Top. & S. Fe Adj. 4s, Stpd	"
AKN	Atlanta, Knoxville & Cincinnati	"
ALB	Alberta, Province of	"
AMR	Armour & Co	"
ARG	Argentine Republic	"
ASL	Atchison Trans., Short Line	"
AV	Allegheny Valley	"

Abbreviations	Names	Location Post No.
	B	
BD	Braden Copper Mines Co	Bond
BDX	Bordeaux, City of (France)	"
BEL	Belgium, Kingdom of	"
BER	Berne, City of	"
BLP	Bell Telephone Co. of Penna.	"
BN	Brooklyn, Queens Co. & Suburban	"
BSQ	Buffalo & Susquehanna Iron Co	"
BSY	Big Sandy Ry. (Ches. & Ohio)	"
BV	Brooklyn Union Elevated	"
BWV	Balt. & Ohio, Pitts., L. E. & W. Va	"
BWY	Broadway & Seventh Ave	"
BX	Balt. & Ohio Southwestern	"
	W	
WCN	Washington Central Ry	Bond
WCR	N. Y., Westchester & Boston	"
WE	Wilkesbarre & Eastern	"
WH	Westchester Lighting Co	"
WN	Western Electric Co	"
WNC	Western North Carolina	"
WNY	Western N. Y. & Penn	"
WRS	Western Pacific R. R. Co	"
WS	West Shore R. R.	"
	Z	
ZU	Zurich, City of	Bond
	Governments	
	U. S. Govt. Securities	Bond
2s	U. S. 2s, Con. 1930	"
3s	U. S. 3s, 1916–1946	"
4s	U. S. 4s, 1925	"
DC	Dist. of Columbia, 3–65s, 1924	"
L	Liberty Loan	"
PAN	Panama Canal, 10–15 Yr. 2s, 1936	"
PAN	Panama Canal, 10–30 Yr. 2s, 1938	"
PAN 3s	Panama Canal, 3s, 1961	"
PHI	Phil. Isl. Land Pur., 4s, 1914–34	"
PHI	Phil. Isl. Pub. Wks. & Imp., 10–30 Yr. 4s, 1936	"
V	Victory Loan	"

APPENDIX X

COMMISSIONS CHARGED ON THE NEW YORK STOCK EXCHANGE

Article XXXIV, Constitution of the New York Stock Exchange, 1920

Sec. 1. Commissions shall be charged and paid, under all circumstances, upon purchases or sales of securities dealt in upon the Exchange (except as provided in Subdivisions (*h*) and (*i*) of Section 2 of this Article); and shall be absolutely net and free from all or any rebatement return discount or allowance in any shape or manner whatsoever, or by any method or arrangement direct or indirect; and no bonus or any percentage or portion of the commission shall be given, paid or allowed, directly or indirectly, or as a salary or portion of a salary, to any clerk or person for business sought or procured for any member of the Exchange.

Sec. 2. Commissions shall be calculated on the basis of selling prices as hereinafter specified:

(*a*) On business for parties not members of the Exchange, including joint account transactions in which a non-member is interested; transactions for partners not members of the Exchange; and for firms of which the Exchange member or members are special partners only, the commission shall be not less than $^1/_8$ of one per cent on the par value of bonds and not less than the following rates on stocks:

On stocks selling below \$10 per share, 17½ cents per share.

On stocks selling at \$10 per share and above, but under \$125 per share, 15 cents per share.

On stocks selling at \$125 per share and over, 20 cents per share.

Provided, however, that the minimum commission on an individual transaction shall be not less than one dollar.

(*b*) On business for members of the Exchange when a principal is given up the commission on bonds shall be not less than on the following basis:

25 cents per $1,000 par value on bonds selling below 125 per cent.

30 cents per $1,000 par value on bonds selling at 125 per cent and above.

and not less than the following rates on stocks:

On stocks selling below $10 per share, 1¼ cents per share.

