INVESTMENTS AND SPECULATION

Louis Guenther

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FOREWORD.

"People will endeavor to forecast the future and make agreements according to their prophecy. Speculation of this kind by competent men is the self-adjustment of society to the probable."—Judge Holmes in a U. S. Supreme Court Decision.

"A study of past disturbances leads to the conviction that no severe depression has occurred which was not preceded by loud warnings. These warnings ought not to pass unheeded and in order to recognize them promptly, it is necessary that accurate statistics be furnished. Much improvement has been accomplished in the last few years, though it is to be regretted that so much of our statistical information is fragmentary or inaccurate. Official and private publications furnish much valuable information. . . . Other statistics, which are inadequate or lacking, and which would be of great value, are those pertaining to the employment of labor, capital invested in new enterprises, amounts expended in new construction, volume of production in the various kinds of manufactures, and statistics of state banks and savings institutions similar to those pertaining to national banks. After making due allowance for the insufficiency of statistics, it must be said that the failure to pay sufficient attention to those already available is equally to be regretted."—Senator Theodore E. Burton.

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By Louis Guenther.

INTRODUCTION.

Every head of a corporation, every business man, in fact everyone employed in a responsible position and upon whose judgment the success of an enterprise largely depends, should provide himself with a general knowledge of the problem of investments and speculation.

Investment and speculation are so closely associated with the well-being of trade that the two are inseparable. Figuratively speaking, they are the propelling forces governing the money market, which, in turn, is the vital life-blood of business. This is an indisputable fact. It cannot be denied.

Many a merchant and many a manufacturer who has mastered the problem of investment and speculation has been able to put his knowledge to great financial advantage in his ability to foresee a drain upon the money market and its consequent effect upon interest rates by providing for all his banking accommodations long before interest rates have hardened.

So, also, have they been able by anticipating a depression in trade to curtail expenditures and guard their credit accounts from weakness. Such a knowledge prevents them from being caught off their guard by a sudden dropping off in business. And, vice versa, they are in a position to detect a revival in trade by the same barometer, the money market.

As it is also true that business, whatever may be its nature, is a calling, purely confined to the making of profits some time or other, surplus funds are accumulated which are intended for investment. The intelligent and safe investment of such idle funds requires a general knowledge of investment and speculation. Fortified with such knowledge, the owner of surplus funds guards himself from serious errors. It inculcates in him the absolute importance of being guided by actual facts, and not by hearsay advice of others. It can harm no one to know how to differentiate between investments and speculation; it can only benefit him.

The author of Investments and Speculation in this series on Business Administration has undertaken to handle an unusually dry subject in such a way as to make it interesting reading. While not a text book in any sense of the word, it still exhaustively covers Investments and Speculation and its different phases so that it conveys directly to the reader's mind a thorough knowledge of the fundamentals of each. Not only will this book prove a great help to all business men, but equally instructive to any who have an ambition to enter the banking or brokerage business.

This reference book presents an exhaustive treatment of all phases of Investments and Speculation, furnishing the thoughtful reader with reliable information for guidance in business transactions.

I. DEFINING INVESTMENT AND SPECULATION.

Defining the difference between investments and speculation will not prove an easy task, as there are no fast and set rules to distinguish the one from the other.

The lexicographers commonly describe the word investment as follows: "To lay out capital in the purchase of property for permanent use as opposed to speculation."

And then they state that speculation is: "To make a purchase or investment that involves risk in the hope of probable gain"; again, "As a more or less risky investment of money in expectation of considerable gain."

It is plain to see that in each case the word means the employment of capital for gain. Broadly speaking there is no distinction between the two methods of laying out capital, beyond that made in the public mind by the measure of risk involved. In human experience it has often turned out that such measure of risk has so changed, from what seemed, on the yesterday, to have been surrounded by all the safeguards against loss, as to embrace all the elements of hazard on the morrow.

This may appear rather a strange statement. Still it is an indisputable truth. A simple example will easily establish it: For instance, there is no safer investment in the mind of the public than a government bond; at least so far as our own government bonds are concerned. Suppose, however, a government was conquered and its possessions invaded by the forces of a foreign foe, what would be the natural outcome of such a disaster? The securities issued by the stricken nation would rapidly decline in value, through the apprehension aroused among investors over the uncertainty as to how the invaders would deal with the nation's creditors. They could, if they so desired, wipe the slate clean of all debts, or they could compromise or they could pay in full. Yet, as long as it is not known just what the outcome would be, the quotations of all the nation's obligations would fluctuate violently. As securities, in regard to the safety of the funds invested in them, they could not properly be classified as investments.

Of course, such a turn of affairs with us is a remote contingency. I mention it as an extreme possibility, merely to emphasize my statement that there are really no immutable rules which will make an investment an everlasting investment. Often, unforeseen events will reverse an investment into a speculation or change what at one time appeared a risky speculation to a very desirable investment.

It was not very long ago, measured in years, when our government bonds were looked upon by foreign investors as more or less a speculation. This was during the dark days of our Civil War, when it seemed as if Gladstone, the British Premier, spoke the truth when he declared a new nation was born by the secession of the Southern States from the United States of America. The bonds then issued by our Government to raise money to carry on the war were viewed with suspicion in England. Only the German and French investors took kindly to our securities and then only after they were obtainable at bargain-counter terms.

Nor does a clash in arms between nations always tend to have a serious effect upon their securities. It sometimes happens that economic influences depress their values to such a degree as to make them a poor investment for those who placed their money in them when they were regarded as gilt-edged securities and were bringing high prices. This is what has happened with British consols, as the government obligations of the English nation are called. They have steadily declined in price until this year they have fallen to the lowest price in nearly eighty years. I shall not here enter into a discussion of the causes responsible for this abnormal decline in one of the premier securities of the entire world. I cite it only as another illustration in support of my contention that the dividing line between investment and speculation is very elastic.

What may be good today, may be worth much less tomorrow or even worthless.

A mortgage upon a building or a parcel of land may be a very desirable investment. An upheavel of nature's forces may occur on the spot where the pledged land is located and destroy all the value in less time than it takes to write this paragraph. Did this not happen in Pompeii? Can it not happen again? The ashes of Vesuvius in a few hours swept into total destruction all the capital permanently laid out in homes and in other structures of the doomed city. An earthquake attacked Messina only a year or two ago. While Messina was not completely destroyed, the catastrophe did irretrievable harm to capital permanently invested in property. And that capital, in the light of subsequent events, could they have been foreseen, could not be properly classified as being invested, since it was at all times subjected to extraordinary risks, risks such as are grouped under the term "speculation," as commonly understood.

Men make values, not conditions; these they merely assist in making. As long as values are thus made, uncertainty, naturally, will surround them. If the human race preferred stones as money, gold then would have no value. What gives gold its value is its acceptance as a common and standard medium of exchange. Anyone will take it in return for some commodity or article he wishes to sell. It is the distinction mankind makes between the degrees of security which defines the division between investment and speculation.

The foregoing is a demonstrable fact.

It is popularly supposed that a bond or a mortgage is an investment because there is pledged to secure them some physical property. However, this is not always the case. The property securing a bond may be worth all that it is represented for the purposes for which it is pledged, but, should it be employed for other uses, might not realize anywhere near the sum represented by the bonds. So also with a mortgage.

There are bridges on some of our principal railroad systems that were built with the money raised from the sale of bonds. As long as the railroads use these bridges and pay rental for their use, these bridge bonds are desirable investments, but, should the railroads abandon them, from where would the interest for the bonds come? The property, as old iron and steel, would never realize the capital invested in them. So might be the case with a mortgage on a water power plant. If the water supply should become exhausted there would be no need for the power plant and its machinery and the essential security which had made the mortgage a good investment would pass with the passing of the water.

Investment of money is, therefore, wholly a problem of human judgment insofar as safeguarding it against what are commonly assumed to be extreme risks. In fact, it is in a sense a security which human judgment aims to keep free from all hazard as far as it can make this possible. It is taken for granted from the very beginning that speculation involves taking chances for extraordinary gains.

II. THE INTELLIGENT EMPLOYMENT OF CAPITAL.

It is best, under the circumstances, to eliminate from consideration all hazards to investments caused by the caprices of unforeseen forces and conditions which human judgment and foresight are powerless to control.

As much as they may interfere with the intelligent employment of capital, so likewise is their effect on the duration of human life.

It is as possible for a parent to feel certain beforehand that his new born offspring will reach the scriptural age of three score and ten, as it is for an investor, no matter how careful he is in his selection, to positively assume the absolute safety of the capital he has laid out in a given security.

However, we do know, in determining the length of human life, the average age reached when the simple rules of health are carefully followed, and no fatality, whether from accident or disease, intervenes to cut it short.

So is it also the case with investments. By observing the ordinary precautions they can be safeguarded against almost every contingency except unknown eventualities.

Large investors even go so far as to protect themselves against unexpected surprises. They diversify their investments. That is, they distribute their capital among different securities.

On a principle somewhat similar to this, the life insurance business is based. Instead of selecting their risks, life insurance actuaries have successfully worked out a standard mortality table. This table is wonderful for the degree of its accuracy in determining the average death rate. By means of this mortality table life insurance companies can tell almost to the exact figure, the number of people out of every thousand who will die each year.

Underlying their mortality table is one broad law, which is that each person, before being insured, must be physically free from all traces of disease which can terminate fatally. Still this is but the law of averages, only by another name. Although not recognized very many years, not over seventy-five years at the most, this law has more than justified itself as a reliable measure of safety, and the proof is the enormous assets the life insurance companies have accumulated. Collectively, their assets mount up into the billions of dollars. They represent the funds that are the bulwarks of protection for outstanding policies of between ten and fifteen times as much.

In a similar manner are fire, marine and other lines of insurance operated. All their premiums are based on different average tables. Moreover, the same principle is now applied, more or less, to investments. That is, our large banks and institutions with millions in capital at their command, divide their investments among different classes of securities as an insurance against all risk. In this way, financial loss resulting from an unforeseen hazard is so distributed as to cause very little harm, and risk is reduced to a minimum.

Even different states have enacted laws for the protection of savings bank depositors, laws based on the theory of averages. These laws govern the character of investments in which savings banks are permitted to place their funds. Some states demand of a railroad, before its bonds are acceptable as an investment for savings bank deposits, that it has paid dividends on all its outstanding stock uninterruptedly for a certain term of years; again that only first mortgages on real estate can be considered desirable and safe investments, and then only up to a certain amount of the property's appraised value. Loans to depositors are also limited. In some states, loans are restricted to not more than 10 per cent of a bank's capital to any one customer of the bank. Other states have empowered commissions for the purpose of supervising the issuance of new securities by corporations as a protection against inflation. Even cities, towns and counties are now forced by statutes to keep their bonded obligations within a certain percentage of the assessed value of their taxable property. All these precautionary measures are adopted for the protection of investors and as a check against reckless banking. It must be remembered that bankers must invest their deposits and make loans to pay interest to depositors.

Often you will read in the descriptive circular regarding a bond that it is a legal investment for banks in certain states. This means that the corporation issuing the bond has strictly complied with the laws of these states.

Investors accept the fulfillment of the requirements of some of the states before a bond becomes a legal investment for their chartered banks as the hallmark of a high-class security in much the same confident manner as they regard the "sterling" mark on silver ware as a sign of its purity. On the whole, however, investments in this country have proved unusually satisfactory.

While it is simply impossible to estimate accurately what the per cent of losses has been on investments which have proved disastrous, nevertheless it may be taken for granted that when laid side by side with the enormous volume of capital which has been invested in securities in this country, it comes to but an infinitesimal part of the whole. As the country grows more settled, the per cent of loss will gradually lessen. Such is the characteristic of every nation as it grows older. Take England, for example; also France and Holland; Germany and Austria, only in a less degree. The resources of each of these nations have been so scraped over by capital in its search for opportunities of profitable employment, that they no longer offer the investment possibilities they once did. As a result, the majority of their government and municipal obligations, their railroad securities and their land and real estate mortgages, command in their leading financial market places, a premium which reduces the average income they yield to not much more than 3 per cent per annum. There is always such a large demand for these securities that they are scarce. Ultra conservative investors prefer them, and are willing to forego a part of the income which is obtainable from securities of lesser safety to secure, on the other hand, the greater degree of safety for their invested capital.

And right here it is as appropriate as anywhere else to explain briefly a fundamental law governing investments, as well as speculations. I refer to the economic law of supply and demand which is as immutable in influencing the prices of securities as it is in deciding the price of all our leading commodities. Artificial manipulation may stay the operation of this law but only temporarily; sooner or later it will express itself. The panic of 1907 is the latest illustration of the immutability of this law of economics. Security prices had been held up by sheer force for a year previous, against the lessening available supply of capital, only to finally break through the insecure support when all artificial means had exhausted themselves.

It is a natural sequence for investments to rise in price where the demand for them outruns the available supply. Vice versa, it is true that their prices decline when the demand is small and investments seeking buyers glut the market. It is this rising and falling in demand and supply which causes the fluctuation in prices; not only in securities, but likewise in wheat, cotton, hay, barley, oats and even in the precious metals. Even gold, the accepted standard for coinage among all the principal nations, is a willing subject to the operations of this law. Some of our foremost economists contend that gold in recent years has been mined in such large quantities as to cause the higher cost of living, and correspondingly to reduce investors' income.

You will think this is a strange theory. You will also wonder how this can be possible. Still their contention is logical. The more gold there is, the greater is a people's purchasing power, and as it increases, the demand forces prices up. On the other hand, however, the income on a secured investment is fixed. A bond or a mortgage may have been purchased some years ago at a price to yield an income of 4 per cent annually, or $40 on each thousand dollars. At the time of the purchase the income may have been attractive. At the same time a suit of clothes may have only cost $30, a hat but $3, and a pair of shoes, $4. Five years hence the same suit of clothes may cost $35, the hat $3.50, and the shoes $5, but the investor holding a 4 per cent bond or a 5 per cent first mortgage derives no greater income, although his purchasing power is considerably reduced.

The peculiar conditions in England, France and Holland heretofore mentioned are recalled for no other reason than to show that the United States is assuming somewhat the same characteristic.

The investors of these countries for lack of opportunities at home pour millions of their capital every year into the development of the resources of their colonies and of other countries.

While our country is far from exhausting its almost unlimited resources, it has been apparent for some years to keen observers that the wealth of our people is reproducing itself at such a rapid pace as to supply far more fresh capital than is needed at home and therefore every year finds us with a great deal of money to spare for investment in other countries. We are taking our place side by side with England and France as a free and generous lender of capital to smaller but growing nations.

Only since the close of the Spanish War has the United

States participated with much older nations in lending money to Japan, China, Mexico and the South American Republics. In less than fifty years, and of that more within the last twenty years, has this country attained that position of affluence which frequently prompts the reference to us as the land of a thousand millionaires. Yet beneath this phenomenal growth in wealth must be the intelligent employment of capital. What does this mean, but the making of shrewd investments? Were this not a fact, we could hardly have financed the Civil and Spanish American Wars, built over 300,000 miles of railroads and double as many miles of local traction and interurban lines, vast public improvements, splendid harbors, and gas and electric light plants, opened up mines of coal, silver, copper and gold, built immense refineries and smelting plants, and reared all about us industries, veritable industrial Goliaths in the great wealth they control and in the great amount of labor they employ.

If George Washington were to come back to life, he would be lost in amazement at the changes wrought in this country, although only a little more than one hundred years have passed since he was laid to rest at Mt. Vernon.

It would seem to him as if some wizard had visited the land and wrought this remarkable change. Yet this wizard has been none other than capital—money profitably invested. Have we not here a concrete example of the uniform success of intelligent investment? Does it not plainly indicate that where prudence is exercised in the diversification of investments, there need be little fear as to the outcome of, or regarding the safety of, the capital employed?

III. THE EARLIEST INVESTMENT.

Now, what are the types of securities which logically can be classified under the head of investments and are not speculative?

In the first place, they are the securities which are considered safe, both in respect to the capital invested in them and the income yield.

In the second place, they are securities whose market value is more stable and are not affected by violent fluctuations as sometimes, and often, too, influence securities of a speculative character.

The major portion of investments is composed usually of those behind which is pledged for their protection some physical property or a contract agreement guaranteeing the prompt payment of principal and interest by the issuing party and which covenant can be legally enforced as long as the debtor is in a solvent condition. However, there are some shares of stock in corporations and railroads which are regarded as investments because of the long period during which they have paid substantial dividends without interruption.

It is therefore to be clearly seen that there cannot be too close a dividing line drawn to differentiate investments from speculations. In every case each must be appraised by its individual qualities and not by a yard stick. A pledged security, that is, a security behind which there is some sort of lien or obligation to pay without reservation, may prove, in case of insolvency, not to be an investment but an outright speculation.

As there are so many different kinds of securities grouped among investments, I have thought it best, for the sake of avoiding confusion, to start at the very beginning with the earliest known type of investment and in sequence describe each in its turn until we have run the entire gamut over. At the same time it is also well to summarize briefly some of the elemental features by which the conservative investor determines in his own mind the degree of their safety as a security for his capital.

Loans on farm lands are no doubt the earliest form of investment. This is to be supposed, since the first and principal occupation of civilization was agriculture. Originally, such loans were made in a most primitive way. When the human race was young and acquiring its first taste of civilization, it was the practice of one land owner who prospered above his neighbor from the bounty of Mother Earth, to make loans of seed or live stock on consideration that he receive in return a certain portion of the borrower's next season's harvest or a certain number of the offspring of the live stock loaned.

But as civilization made progress, it was found far more convenient to settle for all obligations by the payment of gold and silver. Still in those early and primitive days, when the commercial relations between men and races were carried on crudely, lenders of capital were satisfied to accept the pledges of borrowers as men of honor who agreed to pay their loans on a stipulated day or forfeit their land, cattle, implements or whatever they pledged to secure them.

Out of such transactions grew the modern indenture. By this is meant the mortgage or contract which today legally binds the borrowers to reimburse the lender for a loan with a stipulated rate of interest and empowers the holder of the mortgage to proceed by law, or, as it is known, foreclosure proceedings, to take possession of the pledged property and dispose of it in order to protect himself against any loss of capital and interest.

The phrasing of mortgages has undergone considerable changes. There was a time when the holder of a mortgage could take possession of property upon default of payment and keep it all. Now, however, the law goes so far as to protect the lender in maintaining his full rights in what equities may exist over a loan. That is to say, every dollar realized above the face of a loan, the accrued interest and all costs involved by what legal proceedings are necessary to enforce payment, revert to the lender. The mortgage today is a legal instrument devised to protect lenders of capital to the extent of their loans, interest due and all costs, but no further. It does not give them any unfair advantages over distressed creditors.

Not only are loans on agricultural lands the oldest of any we have a record of, but they have also proved the most satisfactory. Of the world's available capital a very large, if not the largest, portion is invested either outright or loaned out in farm land and other real estate, also in buildings and homes used by the world's population as places of domicile.

Moreover, what makes loans so satisfactory when placed on the individual's home or farm is the fact that a man will go to extreme lengths and exhaust all his available resources to satisfy a mortgage and continue the prompt payment of interest as it falls due, rather than lose the place he calls his home. Next to the immediate members of his family, his home is dearest to him. This is why such loans are regarded as having in addition to the physical assets pledged as securities, another—the moral asset, the pride of the individual in keeping a roof over his family.

IV. HOW FARM MORTGAGES ARE PLACED.

Our small interior banks are by far the largest lenders of capital on farm mortgages. Insurance companies come next and after them follows the private investor. That this should be the case is largely the outcome of a community of interest. Banks and private bankers in the small towns and villages which are the hubs for farming sections, must depend principally upon the tillers of the soil for their business. The deposits of the latter they in turn lend out to their customers on the only collateral the farmers can offer, their land, live stock or crops.

These bankers also, knowing more intimately the value of the farm lands by which they are surrounded, feel a great deal safer about their loans when they are put out on such collateral. Yet their aggregate resources, and they are by no means small, have often proved insufficient to finance all the farm loans sought.

In the North, South, East and West, everywhere, in fact, where there is found a prosperous farming community, there are also located brokers who do nothing save to make loans on farm mortgages, which in turn, they sell to institutions and investors, for whom also they act as agents for the collection of interest and principal when the mortgage matures. The banks also frequently find it to their pecuniary advantage to let outside investors have part of their farm mortgages, for the more often they are able to turn over their loanable funds, the more money can they make.

The large insurance companies, on the other hand, are impelled by two reasons in diverting part of their large resources to farm loans: The first is the necessity to diversify their investments, and the second is that the legal rate of interest in different states varies to such an extent that it affords them the opportunity to increase their income yield on all their outstanding investments.

For example, the legal rate of interest which may be charged by lenders of money in Illinois is 6 per cent, but in Georgia it is 8 per cent, while in some of the far western states as high as 12 per cent can be demanded. This difference in the rate of interest borrowers must pay is not brought about, as would seem to be the case, by any variance in the degree of safety in the collateral they furnish, but is determined by the abundance or scarcity of available capital. Such states as New York, Illinois, Indiana and Massachusetts are more fortunate in the abundance of capital than less favored states and this is what makes it possible to borrow at a smaller rate of interest than in the less populous states. In fact, in these more settled communities, capital, in its eager hunt for desirable loans, comes so much in keen competition as to offer itself at less than the interest which the state has fixed upon as legal. Thus it happens that in Massachusetts, Illinois and other eastern and central states, the owners of fertile and productive farms can, without difficulty, obtain loans on a 5 per cent basis.

Although Georgia may have lands whose out-turn of cotton and other crops indigenous to her soil will bring as much profit as the wheat and maize of the loamy, black belt of Central Illinois, her wealth is not sufficient to finance all the needs of her people and she must provide a legal interest rate attractive enough to draw to her capital which is beyond her borders. Therefore, it is an axiom that the less populated a state, the smaller her resources and the more are her people dependent upon capital from the outside, for after all, money is but a commodity to be bargained for and which lets itself out at the best price obtainable by its owners.

In different states the rules vary as to the extent that loans may be made on farm property. In some places where farm lands, because of their productivity, are in eager demand, money may be borrowed on them up to 60 and even 70 per cent of their supposed market value, whereas in states where the farms are still comparatively new and which lands capital believes are not as readily saleable in the event that they must be sold to satisfy the loan, their borrowing capacity is restricted to a much lower percentage. It is the demand for the land which determines the equities insisted upon before a loan is obtainable, and not so much the fertility and productiveness of the land itself. So also is it true of the interest that is exacted from borrowers.

Without a brief mention of an interesting development in the placing of farm mortgages, the history of this form of investment would not be complete. I have in mind the large business that is done in farm mortgages today among the class of smaller investors who, while not in a position to purchase such securities outright, are still favored with an opportunity to place their capital in them.