On stocks selling at $10 per share and above, but under $125 per share, 2½ cents per share.

On stocks selling at $125 per share and over, 3 cents per share.

Except that when the amount dealt in is less than 100 shares, the commission shall be not less than:

On stocks selling below $10 per share, 1 cent per share.

On stocks selling at $10 per share and over, 2 cents per share.

(*c*) On business for members of the Exchange when a principal is not given up the commission on bonds shall be not less than on the following basis:

37½ cents per $1,000 par value on bonds selling below 125 per cent.

50 cents per $1,000 par value on bonds selling at 125 per cent and above.

and not less than the following rates on stocks:

On stocks selling below $10 per share, 1¾ cents per share.

On stocks selling at $10 per share and above, but under $125 per share, 3¾ cents per share.

On stocks selling at $125 per share and over, 5 cents per share.

(*d*) In transactions where orders are received from a non-member, wherein the broker filling the order is directed to give up another broker or clearing house, the responsibility of collecting the full commission, specified in Sub-division (*a*) hereof, shall rest with the broker or clearing house settling the transaction.

(*e*) In transactions where orders are received from a member, on which a clearing firm is given up by said member or by his order, the responsibility of collecting the full commission, as specified in Subdivision (*c*) hereof, shall rest with said clearing firm; and it shall be the duty of the broker who executes such orders to report such transactions to the clearing firm and render to them and collect his bill therefor at the rate specified in Subdivision (*b*) hereof; and also that where a broker executes an order for a member and clears the security himself, he must charge the rates specified in Subdivision (*c*) hereof.

(*f*) Whenever a non-member of this Exchange shall cause to be executed in any market outside of the United States any order or orders, for the purchase or sale of securities listed on this Exchange (except as provided in Subdivisions (*h*) and (*i*) hereof), and said purchase or sale shall be accepted by a member or firm who are members of this Exchange, for the account of said non-member, the commission specified in Subdivision (*a*) hereof shall be charged said non-member in addition to any commission charged by the party or parties making the transaction.

(*g*) When securities are received or delivered on a privilege for a non-member, the commission specified in Subdivision (*a*) hereof, must be charged whether said securities are received or delivered upon the day of expiration of said privilege or prior thereto.

(*h*) On Subscription Rights; Bonds or Notes of Foreign Countries having five years or less to run; Notes of corporations having five years or less to run; Bonds having five years or less to run; such rates to members or non-members as may be mutually agreed upon; provided, however, that the Committee on Commissions with the approval of the Governing Committee may hereafter determine special rates on any or all of the above-mentioned securities.

(*i*) Securities of the United States, Porto Rico and the Philippine Islands, and of States and municipalities therein are exempted from the provisions of this Article.

Sec. 3. A firm having as a general partner a member of the Exchange, shall be entitled to have its business transacted at the rates of commission hereinbefore prescribed for members. A member of the Exchange cannot confer this privilege upon more than one firm at any one time.

The privileges provided for under this Section can only be conferred upon a Branch House in this country when established under the same name as the parent firm and in which the partners and their respective interests are identical with those of the parent firm.

Sec. 4. A proposition for the transaction of business, at less than the minimum rates of commission herein provided, shall constitute a violation of this Article.

Sec. 5. A member suspended by the Governing Committee shall not, during the time of his suspension, be entitled to have his business transacted at member's rates of commission.

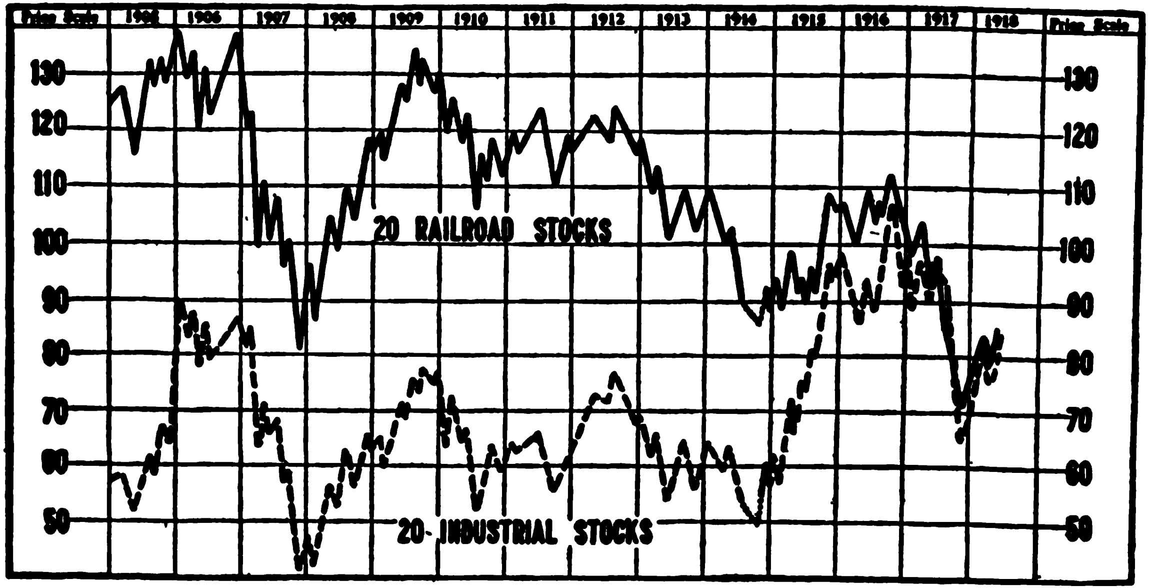
A member who is in suspension by reason of insolvency may have his business transacted at member's rates.

Sec. 6. If the Governing Committee shall, by a majority vote of all its existing members, determine that a member of the Exchange has violated the provisions of this Article, it shall suspend such member, for the first offense, for such period not less than one year nor more than five years, as a majority of the members of said Committee present may determine. A member adjudged guilty of a second offense, by a majority vote of all the existing members of the Governing Committee, shall be expelled by a like vote.

APPENDIX XI

PRICE FLUCTUATIONS OF 20 RAILROAD STOCKS AND 20 INDUSTRIAL STOCKS DURING 1905–1918

(Permission of Babson's Statistical Organization)