From the demand of the smaller investor for farm mortgages as their ideal type of security, large companies have come into existence which sell notes of their own, secured by farm mortgages. The capital they obtain from the sale of their obligations, they place out in farm mortgages, which mortgages are in turn deposited with some trustee as a security for their pledges to their clients. These notes are quite often known as debenture bonds and sometimes they are otherwise designated, as, for example, a large western concern distinguishes them from its competitors in the same business, as land grants, although they are in form alike and are sold in as small denomination as $100. These institutions have made it so attractive to small investors as to make it possible for them to purchase the notes by making a partial payment and paying off the balance in easy periodical payments.

V. THE INFLUENCE OF LOANS ON MONEY.

At times the borrowing requirements of our farmers play a very important part in our economic life. They must move their crops, and money alone is what will do this. Thus it happens, that, around harvest time, the interior banks find it necessary and profitable to advance money to farmers on their notes, secured by their crops, until they can send the produce to the central markets.

It has often happened that these loans have been precursors of a tight money market at a time when the available capital of the country has been insufficient to finance both the movements of the harvest and the expansion of industry. While a tight money market may be produced by other causes, more often it is superinduced by this annual crop demand upon the resources of our banks.

When this effect is produced in our financial centers, it is called a pinch in money. No doubt you have heard of the term. As a business man and accustomed to negotiating loans at your bank, possibly you have personally felt its effects when your banker informed you that it was necessary to increase your interest rate until money became easier.

By advancing interest rates, bankers aim to keep down loans within their available resources. Our peculiar banking structure is responsible for a condition which spares none of the banks from the effect of the tightness in money. Our banks depend one upon another. Their interests are so closely inter-related and co-operative, that, like tiers, they are built one on top of the other, the largest institutions at the bottom; the smallest at the top.

How this is possible, I shall proceed to illustrate. Underlying the interchangeability of banking credits, which is but another name for the transaction of business between banks by check, are what are known as reserve centers. For our national banks, which are the institutions chartered by the National Government, certain and principal cities like New York, Chicago, Boston, St. Louis, Cincinnati, etc., are selected as reserve centers. Custom and convenience alike have made them also reserve centers for state banks, trust companies and private bankers.

In the banks, at these points, it is the practice of interior banks to maintain deposits on which to issue checks and drafts. Customers are constantly sending money to these large commercial centers, and it would prove rather inconvenient and also expensive, every time a demand was made upon them for a remittance to these centers, to ship the actual currency. Hence the funds they keep on deposit in the large reserve centers.

The banks in the reserve centers usually allow interest on the deposits of other banks. To pay it they in turn lend their deposits out in such manner and form as to make such loans easily liquidable. This is accomplished by an expedient known in all financial circles as lending on call to distinguish loans of this character from time loans. Call loans are different from time loans, in that as the principal can be demanded, in the discretion of the bank, at twenty-four hours' notice to the borrower, time loans cover a definite period of time.

Where there is such discretionary power vested in the banks over a certain form of loans, it is readily apparent what influence may be exerted over the money market when in the fall there arises a demand by the country banks on their deposits held in the banks in the reserve centers. This is often so heavy as to be beyond the ability of the reserve center banks to care for comfortably. One may also readily understand the solicitude of financiers and stock market speculators over this periodical drain and why they so studiously watch for any signs of its advent and try to forecast its effect, since it means so much to them in the success of their operations.

A great deal of money is borrowed in the large commercial centers on call, not always willingly, for bankers will not lend heavily except in this way. Speculators are also often forced to finance their operations with such loans and therefore it behooves them to keep their thoughts on the pulse of the money market, to prevent being enmeshed in a money pinch.

The harvest call for funds has caused call money, which could be borrowed only a few days previously at as low as one to two per cent, to mount up and up until it has reached as many hundred per cent per annum for its use for a few days. The interior banks keep drawing on their deposits until their depositories, to maintain their own deposits within the legal requirements, are forced quickly to run up the rate of interest, to force the liquidation of loans until their cash position is again a comfortable one.

Of course a tight market is not always superinduced by the withdrawals of deposits by the outside banks. Capital may be in such abundance at the time as to make the drain scarcely perceptible. It is only when the liquid capital is not sufficient to go readily around among all classes of borrowers that it makes itself felt by such a phenomenon.

When such abnormal interest rates as mentioned prevail, speculation is rather precarious and unattractive, except to those who are sellers of securities, and need not borrow money, since only in rare instances do the security markets escape a severe decline in prices when call money commands a high premium of interest.

The above serves to illustrate the intimate relationship between the rural community and the city—how much the one influences the other through the flow of capital between them and how essential they are one to another.

VI. CITY REAL ESTATE COMPARED WITH FARM LANDS.

By no means is it as simple to wisely select investments in real estate in large cities as in farm lands. Where once a thorough knowledge about the fertility of agricultural land and its nearness to a market has been gained, there is a fair basis for safely determining its value for either the purpose of outright purchase or as collateral for loans.

But it is necessary to apply different methods to city property. Location, conditions, the density of population, as well as other factors peculiar to each urban community, have much to do with its value. Under favorable conditions and environment a parcel of city land may undergo a phenomenal appreciation. Again, changes may occur to cause a sharp decline, especially where property has gone up too rapidly. Real estate booms are not always the healthiest thing for a community; sometimes they peter out fast.

The congestion of population in certain localities has been remarkable, so much so as to result in making the owners of property fabulously wealthy. That was because the land, being a stationary quantity, always located in the same place, had to serve the requirements of a multitude instead of a few. It stands to reason that the more the land is required by a population, constantly growing in density, the higher prices will it command.

We see and we wonder at the prevailing tendency, so noticeable in our large cities, to build high up in the air. But this is not strange or something to marvel at, for where land has become valuable, as happens to be the case in our many large cities, it has become, from an economical standpoint, much cheaper to reach up than to spread out over the ground.

Nowhere else have we a more graphic illustration of this development than in New York City, situated, as it is, on a small island, its boundaries restricted on all sides by water. Almost all the available property is already occupied. The city's area is insufficient, and each year growing more so, to provide comfortably for the density of the population, with the natural outcome that the city has become a city of skyscrapers, each one vieing with the other in a frenzied effort to pierce the clouds with its altitude. Nor are all these tall structures confined exclusively to the business sections. Residential property has also become scarce enough to force the community to erect row after row of tall apartment houses, providing homes for hundreds of families as a measure of relief from the pressing demand from the population for living quarters. Similar conditions, although in a lesser degree, prevail in our other large cities.

Where land is in such great demand, as is the case in New York City, the natural evolution will be for a continuous enhancement in value. To what astonishing lengths this appreciation can sometimes reach is startlingly illustrated by a sale made a few years ago of a small piece of property in the financial district of New York, barely large enough for an ordinary sized dwelling, at a price unheard of before—a price of $600 a square foot. By erecting on this property a tall office building the investment was made to pay. It was not difficult to fill the structure with enough tenants willing to pay rents high enough to bring a satisfactory income on the money put into the building.

Four hundred years back, what only one square foot of this property brought would have purchased the whole island of Manhattan, for the value of the trinkets Peter Minuet turned over to the Indians in order to acquire possession of it, was hardly worth more than $600. Yet were this land not serving a dense population and situated where it could not be used for anything else than agricultural purposes, it would be almost worthless, as it is incapable of producing any vegetable life, so rocky and barren is the soil.

The growth of our urban population has opened a field for the exploitation of capital on a scale, the magnitude of which is almost inconceivable. It has made it almost compulsory in the purchase of a great deal of such real estate to depend in a large measure on borrowed capital. Savings banks especially, find it profitable to place a greater part of their deposits in loans on city property in the form of first mortgages. But as a safeguard they confine their loans to improved property already used for either business or residential purposes and bringing an income.

The savings banks are restricted by law to such loans to prevent their deposits from being tied up in property not producing any revenue. The idea is that this last-named class of property is not quickly saleable.

Where the individual investor places his capital in loans on city real estate, whether he assumes the entire loan or but part of it, he should exercise the greatest care in selecting the property which is to serve as his collateral. The title to the property should be without a flaw, otherwise a cloud will be upon it, acting as a bar to its free and quick transfer. Without a clear title no loan should be made. Again all loans ought to be confined to a certain proportion of the appraised value of the property to provide a sufficient equity to protect the loan. Real estate values can easily be ascertained. This information is readily accessible, for every city keeps a careful record, for the purpose of collecting taxes, of all transfers of property and these records are open to inspection.

Even here modern methods have simplified this necessary work of investigation. In every city of importance, institutions have grown up which make it their business to search real estate titles and for which service they charge a nominal fee. Their records are so complete that their abstracts of title are accepted without question. When they guarantee their titles, as most of these companies will, they insure their clients against loss from any flaws. They have reduced the work of searching titles to a degree of accuracy that today few buyers of property or few loans are made unless the titles are first guaranteed by them.

As for the borrowing capacity of real estate, this is largely determined by its location. This relatively increases, the nearer the land is to the center of business and to transportation facilities and conversely decreases the further away its location. More money can also be borrowed when there are improvements in the form of buildings upon property, for the probabilities are that such real estate is always more readily saleable and is more likely to enhance in value as the population increases, assuring a quick sale in case it is necessary to find a buyer in a hurry. Of all property, outlying suburban real estate is the most unsatisfactory collateral, as it lacks these essential requirements.

The capital which finds its way into real estate investments is drawn from various sources, coming alike from large financial institutions, from wealthy individual investors and from the humble and thrifty masses. There is an enormous business transacted in real estate mortgages. To serve investors who are not able to buy mortgages outright, large financial institutions have evolved what is called a first mortgage real estate bond. These bonds they guarantee, both in regard to the money invested in them and the interest. This, they can safely do, as they first thoroughly appraise the value of the property on which these bonds are a mortgage, and satisfy themselves regarding the titles. In New York City there are several of these concerns which have behind them resources in excess of a hundred million dollars and in no case has there ever been a default in the payment of principal or interest in the mortgage bonds behind which stands their guarantee. This merely serves to show how careful they are with their loans.

Their mortgage bonds are sold at a figure producing an income ranging between 4½ and 5 per cent, as they are a part of a first mortgage loan and the laws of safety and prudence exact that such loans be confined to desirable property. There has also developed, as a result of the large operations in real estate, corporations offering investors somewhat more inviting inducements for the use of their capital in extending their operations in real estate. A number of these companies have been very successful and their securities are favorably received in conservative financial circles. Their securities are known as debenture bonds. They are not first mortgage bonds, but merely notes of these corporations and of course, to make them attractive, they are placed on a 6 per cent income basis.

Some of the younger real estate and holding corporations even fix the interest on their debenture bonds at a more attractive figure, but it is well for the investor to remember that his risk increases in proportion to the more interest that is paid on his money. In normal times it is not difficult, in a large city, to raise money on real estate for anywhere from 5 per cent to 6 per cent even when it is located in the outlying sections and any higher rate should be carefully scrutinized.

As real estate debenture bonds have no other security behind them than the credit of the corporations issuing them, it is advisable to inspect carefully their financial condition. The conservatively managed companies are aware of the need to inspire confidence in their obligations if they are to find a ready market for them and to beget this confidence they make known their actual financial condition at least once a year, some of them even going beyond merely publishing a balance sheet. They employ chartered accountants to certify to the correctness of the different items of assets and liabilities, and reliable real estate appraisers to check over their real estate holdings to assure their bondholders against the likelihood of any inflation or reckless management of the funds intrusted to their care.

It is well for the purchasers of the securities of the numerous real estate concerns, to insist not only upon a complete financial statement of their condition, but likewise upon the location of their properties. In recent years quite a number of these concerns have sprung up, some of which are by no means conducting their business along conservative lines. Their real estate holdings may be situated in the outlying suburbs, considerable distance from transportation facilities; their value may also be inflated, as there is no check upon their appraisals where no independent estimate has been made by competent real estate experts.

Some of these concerns, with an idea of inspiring confidence, have christened their securities with high-sounding titles such as, for instance, "participating bonds," "mutual profit-sharing bonds," and the like. Names do not impart security. A number of such securities, after a personal investigation, have been found as hollow as a bell.

No first mortgage real estate bond should be accepted as such unless it is so stipulated on the face of the bond and in the indenture of the mortgage. There are second and third mortgage real estate bonds, but they are graded as more speculative, as they are but a lien on the value of the equity above the first mortgage. This should suggest what care should be exercised in their selection. While some of these mortgages may be perfectly sound, in troublesome financial periods they are not the most desirable class of securities to hold, especially when they are a lien on out-of-the-way real estate.

Unless such mortgages are secured by centrally located property, with a liberal margin of value above the underlying mortgages, banks will hesitate to lend any money on them, while savings banks are restricted by law in most states from considering such mortgages at all as collateral for loans.

Second and third mortgages are largely the creation of builders. To make it as easy as possible for buyers of homes to pay off their obligations, they undertake to carry a second mortgage payable in a year or more. It is in this way builders principally finance themselves.

I know of an instance, illustrative of how undesirable are such mortgages, where a woman in the panic of 1907 was compelled to pay a bonus of $100 to renew a second mortgage of $1,000 on a substantial home in Brooklyn. Her interest for one year, including this bonus, came to 16 per cent. This is fairly indicative of the element of risk that capital considers it assumes on such obligations.

Large office buildings, factories and apartment houses are being financed more and more with outside capital. A blanket mortgage is placed on these structures and then split up into an issue of bonds in small denominations. These bonds are then offered investors on an attractive basis. This class of business is growing in large proportions. Conservative bankers find it profitable, and the bonds, when issued within proper restrictions, are an excellent security for the medium grade investor.

Leasehold bonds are the latest form of real estate bonds. So far, they are a security largely confined to New York City, where property has become too valuable for their owners to sell it outright.

The Astor, Goelet, Rhinelander and other large New York estates owning valuable tracts of land in the heart of the city follow the system of leasing their property for a term of years, at a stipulated annual rental. The arrangement is made by the leaseholders that the improvements they make are to be turned over to the owners of the property at the expiration of the lease for an agreed sum. Leaseholds are transferable in the same manner and form as are deeds. Bonds are also issued against these leaseholds, but for the protection of the investors, they should mature before the lease expires and there should be set aside a certain portion of the revenues each year as a sinking fund to retire the bonds when they fall due.

The outright purchase of real estate must be largely determined by location and the income it produces. No general rule can be laid down. However, it is advisable under all circumstances, before buying real estate, to make a personal investigation of the property or employ a capable, experienced and honest real estate agent to make an appraisal of its value. Where this is done, there is slight danger of making any serious mistakes.

VII. LAND AND REAL ESTATE BOOMS.

We ought not to be too hasty in deprecating, as we are often inclined, the periodical outbursts of speculation in land in this country. This is a healthful symptom of a growing nation's strong vitality, which, impatient of expanding normally, attempts to spread out with leaps and bounds.

While it may be true, that trying to forge ahead faster than our resources permit brings exhaustion as a penalty until we can again take breath to catch up with the fast pace set, the benefits of a permanent character resulting from extensive speculation in land cannot be computed. Without the speculation it is seriously to be questioned whether this country would have grown as rapidly as it has in the last fifty years and the Great West become so densely populated. There is always the strongest sort of incentive for the development of new agricultural resources behind every boom in land. The people who participate in them are made up largely of farmers who are not satisfied merely with the purchase of new farm lands to hold them for an increase in their value. They buy more to operate and make their profits out of the larger crops they expect to raise from a more prolific soil, because it has not been worked over and over again. Where, too, men flock, there follows the railroad and other conveniences which are necessary to a growing community. New towns spring up and a demand for new industries develops, which capital is always prepared to support when it sees there is a necessity for them. Considering the general benefits arising from land booms, we can, from a broad standpoint, well afford to suffer what temporary ill effects follow in their wake.

Nor is it a racial instinct peculiar to us as a people that we become occasionally obsessed with a blind belief in the possibility of making a great deal of money quickly out of land through an immediate increase in values. The same trait may be detected in the people of most of the other nations whose agricultural resources have not been fully developed.

It is true that the Pilgrims who came over in the Mayflower sought our Massachusetts shores to escape religious persecution, but those who followed them in a steady and constantly growing stream, were impelled by a wholly different reason. The letters the Pilgrims sent back home telling of the bounteous returns their farms in the new world brought forth, inspired others to tempt fortune in the larger opportunities the New World had to offer. The same was true of the Dutch who settled in New Amsterdam, now New York, and of the Cavaliers who established themselves in new homes in Virginia and other neighboring southern states skirting the Atlantic Ocean.

Aside from his occupation, the farmer is as instinctively human as are his brethren in the large cities. He wants to make money. If he can dispose of his farm at a good profit, there is a strong inclination in him to take advantage of such an opportunity. Such chances, farmers in our more densely populated states have had in plenty. In comparing the statistics with respect to the value of farm lands in the central and western states east of the Rocky Mountains, shortly after the Civil War, with those of present values, we are struck forcibly with the phenomenal enhancement that has taken place within this comparatively short period. Farms, which in the early seventies could have been had for from $10 to $15 an acre, are not now obtainable at less than $100 to $125 an acre. Even within the memory of the rising generation, startling increases in land values have taken place. The opening of the Sioux Reservation in South Dakota is a case in point.

This was barely fifteen years ago. The settlers who flocked to this reservation when the Government opened it, were able to buy the land for a trifling sum per acre. Although now cultivated, this very same land changes hands at prices varying from $60 and upward an acre, while lots in the new towns which grew up in what was then only a grazing country, which might have been had for a few dollars, have increased in value from 100 per cent to 1,000 per cent.

Thus it was also with Oklahoma and Indian Territory. When these new territories were opened for settlement, land was extremely cheap, but the pioneer farmers who located there have become rich from the soil's fertility and the rise in values.

Within the last few years, however, we have witnessed a remarkable change in land speculation. There has been a steady migration of American farmers into the new wheat belts of Canada. Those who have watched this movement estimate, and their estimate is considered conservative, that at least 300,000 American farmers have gone into Manitoba, Alberta and Saskatchewan, to establish new homes for themselves, having heard all about the possibilities of raising large crops in these lands. Rapid extension in railroad building has followed in their foot-steps to provide adequate transportation facilities for the movement of their crops.

But this migration to a neighboring country, embodies no unusual aspects. There is a good reason for it. Most of the natural arable soil in the United States has already been taken up and exploited; there remains but very little new land available, that is, adaptable to the money-making opportunities associated with new and virgin lands. What will be the result? Henceforth we are less likely to witness again such widespread land booms, such as marked so conspicuously that period of our growth between the seventies and the early nineties. The value of our arable lands will, of course, continue to increase, but this increase will be on a more uniform and conservative scale because of the restricted opportunities.

If we are to see, from now on, any speculative operation on a large scale, more likely it will take place in irrigated lands. Here we begin to see, thus early, many of the aspects which markedly distinguished our early land booms. Irrigation, as the name distinctly defines, is artificial farming. It means bringing to arid land what it most needs to make it fertile, water. Where water has been plentiful, this form of farming has proved very profitable, in some districts crops being raised in proportions impossible on arable farm lands. The Government and private capital are working hand in hand to reclaim a great many millions of acres of arid land capable of being properly irrigated. As fast as this arid land is put in shape to be available, there will develop a growing demand for it and as a result of this demand, there will arise considerable speculation. There is now being attempted the experiment of draining swamp lands to meet the cry for more land in this country. The demand is for more land to raise the common necessities of life for a continually increasing population.

So far we have considered only broadly the beneficial effects of speculation. For guidance, though, to the individual who may regard with favor the speculative opportunities in the purchase of land, the proposition must be considered from a different and more specific viewpoint. Unless one is thoroughly familiar with the science of farming, he is apt to blunder seriously in making an investment in farm land, for not all land is always what it is represented to be. Associated with every land boom is the violent tendency to rush values upward, far ahead of the purchasing power, and in consequence there is always a great danger of buying at the crest of a speculative wave and the buyer may then find himself with property on his hands which he may have to hold for some years before he has chance to again get rid of it at a profit. Meanwhile his investment yields no income such as capital is supposed to produce to be profitably employed. In addition he suffers a direct loss, for taxes must be paid and improvements made from time to time, all of which call for the outlay of more capital. It may even happen that he may never again see the price his land cost him. There are many localities where this has been the general experience.

With a person who buys farm land for the purpose of cultivating it, there is not this danger. He can make his property produce an income while he is holding it to resell at a profit. When buying land, whether for investment or speculation, it is always the safer course, where it is at all possible, first to visit the land and make a thorough investigation, not only with regard to its fertility, but to obtain a fair idea about the value of neighboring farm lands. Where this is done, the danger of buying at inflated values is very much lessened. If a personal inspection is not possible, the very next best step is to depend upon some one familiar with farming, and whose judgment can be depended upon for advice. But the very best thing for a person who is himself incapable of cultivating a farm, is to forego such speculative opportunities, for the risk is always the greater where one has the least knowledge about the character of the speculation dabbled in.

It is impossible to elaborate in detail on the different phases of speculation in land within the restricted space within which I am allowed to cover such a broad subject as is contained under the heading of "Investments and Speculation." I can only discuss it in the broadest light and attempt to lay down such general rules for guidance as are the most important, but I could not complete this section without touching upon the many schemes launched from time to time to interest capital in co-operative farming.

So far as I can determine, only a few such plans have proved profitable to those who have placed their money in them. There have been plantation schemes innumerable, launched in the last few years, a great many in Mexico, some in other tropical countries. These plans appear feasible enough. The idea is to cultivate one big plantation and divide the proceeds from each harvest among the many different owners who are the certificate holders. The main trouble with most of these enterprises is that they begin with an excessive capitalization, representing more than the land can possibly be worth even many years hence. Where this is not the mistake, the chief trouble lies in inexperience in handling a plantation. Overseers are employed who know little about the climatic conditions and about raising the crops indigenous to a tropical country. One might as well transplant a native of Mexico or Yucatan to an Illinois farm and expect from him the same degree of efficiency as a farmer accustomed to the soil and methods of cultivation. Rubber plantations are also plentiful but financially they have rarely proved successful. All phases of farming seem to have defied so far all efforts to reduce it to a co-operative basis. It still remains an individual science.

Of late there has appeared a tendency to concentrate the ownership of large agricultural properties in this country into stock companies. In the Northwest there have sprung up orchard propositions in which private investors are solicited to take "units," each unit representing the ownership of either one or a given number of acres, and the proceeds from the fruits raised on the property are apportioned among the unit holders. This idea is a new one. It is yet too early to judge whether the plan can be made a permanent success, financially. So far it has been experimental. The idea, however, is being applied to other products of the soil, to oranges, to bananas and even to nuts in the South. I have even become aware recently of an ambitious plan to operate a large wheat farm in Canada on the same lines. But I still hold that the most profitable farming is that where the owner of the land directly superintends the cultivation rather than delegates it to strangers, who cannot be expected to have the same interest in its success as the real owners.

Suburban real estate is and always will be a popular outlet for the speculative inclinations of a community, because there considerable money has been made out of such property by those who were either wise in their selections or fortunate. As a city grows in population the tendency is to spread out on adjoining lands. Considerable money is also lost in such speculations. Take, for example, New York City. As the city is constituted at present, it covers five boroughs, including Staten Island. Boomers of New York City suburban properties will so word their announcements as to convey the impression that their property is a part of the city proper, when this is far from the case. How much one may be deceived is shown by an illustration coming under my notice regarding two small suburbs on the Long Island Railroad. One of these places is 36 miles distant from the City Hall, the other but 29 miles; yet the price placed on lots in the suburbs furthest away averages about $200 a lot, whereas lots of the same area in suburbs nearest to the city and having equally good transportation facilities and requiring less time to reach, are to be had at less than $100. Here is an object lesson which requires no further discussion.

The same inflation can be found in suburban real estate outside the limits of most of our large cities. Chicago, when it had its suburban real estate boom, previous to the World's Fair, was similarly afflicted and lots bought in some of the mushroom outlying settlements have never again seen their first offering price and are likely never to see it again, as the path of the city's growth has not extended that far or has gone in different directions. Suburban real estate, or even city real estate proper, should never be purchased on mere say-so or description. It should first be visited by the purchaser, who at the same time should spend a little time looking into property values in the neighborhood and finding out about transportation facilities. It is the last-mentioned which makes the property and lays the foundation for an increase in its value. The people who live in the suburbs do so for economical reasons. They can build their homes and maintain them cheaper than in the city itself. But they must have quick transit facilities to and from their occupations. Along the principal avenue of the movements of this element of the population, real estate will always prove profitable speculation. The science lies in finding where that is and then getting property on a reasonable basis of value.

VIII. THE MULTIPLICITY AND COMPLEXITY OF BONDS.

It is only possible to form a clear conception of the many different types of securities marked as bonds on the shelves of investment dealers when they are grouped one after the other in their order of importance and marshalled before the mental vision. We may then gain a fair idea, not alone of their variety, but of their multiplicity, and from that realize how their complex character can confuse investors unless they are thoroughly posted in this line of investments.

There are first mortgage bonds, second mortgage bonds, third mortgage bonds and, on some of our large railroad systems, even fourth mortgage bonds, each, in its turn, being secured by a lien on the property of the railroad in the sequence of its issue. To make it plain, it is best to describe in the beginning what is meant by a mortgage bond. In character it is not different from a mortgage on a parcel of real estate, except in the respect that a real estate mortgage is usually owned by one individual, whereas there are hundreds and often thousands of investors interested in the same mortgage issued by a railroad or some other large corporation on its property. The way this is brought about is as follows: First, a mortgage for the amount of the loan is properly drawn up and recorded; then, in turn, it is registered with some trust company which acts as a trustee. Bonds are issued in certain denominations against the mortgage. The denominations are usually in amounts of $500, $1,000 or $5,000. However, there is nothing to prevent their being in $10,000 or $20,000 or even for as small a figure as $100, as this is a matter largely left to the discretion of those bankers who arrange the bond issue. Custom, however, with us, has largely favored $500 or $1,000 bonds. To more widely distribute bonds among smaller investors, bonds of $100 denomination have lately been increasing in popularity.

Each bond represents a direct interest in the mortgage for exactly the denomination it calls for; that is to say, the borrower has pledged certain collateral to guarantee the payment of the bond upon the expiration of a given period of time, together with a fixed per cent of interest each year, payable on demand, either annually, semi-annually or quarterly.

The difficulty of borrowing considerable money from one or a few individuals in large transactions can be readily appreciated. Thus, to facilitate borrowing by large enterprises, modern finance has evolved the scheme of splitting up the loan in so many integral parts, each part constituting a bond. The Pennsylvania Railroad, for example, has outstanding against its main line, a first mortgage of $100,000,000. Now it is not possible to raise such a large sum from one individual; therefore it is obtained through many, by the means of bonds, as has already been described. There is one trustee, usually a responsible trust company, with whom the mortgage is lodged. It is the mission of this trustee to safeguard the holders of the bonds by carefully scrutinizing the indentures of the mortgage to ascertain and satisfy itself of their legality, and furthermore that the collateral described as securing the mortgage is all safely pledged and that there are no flaws. The same trust company, or it can be another, acts as the registrar for the bonds. Its duty is to exercise proper supervision that not more bonds than the amount called for by the mortgage are issued. The bankers who have taken the bonds, pay to the trust company, the price agreed upon and have the bonds authenticated by the registrars, each bond being stamped, or there is engraved upon it the statement that it is a certain fraction of a number of fractions, the whole together representing the amount of the mortgage. This is to prevent an over-issue. The full terms of the mortgage are seldom engraved upon a bond. They are usually printed separately in the shape of a pamphlet; the actual mortgage is filed with the trustee. The printed copies are for the purpose of distribution among investors.

Attached to the bonds are small coupons. If the interest on a twenty-year bond is made payable semi-annually on the first day of January and July and is at the rate of 5 per cent per annum, there is appended to each $1,000 bond, 40 separate coupons, each stipulating that there will be paid on a given date, at a certain agreed-upon place, the sum of $25, in gold usually. In a similar manner will the principal of the bond be paid when the date of maturity is reached. All that is required of the holder of the bond is to clip off these coupons as they fall due and deposit them with his bank for collection, or he can present them in person, or request that payment be made by sending in the coupons. To make it as convenient as possible for bondholders, these bonds may be registered with the corporations issuing them; that is, the bonds can be left in their custody, with the name and address of the person to whom checks for the interest and principal should be mailed. Most bonds are made out to the bearer. This is done to make possible their speedy sale and transfer. Therefore, in case they are lost or stolen and fall into a third or innocent person's possession, the loss will fall upon the original owner. To safeguard against such an event, timid investors and trustees of estates quite often register their bonds, even though they are aware that their securities, lacking the advantages of a quick transfer, may realize, if sold, a fraction less on account of the delay in delivery, as the bonds must first be released on the corporation's books. As the interest on the bonds falls due, it is deposited with the bank where it is paid, and disbursed as the coupons are presented.

While it might seem, in dealing in large amounts, that there must necessarily be some confusion, this mechanism devised by modern finance in handling large loans is very simple in its operations.

The confusion regarding bonds, consequently, is not in their method of issuance or in their manner of payment. It is in determining the collateral securing them that counts. Here is where the investor must exercise precaution. Often his power of judgment must be developed to a very high degree. Essentially one factor must be determined by bondholders for their protection, and it concerns itself wholly with the equity existing behind the loan.

In the process of making the simplest loan, no one will, for one moment, think of accepting for security, any pledge which, in the event a borrower cannot meet his obligation will not, if sold, realize at once the face of the loan, together with all accumulated interest and all the expense caused by the legal enforcement of its payment. It is necessary, as a precautionary measure to be fortified against all possible loss, in the event of a default on the part of the borrower, whether it is for interest or the payment of the principal, to exact a certain marketable value in excess of the loan. This is what is referred to in financial circles as the equity.

By the same yard-stick, investors should measure bonds, since the smaller the equity the more speculative in character is a bond and in turn a better income should it yield for the larger risk the holder must assume. Bondholders are creditors of a corporation. They are unlike stockholders, who divide what profits are made. They merely lend their capital in return for a fixed interest, and ought, by the very nature of their position as creditors, to be amply secured against any and all stressful business weather a corporation may meet. For that very reason the collateral pledged behind bonds ought at all times to be subjected to the most exacting investigation.

As has been previously stated, there are first, second, third and even fourth mortgage bonds, back of which there is pledged the same property. The first mortgage bond, quite naturally, is the prime investment, yet from a point of security, this does not always indicate that second, third or even fourth mortgage bonds are not also safe investments. These different degrees of direct mortgage bonds are most frequently found issued by our large railroads. This is due to the fact that the property underlying the first mortgage bonds has multiplied in value so fast as to have accumulated an equity sufficiently large enough to allow in perfect safety the creation of second and subsequent mortgage bonds.

The Erie Railroad is an illustration. This immense railroad system has issued as many as five first mortgage bonds against the same property, namely: The first, 4 per cent bonds, which matured in 1907; the second, 5 per cent bonds due in 1919; the third, 4½ per cent bonds due 1923; the fourth, 5 per cent bonds due 1929; and the fifth, 4 per cent bonds due 1928. In citing the Erie Railroad as an illustration, I do not want it understood that I use it as expressing my opinion that these several first mortgage bonds are examples of the safest type of investments. Other railroads have not been as explicit in properly cataloging their bond issues as has the Erie, and this has resulted in much confusion to the average investor, who, as he reads of a first mortgage bond, is most likely to assume without further inquiry that it is as described literally, a first mortgage without any incumbrance ahead of it. However, such is not always the case. Upon reading the description of the bond more closely, the investor is likely to run across something like the following which is the exact phrasing taken from a well-known first mortgage railroad bond:

The authorized issue of first mortgage 5 per cent bonds is $3,000,000, the unissued $120,000 being reserved for the retirement of the........bridge bonds.

Analyze the above paragraph carefully and its meaning will become clear. These bonds, although called first mortgage bonds, are not exactly that. There is a security ahead of them in these bridge bonds which must first be satisfied. Without the bridge, the railroad would be cut in two parts like a dismembered body.

Here again is another description of a first mortgage bond which will cast further light on this important point and concerns a first mortgage 6 per cent railroad bond.

Amount authorized is $6,000,000; issued $2,788,000, of which $1,288,000 was in exchange for prior lien bonds.

To be exact, what this means is that there are ahead of the first mortgage 6 per cent bonds, other bonds already in existence and issued against a mortgage for $1,-288,000 and out of the new $6,000,000 first mortgage bonds, enough bonds have been reserved in the treasury to replace the already existing bonds when they fall due.

No bonds can be called for payment unless there is such a stipulation. Our early railroad builders never expected to witness such a rapid expansion in value in their properties as occurred in their lifetime, for, otherwise, they would have made some provision to cancel their first mortgage bonds earlier than the full term of the loan so as to leave their path clear of obstructions to raise additional money as the growth of their railroads required it.

Only a few years ago some of the Chicago & North-Western first mortgage 7 per cent bonds matured. This premier railroad system created these bonds when the West was still young, and at a time when it was not as easy to borrow money as now, and the builders of this great system, not to burden it for a long term of years with repayment of the money for its construction, imagined they were driving a shrewd financial bargain when they made these bonds payable in forty and fifty years. But they seriously erred. Long before these bonds reached their date of maturity, the Chicago & North-Western was able to borrow whatever money was required to finance all improvements and extensions with bonds bearing even as low an interest rate as 3½ per cent, and what would have been even a greater revelation to the founders of this property, had they lived, would have been the fact that these low interest-bearing bonds brought par, whereas in their day, to make their 7 per cent bonds attractive, they were forced to offer them at a considerable discount.

This hard lesson of our earlier financing of our railroads has never since been neglected. Now, when a railroad or any corporation pledges any of its property as security for a bond issue and anticipates in the course of time that the property will enhance greatly in value or the opportunity may arise to borrow money more cheaply, it provides for such eventualities by stipulating in the mortgage the privilege of calling in the bonds for payment, on any given interest date, usually at a premium of from 5 to 10 per cent. We often come across the term in a bond callable on any interest day on so many weeks' previous notice at a certain price with accrued interest, accrued meaning the interest due for the period between the last date when interest has been paid to the date when payment in full for the bonds is to be made.

A reduction of ½ per cent in interest on a large amount of money represents a tidy annual sum saved. Shrewd financiers fully realize this. Because of their increased credit and value of their property, a good many of our railroads could, in the course of years, have effected the saving of many millions of dollars by a cheaper rate of interest, had they been in the position to call their early bonds issued at a high rate of interest. They had to allow them to run out their term of issue.

What a multiplicity of all sorts and types of bonds there is now in existence may be judged from a partial list here compiled. There are government bonds, state and municipal, under which latter term there is a varied assortment, such as direct obligations of the city, tax, drainage, pavement, road, highway, improvement, lighting, gas, water, assessment, boulevard, etc.; there are the first mortgage railroad and corporation bonds already described, and mortgage bonds following in sequence in regard to security; there are consolidated, extension, income, refunding, general, construction, terminal, improvement, divisional, equipment, convertible, collateral, lien, series, guaranteed, coal, timber, bridge, tunnel, vessel, debenture, participating, purchased line, unified, branch line, joint, stamped, adjustable, land grant, canal, loan, underlying, redeemable, reorganization, tax exempt, purchase money, sinking fund, convertible debenture, and real estate bonds and many other kinds. Besides these there are trust receipt certificates and short term notes.

When the investor arrays all these bonds before his mental vision, he will understand the full meaning of the multiplicity and complexity of bonds, which has resulted from the swift evolution in our modern finance. He will appreciate that a trained mind is necessary to judge the intrinsic value there is behind all these different names given to bonds in this modern day, and he will also realize how a clever financier, under the guise of a bond, can dispose of a security which in all reality is no more a bond, in the true sense of the term, than is the paper on which this is printed.

IX. GOVERNMENT, STATE AND MUNICIPAL BONDS.

Bonds issued by governments, states and municipalities are in a distinct class of their own. The vast majority of these securities have no other pledge behind them than the credit of the nation or the community issuing them. Still they are looked upon as very desirable investments when representing the obligations of a prosperous people. There are some circumstances, however, under which bonds of this type are not attractive to the individual investor, from a viewpoint of income.

Take our own government bonds, for example. The great bulk of them are owned by our national banks and only a small proportion by investors, considering the many millions of them that have been issued. If they are held at all by investors or estates, it is not because of the interest yield, but on account of the assurance of their absolute safety.

Our national bank act makes it compulsory with a national bank, before it can issue any bank notes, to deposit with the United States Treasurer, an equivalent amount of government bonds to secure the payment of these notes. You have no doubt often noticed a paper bank note on the face of which was engraved the name of a national bank and signed by the bank's president and cashier. Well, it is these notes which are thus secured by the deposit of government bonds. Insolvency may overtake the bank, but the notes are always secured by government bonds deposited in the United States Treasury. When a bank wishes to reduce its outstanding bank notes, all it does is to collect a sufficient number of national bank notes and tender them to the Treasurer of the United States, upon which the equivalent amount in bonds is released. It is not necessary to tender the notes of the tendering bank; any other bank notes are equally acceptable. This is done to facilitate their issuance and cancellation.

As a result of this national banking act, there has arisen a broad market and a constant demand for our government bonds, a demand created by an artificial market which has made it possible for our Government to raise all the money it needs to provide for its fiscal requirements on a 2 per cent and 3 per cent basis and still place its securities at a premium. The national banks find it profitable to pay this premium, for they secure a small income on the bonds after paying the tax and, with the notes they can issue, earn additional interest by lending this money out to customers. Without entering into the details of this operation, in which investors are not interested, it can be readily seen why it is with the many national banks in existence that our nation's bonds bring such high prices, notwithstanding they bear a low rate of interest.

In England, the government bonds are known as consols. This name was derived from an act of the British Parliament consolidating the public debt and the word is an abbreviation of consolidated. English consols, until recently, commanded a price realizing slightly over 2 per cent, but they have steadily fallen, since there has not been the artificial market for them as is the case in the United States with its national debt bonds. The banking system in Great Britain is also differently organized. There the note-issuing power is concentrated in a central bank, the Bank of England. For a time, however, English consols were under an artificial stimulus through the adoption of a postal bank system which, by enactment of Parliament, could only invest deposits in British consols. As deposits fall off, so does the market, for the Government's securities narrow, at least, the artificial market provided by law. Still, even with the decline which has occurred and which at one time brought the price down below a figure not witnessed since 1848, consols still yield less than 3 per cent, indicating that the staid British investor values very highly the credit of his nation and is perfectly content with an income ranging between 2½ and 3 per cent.

In like manner does the French peasant investor appreciate the Government Rentes, as the French Government securities are called; the German, his government obligation; and equally so the people of other prosperous nations favor their own national securities. However, not all governments can borrow money on their credit as cheaply as the stronger powers. Credit with them varies, as it does with individuals. Some of the smaller nations are forced to pay as high as 6 per cent for loans and besides they not infrequently allow the underwriting bankers who take the loan and agree to place the bonds, a discount for their services. Some of the minor countries, where there is turbulence and internal strife constantly, cannot even borrow money unless at usurious rate of interest, because they have no stability to offer as a reassurance that their loans will not be repudiated.

It cost Japan almost 6 per cent on its loans to finance its war with Russia. The Cuban Government had to pay the same rate. Even Russia, although known to have collected the largest reserve in gold owned by any European power, found it necessary, when in conflict with Japan, to tempt bankers and investors with a high interest rate before they would take its securities. The bonds issued by the governments of the Argentine Republic, Brazil, Chile, Bolivia, Honduras and other South American Republics can be had on a basis close to 6 per cent. This does not at all reflect upon them; it merely fixes the position of their credit in the money capitals of the world. As their credit enhances they will be in a position to refund their outstanding loans on a lower interest basis. Mexico did this a short time ago. That country placed a gold loan some years ago on a 4½ per cent interest basis. The country's credit has increased to a point where it was found possible to replace these 4½ per cent bonds with a 4 per cent bond, thus effecting quite a saving in fixed charges to the Government.

The interest government obligations call for is usually provided by the proceeds from taxation, external or internal. Some countries place a tax on certain widely used commodities and set the revenue aside for the payment of interest on the public debt. In no other way, except in isolated instances, are government bonds secured. Should a government debt be repudiated, its payment by the holders of its obligations could not be enforced by recourse to law. The reason is that a government cannot be sued, since it is not amenable to the statutes of any other government, while its own people cannot recover from the institution they themselves have created and whose laws to govern them they have enacted.

In our own country the freedom of the Government from any civil action even goes so far as to exempt the states. South Carolina repudiated some of the bonds issued during the reconstruction days and neither the interest nor the principal has ever been paid. Nor can the holders enforce payment. Some of the bondholders have attempted, and so far have succeeded, in getting a number of these bonds in the possession of another state, because one state can bring legal action against another to recover on a disputed claim. South Dakota did sue South Carolina in the United States Supreme Court to enforce the payment of these bonds and recovered judgment, but even then a state cannot collect, as it cannot attach the property or revenues of another state and certainly cannot take up arms against it to make it pay. In the end such matters must be left to the honor of a state for settlement. Fortunately, with our country, instances of repudiation of public debts are very rare. Only in isolated cases has it ever occurred.

The means the Government adopts to raise money are followed on a smaller scale by the forty-eight separate states. They have uses for funds likewise. Improvements in the highways are a constant necessity. There are the public buildings to provide for. The needs of other improvements benefiting the people of the state are constantly arising. To provide the funds by direct taxation would prove to be too burdensome and also is it unjust to force one generation to share the whole burden of financing some public undertaking, the advantage of which will be participated in by generations to come. The theory is, and it is a very good theory, that such debts should be divided equally and this is accomplished by issuing bonds running for a long term of years and carrying a fixed rate of interest. As these bonds are authorized, the state, usually through its elective officer, the State Treasurer, invites bids for them and disposes of the bonds to the highest bidders.

The privilege of bidding for such bonds is not restricted. The humblest investor can make an offer and if it is among the successful tenders when the bonds are allotted to the highest bidders, he will obtain the bonds to the amount of his bid if there are enough to go around. There is one restriction, though, which has been adopted as a general practice to guarantee that the bonds will be taken by the successful bidders or bidder, and this is that a certified check for a nominal per cent must accompany the bids as a guarantee of good faith.

How unjust it would be to have one generation carry the entire burden of an important public improvement, can best be illustrated by the improvement and electrification of that great highway of commerce, the Erie Canal, by the State of New York. It is estimated that this work will cost about $100,000,000 and to provide the funds, the legislature, a short time ago, authorized a state bond issue to the amount authorized as the work progresses. Posterity will derive greater benefit from this vast undertaking than will the present generation. Some states whose credit is excellent, fix by statute the interest rate and even the price which must be realized for whatever bonds the legislature authorizes. But this is not always an advantage. Capital may not be so available as to be attracted by a low rate of interest, and if this is true, we witness the failure of a bond issue, because there are not sufficient bids for it. This has even happened with New York State, rich as it is. The state, in normal periods, experiences no difficulty in getting all the money for its requirements with a 3 per cent bond. Furthermore, bankers and investors bid eagerly for the bonds at a premium over the price fixed by law, at which they may be sold. But during the depression following the 1907 panic, there was a time when the State Treasurer was compelled, because of the failure of bids, to come within the state law's requirements to purchase an issue of bonds with the available cash in the state's sinking funds. The line of demarcation in credit is as pronounced with states as it is in individuals. The far western and sparsely settled states are forced to pay larger interest to tempt capital. Thus you see that capital is a ruler whose power is supreme.

Counties, large cities and small municipalities borrow money on much the same lines of financing as are followed by the states and general government. Here and there various restrictions exist but in general they follow the same plan of raising funds. To prevent the cities from over-borrowing, some states, and for that matter most of them, have wisely fixed a limit. For example, no city in the majority of eastern states can legally authorize more bonds than will equal 10 per cent of the assessed valuation of the taxable property, and when it has reached this figure, it must wait until there has been an increase in the value of the assessable properties to permit adding to the public debt. This is a wise provision, as it acts as a safeguard against creating an indebtedness beyond the ability of the population to comfortably carry. Such lands are also disposed of by inviting public bids, which bids, by law, must be advertised. To give a distinct identity to these bonds, they are usually named after the purpose for which they are issued.

A city may decide on making some street improvements; therefore bonds are authorized for this purpose and designated as street improvement bonds or they may be courthouse or school bonds, highway bonds, grading bonds, etc. Therefore the character of a county, city or a municipal bond may be determined by the name employed to distinguish it from other bonds authorized by the same community. My space is too limited to go into all the details governing the many thousands of such obligations which have come into existence. I can only refer to them generally and in the broadest light. For instance, New York City has a public debt in excess of $800,000,000, all of which is represented by a great many classes of designated bonds. New York City is a steady borrower. It needs money for docks, for subways, for boulevards and many other manifold forms of public improvements. Some of these bonds earn their own interest charges; for that reason they are not a burden on the taxpayers. This is the case with the bonds authorized to raise the money to build the subway or furnish underground rapid transit facilities. Likewise with the bonds issued to build the large water front piers owned by the city and rented to the steamship lines. The interest on other bonds is provided by taxation of the property owners who are the direct beneficiaries of the improvements.