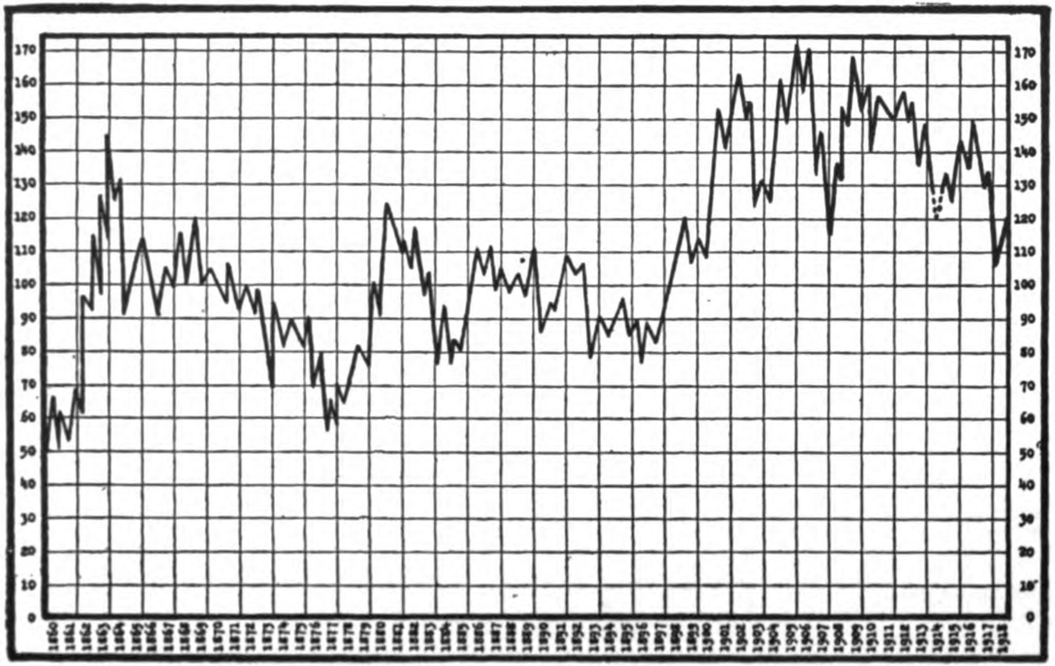


9000-5

APPENDIX XII

COMPOSITE PRICE RECORD OF 20 RAILROAD STOCKS

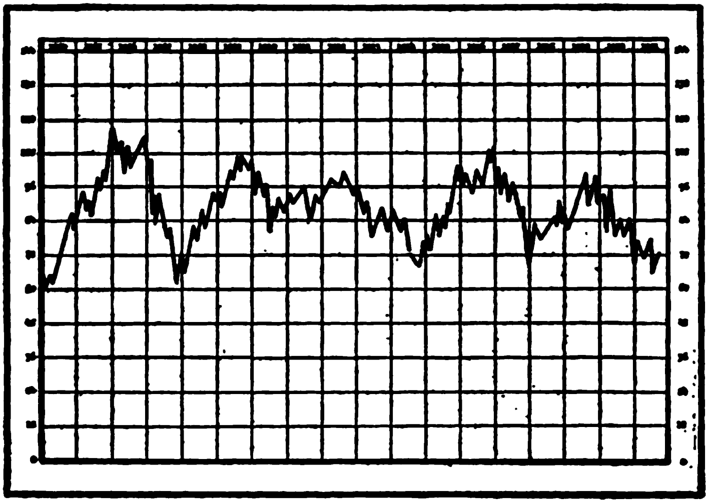
(Permission of Babson's Statistical Organization)



APPENDIX XIII

COMPOSITE PRICE RECORD OF 40 STOCKS

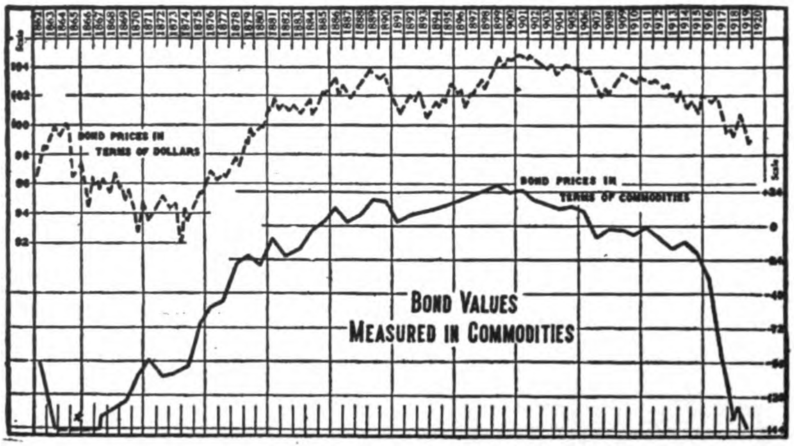
(*Permission of Babson's Statistical Organization*)



APPENDIX XIV

BOND PRICES IN (1) TERMS OF DOLLARS AND (2) TERMS OF COMMODITIES

(Permission of Babson's Statistical Organization)



* Prices dropped to —260 in 1866, due principally to depression in the value of paper money.

In order to reduce bond prices in dollars to a basis of commodity prices, we assumed zero to represent a point where the average yield of the bonds was 4% and the commodity index 100%. We then determined the variance of both bond yields and commodity prices from this basis. Plotting the sum of these variances for each date we obtained the curve indicated by the dotted line above.

APPENDIX XV

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