It must be anticipated that where there is such a multitude of communities, small and large, there will arise many complications in determining the character of their securities as investments. As a result, also, there will be a wide range in their income yield. The business done in such obligations reaches enormous totals. It would prove highly interesting if it were possible to describe in one section a subject which could only be adequately dealt with in a whole book—the care that must be exercised by bankers who make a specialty of dealing in municipal obligations. Before bidding for these bonds, such houses, through their attorneys, first assure themselves that the bonds have been legally issued, by which is meant that the electors authorizing the bonds were within the law. They must, in instances where even the legality of the issue is not in doubt, satisfy themselves that the community can meet the taxation to pay for the issue. Infrequently this is the case: A growing settlement, in its ambition to anticipate the future too far ahead, may rashly bite off more than it can masticate, and as a result, complications arise. Dealers in municipal bonds wish to avoid this possible danger even when it is a remote contingency. Money is a hard taskmaster. It has no sympathies. However, considering the total obligations of the multitude of our United States communities, estimated in the neighborhood of $10,000,000,000, they have had such an unusually satisfactory record as safe investments that investors need no other reassurance from the bankers than that their legality is beyond question and the amount of the issue is within reasonable bounds.

X. THE AMAZING VARIETY OF RAILROAD BONDS.

In the issuance of bonds, our railroads have been very prolific. Not only are they possessed of an insatiable appetite for continuous supplies of new capital, sometimes for the logical purpose to provide for legitimate needs, and on other occasions to satisfy the desire for new worlds to conquer, but, to give their bonds suitable names, the makers have almost exhausted the financial vocabulary.

The average investor, unless thoroughly acquainted with the difference in bonds, will nowadays need a financial text-book to distinguish one railroad bond from another, and even then he may not be in a position to judge their relative and intrinsic values. There are so many different bonds as to recall the 57 different varieties of pickles made commercially famous by a certain purveyor of condiments. While there are not exactly that many different kinds of bonds, the total is dangerously near the number.

Still the railroads are not wholly to blame for this situation. As has been pointed out in a previous section, the early builders of our railroads never, for one moment, thought their properties would ever grow with the giant strides that have characterized their progress. Early in their history, by erring on the side of conservatism, in pledging all their assets as collateral for loans, which is all bonds really represent, they made it impossible in after-years to directly mortgage their properties over again. Thus they were compelled to resort to other devices when it became necessary to borrow more money, and this accounts for the many varieties of bonds they have created.

The earliest railroad bond was the first mortgage bond. Down to this day it is the leader among the best of bonds, a fact that is firmly established by the relatively small income it yields, compared to other bonds issued by the same railroad. As they possess the first legal rights to the assets of the road in the event of financial embarrassment, the security is usually accepted as an absolute guarantee of the safety of the funds invested.

Of course, this does not apply to all first mortgage railroad bonds—only to the old-established properties. Again, a first mortgage railroad bond does not necessarily mean that it is the first lien on all the property. The mortgage may be on only such property pledged under the mortgage as is especially drawn to cover that particular issue of bonds. A large trunk line may have outstanding a dozen or more first mortgage bonds, each bond covering a part of the main line, and not infrequently, branch lines.

Our great railroad systems are not the result of the original plans of their first builders; these men may have had a nebulous idea, at the beginning of their project, of a system from coast to coast, or covering a certain section of the country under their control with a gridiron of rails, but, realizing all this would take time, they contented themselves with building their road in sections, allowing the future to take care of the logical development of their property.

While Henry Villard planned the Northern Pacific, other brains completed it. Harriman merely completed the unfinished Union Pacific. He simply moulded his great Pacific railroads out of what remained of the bankrupt Central Pacific, the construction of which the Government aided by large subsidies. James J. Hill never had any idea, when, for a small sum of money, he secured control of a jerkwater Minnesota railroad, that eventually it would develop into that marvelously rich transcontinental railroad —the Great Northern of today.

It is by a process of evolution that a railroad's capital obligations grow. The one keeps pace with the other.

Twenty years ago it never entered the head of the audacious and far-sighted Cassatt, the President of the Pennsylvania Railroad, at the time when the road determined to build a terminus in New York City, that the Long Island Railroad would one day become absolutely necessary for its expansion, as has since proved the case, for the control of the Long Island has given the Pennsylvania a commanding position over the greater part of the profitable suburban traffic originating out of New York City—a business which alone is regarded as capable of taking care, without depending upon the other revenues, of the Pennsylvania's huge investment of over $100,000,000, which the road spent to secure a foothold in New York City.

If the histories of our other leading railroads were carefully searched, similar conditions would be found where the roads have expanded in entirely different directions from that planned by their original builders. Their remarkable and rapid development has brought with it quite naturally some very unusual phases of financing. The main lines of all the principal railroads, through the enormous development of their traffic, long ago quickly outgrew the funds raised on their first mortgage bonds. Then arose the necessity of providing additional capital to take care of the increased business through some other form of bond against the very same property, although there already existed liens upon it. But as there was sufficient equity above the mortgage, this step was justified.

A clear idea regarding the several classes of bonds outstanding can be more easily formed by classifying them and giving a brief description of each. It should be borne in mind, however, that these definitions are not specific, but apply only generally to each class. There are so many peculiar features associated with railroad bonds that it would be impossible to treat specifically of each issue unless the bonds of each railroad were described. Such a task would require a book more than twice the size of this volume. For that reason the description I shall give of each, I feel will at least suffice to fix its character in the reader's mind.

The *consolidated bond* is a bond wherein is merged a number of bonds previously issued. A railroad may have created in former years a series of bonds directly secured by its physical assets. Some of those bonds may have been placed when interest rates were high, while the other bonds were sold in later years at a time when it was much easier to borrow capital than at the earlier period. The railroads, to escape this situation, evolved what is known as the consolidated bond. This was done through the making of a general, or what is styled, a blanket mortgage, providing that amounts of such consolidated bonds be retained by the road to equal the bonds already outstanding on the property, so as to replace them when they fall due. In this manner the railroads were in a position to obtain additional funds without pledging additional collateral.

Almost similar in character are *refunding bonds.* Originally, they sprang into existence as a means whereby the railroads could refund high interest-bearing bonds which, when the road was first building, it was necessary to sell to tempt capital into the project. It was the practice in the early days of railroad building to make a loan for fifty years. Usually the interest paid was 6 per cent; sometimes it was as high as 7 per cent. What was further to the detriment of these early loans, was that no callable provisions were embodied in the mortgage; therefore these bonds had to run until their expiration. Almost fifty years covers the longest period of development in our steam railroads. Fifty years takes us back to the very beginning of our Civil War, a period when the construction of railroads was still in its early stages. In consequence there has matured and will mature, within the next decade, a number of these early issues of railroad bonds. It is to take up these bonds as fast as they mature, and to secure additional capital as found necessary, that refunding bonds bearing a lower rate of interest have been and are being issued.

The so-called *general mortgage bond* may or may not have other bonds ahead of it, but more often it will be found that such is the case. The purpose behind such a bond issue is to have some day, when all prior lien and branch line bonds have matured, but one kind of bond outstanding. These bonds are also issued in large amounts to provide a railroad's treasury with a reserve fund in securities on which to depend for additions and extensions as future development may demand.

As its name implies, an *extension bond* is a bond created for the purpose of raising funds to extend the railroad. Usually the extension is pledged to secure the bonds. Such bonds may be named first mortgage extension bonds, or merely extension bonds. A *divisional bond* is almost exactly the same, it being an obligation of a division on a railroad distinct from the rest of the system, likewise a *branch line bond.* There are many such bonds in existence.

Among the bonds of some of our railroads will be discovered what are called *unified bonds,* meaning a bond created to unify in one issue a number of underlying bonds and to reduce the interest, which differs on the several issues, into one rate. Other railroads will call a bond similar in purpose an *adjustable bond,* implying that with the issue the intention has been to adjust the bonded debt into one class and have one given interest rate.

A *lien bond* denotes the obligation in accordance with its number or name, as, for example, a *first lien* bond is really the direct mortgage bond, although some railroads call this particular issue a *prior lien,* implying it has preferences over all other liens or bonds outstanding. A *second lien* bond is like a second mortgage. A *third lien* follows in sequence and so forth. Quite naturally it may be assumed that each lien bond on the same collateral has behind it a lesser degree of security than the lien ahead of it.

Often a railroad plans improvements on a certain section of the road already covered by a mortgage, and raises the capital by selling what is known as an *improvement bond*—a bond presumably secured by the improvements contemplated, although in reality subject to bonds already in existence, inasmuch as the improvements can have little value if detached from the underlying structure.

The railroads likewise have found it convenient, when they wish to expand, to acquire other roads. This is often a much cheaper method than to construct a new line in the same territory. This has brought into existence what are called *purchase line bonds,* the proceeds of which enable the railroad to secure control of a rival of a feeder. These bonds usually are a lien on the acquired road, subject sometimes to bonds that may be already pledged against it. There is also the *construction bond,* a security issued for capital to undertake new construction. There is the *purchase money bond,* akin to the purchase line bond, only a little broader in scope in that it may mean that the money can be used to purchase something else than another road. There is the *tax exempt bond,* so named because it is free from taxation by state or city, not through any legislative provision, but by the mere fact that the railroad itself has agreed in its mortgage to take care of all the taxes, or it may, by legislation, be freed from all taxes in certain states. Here it might be mentioned that in some states, in order to increase the number of desirable securities into which the funds of its savings banks may be safely invested, tax-free provisions are held out and also provisions whereby certain types of bonds become legal for investment for the funds of such institutions. This explains the phrase so frequently occurring in the circulars of bond dealers: "legal investments in such and such states." *Serial bonds* are like lien bonds, as, for example, the Chicago, Milwaukee & St. Paul general mortgage bonds. The total issue is $39,978, 000, and of these bonds a little over $31,000,000 comprise the Series A bonds and the remainder are the Series B bonds. A railroad finds it sometimes convenient to split a large bond issue into different series and name the several issues in this manner to give them a distinct identity and maturity.

The *terminal bond* is usually secured by the main station property owned by a road. This property, consisting of valuable real estate, is at least now-a-days kept distinct from all other assets and used as a collateral to secure separate loans. This idea is further applied to other property owned by a railroad, not directly associated with its main business, as in the case of the road's harbor or water business. A number of our roads, for the development of this traffic, have raised money for the purchase of ferry boats, lighters, vessels, and tug boats, all of which it pledges for a separate loan, and each bond is specified under a separate name so as to easily distinguish it. Similar is the case with *bridge bonds,* directly secured by certain bridges a road has built to span certain streams. *Tunnel bonds* are issued for the same purpose.

By a *joint bond* it is usually inferred that the bond is jointly associated with some other bond in a particular lien. An *underlying bond* is named thus to distinguish it from another bond on the same property. A *redeemable bond* implies that the issuing company reserves the privilege of calling upon the holder for the return of the bond, with accrued interest, at a specified price. There are also issued by the railroads, *canal bonds, timber bonds, coal bonds, land grant bonds* and so forth, each issued against particular property, and in many instances they are valuable. Take, for instance, the Reading, the Lackawanna, the Delaware & Hudson, the Jersey Central and the Lehigh Valley; their coal properties are among the most valuable of their entire assets, as on the other hand are the land grants of the Southern Pacific, the Union Pacific and the Canadian Pacific. The land, originally granted these roads by their respective governments to encourage their development, has increased enormously in value through the transportation facilities which have been accorded them, and through the influx of population.

There is also what is styled a *reorganization bond*, an obligation issued at the time when a financially embarrassed railroad was reorganized and again put on its feet. There is the *stamped bond*, stamped for some reason or other. This is a rare bond, the Atchison being one of the very few railroads having a bond of this description. Then there is the *registered bond*, taking its name from the privilege accorded the holder to register his name and address and the amount of his bonds on the books of a railroad as a protection against loss or theft of his bonds. When this is done the bonds can only pass from one holder to another by a transfer on the books, for bonds to be quickly negotiable, are made out simply to bearer.

Sinking fund bonds derive the name from a provision that the issuing company agrees to redeem each year a specified number until they are all automatically retired. Sometimes a railroad carries the redeemed bonds in its own treasury, using the coupons to help pay the interest on the outstanding bonds, or it may agree in the mortgage to set aside each year a certain per cent of the earnings as a sinking fund to automatically retire the bonds when due, the interest on this money helping to defray the interest on the bonds.

There are also *guaranteed railroad bonds*, consisting of bonds of controlled, leased or absorbed lines, whose bonds are guaranteed by the controlling lines. Sometimes these bonds are guaranteed, both as to interest and principal, meaning that if there is a default, the guarantor will reimburse the holders in full. Some of these bonds are guaranteed only as to interest, as in the case of the bonds of the Western Pacific, the interest on the first mortgage 5 per cent bonds being guaranteed by the Denver & Rio Grande, but not the principal.

A class of railroad bond which in late years has jumped into great popularity, is the *equipment bond.* Nearly every railroad has one or more such issues, some of the larger roads having many. These bonds are secured by the rolling stock consisting of locomotives, passenger coaches and freight cars. It can easily be inferred what constitutes their safety in the opinion of investors when it is taken into account that without equipment a railroad is useless and its tracks would soon consist of two streaks of rust.

Railroads have gone into receivers' hands, suspending payment of interest on a portion, if not all of their bonds until they could be refinanced, but rarely have even receivers avoided paying promptly the interest on equipment bonds, realizing the absolute necessity of retaining the equipment. Being easily moveable, this equipment gives the bondholders a conveniently saleable collateral in the event they would have to take it over to satisfy their loan, and then it would not be possible to operate the road unless other equipment was purchased.

XI. PUBLIC SERVICE BONDS.

There is a class of corporations owing their existence to special privileges granted by communities to furnish a service to the people, providing greater comforts and making inter-communication more convenient. Such corporations are known as public utility or public service companies, and comprise those engaged in supplying transportation facilities, gas, electric light, heat, water and power. In only one respect are these corporations analogous to corporations in another field, and that is in regard to transportation. In all other respects these corporations belong distinctly to an individual class. The street car lines provide a convenient service to a congested community in traveling cheaply and quickly from one place to another. They supply in a smaller sense the service the steam railroads give in covering greater distances.

But only in recent years have public service corporations come to occupy their present position of prominence and importance as a field for the profitable exploitation of capital. It might also be stated that the golden age, if there can be said to be such in the history of corporations, came to them with the advent of electricity, that subtle force which introduced an economic revolution in low operating cost. In the days antidating steam and electricity, when horse cars were the mode of transportation, the service was so slow there was little profit in the business and next to nothing if the capitalization was large. Nor was there much improvement with the change from horse cars to cars propelled by cable. While it was a step forward to haul cars in trains of two or more coupled to a cable car, the coal required to provide the power to run the cable, ate up almost all that was saved by dispensing with horse power. Likewise breakdowns occurred so frequently with cable power as to make that an expensive item in the operating cost. All these disadvantages, however, were finally overcome with the advent of the first electric trolley car. The cost of producing power by electricity was reduced to a minimum. It made possible transportation facilities to serve remote sections of large cities. It gave to the smallest towns a street car service—a direct stimulus to growth. But what may be regarded as the most phenomenal development has been the upbuilding of interurban traffic, which is today making electrical roads keen and aggressive competitors of the steam roads. All this is possible because it costs less to operate the lines and the service is maintained at low cost and is more efficient.

In what strong position electric interurban transportation is entrenched in this country will be readily appreciated when it is known that it is possible now to start in a trolley car, for instance from New York City, and almost cross the whole state. There are breaks in the lines in only one or two places which are not yet bridged by connecting electric roads. The interurban practically parallels the New York Central Railroad all the way from New York to Buffalo. In fact they have become such keen aggressors for the short haul business, which, by the way, is the most profitable traffic, as to compel the big railroads in self defense to absorb the principal electric interurban lines in order to maintain their dominating position. The New York, New Haven & Hartford was actually forced to take under its wing, through a separate corporation, the interurban lines touching every place of importance in Connecticut and Massachusetts, or face the penalty of heavy inroads upon its passenger and light freight business. The management of the Southern Pacific, seeing far ahead the possible encroachment the electric roads in Southern California might make upon its earnings, did not wait until this stage was reached, but secured control of all the important lines at the first opportunity presenting itself. Today a traveler can, by means of these long-distance trolley lines, reach almost every part of Ohio. In Indiana, similar conditions prevail, as also in the larger portions of Illinois and Pennsylvania.

Nowadays a person may obtain a berth in a trolley sleeper car in the evening at Dayton, Ohio, and be in Indianapolis early the next morning. He may travel in similar comfort from Peoria to St. Louis over the Illinois Traction lines. All this but gives a faint idea of the remarkable evolution electric power has brought about in transportation. There are prophets, whose claims are by no means disbelieved, who say that it will not be long before the monster engines used now to haul long trains of passenger coaches and freight cars will eventually be displaced and become antiquated and a memory, as are the old horse cars of twenty years ago. That this is the tendency is borne out by the present use of some railroads, notably the New York Central and New Haven, of large electrical Westinghouse motors. The experiment is even now being tested of propelling cars with electric storage batteries so far with some measure of success. If this new power is perfected, even greater economy in operation will be introduced, dispensing as it will, with trolley wires and costly power-generating stations which it is now absolutely necessary to maintain. The interurban electric roads have even another important advantage over their older rivals, the steam roads, in that they can stop for passengers anywhere desired, by the motorman simply turning his controller. The steam roads can only stop at designated stations according to schedule.

That huge amounts of capital have gone into these projects occasions no surprise, nor is it strange that we should witness the increasing favor the public is showing towards public service corporation securities, especially those of the more conservative type. Yet the evolution from one form of motive power to another has brought some strange changes in its train. In New York City, the old lines, already overcapitalized, were compelled, with each change or step forward in economy of operation, to increase their capital burden, with the result that in the end they collapsed, in spite of the fact that in a city like New York, where there is such a density in population, the revenues derived from carrying passengers from one part of the city to another should be exceedingly profitable. But by adding obligation upon obligation to their capital, the New York traction financiers succeeded in making it obligatory on some of the lines to earn profits on as much as $1,000,000 capital per mile and all on nickel fares. Small wonder that the end was bankruptcy and such a tangled state of affairs that a long period must elapse before the New York surface lines can be successfully extricated from their financial embarrassment. Charles T. Yerkes brought about a similar state of affairs in the West Side and North Side lines in Chicago, which required years to readjust, and only after disastrous losses were sustained by thousands of shareholders. Philadelphia is similarly afflicted with an overcapitalized traction system. Happily, these cases are only the direct results of an evil proceeding from the desire of the interests in control to fatten their fortunes at the expense of the public and investors. Where there is a normal capitalization and the properties under the control of honest and conservative management, they have proved for their shareholders a more than satisfactory source of revenue, and the secured obligations, like the bonds, have shown themselves among the safest forms of investment.

But in judging this class of investment, there are a number of important factors which should be taken into consideration. First and foremost, is the franchise under which the public service corporation operates. Especially is this of importance as far as the bonds are concerned. The franchise is the keynote of their success in business. We have seen how unfortunate it sometimes turns out for a public service corporation, when its franchise expires, as in the case of the traction companies serving the cities of Chicago and Cleveland, and to a less degree likewise in Toledo and Detroit. The difficulties between the cities of Chicago and Cleveland and the traction companies are now adjusted on terms mutually satisfactory to both interests, but not without considerable loss to shareholders and bondholders alike. In Detroit and Toledo, the renewal of the franchises still remains open, the cities and the companies not being able to arrive at a settlement of their troubles. Eventually their difficulties will be amicably adjusted, as the public has always shown a disposition to be fair.

Public utility corporations unfortunately are in a vulnerable position to become the shining target for ambitious politicians, who, when they find they cannot win votes by any other propaganda, as a last resort, turn upon these corporations in their own community. By making it appear that they are in business to oppress the people, they endeavor to arouse an agitation for the fantastic scheme of public ownership and operation. It is a useful propaganda to win votes. In most of the cities where this scheme has been tried, it has proved a flat failure. And failures they will continue to be until the average politician and henchmen who feed at the public crib, develop capacity as good business men. But as long as these clashes take place, the length of a company's franchise is an all-important question in properly appraising its securities for investment and speculative purposes.

If the franchise expires after a company's outstanding bonds mature, some authorities contend they are safe investments, providing the net earnings indicate a sufficient margin in excess of the fixed interest charges. In this contention they are partly correct, since, whether the corporation redeems its bonds or not, the expiring loan in some manner must be paid.

A corporation's management, is, in my opinion, of equal importance. If that management follows a policy of catering to public opinion and bends every energy to supply its products to the community at a reasonable charge, after allowing for a fair profit, the probabilities are that the community and the corporation will exist in peace. It has been demonstrated in a number of instances that such wisely managed properties have had public opinion behind them when attacked by designing politicians.

Some public service corporations are very fortunate in owning perpetual franchises. This places them in an unassailable position. They do not face the danger of a possible contest over the renewal of their privileges. The only danger that may confront them is where the community grants a rival company another franchise, but this does not always turn to the public's advantage. This is at least true as far as concerns the use of the telephone. When it becomes necessary to use rival telephones to give a satisfactory service, it is very seldom profitable. There is no advantage where there are two charges without obtaining any additional benefit, when one service can do the work equally well. Generally speaking, this advantage affects equally all public service corporations.

There is one development in the recent financing of public service corporations which should not be overlooked—the tendency towards conservatism. In this, those directly concerned in promoting them have shown that they have absorbed a lesson from past experience. They now build their structures on firmer foundations. New bonds issued for improvements are on a more reasonable basis. In many cases it is stipulated that additional bonds shall only be sold up to from 75 to 85 per cent of the actual cost of additions and extensions, thus creating from the very beginning a substantial equity above the bonded debt. Where it is possible, the builders of interurban trolley lines secure private rights of ways to overcome difficulties regarding franchises.

The states also have realized the wisdom of cultivating capital rather than discouraging it from entering upon projects designed to serve the public convenience. Public service commissions have been created to deal intelligently with this problem. These commissions are vested with the power to allow the corporations under their control to increase their capital as well as to refuse the privilege when it appears that the necessity for more capital does not really exist. It is also within the power of these boards to refuse franchises when, in their opinion, a rival corporation, instead of benefiting a community, adds only a burden. While, of course, this system of control has some disadvantages, the general good they have thus far accomplished, outweighs the drawbacks. At least it shows a desire on the part of the states to take the public utility corporations out of politics, which is more or less at the bottom of most of the friction between corporations and communities.

However, it cannot be denied that, for some years, the public service corporations have as a class, made such an excellent showing as consistent revenue producers, that they have become popular with the investment public. The panic of 1907 and the year of depression which followed gave them an excellent opportunity to demonstrate their stability. A great many of the companies turned this hard corner with increased earnings, whereas the earnings of corporations operating in other fields showed a sharp falling off.

There is a logical explanation for this. It must be borne in mind that the public can save little on gas, light, heat or power. It must ride back and forth from business. What is lost by a smaller consumption is far more than made up by the increased demands of a growing population. Statistics prove that.

Then, also, well-managed gas, heat and electric light corporations have carried on a campaign of education, showing their patrons how their service may be used in other directions, thus increasing their patronage. Electric ranges and gas stoves have proved splendid drummers for business. The uses of electricity for advertising have also been a source of considerably increased revenues. Electric power plants as well as plants generating power from water, have made a permanent place for themselves wholly by the economy they have introduced in the cost of power.

All these factors are worthy of consideration in so far as they explain the influences behind these corporations working for their success. As they are in a business of providing actual necessities, they are indispensable to a community. The investor, therefore, is assured that the business has, at least, solid ground as its foundation.

When electricity was first discovered, it raised the fear that the end of gas as a source of light had been reached, but this apprehension has proved unfounded. More gas is consumed today than ever before and the consumption is likely to continue to increase. While interurban electric roads have done a large business and are aggressive competitors of the steam roads, it is nevertheless a fact, as is shown by their increased revenues reported to the Interstate Commerce Commission, that the railroads are doing a larger business than ever before. The hydro-electric power plants have by no means cut into the output of the coal mines. In fact, our constant growth in population can be relied upon to use all the new means available for creating power, light, transportation and heat.

Another fact worthy of comment, is the tendency towards concentration of management of public service corporations into holding companies. Quite a number of such corporations have been organized and as a general rule have been successful. One of these companies controlling a large number of subsidiary companies operating in cities has earned exceptional profits for its shareholders.

These holding companies, unlike their namesakes, operating in the railroad and industrial field, are virtually immune from the restrictions placed by the Sherman law over all interstate commerce, or business transacted between different states. Their business is all concentrated in the communities which their plants supply. Only when they control electric roads crossing two states are they subject to the law Congress enacted to control trusts from restraining free competition.

As it is compulsory in nearly all states for public service corporations to publish detailed statements of earnings, the purchasers of these securities have little difficulty in determining the investment opportunities and speculative possibilities in their bonds and shares.

The truth is that there is more compulsory publicity governing this particular class of corporation than with any other class. The reason is that the public, by whose will they exist, have more than an ordinary interest in their success and behavior.

XII. OTHER BONDS.

There still remain other means by aid of which corporations manage to borrow money, but they do not involve the necessity of pledging any tangible assets, as is the case with the different bonds described in the previous section.

It is not by their names that these bonds may be known, for they, too, are known as bonds. It is by their character that they should be known, by which I mean that the investor ought to look carefully into them, for, masquerading, as they do, under the general name of a bond, there is always the possibility of acquiring a security without any intrinsic value behind it, which fact is not discovered until after something goes wrong.

Prominent among such securities is the *income bond.* To the uninitiated investor, the word "income" has a confidence-inspiring swing to it, but in all reality, the so-called income bond only pledges the corporation to pay the promised interest when it is earned, and not otherwise. A case in point where such a bond proved no better investment than a non-producing stock, was that of the income mortgage bonds of the Central Railroad of Georgia, of which there are three —the first, second and third preferred mortgage income bonds. On the second and third income bonds, the interest has not been paid for some years, and finally, in exasperation, the holders of the second income bonds brought suit to force the company to pay them their interest first before diverting the net profits to improvements. While they won their case, their predicament during the years when no returns were received conveys its own lesson of the insecurity rather than the security of the income that lurks behind an investment in income bonds. Some stocks are preferable to income bonds. Such bonds should be thoroughly investigated before accepted as a desirable investment; especially should the profits the company is earning and has earned over a period of years be looked into, for it is from this source the payments of the interest on the bonds are derived.

There is also the *collateral bond,* not differing very much from the income bond, except technically. Bonds of this character have as their security stocks or bonds in other corporations. There are many of this class of bonds in existence. They are the outgrowth of the tendency in recent years of the stronger corporation to absorb the business of rival corporations, and they are also the direct outgrowth of the holding company plan. The holding company is a form of corporation which is not itself directly engaged in business, but which holds the controlling stocks and bonds of actual operating corporations, and against the ownership of these securities they issue their own stocks and bonds. It is these holding companies that have acquired the name of trusts.

In nearly every important industry may be found the holding corporation. To mention a few, there are the American Tobacco Co., the International Harvester Co., the Interborough-Metropolitan, the Rock Island Co., the American Chicle Co., and the International Mercantile Marine, all corporations owning the majority of the securities of other corporations. These are only a few of them.

Some of these holding corporations have issued bonds, pledging for their security either the stocks or bonds of the subsidiary corporations. They are the collateral bonds. Other corporations which do not exactly come within the definition of a holding company also issue such bonds. For this interest they depend upon the earnings or income received from other underlying securities.

An applicable illustration of what collateral bonds are is found in the Interborough-Metropolitan 4½ per cent collateral bonds. For each unit in this bond of two hundred dollars, there is pledged one share of stock, with a par value of $100 of the Interborough Rapid Transit Company, which operates the Subway in New York City. This underlying company pays 9 per cent dividend each year on its stock, which is equivalent to the 4½ per cent interest paid on the collateral bonds.

These bonds differ from income bonds only in that their interest must be paid. This is an implied obligation. The interest is paid as long as the collateral securities back of the bonds earn a sufficient income. When this income falls off and a default takes place, the holder of such bonds may take over the collateral by due process of law. They then find themselves in the position of falling heir to other securities, either as stockholders or as bondholders in the underlying corporations. The fact that the securities were unable to earn enough to pay their interest, in most instances does not improve the situation much. From a standpoint of safety, the majority of collateral bonds, as a final analysis, cannot be ranked as suitable investments for any one dependent upon income and security.

It may well be said for some of these bonds that they are entitled only to the designation of bonds to distinguish them from stocks, in that they place their holders in the category of creditors of a corporation, whereas a stockholder can only participate in the profits when there are any to disburse. The one must be paid to maintain the corporation's solvency; the other must take its chances.

Not infrequently a strong corporation employs its credit merely as the sole security for an issue of bonds. At other times, in addition to pledging its credit, other collateral may be added. Where such bonds are issued they are termed *debenture bonds.* In reality they are but a note like the plain merchant's note such as banks discount every day without calling upon the borrower for any other security than his name affixed to his note, accepting his credit rating as sufficient guarantee that the note will be paid when it matures, or else if the bank is not wholly satisfied with the standing of the maker of the note, it will demand, for added security, that the note be endorsed by one or more persons satisfactory to the bank. In the debenture bonds, a corporation, instead of going to the banks for a loan, approaches investors whom it is prepared to pay a fixed rate of interest for a term of years, for the use of their capital. Such bonds should be appraised by the rule applied to a merchant's note—on the credit standing of the maker, and this is usually determined by the periodical statements of earnings issued, indicating the profits in excess of all operating costs.

In the *convertible bond,* modern finance has evolved a device to tempt forth the capital of investors who, while still wishing to maintain their position as creditors of a corporation, desire a speculative opportunity to share in the future prosperity of the business. The convertible bond serves this end. Such bonds carry a call upon another security at a given price, usually considerably in excess of the market value at the time the bonds are issued. When the convertible price is reached, the holders of the bond may exercise the privilege of exchanging their bonds into the other security. The convertible bonds of the Union Pacific issued some years ago brought a round profit to those who held them until the company's shares reached their conversion price. The Atchison is another road where this also happened. Among the industrial corporations a striking example is the American Telephone & Telegraph Company, whose shares advanced to where it became profitable for the holders of an early issue of convertible bonds to exchange them for the company's stock which was receiving 8 per cent in dividend, in contrast to the smaller interest received from the bonds.

Quite a number of our corporations have resorted to convertible bonds as an expedient to make loans, but the successes attendant upon some of these issues by no means cloak these securities with the character of unusual investments. On not a few of this class of bonds, the convertible privileges represent a forlorn hope that an opportunity of making a profitable exchange may present itself. Seldom are there any assets of a tangible character pledged behind the convertible bond. If such is the case, their character is stipulated in the mortgage. They are considered as coming within a semi-speculative class of investments. For that very reason they should be carefully scrutinized by investors. Their safety largely depends upon the issuing company's continued prosperity.

With a description of a few more securities included in the definition of bonds of a general character, I shall close this section.

The most important of the securities which still remain to be described is the *short term note*—a useful financial expedient in periods when there is a scarcity of capital and, because of this condition, exacting interest rates. To meet this situation, corporations borrow capital for their pressing needs for only a short term of years by means of notes running for a brief period, and agree to pay interest on them in accordance with the current rate. In hard times it would be folly for a corporation to make a long term loan for two reasons, one of which is that such a loan, at the current high rates, would prove unusually expensive if spread over a long time, and the other and more important reason is the disastrous influence likely to follow in depressing the price of the outstanding bonds which a corporation had sold when there was a plethora of money and interest rates were low.

If the holder of a 4 per cent bond having still ten years to run, saw an opportunity to replace it for a 5 per cent bond of his corporation which would not mature before their security matured, the natural inclination would be to exchange the one for the other. It is to equalize the interest with the bonds already outstanding, that short term notes are employed. This class of securities crowd upon the market in panic years and in the years of depression which follow. Other securities might mature in these abnormal periods which must be taken care of or capital may be needed for other purposes.

The late H. H. Rogers, rich as he was, found himself in a tight corner in the panic of 1907. He was just finishing the Tidewater Railroad and needed a few million dollars hurriedly. It was out of question to raise this money by offering first mortgage bonds, especially on an incompleted railroad. The banks were not lending any money except on gilt-edged collateral. Mr. Rogers could not allow his cherished ambition to fail in this critical period without striking a great blow at his prestige. He was forced to issue short term notes carrying 6 per cent interest and had to pledge to insure their security a large part of his investments in Standard Oil, and shares in banks and gas companies—in all over $18,000,000, the income on which more than a number of times provided for the interest on the notes. Mr. Rogers' experience illustrates that periods are reached in nearly every rich man's career when borrowing money is not an easy matter.

Nor do corporations escape the exactions placed upon them by hard times. Municipalities enjoying in normal times the best of credit, are forced to pay large interest to borrow what money they need. A case in point is that of the city of New York, which although at one time, only a few years previous to the 1907 panic, readily sold 3½ per cent bonds at a premium, was forced to raise its interest rate to 4½ per cent.

To the average investor the purchase of bonds is based on the interest they pay, but that is not always the income they yield. Figuring out income is a science in itself. A bond may call for 4 per cent interest per annum and yet may yield a larger income than a 5 per cent bond, due to the earlier maturity and to the fact that it is selling at a discount, whereas the other bond may run longer and be quoted at a premium. A table is published and used by all bond dealers, by which may be determined what the income yield is on each bond for the length of time it has to run, the price it can be had for and the fixed rate of interest.

Reverting to short term notes, corporations by their use finance their needs to bridge a period of tight money, depending upon their ability with the return of easier conditions to refund these obligations with a security which calls for a more reasonable interest rate. Most of the large railroads and industrial corporations have found these short term obligations a great convenience in trying times.

We have what are known as *trust receipts.* These are receipts issued by a trust company in return for securities placed with them as custodians. These receipts, like bonds, are issued in a negotiable form so that dealings in them can be carried on readily. There are voting trust receipts, a security protected by another security for which a voting trust has been formed, consisting of a number of directors. They are also negotiable. The scheme of the voting trust is to maintain the control of a corporation in certain hands for a prescribed length of time in order to insure one continued management of its affairs. The idea when properly applied may turn to a corporation's advantage, but sometimes it is used to perpetuate, for a number of years, control in certain hands without the necessity of making heavy investments, which would become the case were not all the stock in a voting trust.

Interim certificates are merely promises to deliver bonds or other securities when they are ready for distribution and which may not be engraved and all signed by the proper officers when they are first offered to the public. In their place, certificates, called interim certificates, issued to bearer, are given to be exchanged when the other securities are ready for delivery.

Last, but not least in importance, is the *certificate of deposit,* which, as its name indicates, identifies the holder as having deposited at a certain place the securities described in the certificate. These certificates of deposits are the outgrowth of the reorganizations of embarrassed corporations. When this unfortunate situation is reached, the more important holders of the securities form a committee for the mutual protection of all the holders of the same class of securities. An agreement is drawn up by attorneys, vesting this committee with certain powers to effect a reorganization, and a call is issued to the security holders to deposit their security with a designated trust company. In signing this agreement and upon deposit of their security, the holder then appoints the committee his agent or attorney to do all of the things stipulated in the agreement and share ratably all the expenses his committee contracts for. The trust company which acts as a depository issues a certificate of deposit, usually to bearer, identifying the holder as the true owner of the securities as described which have been deposited with it. Then, when a reorganization has been brought about, whatever new securities are authorized in the place of the old ones, are exchanged for these certificates of deposit after all expenses of the committee have been paid. Certificates of deposit may apply equally to stocks as well as to bonds. They are merely mentioned here as a security which, applying to bonds, may as well be described now as later. As their very character shows an interest in a bankrupt corporation, there is hardly any necessity to discuss their investment value. That depends entirely upon the security itself which is pledged. If a first mortgage bond, then there may be behind it more than enough property to protect the creditor in full, including, even covering, the accrued interest. Sometimes this does not appear to be the case, as, for example, the first mortgage bonds of the insolvent Wabash-Pittsburg Terminal Railroad. The holders of these bonds were compelled to fight to keep from having to take an inferior security in return for the one they now hold. The certificate of deposit, the negotiable instrument evolved by the reorganization idea, in our scheme of bringing to life once more our prostrate corporations, is credited with owing its existence to the ingenuity of J. P. Morgan, the greatest reorganizer, more than to anyone else.

With a brief mention of commercial paper we shall have disposed with this security. Essentially forming an investment more for banks than individuals, it will hardly interest the student of finance unless he is shaping his education towards a banking career. The degrees of safety in commercial paper vary with the standing of the maker. Prime commercial paper is the note with but simply the maker's name. With each endorsement there is indicated the exactions placed upon the borrowers by the banks before they will make the loan. Yet this is not always true. The paper of some large corporations, to make it readily saleable through note brokers, will carry a number of endorsements.

XIII. IRRIGATION BONDS.

It is the history of every virile and progressive nation that in time all of its land capable of subjugation to the plow becomes occupied. We are in such a period now. Our principal reservations, consisting of natural tillable land originally set aside for the Indians, whom the country has considered its wards, have all been opened for settlement so that even this pre-empted land is now largely occupied by white settlers.

But our population continues to grow. With its growth there has arisen a serious need to employ our arid lands for agricultural purposes. Of such land we have enormous stretches. Efforts are now made to reclaim these lands by bringing water to them by artificial means. Not only are we considering means by which the parched sands of our different desert areas may be made to blossom, but we are also hard at work planning how our swamp lands may be redeemed for agricultural exploitation by draining them of their stagnant pools and bayous.

Our population has grown so large that every square foot of ground that is possible to reclaim by artificial methods is worth while saving. It matters not whether this can be accomplished by irrigation or drainage.

Our own government early recognized the possibility of reclaiming its deserts by harnessing mountain streams and turning their waters to beneficial use. The government has already spent millions of dollars in building giant reservoirs for the storage of water, and ditches to carry this water to lands which needed it in order to become productive.

Irrigation is by no means a modern science. It is almost as old as the human race itself. The ancient Egyptians of the Nile Valley depended upon it as early as in the time of Ptolemy and had developed it to such a point that their country was virtually the granary of the ancient world. With us, however, irrigation is a somewhat new problem, as it was not necessary for us to go to the length of artificially watering land while there yet remained open for settlement plenty of land well-watered by nature and cultivable by natural means.

Private capital, always keenly alive to opportunities for profit, has also seen opportunities in the work of reclaiming our large arid land areas. What the Government could do, capital felt it could do also. The result has been that within the past few years a considerable number of privately organized irrigation projects have sprung up, capital for which has been raised by the sale of irrigation bonds. As this class of bonds constitutes by no means a seasoned investment, it should be most carefully considered before being selected as a profitable and safe medium through which to make investments.

Already a large number of these projects have failed because those back of them were inexperienced in this particular field and allowed their optimism to becloud their better judgment. It requires more than the mere building of reservoirs and ditches to carry the water, to assure the financial success of an irrigation project. Not only is a continual supply of water requisite but also the certainty of a sufficient number of farmers to settle the land is necessary. Likewise, these farmers must know how to cultivate successfully land supplied with the required water provided by artificial means, as irrigation is a method of farming wholly distinct in character from that followed on farm lands nourished by rainfall.

Our Government recognized the danger likely to arise from the reckless exploitation of irrigation schemes and, as a measure of protection for the farmer and investor alike some years ago enacted what is known as the Carey Act.

Under this act, authority was conferred upon the states and territorial governments to pass upon the plans prepared by privately organized irrigation projects for the construction of reservoirs, ditches and laterals, or small canals by means of which the land was to be fed with water. By the same act rights to the available water supply were conferred to prevent the overabsorption of the needed supply by too many separate enterprises, but despite these wise precautions, failures have occurred indicating how much judgment can err in an entirely new and untried field.

As irrigation bonds are a distinctly new security, it is interesting to know on what they are based and how they are issued. The capitalists behind these projects aim to raise the money required to construct their reservoirs, ditches and canals by the sale of first mortgage irrigation bonds. They incorporate a company which is to own all the facilities for storing the water and carrying it to the land. They stake out the acreage for which their company is to supply water. They then sell to newcomers the water rights for a fixed sum per acre. To make the illustration clearer I shall say they ask $40 an acre for their water rights. This gives the settlers perpetual rights for the use of a certain quantity of water for their land each season. To secure these water rights the farmer gives a mortgage on his land. These mortgages are the collateral pledged to secure the holders of the irrigation bonds and as the farmers pay off their mortgages in easy installments, the bonds are retired serially at different maturities. The stockholders in these companies expect their profits from what is left after the bonded debt is cleaned up.

All this of course is feasible. Experiments have proved that the chemical elements in desert land, when properly watered, give the ground a richness and fertility which make these lands prolific producers of certain agricultural products. The Twin Falls section of Idaho is a very excellent example of the large measure of success possible from the application of intelligent irrigation. Not only has this section of the state prospered in an exceptional degree by harnessing the mountain streams and diverting their waters to the dry lands where most wanted, but, as a direct result of the large agricultural population thus brought in, a number of prosperous towns have sprung up which would never have existed under any other conditions.

But the mere presence of water in arid countries is not always a guarantee that dependence can be placed upon a sufficient supply in dry seasons. Desert streams are likely to thin out at the most critical time. Herein lies one danger likely to threaten an irrigation project. Skilled engineers of long experience are necessary to gauge the quantity of the water supply, to build reservoirs in the right places, to construct economically the necessary ditches and canals so that there will be no likelihood of the clogging up with the shifting sands in the near future. Even then all these provisions do not make for absolute safety of irrigation bonds. There must also be the certainty that there is no legal flaw to the rights to the water supply; also that there will be no disappointment in the sale of water rights sufficient to provide enough acreage to redeem all the bonds and pay all the interest. The mere fact that a reservior is constructed, also all the ditches and canals, is not in itself a complete assurance of the safety of irrigation bonds, as the farmer is supposed to pay off his water rights in easy payments covering a stated number of years and he can only do it by obtaining his water regularly.

A dry season is likely to cause an irrigation company to default on its interest because it will be unable to collect from the settlers their payments, unless behind the projects are financial interests strong enough to see it safely through an off season. Likewise until such projects are completed and settlers for the land secured, the irrigation bonds it issues, properly considered, are construction bonds, that is, bonds of an incompleted enterprise whose interest must be provided out of the treasury of the company until it is in a position to earn revenues.

There are no bonds more speculative than bonds of this character. In fact the interest their holders receive, in most instances, comes directly from the very money they pay in for their bonds. Because of this element of uncertainty, it is of vital importance that the financial standing of the backers of an enterprise, no matter what its character, be carefully weighed, to determine whether they are strong enough to finance their project to completion. However bright the prospects may appear, no enterprise can take advantage of them until it is first completely financed. For the risk investors must assume in a project in the process of construction, they should, in all fairness, receive, in addition to the bonds they buy, a certain proportion in stock as a bonus, for they speculate on the chances of success, and should financial difficulties arise, which is always a possibility, they face an assessment in an effort to raise the money to again put the enterprise on a going basis.

Some of the bankers who have handled such issues of securities have realized these elements of chance and have made provisions to overcome them by guaranteeing their bonds, both as to principal and interest, by the assets and income of a going and prosperous concern. But not all bankers are so far-seeing. The result is that in some of these issues which have defaulted their holders have found themselves in the distressing position of possessing a very insecure bond and that they could not be worse off had they been stockholders, instead of bondholders.

All this is clearly pointed out to the readers of this book to acquaint them properly with the care necessary to exercise in properly appraising the different classes of irrigation bonds coming to their notice.

In theory, irrigation is practicable. Its value to this country now and in the future cannot be disputed. As we gain a greater knowledge about its proper application, there will be less experimenting with other peoples' money, as is always the case when capital ventures into new and untried fields.

Our Government, as late as 1910, authorized a large issue of bonds, the proceeds of which are to be used to carry forward on a much larger scale, the irrigation work planned by the Department of Reclamation. Those bonds are to be redeemed out of the money realized by the Government from the sale of water rights to the settlers.

Some of our western states, in an effort to reclaim their arid lands, have arranged by legislation that certain districts may organize into municipal districts and issue bonds for irrigation purposes. But their bonds are by no means as safe as the bonds which the new government irrigation laws authorize. They are in fact, in some instances, inferior to irrigation bonds of privately organized enterprises. These municipal irrigation district bonds depend for their interest and redemption upon the ability of the community to pay the taxes. In a good many instances, the amount of such bond issues is not based on the already existing population, but on a future population that is expected when the district receives the full benefit from the irrigation planned by the issuance of the bonds. If the irrigation project is a failure and the expected water does not materialize, naturally the settlers then have no means to meet their taxes and their lands which remain dry are hardly then worth foreclosing upon. That this is possible has already been shown by the default of interest on a number of such municipal irrigation district bonds of Colorado during 1910 and 1911.

XIV. BONDS IN MINING ENTERPRISES.

Beyond all doubt there is no type of bonds more speculative than those issued against undeveloped ventures, whatever their nature, be it coal, silver, marble, lead, zinc, gold or copper properties. For one thing they are secured by an invisible asset, whose value can only be estimated by the uncertain skill of mining engineers.

We are told, especially in connection with copper-mining properties, that mining engineers have so far reduced their profession to an exact science, as to be able to determine, where indications of copper ore have been discovered, how they may block out the ore and measure the amount underlying the claims. This they claim can be done by drilling to get at the percentage of copper to each ton of ore, and then, by multiplying the one by the other, arrive at the value of the underground deposits. In other words they contend they can reduce mining to a point where there is no more uncertainty regarding its ultimate outcome than in manufacturing.

I do not put any faith in this specious argument, at least not so long as some of the most prominent mining engineers continue making serious blunders in their estimates. John Hays Hammond, who is regarded as one of the foremost men in his profession, has repeatedly erred in his reports on mining properties.

If it is possible to measure with any degree of certainty the treasures Mother Earth conceals, it does not reach far beyond the coarser mineral formations like coal and marble. The last mentioned, because it is of a quarry formation, comes in vast quantities and where found is of a perpendicular formation, in layers or strata, thus permitting one to place a certain reliance upon measurements. Coal, on the other hand, runs in horizontal layers, for it is formed by the carbonization of decayed vegetable life. The softer coal, or that known as bituminous coal, lies nearest to the earth's surface. As coal is found in blanket formation, it is possible, where a field is discovered, to determine to a certain extent the quantity of the deposits by means of core drilling.

That is not true, though, of the more precious minerals. Nature has not been so provident in the distribution of these minerals that their quantity can be measured by any yard-stick. It is the writer's contention that of all assets, undeveloped mining properties do not at all properly belong to a class of securities on which bonds should be issued. An investor might as well take his chances with all the other stockholders in the enterprise and share in the profits if the undertaking proves successful.

A bond in an undeveloped mining enterprise represents the most perishable kind of asset. If the mineral yield becomes exhausted, the property then has no value beyond the mills and mine structures, which at most, as assets, are not worth very much, unless usable by a going mine.

The holder of a mining bond has to depend for the return of his principal and interest upon the profits realized from the ore produced. It is therefore necessary that the mine's life and production shall extend beyond the maturity of the bonds issued by it. How can this be known to a certainty?

The majority of mining bonds are issued as convertible bonds, giving the holder the opportunity of changing his position as creditor into partner at a certain fixed price for the stock, but it may be assumed that if a mine development points to success, the bondholder might as well from the beginning be a stockholder, considering all the risk he has to take, for did the mine fail, he would be out in the cold with the stockholders, except in that he could foreclose upon barren, unproductive mining claims of no value.

Bonds in oil companies are of a similar class. No assurance can be placed upon the continuation of the oil supply. To satisfy ourselves as to what a dangerous class of investments these bonds belong, we need look no further than the great mass of such defaulted securities.

Of course, I refer principally to mining companies in process of development. There are mining properties whose bonds come within the category of investments. These bonds are, however issued by corporations which are already assured of a certain production and have issued bonds to provide funds for opening up new areas, but which are not dependent for their redemption upon the new ores, but assure their payment, both as to principal and interest, out of their present and known production. There is a large number of such mining corporations, notably so in the case of successful coal-mining companies.

I have now covered as fully as it is possible within the narrow compass of a popular text-book, all the principal classes of bonds. A reference might be made to steamship bonds which have as their security the vessels controlled by the corporations and also its wharves and docks. The values in such bonds must be considered in the light of earnings statements issued by these corporations, the insurance funds on hand in case of loss of vessels, and the allowances made for depreciation to provide for the wear and tear in water transportation.

What wise provisions should be made against the elements steamship lines must constantly fight against has an illuminating illustration in the loss of the steamship "Republic" of the International Mercantile Marine Line, a disaster that is still fresh in our memory. The sinking of this steamer resulted in a total loss of over one million dollars. Still the loss of this palatial steamer had no effect upon the corporation's resources. It had for years set aside a certain percentage of the gross earnings as an insurance fund for this very eventuality.

XV. TIMBER BONDS.

Our available timber resources have reached that stage of depletion where what timber tracts remain are considered exceedingly valuable. So much so is this the condition that within the last few years timber bonds have come to be regarded as desirable for use as security for bond issues. Standing timber of itself is only valuable when it can be cut and brought at a profit to the market. But for the purpose of securing a bond issue, there are certain elements of risk which should be seriously taken into consideration. Above all, the greatest risk is that of fire, which is likely to quickly denude a tract of the greater part of its standing timber. Insurance companies will not accept risks on standing timber, for they consider the hazard as too great.

The owners of standing timber, however, attempt to guard against fire by many ingenious methods: building ditches and embankments through the tract to check the spread of a fire; establishing patrols and fire stations; cutting away the thick undergrowth; and back-firing a forest by experienced foresters. But notwithstanding all these wise measures of precaution, bonds based upon timber lands should be classified as coming within the class of speculative bonds, from which, because of the risks involved, an unusually good income should be received by those who invest their money in them.

A timber bond issue is based upon the quantity of standing timber against which the bonds are issued. "Cruisers," or men who measure the timber, are depended upon to make the estimate and on their figures and the market price timber commands, the bonds are issued. From this it may be inferred what great dependence the investors must place upon the accuracy of human intelligence.

To retire the bonds a certain percentage is set aside each year from the sale of the timber, and that percentage should be large enough to redeem the bonds automatically, as every foot of timber cut correspondingly reduces the assets securing the bonds, which cannot again be replaced except through new growth from replanting. Where this is done, it is a slow process.

There is no general rule by which the intrinsic value of timber can be measured, for chance and the immeasurable human element largely enter into it. The character of the men behind such propositions is equal in importance, in connection with the safety of timber bonds, to the safe guards against fires. The conservative appraisal of the amount of timber available, the nearness of the tract to a market, the price of the timber and the percentage set aside from each year's sales, all have an important bearing on such bonds and demand from investors their most careful scrutiny.

XVI. GUARANTEED STOCKS.

Large corporations sometimes find it more convenient, in securing control of smaller corporations whose strategical position or favorable earnings will benefit them, to guarantee the interest on their bonds and dividends on their stock, than to lay out a considerable amount of money to acquire them. Often control cannot be acquired, as the majority of the holders of the securities of the corporation will not part with them, but do not object to a lease of their property in return for a guarantee of a certain dividend upon their shares.

There are a large number of small railroads whose names, if given, would be unfamiliar now to the general public, although they are very prosperous properties, whose dividends on their shares are guaranteed by other railroads. These roads were taken over by lease many years ago, and have become so grafted into the main system of their guarantor roads, that they are today, in all essentials, a vital part of the larger corporations.

Parts of nearly all of our principal trunk lines are made up of smaller roads welded into one, although existing as separate corporations. This is the condition which investigation will show exists in the cases of the Delaware & Hudson, the Lackawanna, the Reading, the Pennsylvania, the New York Central, the Lehigh Valley, the Jersey Central and other roads. Some of the small roads whose dividends these roads guarantee, existed before the holding corporations came into existence. The Morris & Essex Railroad is an example. The road was built before the Delaware, Lackawanna & Western, as one system, was planned.

Quite naturally these guaranteed stocks as an investment are graded according to the importance which the properties bear to the corporations leasing them and also with respect to the financial strength of the guarantors. With such financially powerful corporations like the Pennsylvania and the Lackawanna, the stocks of leased lines whose dividends they guarantee, grade as high in conservative investment circles as do their best mortgage bonds. That is why these stocks sell at a stiff premium. The dividends guaranteed on some of these leased lines' stocks run as high as 12 per cent to 16 per cent per annum, but they command prices which reduce their net yield close to 4 per cent per annum. The holders of these securities, which consist either of estates to whom the shares were left, banks, life insurance companies and individual investors, are not anxious to dispose of these stocks, as they fully realize the intrinsic value of their investments. The more closely guaranteed stocks are held, the more it reflects the superior position accorded them in financial circles.

There are leased line guaranteed stocks which could be safely regarded as immune even from the severest panic. Their impregnable position is entirely due to the fact that they could not be adandoned without dismembering an important system, a thing which the owners of securities amounting to millions, would not permit under any circumstance.

Railroad policies enter largely into the policy of absorbing other roads by means of leasing. The elimination of competition at times, is behind the policy. At other times one road will acquire control of another to keep an important rival from gaining an entrance into a certain territory. Again the purpose behind such a deal may consist simply of the idea that the lease would prove profitable.

The long-headed people back of the Canadian Pacific had plans to get into Chicago. To build a road to the important traffic-originating centers would prove a costly bit of financing, and even then it would remain a serious problem whether a new line could earn its board. Therefore, when the Wisconsin Central was in the market, the Canadian Pacific saw an opportunity to reach Chicago without great expense, by leasing this property, in return for which it guaranteed a small dividend on the road's preferred stock.

In the expansion of our railroads, the practice of absorbing, by lease, important roads with which an alliance would be profitable will go on steadily. With the growth of traffic on these leased lines, their business frequently turns into the treasury of the controlling road a good profit, as they are entitled to the profits in excess of what is required for the dividends they guarantee.

As the earnings of the leased lines are included in the earnings of the controlling lines, there is no way of determining what is their actual income return. But in this the investor is not actually interested, as long as the guarantors hold good their guaranty. It is realized that they cannot default in the payment of the dividends without losing control of the property, which they seldom desire to do.

Industrial corporations also guarantee the dividends of rivals they have absorbed. Their guaranteed stocks should be judged by the margin of profits they report in their annual statements. In this manner their security as investments can be properly appraised.

XVII. AMORTIZATION AND SINKING FUNDS.

Amortization means the reduction of debt. A corporation issuing bonds may prefer to provide for their payment when they mature through a sinking fund, for the account of which a stated sum is set aside each year, rather than to rely on other means to discharge the debt when it falls due.

This policy has many advantages. It makes it much easier to discharge the debt, as the payments made when spread over a period of years are less burdensome than when provided in a lump sum. Then, also, contributions to a sinking fund to amortize gradually a bonded obligation, can be made to earn interest, which interest, compounding itself, also accumulates money towards the payment of the debt. Thus money is made to earn money.

It is frequently provided, in the interest of a sinking fund, that bonds, for the retirement of which the sinking fund has been created, can be repurchased at a stated price, either by call upon the holders of the bonds or in the open market. A corporation either then cancels the bonds and reduces its fixed charges, or pays into the sinking fund the coupons of the bonds which have been purchased for its account.

There are various ways by which a sinking fund operates. They cannot all be mentioned here. But a bond that has set aside for its retirement a sinking fund, or for which arrangements have been made to amortize by gradual payments is considerably strengthened as an investment where the operations of a corporation are profitable.

The fact that a sinking fund has been created for the retirement of certain bonds is not alone proof of strength. If a corporation is making no profit, it cannot lay aside money for its sinking fund. Certainly it cannot take the necessary money out of its capital, as that only weakens the corporation in one direction, without strengthening it in another.

Where the advantage of amortization lies, is in connection with bonds issued by producing mine companies, and corporations engaged in operating in perishable assets. By setting aside a part of the proceeds from the sale of its products, it is more certain to retire the bonds when they mature. Without a sinking fund, such corporations face the danger of not having the money on hand to pay off the bonds and have no way of attaining it, should their properties exhaust themselves.

XVIII. BONDS FOR WOMEN AND ESTATES.

Investments for women and estates ought to have eliminated all the speculative elements, as far as human foresight can guard against them. Women and children belong to a class of investors who can least afford to take risks, no matter how small, as they have no means of repairing their losses in the event that any of their securities go wrong, dependent, as they are, upon the continuation of their incomes.

An illustration of how necessary it is to exercise extreme care when making investments for women and estates is recalled in a distressing case that came to my attention as the outcome of the failure of the Third Avenue Railroad. An elderly woman was left 300 shares of the stock in this company when they were selling around $200 a share and when there was not even a breath of suspicion that anything could go wrong with this property. This stock represented an investment at the then market price of over $60,000 and was sufficient to give the woman an income of over $3,000 a year, enough to provide for all her necessary comforts. Overnight her fortune was swept away and her income vanished as the result of the failure of the company. In place of comfort for her declining years she saw poverty staring her in the face. She was finally prevailed to sell her stock for $30 a share, stock that cost $200, for she had no means with which to pay a large assessment, and on the interest she receives from her money in a strong savings bank, she is finding it hard to make both ends meet.

It would have been far better for this woman to have had her $60,000 invested in government bonds even though they would have brought her an income of only $1,200 a year.

I cite this case to clearly point out that the smallest risk can quickly become the greatest risk. Such bonds as construction bonds, mining bonds, collateral bonds, unsecured debenture bonds and notes, or for that matter any bonds unless properly secured by physical assets, belong to investments that cannot be safely recommended to dependent women or estates. In saying this, there is no intention to reflect upon the desirable securities of this class, of which there are many, but to emphasize the advisability of minimizing all risks.

Security for such investors is the foremost consideration. Income is secondary. The undoing of most of these investors directly results from a desire to increase the income at the expense of safety.

In the selection of investments for women and estates the suggestion is made that the same rules be applied as govern the investments of savings banks in Massachusetts, New York, Connecticut, Illinois, Ohio, Pennsylvania and other states. These laws are the combined result of the most careful study in determining the safest character of investments.

Copies of these laws may be easily secured by writing to the secretary of state of each of the respective states.

XIX. THE MARKET FOR BONDS.

Much discussion has arisen over the question as to whether a bond is in a stronger position as an investment if it has a quick market or not. It cannot be denied that marketability has certain advantages, but on the other side of the question, there is also the indisputable argument that the broader a market for a bond, the less income it brings. This question is one largely decided by the needs of the investor. If he desires a permanent investment, one which it is his intention to hold until maturity, the question of a market is not of prime importance. The question is important, however, for those investors and banking institutions forced to realize quickly upon their securities in order to obtain funds.

If a market were the essential requirement for all investments, many inactive bonds would be excluded from consideration, even though from a point of absolute security, they are sometimes far safer than some bonds which may be sold readily at any moment they are offered. To a large extent would this be true of real estate and farm mortgages, which are excellent investments and are purchased to hold until they fall due. Nor is a quick market the most desirable for timid investors. A general decline in the security markets which may have no bearing at all upon investment values might harass these timid souls through their fears to sacrifice their securities when there is no warrant for it.

Fear cannot be reasoned with intelligently. No panic ever takes place in which there is not also witnessed a wholesale slaughter of frantic investors, who, a few months later, keenly regret that their fears made them throw their securities on the market. It is because of this that I say that an active market is not essential to the permanent investor. If the bonds he holds are those of a solvent corporation and sufficiently secured, a decline in the market price below what the security cost him, does not impair his investment. It must be paid one hundred cents on the dollar when due. In the meanwhile, market fluctuations cannot interfere with the continuation of the income.

It is security that is most desirable, not a market, nor should investors be influenced seriously by the theoretical discussion about the increased production of gold reducing the purchasing power of gold, which may affect the income of an investor in making the return go less further than before, for the income is fixed. We are now in this year of 1911 passing through a period of liquidation which is again bringing to a lower scale the cost of living, by the decline in commodities. All such discussions are more or less theoretical.

XX. THE CHARACTER OF AN ENTERPRISE.

Over one hundred million dollars annually are engulfed in the whirlpool of predatory finance. This is the amount one conservative estimate places as the tribute paid each year by credulous investors to the modernized American confidence man who has deserted gold bricks and green goods for the more inviting opportunities offered in selling worthless shares.

It is difficult to explain how it is that a people, normally intelligent as a class, permit themselves to be victimized each year out of such an enormous toll. Greed alone is not responsible for their credulity. A more logical reason is to be found in the great ignorance shown by the average investor of the character of securities. The majority act upon the assumption that everything is right without first investigating. They rest their faith in the honesty of the men who are asking them to invest their money. They assume that the public authorities would never permit these men to carry on their business were they aware beforehand of their dishonesty and that the powerful newspaper press would never allow them to use their pages to advertise their securities unless their backers were honest.

Unfortunately the authorities proceed upon the theory that it is none of their business to act upon the initiative or that they suspect a fraud is being perpetrated. They contend that more pressing duties occupy their time and they cannot afford to investigate all the investment propositions as soon as they make their appearance. They, therefore, wait until a complaint is lodged with them before bestirring themselves and in most cases a swindle has by that time gone too far and already the greater part of the mischief has been perpetrated by the time some victim has become suspicious enough to lodge a complaint. As far as some of our powerful newspapers are concerned, it is unfortunate that their morality is no more than a cold business morality. Some of their publishers maintain that their readers must exercise their own intelligence about the investments offered in the advertising columns. They say they do not recommend them. They require and desire the large revenue derived from illegitimate financial advertising, running into the thousands every year, and are perfectly willing to salve their consciences by assuming an innocence of knowledge as to the real character of the proposition offered.

A prominent government official has severely arraigned the newspapers which accept this class of advertising for their share of the guilt in the annual loot which the dishonest investment proposition takes from the public. He has charged that these swindles could not exist without the co-operation of these newspapers. But this is not all true. The liberty to use the mails for the distribution of prospectuses, literature and letters is equally responsible for their existence and success. If the newspapers were not as accessible as they are these schemes would still be carried on through the mails.

If it were possible, without encroaching upon the liberty of the press and the use of the mails, to bring about an intelligent co-operation between the newspapers and the postal authorities to surround investment propositions with proper restrictions, there can be no question but that the harm they do could be materially curbed. Even then unsuspecting and uninquiring investors cannot be wholly protected against their own ignorance. There is but one way for them to guard themselves against outright swindles and this is by the exercise of a little common intelligence.

The brief investigation before investing will, in the majority of instances, save the investor his money. But the usual practice is to invest first and investigate afterwards. At least my experience in my correspondence with investors who have bought doubtful securities, shows this to be the tendency. I purpose here to outline some of the essential factors relating to every enterprise about which investors should fully post themselves. If they follow the course laid down, there is little chance of any swindles getting their money.

The Nature of the Enterprise.

It is important to consider seriously the nature of the enterprise. If its basis is sound, the prospect is good for its success under a capable management. This may be determined by a comparison with undertakings of a similar character, by which it can be shown if they are profitable elsewhere. Competition is also an important factor to consider. What sort of competition will be met with and what degree of opposition must be faced? Has the enterprise peculiar advantages over others in a similar line? This should be brought out, as well as all the advantages indicating that the enterprise can be profitably conducted under existing conditions. These are the general problems to which investors would do well to give the first serious thought.

When satisfied in this regard, the next step is a careful examination of the plan of organization. Corporation laws differ. Some states are more liberal than others, some states even going so far as to invite the incorporation of enterprises by loose laws, none of which is for the benefit of the stockholders.

The corporation laws of Maine, Delaware, New Jersey, North Dakota and Arizona are all so framed as to vest the management of a corporation with such discretionary power and secrecy that it works the greatest harm to the stockholders. The stricter the laws under which an enterprise is incorporated the greater are the interests of the stockholders safeguarded. The amount of capital is very important. The more reasonable, the greater are the chances of success. No less important is the manner of the issuance of the stocks. Has it been issued in whole or in part in return for the property turned over by the incorporators? If so, in what proportion and for what property? A knowledge of this will throw some light upon whether the money of investors will be used for the exploitation of the business of the enterprise or flow into the pockets of the promoters.

Is the stock offered for sale full paid and non-assessable? It is the law of some states that stock bought for less than its par value places on shareholders the liability for the difference in case of insolvency. Suit can be started by the creditors for the recovery of the difference. Corporations evade this statute by turning over the assets for the shares, in this manner making them full paid and non-assessable. Part of this stock, if not the whole, is then put into the treasury to be sold to secure working capital. It should also be determined whether any of the stock has preference and of what this preference consists. Foreknowledge in this respect is to be fore-warned against any surprises. By knowing what, if any, stock remains unissued and is held in the treasury, one may tell the sources of new revenue open to the corporation, as new capital can be raised as it is needed by the growth of the business. A copy of the by-laws should be examined carefully, as from them the prospective shareholder can determine the extent of the powers vested in the officers and directors of the corporation.

Who has the stock control? The character of the men is such that it can either make or break a corporation. In their hands rest the rights of the smaller stockholders. Are they men whose past conduct in the management of corporations is such as to assure that the rights of the minority shareholders will be fully maintained? Finally, in the plan of organization are there any unusual features in the charters of the by-laws which may be employed in the future to the detriment of the stockholders?

Present Condition of the Enterprise.

An examination in this respect can be divided into three classifications: First, into the property; second, into operation; and third, into the finance.

To begin with the first, there is the property or the rights controlled. Herein are the elements of success. Has it any value and how have the values been estimated? The answer to this inquiry can determine the measure of conservatism or exaggeration back of the enterprise.

If the properties or rights are owned outright the more certain the foundation on which the enterprise is being built. Less assured is the future where the properties are held under lease, license, grant, option or otherwise, for the failure to comply with some terms is liable to break the contract and the loss of the property. If the property is owned outright, the titles should be perfect. If there are any encumbrances on the properties or rights, the investor should know it, and what the amount is. If they are not owned outright, the holding papers should be in proper form and it ought to be known also if the holding terms are reasonable, satisfactory and safe.

With all the facts known, then some ideas ought to be formed as to what the property is likely to bring in case liquidation is forced, and with all these facts before the investor, he can form an intelligent conclusion regarding the present condition of the enterprise.

Coming to the second consideration as to operation, the first thing which should be found out is: What have been the operations up to the time the investor is asked to purchase the shares? Then, what have been the results and to what extent have they proved profitable? Another fact to ascertain is whether difficulties have been encountered, and, if any, their nature. Find out about the demand for the product or the operation of the enterprise and what is its present status financially, as well as physically. Then, are the books properly kept and are they open to the inspection of the shareholders?

The third consideration, and one which relates to the very heart of an enterprise, is the state of the finances. First, there are the assets as they exist—their character and their actual value. At least an investigation of the assets will guard against a later discovery that they are mostly of paper value and not real. It is important to have a clear knowledge regarding the debts, claims, fees, rents, royalties or other payments or obligations due and which must be met.

Knowing this, the next step is to ascertain the resources available, out of which these debts are to be paid. Who handles the money and what safeguards are provided to prevent improper disbursements? It is also important to know what, at present, the running expenses are and what they are likely to be, including the salaries of the officers and managers, to ascertain whether these important outlays are upon a conservative basis.

Then there are the directors. Who are they? What is the past record and present business standing of each? Who are the active members of the board? Who, if any, are inactive? Are the meetings held regularly and are they fully attended? Who compose the executive committee, if any, and what are their powers? Above all it should be ascertained if the directors are stockholders to a material amount. It is but reasonable to suppose that if they are financially interested in the prosperity of a corporation, the more conservative will their management be.

Who are the officers? What are their previous records? What are their special present qualifications? Are they able to work together without friction? What compensation do they receive or are they to receive, and are they interested in the enterprise beyond their salaries? What is the general plan of operations they have mapped out for themselves and what led to their adoption?

Some General Questions.

With a clear intelligence regarding the above problems, there still remain some general features which should be thoroughly investigated. Serious consideration should be accorded to the previous history of the enterprise or the property or undertakings on which it is based. If inventions enter prominently, what is the previous record of the inventor? By whom are the statements made, and is the party making them reliable? Finally, are there any contracts or obligations not now effective by which the enterprise may subsequently be effected?

With all these facts before the investor and carefully considered, he is at least assured against falling a prey to any financial sharps. Neither they nor their enterprises could furnish a clean bill of health where probed by an examination as thorough as assured by the different questions outlined in this section. While they are by no means a complete assurance against loss, as an honest enterprise might meet with difficulties and many have, they do raise sufficient safeguards against downright dishonesty. In conclusion, it may be said that the investor should demand before parting with a penny of his money, a complete financial statement, including item by item the assets and the liabilities, the earnings and the expenses, of a going concern. In another section, a specimen statement is submitted to demonstrate how figures sometime can be made to lie in a way to do credit to a Baron Munchausen.

If investors will conduct an investigation such as has been here proposed, there will be very few who will, by the exercise of a little bit of intelligence, have cause to complain that they have been victimized. They will have locked the stable door before the horse has been stolen.

Swindlers operating in the financial field are unable to reply properly to all these questions and even should they, their answers would not hold together well. Discrepancies would show themselves here and there so glaringly as to at once eliminate their proposition from the consideration of intelligent investors.

It is possible to deceive a person with one lie, but a half dozen or more lies will not stick together. In fact, conservative bankers employ this searching investigation to determine to their satisfaction, the character and possibilities of an enterprise proposed to them to underwrite its securities. If they depend upon this information, why should not investors?

XXI. SCIENCE OF SPECULATION.

Call it what you will, speculation will always be with us. Prudes may frown upon it, superficial thinkers may confuse it with the commonest forms of gambling, and sociologists may dream of the day when envy, ambition and covetousness will be a thing of the past and the human race can exist in peace without these human traits, but their agitations and outcries can no more check speculation than human ingenuity can devise a scheme to control the tides.

What the blood is to the human body, speculation is to business. It is absolutely a necessary part of it. The only difference, if there is at all a difference, is in the form it assumes. What would business be without incentive? In fact incentive is all there is at the bottom of speculation. Men are willing to take risks to acquire wealth. They are willing to stake their capital upon opportunities which appeal to their judgment.

From the pioneer who heedlessly plunges into a trackless waste to find a new home with greater opportunities for the acquisition of wealth, to the modern capitalist, who, to control the trade in a given commodity, plans gigantic trusts, is a long line of speculators, as speculation is behind all their ambitions. The inventor who is, apparently, of all men the least of speculators, takes greatest speculative chances, for he uses up time and energy to shape his ideas into some form where they can be of practical use and should he fail has wasted them utterly and lost all.

Illustration after illustration could be given to demonstrate how speculation in a greater of less degree enters into the material welfare of each individual.

Without speculation no business could progress. It is the dynamic power behind every incentive to activity and progress. It is the desire for gain which prompts the inception of every venture. If it is all that, then it can be readily seen how necessary speculation is. In fact, speculation in its highest form has shaped the course of history and often changed the map of the world.

While the discovery of America by Columbus was accidental, the real purpose behind his venturesome journey was to find a shorter route to India. After he found a new hemisphere his discovery inflamed the spirit of conquest among numerous intrepid explorers, few of whom set out upon their expeditions with any thought of planting their country's standard over new territory for the mere sake of fame. Most all of them went hunting for new treasures and to expand the commerce of their nations. Cortez was only a looter. He and his soldiers despoiled Montezuma and the Incas of their treasure for his king, himself and his men. Pizarro did the same. The Indians, our real Americans, were not originally blood-thirsty savages, but a peaceable race of primitive men who welcomed the appearance of the white men among them. Their friendship was only turned into hate when they began to realize that the white man came among them solely to wrest their land and possessions from them.

Behind most wars among nations there is the commercial instinct. This is but another form of speculation, except on its grandest scale. Instead of between individuals it is between nations that a rivalry for acquisition exists and this rivalry clashes to a point where it arouses the martial spirit of a race to acquire by force of arms what cannot be secured by peaceful measures.

Were it not for the rich diamond mines at Kimberly and the gold mines of Johannesburg in South Africa, there never would have been such a historical event as the Boer War. It was not an insult upon English pride which prompted John Bull to spend over a billion dollars to humble the hardy dutch nation under Krueger, but the possession of the rich mines was the real goal. But once the conflict was on, national pride forced the English nation to carry it to a victorious end, whatever the cost. The same cause, the retention of India under the British flag, brought about the Sepoy mutiny.

Going back further into the history of England, the loss of her American colonies is directly traceable to the greed of her capitalists. Out of their enlarged opportunities they wanted to get all their was possible despite the danger of trespassing by their heavy exactions upon the peaceable nature of the colonists. The tea tax was the spark which set aflame the American revolution.

No tax can be construed as a patriotic measure. It is a scheme for material aggrandizement. George III, to enrich the exchequer of his nation and indirectly the personal fortunes of his subjects, attempted to do it by forcing the colony in America to pay his country a greater tribute. For his efforts to lay hands on more money, England lost an important colony. What, then, was this war, when stripped of all its romanticism, but the result of speculation? It was a case of a nation's greed overstepping itself.

And so it was in the late war between Japan and Russia. Patriotism and national pride had no share in bringing about this conflict. Rich Manchuria and the possession of Corea, which also meant the dominance over the commerce of China, were at the bottom of the conflict. Japan wanted this enormous business. Russia was equally covetous. It was therefore inevitable that the friction between the two nations, wholly the outcome of their commercial expansion, could be settled only by war and the prize fall to the victor after sacrificing many hundred thousands of lives and piling up a huge war debt for each as a heritage for many future generations.

What is true of nations is also true of individuals. They seek greater opportunities to make money. Between individuals their interests when they conflict are fought out in the arena of competition. The mastery falls to those who are the shrewder and more aggressive contenders. Yet beneath the outward semblance of competition is the greater force—speculation. We cannot get away from it. Wherever we turn we are brought face to face with it.

By no means, either, is speculation in any sense a modern force. It is as old as the human race. Only when the human race no longer exists will speculation become extinct.

Our own Bible brings down to us the tradition of how Joseph bought up all the wheat in Egypt because he shrewdly detected there would be a famine in the land. What was this but speculation? In reality Joseph was the first man we know of to corner wheat. Nowadays men speculate in the same cereal. They watch the weather map carefully and spend considerable money each year gathering statistics in an endeavor to form an idea as to the extent of the harvest. As they form their opinions they trade in the wheat long before it is out of the ground and ready for the market. They buy if they believe the crop will fall short, to resell it later at a higher market price, or if, on the other hand, they arrive at the conclusion that the crop will be plentiful, they sell it in anticipation of a decline in the price expecting to reimburse themselves from the difference in the price they agreed to deliver it for months previous to the harvest and the lower price. If they are mistaken in their judgment, they, of course, are out of pocket. The only difference between their trading and that of Joseph is that whereas he bought the wheat outright, they deal in contracts without ever seeing the cereal.

Guglielmo Ferraro, the great modern Italian historian, in his fascinating history of "The Greatness and Decline of Rome," gives a very interesting account of how speculation was at the very bottom of most of the conquests of the Roman legionaries over the other barbaric nations and to many it may be exceedingly interesting to know that for nearly a century before the birth of Christ, the Romans were already buying shares in large land operations which were carried on throughout the colonies of Rome. So even the buying of shares, regarded as a modern evolution, is by no means new.

Lucullus, Rome's first great expansionist, inaugurated the fashion. His conquest of Mithridates first opened the eyes of the Romans to the luxuries and refinement of the East. The talents and sesterces he brought back to Rome incited in the Roman aristocracy the lust for greater conquest. The rich money lenders were prompted to finance the expeditions and the ambitions of the Roman war lords. Pompey conquered other nations, turning over their rich lands to the powerful Italian land operators, who in turn invited the smaller speculators to join them in their extensive operations. Caesar continued Rome's policy of conquest in Gaul and Britain. Behind all his wars was the sordid object of enriching himself and his followers with the tributes exacted from the smaller and weaker tribes which his legions subdued—all for one object, to extend the wealth of Rome, to give the speculators a greater field for their operations.

Thus it is seen that we have many historical precedents to justify speculation. More than this, they indicate that behind each step of progress the human race has made, speculation has been the impelling force and modern conditions have changed it but slightly.

What, however, is the science of speculation? We often hear of this appellation being applied to it. Roughly speaking, to me there does not seem to be anything like a science of speculation, in the sense that we are accustomed to use the term, beyond a few general though uncertain rules. There is a science of chemistry. The knowledge gained of it can be verified by exact observation. Certain conclusions can be demonstrated beyond peradventure by obtaining the exact result which an investigator sets out to obtain. There is an exact science in astronomy, in medical research, in geometry, in meteorology, and in metaphysics. Knowledge of laws and rules must first be acquired to prepare a person to undertake proficiently the study in these sciences.

But I should like to ask how any course of study in speculation could be outlined on which reliance can be placed. Familiarity with the objects engaging one's speculative instincts of course are absolutely essential to success. A general knowledge of conditions helps considerably when coupled with a keen perception of what their effects are likely to be, but as these conditions constantly vary, there is no way by which a knowledge of them can be verified by exact observation.

Possibly you have seen at some time or another, a chart indicating the trend of the stock or grain markets. A piece of paper squared off in blocks, each row representing a cycle of time, most usually a year, and across these blocks there will be a wavy line running either longitudinally or perpendicularly. This line is supposed to trace the trend of prices. Such charts have many followers who foolishly believe they can replace judgment with a greater degree of accuracy. But they more frequently go wrong than they prove right. They might be accurate guides were similar conditions present, when the charts would indicate a recurrence in a swing in prices upward or downward as the case might be, but this is not always the case, fate having a strange inconsistency in bringing forward unexpected events which wholly change the course of human expectations.

Previous to the sharp panic of 1907 the concensus of opinion among our great millionaires who accumulated their vast wealth as a result of the unusual period of prosperity which set in with the election of William McKinley as President, was that the country had not yet exhausted the good times. Shrewd men like Henry H. Rogers, William A. Rockefeller and others equally powerful, were confirmed bulls on the country and backed their faith of much higher prices for the leading securities listed on the New York Stock Exchange by accumulating vast blocks of shares.

According to the signs of the charts, their position was correct. The flood tide in the prices of stocks had not been reached. But without a visible sign of a lowering cloud in the business horizon, a fatality occurred which rent asunder all their well-laid plans and involved them in huge losses. The panic of 1907 came unheralded by any of those advance signs which in the ordinary course of events cast their shadows before the eyes of shrewd students of conditions.

That fatality was the San Francisco earthquake. It came like a bolt from a clear sky. The destruction of over $200,000,000 of actual wealth proved like a vacuum bursting, in which money required elsewhere had to rush in, to mitigate human suffering and prevent the total ruin of fortunes invested in the stricken city. It found the credit structure of the moneyed centers in the country in a vulnerable position. No money in large volume could readily be spared within so short notice without withdrawal from other channels and as the necessity was most urgent, sacrifice had to be made by letting go of the more quickly saleable assets, which were securities. The earthquake caused the panic; that was unexpected.

Another indication that there is no accuracy to speculation is the explosion of the theory regarding the recurrence of panics. For some years we have held to the belief that between panics an interval of about twenty years elapses. But of late, money panics have occurred with greater frequency. From 1900 to 1910 there were two panics, varying in degree of intensity.

If it were at all possible to gauge accurately beforehand the years in which we are to see great prosperity and then adversity, there would be hardly any necessity for the exercise of the keener perception upon which successful speculation must depend for a profitable fruition. All that would be needed is to watch for the unfailing signs and then trim sails accordingly.

Another fallacy we often fall into, is the belief that a panic in Wall Street is a localized affair and cannot disturb the prosperity of the country. We have seen an impression extant something akin to this during 1907. Other parts of the country were confident they would not feel the effect and the press was particularly concerned in pointing editorially to reasons explaining and emphasizing this view. But it was not six months afterwards before the entire country was in the grip of the depression the panic superinduced. In a few months the banks in the large interior cities were forced, because of the scarcity of money, to resort to clearing-house certificates as a measure to relieve the stringency.

Money has its capital centers in each country. As money is the basis of credit and is also the life fluid of business, it cannot be otherwise than that the prosperity of a country will be disturbed and checked when there occurs a panic in the principal money centers. Then a condition of atrophy is brought about. Business receives a swift check, almost always unexpectedly and when least prepared for it.

Sometimes a panic is brought about by the most unusual occurrences. At times it comes by the most unexpected happenings and the direct cause will always be found in the over-extension of speculation.

One instance I have in mind was the sudden death of Governor Roswell P. Flower, who was a great market factor and who, because of his unusual success as a speculator, had behind him a great following in the securities in which it was known he was most largely interested. His death, overnight, paralyzed his following. They were thrown in a panic of fear by the sudden loss of their leader. What were imposing fortunes the day before were swept away as if by a tidal wave, and in place of the wealth there was ruin, on the day following, to thousands of speculators, caused by the sheer and heartsickening decline in prices of securities.

Another similar case of the unexpected, but this time not from the death of a great financial captain, was the memorable flurry in Northern Pacific stock as a result of the Titanic struggle for control of this important railroad system between E. H. Harriman and his banking ally, the great banking house of Kuhn Loeb & Co., on one side, and James J. Hill, backed by no less a great banker than J. Pierpont Morgan, on the other, Northern Pacific shot up to $1,000 a share. Were it not for a private settlement on the price after peace was again restored between the two rival factions, the financial district would have been a mass of wreckage, since but little of the stock sold under contract to deliver next day was obtainable, as the control was held tightly by Hill and Morgan.

Jay Gould's efforts to corner gold, when gold in Wall Street was still considerable of a speculative commodity and there was a room in the Stock Exchange set aside for traders in it and known as the Gold Room, brought Black Friday, one of the blackest days in our financial annals.

These illustrations will confirm the contention I make that it is the unexpected which changes the course of speculation. It is the unexpected against which no precaution can be taken. To the lay mind it will be somewhat puzzling how the effect can be so ruinous. With a little clearer knowledge in the rough of how speculation is carried on it will be more readily understood.

Most speculators do not buy outright, that is, with their own money. They usually operate on margins. That is, they will buy a block of stock, it can be wheat, cotton or something else just as well, through a broker, paying a certain percentage of the purchase price and leaving it to the broker to arrange a loan with his bank for the balance. On this balance the speculator pays interest.

As the stock declines he is forced to protect his equity in the stock by putting up more money or margin, and if he has not the capital or comes to the conclusion that the decline will continue and does not care to run the risk of further loss, he sells out or is sold out, the bank liquidates its loan, the broker deducts his commission, and if there is anything left, the speculator gets the balance. If he is in debt beyond his margin he must make the difference good. But it seldom reaches this point, as the loans made are carefully watched and closed ere the lender's margin is exhausted.

In panics, or when the unexpected happens, the change in prices occurs so swiftly and suddenly that often the speculator has no time to protect himself before his loans are liquidated as a matter of precaution. As for the outright holders of securities, they are harassed by fear to unload to prevent further losses. In such times securities are recklessly thrown upon the market from all sides, and prices smash.

XXII. EFFORTS TO PREVENT SPECULATION.

There breaks forth periodically from prudish, but well-meaning people, protests against all forms of speculation in stocks or commodities. Appeals are made regularly to the legislative arm of the Government to put a stop to speculation through the enactment of repressive laws. These out-bursts of public temper usually arise out of a speculative debauch or directly result from abnormally high prices, which speculators are charged with bringing about.

These outcries are typical of restless human nature. The public as a whole sometimes acts as one big machine, permitting itself to be propelled unthinkingly hither and thither by some forceful leader or set of agitators who momentarily have caught the popular fancy. These risings are sometimes successful and laws to curb or wholly suppress speculation are framed.

Nor is this aroused state wholly a characteristic of the American people, who are, anyway, a cosmopolitan nation made up of many races. It breaks forth among the peoples of other nations. The Germans, stolid as they are, rebelled against the speculation in grain, claiming it enriched only the millers and placed a heavy burden upon consumers. A great outcry arose in Holland following the insane speculation in tulips centuries ago. England felt the clamor frequently and most pronouncedly after the collapse of the South Sea bubble, while France was rent with the protest of the populace against speculation twice, in a way to become historic: The first time, when John Law's grandiose Mississippi bubble burst, and the other, when the De Lesseps Panama Canal scheme smashed.

With us, a year hardly passes but that there is introduced either in Congress or in the assemblies of our different states, laws to stop margin-trading, as speculation in stocks is called, or dealing in options, either in grain or cotton. But up to the present time no laws have been enacted to interfere seriously with speculation. Our more sober intelligence has so far checked any attempt to construct bars against a practice which serious thinkers realize is the very incentive of our material progress.

Germany once succeeded in stopping speculation in grain. The farmers and the consumers soon felt, as a result, that the burden fell upon them and not upon the traders, who formerly dealt in this commodity on the Bourse. Without a public market on which a price for their grain could be made through free and open bartering, the farmers had to sell for any price they could get and never knew whether the price was standard. The millers had the price-making power for flour wholly within their control. It was not long before the Germans were equally as anxious for the restoration of trading in grain on the Bourse as they were a few years before to put it down by force of law.

The rise in public opinion against speculation has its counterpart in similar demonstrations against the liquor traffic and yet wherever the law has succeeded in driving liquor out of a community, statistics have proved the presence of a greater number of inebriates than when the traffic was allowed to be carried on in moderation and under the supervision of the authorities.

The minister of the gospel from his pulpit thunders against the evils of speculation with no less vigor than he portrays all the sins of the flesh for which Demon Drink is responsible. As they are popular themes they lend themselves readily to the eloquence of orators. Nor is this all: Blind ignorance, greed and rashness are responsible for many unfortunate victims of each of these twin evils in their eyes; therefore, they have many shining targets upon which to aim their shafts of invective.

But the deeper and more tolerant thinker peers beneath the superficial exterior and sees there a plausible and justifiable reason for the use of liquor. Wine and beer used in moderation never harmed a race. The Germans are no less virtuous than any other race because their favorite beverage is beer. The only difference is that their liking for this mild drink has been kept within the bounds of moderation. The corrective against the evils of intemperance lies in education in pointing out the harm which comes from over-indulgence. Laws cannot be relied upon to curb the appetite.

With speculation it is much the same. Intelligent speculation is no crime. It is not gambling. It is merely pitting human shrewdness against the uncertainties of the future. For that matter, life itself is a speculation in which ministers, prudes and agitators hope to avoid sickness and accident and live their allotted span of life. Between speculation and gambling there is as much difference as there is between night and day. Speculation commands the exercise of the greatest measure of acumen, where gambling trusts everything to luck and the turn of a card.

Experience has demonstrated far too convincingly that wherever speculation has been leashed by the iron bonds of the law, the effect has been almost an immediate stoppage in the material progress of the country. Market places where average prices are created are destroyed, which in itself is a great detriment, as the sellers cannot know whether or not the buyers are paying them a fair price for their products.

Almost Everyone Speculates.

A man believes that a corner store in his neighborhood is a good location for a dry goods business. He leases the store for a year or a term of years at a good rental. He contracts for a large bill of goods. He has his store substantially fitted out. In fact he has invested considerable money in his enterprise and made himself liable to wholesale merchants for a stiff bill of goods, before he has even sold a paper of needles, all because he has arrived at the conclusion that the location he has selected for his business is favorable for the development of a good trade. No one would dare charge him with speculation. If any one did so, that man would be regarded as a hare-brained crank. Yet the storekeeper is speculating just as much as if he had bought so many shares of a stock whose earnings would justify the belief that there would be an enhancement in value. If people failed to patronize his store, and if sales were insufficient to bring a profit, he would have to suffer losses represented in the difference between what this stock brings and what it cost, and his loss of time and rent until he could rent the store to some one else before the expiration of his lease.

Fond parents, when they send their children to college to acquire an education to fit them for their struggle of existence, may not realize that when they invest their money upon the education of their loved ones, they are speculating upon the children's using the opportunity properly. Their boy or girl may absolutely waste the opportunity in frivolities and leave college even less fitted for life's battle than other young people whose parents' circumstances were such as to make it impossible for them to obtain a college education.

A tailor cannot tell when he is laying in a stock of woolens whether they will meet the public taste. He depends entirely upon his judgment when placing his orders, which he does months before the season has set in. Is he not speculating?

Why, even the grocer speculates when in the early morning he drives his wagon to the market for his daily supply of greens, vegetables and dairy products. So does the butcher in his trade. He figures that his regular patrons will order a certain supply of meat. He also knows that if they fail to do so, what is left over must be made good out of his daily profits.

When the farmer tills his soil and puts it to seed in the spring, he speculates, does he not, on a favorable outcome of his harvest? Not only does he speculate but long before the time has been reached to garner the fruits of his season's toil, he has already pledged part of the harvest for loans at his bank, depending entirely upon his crops to take them up.

Human endeavor, whichever way it is directed, largely speculates upon a favorable outcome. The manufacturer invests considerable money in raw products to turn into finished articles, and in labor, counting upon a steady demand from consumers for his profits. If he needs money, he borrows from the bank, expecting to repay the loans from his sales. The wholesale merchant, whether he deals in dry goods, coal, groceries, jewelry or the dozen and one staple commodities, does the same and assumes the same risk, putting his judgment against the future.

In going into these minute details, I merely attempt to show what misconception exists regarding speculation. The critics take the shadow for the substance and hold the substance responsible for the evil effects of the shadow.

If a man fails in speculation and is ruined in consequence, he is pitied and speculation pilloried before public opinion as a crime.

If he fails in business as a result of misjudging his opportunities, he is not pitied, but condemned as an incapable business man, although underlying both misfortunes there must have been the same cause, a greed to bite off more than could be cared for, or greed to acquire a fortune quickly, even at the risk of rashness.

There are any number of people who buy real estate or farm lands every year, knowing full well they have not the money to purchase it outright. They make their purchases subject to the encumbrances or mortgages already standing against the property. What money they pay out is for the equity and nothing else. They are confident of their ability to care for the interest on the mortgages. They expect their equity to increase in value sufficiently to enable them to turn over their property to some other buyer at a good profit.

Even the more humble wage worker does this when he buys his home on the installment plan from a builder, who himself, to construct the house, has already plastered it with a mortgage to his bank, and the interest on which mortgage the wage-earner must pay in addition to paying off the equity in easy installments.

In each instance, the buyer is buying on a margin exactly in a similar manner as he would buy on margin certain stocks or certain quantities of grain or cotton. Some one else lends him the money on the unpaid balance on which he pays interest. Yet some people hold this practice to be wrong, to be gambling, while they hold the purchase of real estate on part payment and financing the remainder by a loan as a legal and ethical transaction. If the one be wrong, the other is also.

Moreover, there are as many failures through over-extension in real estate operations as in stock speculation. As many people have their property sold through foreclosure, because of their inability to meet their interest, as there are people who have their speculative commitments in stocks closed out through inability to provide more margin.

The evil in speculation is not in speculation itself. Where it arises most is through ignorance of conditions. Unscrupulous brokers and mercenary "tipsters" are to a large degree responsible for the odium so frequently heaped upon speculation. They tempt people into the whirlpool, where the most acute judgment must be exercised. These people have no knowledge of the principles of speculation, but the operator drags them in by appealing to their greed and cupidity. They are told about what great fortunes are made on a few hundreds or thousands. They are induced to so over-extend themselves that the movement in their speculation of a few points against them completely wipes them out. The most festering sores on speculation have been the bucket-shops. Their gain lies in the losses suffered by their patrons. The more they can shake out, the greater the profits; therefore, it was at all times to their interest to tempt their customers to operate on slim margins. Fortunately, these concerns, which were no more than gambling shops, as they very seldom bought securities outright and in which speculation was reduced to guessing on the day to day fluctuations and not infrequently from hour to hour, have now been driven out of business by most of the states. Of late the United States Government has also taken a hand in extinguishing them, as it can do since their existence depends upon transacting most of their business through the mails.

However, equally mendacious is the "tipster," the advertising tipster who brazenly proclaims in large type that he is in a position to tell beforehand certain movements in securities. These charlatans succeed in garnering a harvest of ignorant and greedy victims who, with a child-like faith, swallow their statements in absolute confidence, and plunge blindly into buying the stocks recommended to them as going to jump many points, only in the end to lose all their money. It is paradoxical that some people will believe such stories coming from strangers, but when it comes to business transactions with which they are familiar, they are as shrewd in their bartering as the chief character in "David Harum."

If the average person would only pause to think that if these tipsters were so certain of success even in a tithe of their supposed information, they could make in a night a fortune large enough to place them above want for the rest of their natural lives and beyond all necessity of retailing their information for the twenty or ten dollars they succeed in cajoling from trusting, ambitious persons who strive to get rich hurriedly on inside information, most of which is purely guess work.

Yet these Cagliostros of the financial centers have contributed largely to the disrepute speculation occasionally falls to in this country, due to the laxity of the authorities, who, it seems, might find some way to drive them out of business.

There are also the so-called financial geniuses who have devised a system of reducing speculation to an accurate science, who by charts or other devices, claim they can accurately gauge the fluctuation in prices so that there is no risk whatever. Scheme after scheme of this character has been launched, each one finding some following, at times large, at other times but a beggar's guard of embryonic speculators. Some have been put forth by sincere fools; others by outright crooks who know only too well how to attune their plans to the credulity of the public. But none ever succeed. One by one they go to pieces, leaving in their wake a train of victims.

Speculation cannot be harnessed to comply with any man-made laws. Keen insight into conditions, a thorough familiarity with the earnings of certain properties, or the condition of the crops, if this is the commodity in which a speculation is concerned, and a clear knowledge of the tendencies and trend, are abilities making for successful speculation, and they are individualistic, not mechanical. A person might as well try to break the Bank of Monte Carlo on a system or any other game of chance as to attempt to reduce speculation to a science.

It cannot be done, for there are too many elements of uncertainty. Life itself consists of uncertainties. Withal, intelligent speculation is absolutely necessary to the material progress of a nation. Risks must be taken to make headway in business as well as in the purchase of securities or commodities.

The country as a whole has spent all the proceeds of a harvest in anticipation of it, long before it gets to the markets, and immediately starts upon contracting liabilities, expecting to meet them out of the next harvest. When it overdoes this and is disappointed, the country pays the penalty by a business depression. We discount the future, and in doing so, speculation plays the largest part. It is impossible to deny this fact.

None of our railroads, nor any of our largest corporations could have ever attained their prominence or magnitude were there not an army of optimists confident of their growth, willing to take chances in the enhancement of the value of their securities when they were low. Where would these properties have raised their necessary capital without these speculators?

And when we consider that, as a result, many millions of persons find employment, we can see one of the great benefits arising from speculation.

Speculation in itself is vitally necessary. Its abuses are what we should strive to control. Much of that can be done away with by the spread of intelligence regarding its operations.

XXIII. THE MYSTERY OF A BALANCE SHEET.

Corporations whose securities are largely in the hands of the public ought to furnish their shareholders a statement of their financial condition at least once a year. Accompanying this annual report there should be a statement of the earnings and disbursements during the year.

Shareholders have a right to know what the managers of their corporations are doing in a business way and how their properties are being managed by those chosen among them to officer and direct them.

Not all corporations, however, do this. Various reasons are given in explanation. Some claim that in making their affairs known they lay their trade secrets before competitors. Other corporations assert there is nothing to be gained by revealing their profits as long as the stockholders are receiving dividends regularly, but that such disclosures are likely to subject them to annoying inquisitions from tax gatherers. In answer to the first statement it is to be said that financial statements can be prepared so as not to reveal trade secrets. In answer to the second claim, no corporation ought to shirk paying its legitimate proportion of taxes.

Secrecy regarding financial operations has a bad effect upon confidence as it rightly should have. Unless a corporation is a strong one and has had an enviable financial reputation for years, the refusal to make its affairs known to the shareholders has the inevitable tendency to create the suspicion that not all is as well with it as the corporation would wish to have the shareholders believe.

As a matter of public policy, the National Government has made it compulsory for the railroads to make monthly reports of earnings and operating expenses to the Interstate Commerce Commission and while these reports still lack clarity in making them intelligible to most shareholders, they at least afford the opportunity to make intelligible comparisons. Some of the states make it also compulsory for the public service corporations to file their earnings for public inspection. But compulsion is far from satisfactory in supplying shareholders with information, as is the case when corporations recognize their rights and of their own accord willingly publish statements.

The majority of our corporations have come to recognize their obligations to their stockholders in this respect and at regular intervals issue earning statements and an annual report at least once a year. The great United States Steel Corporation even goes so far in recognizing the rights of its more than 200,000 stockholders as to publish at least once a month the tonnage in steel orders booked.

As far as the earnings and operating expenses are concerned, there can be little about them to confuse the intelligent stockholder. There can be no jockeying with these figures for any length of time without the fact becoming apparent very soon.

Where the lay mind, unfamiliar with the intricacies of bookkeeping is likely to be puzzled, is in the corporation's balance sheet which is supposed to give to the stockholders an accounting of its assets and liabilities. It is here that a good deal of educational work is necessary. The appraised value of a corporation's assets must be largely accepted upon faith. A large number of corporations, however, in an effort to convince shareholders regarding the authenticity of the appraisement of their financial condition go so far as to secure an independent audit by certified accountants, a method which has been very well received and can usually be relied upon.

But an independent audit is not always such as it should be. I have often seen certified statements of this character which would no more convince me that the balance sheet submitted was conservative than had the corporations submitted the figures unvouched for. Some of these accountants simply certify that they have checked the different items on a corporation's book and have found them as represented. This, bluntly stated, merely means that they have accepted them as being correct without carefully going into the matter to determine whether there has been any inflation in appraising the assets with the purpose in view of establishing a strong financial showing.

To what an extent a financial statement can be made to falsify, I publish herewith a statement issued a few years ago by a wireless telegraph concern which had been engaged in the fraudulent exploitation of its shares until the Government stepped in and put a stop to the swindle. This is the statement:

ASSETS.

Patents and patent rights	$ 5,005,100.00
Stock in treasury (par)	5,310,410.00
Stocks and bonds in other companies—book value	14,128,610.00
Cash in treasury and treasury agents	109,400.70
Office furniture and fixtures	3,975.38
Factory material on hand	9,285.55
Factories and equipments	25,996.94
Bills and accounts receivable	176,498.08
Land stations and real estate	215,442.50
Boat stations	287,500.00
	$25,272,219.15

LIABILITIES.

Capital stock (authorized issue)	$20,000,000.00
Bills and accounts payable (current monthly)	15,556.37
Surplus	5,256,662.78
	$25,272,219.15

Here is a statement which superficially presents a very strong financial position. Taken on its face, it shows a book value for the shares which are of a par value of $10, of over $12.50, not including its speculative possibilities. On this flimsy financial statement the financial sharks who were operating this scheme succeeded in selling considerable stock for as high as $30 a share, or three times its par value. The par value is the value of the shares as printed on the face of the certificate of stock. The very fact that so many people accepted this financial statement as representing the actual financial condition of the corporation, is sufficient proof in itself that very few investors look behind figures, although a great many things may be concealed there.

To an analytical mind the first glance at this statement would arouse at once a justifiable suspicion that there was a great deal of inflation contained in the security. Investigation would have revealed the fact that an abnormal valuation was placed on "patents and patent rights." Going further, the item of stocks and bonds in other companies was apparent on the face of it to be grossly exaggerated. If nothing else would suggest this conclusion, the statement "book value" would have done so, since a well-managed corporation whose affairs are conservatively conducted does not value securities owned in other corporations at their book value, but market or liquidatable value.

In this instance it happened that these stocks and bonds were all in defunct concerns taken over by this concern and which had little, if any, value. As for the value of the "land stations and real estate" and "boat stations," they were also arbitrarily appraised.

The result is that instead of there being a surplus of $5,256,662.78 as indicated, there was a deficit after the inflation in "patents" of $5,005,100.00, in "stock in the treasury" of $5,310,410.00, and in "stocks and bonds in other companies" of $14,128,610.00 had been deducted from the assets. Together these three items aggregated $24,444,120.00. Deducting them from the assets left only $840,099, if what can be considered actual physical value of the remaining items are accepted as represented. Placed side by side with the liabilities, there is then a deficit of $19,184,457, instead of a surplus of $5,256,662.78, a hopeless case of insolvency as the shareholders' stock is practically worthless.

The illustration serves to enlighten the readers of this book with respect to the possibilities that lie in juggling figures in making up a financial statement where the work is in charge of unscrupulous people.

Such items in a financial statement as "good-will," "patent rights," "trade marks," etc., should never be included among the assets. In the first place, they are not tangible assets. There is no way by which a market value may be placed upon them. I do not assert that they have no worth at all, for in some instances they are quite valuable, but what that value is can only be determined when an offer is made for them.

The mere assumption on the part of the directors that they would not sell these assets except at the figures at which they have valued them in their statement, by no means makes them worth that much. They may never receive such an offer.

Such items should be carried as concealed assets. To use them for the purpose of striking a balance in a corporation's financial statement must arouse at once the belief in the intelligent investor's mind that their function is to perform the work of inflation, to make a better showing than really exists. What is more, under the cover of such assets, insolvency can be concealed, as the value of these assets may be correspondingly increased as the liabilities grow.

Creditors of a corporation, however, are very seldom deceived by these assets. They do not pay their bills. When the creditors cannot get their money promptly, it is not long before the corporation is thrown into bankruptcy. When this occurs the unsuspecting shareholders who have been going along unsuspiciously in the belief that their corporation was in a strong financial shape, are rudely awakened to the existence of a contrary state of affairs.

A financial wit once described the surplus item in a financial statement as a corporation's ash heap on which were thrown all the undesirable items which it was advisable to keep from too prying eyes. The description, however, is far-fetched. With reputable corporations the surplus stands for exactly what it means, the excess in assets over the liabilities. It is the reverse with corporations of the other type.

For a financial schemer concerned only in roping in credulous investors, juggling figures so as to get at a healthy surplus is the least difficult part of his work. In the financial statements which dishonest promotors concoct for their ventures, all of them manipulate the figures. Their main concern is in getting people to believe in their figures.

I am reminded of a case which occurred some years ago where a Get-Rich-Quick Wallingford succeeded in deceiving even some very shrewd bankers by including for a large amount among his assets the item "Government and other bonds," thereby establishing for his venture a robust surplus upon which he was able to secure quite a number of loans. This item included one government bond of the denomination of $1,000. All the other bonds were not worth the paper on which they were printed.

That a surplus at times is meaningless was demonstrated some years ago by the failure of the Baltimore & Ohio, which had been allowed by the younger generation of the founders of the property to run down. Up to the day of the failure the annual statement carried a surplus in excess of $36,000,000. But there was no surplus. The alleged surplus proved to be an item against which the railroad charged supposed equities and expenditures which were regarded as investments. The management was deceiving itself quite as much as it did the stockholders.

What I should regard an illuminating financial statement conservatively prepared is the following, recently submitted to its shareholders by one of the smaller electrical manufacturing companies:

ASSETS.

PLANT.	
Lands, buildings, tools, patterns, equipment, etc., (less Reserve for Depreciation deducted $547,903.99)	$1,348,366.70

PATENTS.				
Patents at cost (less depreciation deducted, $104,832.37)				25,000.00
STOCKS AND BONDS				24,021.42
MERCHANDISE.				
At factory—at shop cost			$665,230.24	
Consignment—at shop cost			64,800.20	
				730,030.44
CURRENT ASSETS.				
Accounts receivable		$766,407.80		
Less reserve for doubtful accounts		10,000.00		
			$756,407.80	
Bills receivable			31,539.14	
Cash			136,969.41	
				924,916.35
Total merchandise and current assets				1,654,946.79
Total				$3,052,334.91

CAPITAL AND LIABILITIES.

CAPITAL STOCK				$1,958,375.00
CURRENT LIABILITIES.				
Accounts payable			$ 22,398.57	
Notes payable			657,500.00	
				679,898.57
SURPLUS.				
Balance January 1, 1910			284,719.75	
Net profit from operation for the year 1910		$278,144.11		
Less interest paid	$ 44,300.02			
Less dividends paid	104.502.50	148,802.52	129,341.59	
Balance for December 31, 1910				414,061.34
Total				$3,052,334.91

This financial statement is as complete in essential information for the shareholders as the other and previous statement is lacking in it. In this statement the cost of patents is placed at a nominal sum, so small in fact as to show that their value about represents the actual outlay to secure the patents. The other item, "stocks and bonds," is also so small as to be insignificant. What makes the statement strong and carries the impression that the corporation has taken its stockholders wholly into its confidence, is the care taken to show everything as it actually is.

In England the shareholders take a greater interest in the affairs of their corporations. They do not do as many American shareholders do—leave it mostly to the officers and directors to represent them at their annual meetings through proxies. They come to the meetings in numbers prepared to heckle the chairman thoroughly regarding different items in the annual statement about which they have just cause for criticism.

If more heckling were done by the stockholders in this country at their annual meetings, more care would be exercised by the directors of our corporations to have their annual statements comprehensive. There would be less mysticism in connection with the different items. We have the habit of leaving such matters, as vital as they are, to others. Each item in a financial statement should be carefully scrutinized and when there is any doubt in the mind a courteous request to the secretary for more detailed facts should bring the desired information. Any effort at concealment is a reason to arouse your suspicion unless a satisfactory explanation is offered.

In late years in the capitalization of industrial corporations, the tendency has been to depart from our more conservative methods of basing the capital on physical assets, with a reasonable margin for future growth. Instead, the earning possibilities of a corporation are capitalized. If a corporation has indicated it can earn $100,000 a year, the capital is placed around $1,000,000, and so on, irrespective of its actual assets. Fundamentally this idea is wrong. It is at the bottom of our evil of stock-watering. It robs securities of book value and places them upon the intangible basis of earning power.

That this is true a simple illustration will prove by reducing stock to a partnership arrangement. One would hardly pay for a half-interest in a partnership $100,000 because of the fact that the business was making $20,000 a year which divided between two partners would reduce the revenue for each to $10,000, or 10 per cent. There are too many contingencies likely to arise that would reduce the revenue to a much smaller sum. Yet it is on this very idea that some of our captains of industry base their capital for their ventures.

XXIV. THE FUNCTION OF EXCHANGES.

More than a hundred years ago a small group of men sat in a building located in what is now the heart of New York's financial district and organized an Exchange. Their object was the common one of meeting daily to deal in the few securities for which at the time there was a market.

New York, then, although even thus early the financial capital of the struggling young country, was still a small city, not much larger in population than that of Albany to-day. But it already had a number of thriving banks and small industries in which its wealthy citizens were financially interested and it was the idea to provide a convenient place where these stocks could be bought and sold that was responsible for the establishment of the Exchange.

The founders of the Exchange, which still exists as the New York Stock Exchange, desired their organization to be an exclusive one. Therefore instead of publicly incorporating their association under the laws of the state, they formed a club whose object was to bring the members together for commercial, instead of social, intercourse.

As a club the members could of course arbitrarily control its policy. They could decide without any outside interference who might join their organization. This rule still prevails. While the members are free to sell their membership, the Stock Exchange, or club, as it really is, retains complete jurisdiction over the membership. The Exchange can accept or reject the application for membership of any purchaser of a seat.

A seat on the Stock Exchange is what a membership is called. It is a figurative expression, as there are no chairs on the floor of the Exchange. There is too much activity to permit trading in securities in such leisurely fashion. The term, however, has been handed down from the early days of the Stock Exchange when the business transacted was of limited volume. There were then chairs in the little room in which the members gathered, in which they could lounge while the secretary read the offers and bids the members of the organization made and upon which they governed their dealings between themselves. Such calls were made but once a day. From that practice the term "a seat on the Stock Exchange" originated.

Yet, the Stock Exchange, or for that matter any of our other exchanges, are not original with us, or are their functions vastly different from those of the exchanges in other countries. Primarily they sprung into existence in response to the urgent demand for a central clearing-house for securities or commodities in which the public is vitally interested. Our New York Stock Exchange is closely patterned after the London Stock Exchange. Our grain and cotton exchanges have for their models the leading exchanges on the other side dealing in similar commodities.

It is equally true in this country, as it is abroad, that the leading exchanges are a law unto themselves. Their functions are of such vastly important character that the slightest disturbance to their subtle influence is at once felt even to the most extreme ends of our commercial sphere of operation.

Politically the center of a nation's power is at its capital. Commercially, though, it is at the moneyed center of the country and it is here also that the most powerful and influential exchanges will be found. In the United States, New York City is the moneyed capital of the country; in Canada, Montreal; in England, London; in Germany, Berlin; in France, Paris; in Australia, Vienna; and in Holland, Amsterdam.

We little realize, and much less appreciate, how absolutely essential to our material progress are our exchanges. While it may be true that we possibly could get along without them, it is nevertheless a truism that without them our commercial advancement would proceed at a snail's pace. Simmered down to its last analysis, the principal function of exchanges is to provide a central market. They serve as a place for quick transactions. They make it possible to barter in securities or commodities in seconds, whereas without their existence it could not be done in a day's time, sometimes longer, for the sellers would be forced to go hunting for buyers and even when they finally got together it would still be a question between them whether the prices agreed upon were fair.

Time and distance is a great factor. The founders of our Stock Exchange desired to save the one and cut down the other when they organized the Exchange over a century ago, and in doing this they were but following a natural impulse. They were merely complying with the dictates of economic laws which make themselves felt in every nation, whether its native tongue be English, German, Italian or French.

While primarily the object of an exchange is to provide convenience in trading, it exercises other functions of no less importance. Besides bringing traders together, exchanges also exert a strong tendency towards an equilibrium in prices. That is to say, by gathering about them a large community interested in certain securities for which they are the central market, there quite naturally follows free and unrestrained bidding and offering, through which is established, in accordance with prevailing conditions, a greater stability to values. Their price-making function, as determined by the dealings transacted between their members, furnished the banking interests of the country a fair index as to the extent loans may safely be made upon securities. Herein alone is a function of an exchange of inestimable value.

Another function of an exchange is that of acting as barometers of trade. They anticipate the ebb and flow of prosperity long before the changes make themselves felt upon the surface of business. In times of panic they act as a bulwark of strength even in face of the ruthless slaughter in prices, for we could imagine what might possibly occur in the form of demoralization if there were no place where securities could be readily sold when demands for ready capital press a community.

I am now discussing generally the functions of exchanges and not dealing with the character of their operations. I am attempting to show how they fulfill one of the principal necessities to our economic well-being—to prove how utterly foolish it would be to make any attempt to legislate them out of existence. Controlled they should be, but only in so far as to compel them to properly exercise their functions. Beyond that they ought not to be disturbed. Any legislative restriction aiming at their extinction is but a blow at the foundations of a nation's progress and prosperity.

A seat on the New York Stock Exchange has sold close to $100,000. It has been some years since the value of a seat has been as low as $50,000. We have here, figuratively speaking, some idea of its importance. It shows that a membership is an exceedingly valuable privilege and, as the country grows older and wealthier, it is likely to increase in value.

The popular impression is that what makes the seats on the Exchange so valuable is the limited membership. This is more or less a fallacy. There are other exchanges in New York City, a smaller stock exchange and a produce exchange; the membership of each of these exchanges is also limited. Yet the privilege or entree to their floors can be had for a nominal sum—a bagatelle compared to the price of a Stock Exchange seat. The vast amount of business transacted every year on the Stock Exchange alone is responsible for the high price the seats bring.

To belong to the London Stock Exchange costs more than a seat on our Exchange for the London Exchange does even a much larger business. In France, however, where the Government controls the Bourse and limits the membership to a select few, the privilege is exceedingly valuable, a recent estimate making a membership worth as high as one million dollars.

Still it is not to be wondered at that men are to be found willing to pay such large sums of money to exercise these privileges. Often in single active sessions on our Stock Exchange as many as 2,000,000 shares of stock are dealt in and there have been sessions when the totals have reached as high as 3,000,000 shares and this does not include at all, the transactions in bonds which reach large proportions.

What this means in dollars and cents may best be illustrated by a short example in figures. The unit of trading on the Stock Exchange is $100, so that, if a stock has a par value of only $50 each, 100 shares reported in the transactions really stands for 200 shares of stock. To make plainer this unit of trading, I call attention to such stocks as Reading, Lehigh Valley, Pennsylvania and Westinghouse Electric. Although traded in on the basis of a $100 par value, these stocks are issued only at $50 par value and are called on the Stock Exchange half-shares. If a person were to purchase 100 shares of any one of these stocks on the Stock Exchange unit, he would be really buying only 50 shares.

Now, were we to strike an average price of $50 as the price realized for all stocks sold on the Stock Exchange in a single active session, the total business would represent a turn-over in wealth of $150,000,000 for 3,000,000 shares; $100,000,000 for 2,000,000 shares and $50,000,000 for 1,000,000 shares. The average I have taken is a reasonable one for there are many securities listed on the New York Stock Exchange commanding prices considerably above their par value of $100 and a small number under $50 a share, while somewhere between that and $100 is the range in prices of a large number of securities; for instance, Pennsylvania, New Haven, Consolidated Gas, Reading, St. Paul, Lackawanna, Chicago & Northwestern, Southern Pacific, Union Pacific and Jersey Central, to mention only a few of our well-known securities, a price considerably in excess of their par value.

By the rules of the Exchange a member is not permitted to charge his client more than $\frac{1}{8}$ per cent of the par value of the stock as his commission, nor can a member charge less except when executing an order for another member; then he is allowed to make a charge of $2 for each 100 shares. This commission to the customer comes to $12.50 on each 100 shares of stock and $1.25 on each $1,000 denomination in bonds.

I am going into these small details to emphasize and drive home the realization of what a vast and gigantic business machine the Stock Exchange is. If its members handled orders for 3,000,000 shares for their clients, in one session their commissions would reach $365,000. If these orders were between members, the commissions would be only $60,000; on 2,000,000 shares for clients, they would receive as commission $250,000; between members, only $40,000; and on 1,000,000 shares for clients, commissions of $125,000; between members, but $20,000.

With such possibilities for making money, it can be readily understood why men will eagerly pay as high as $100,000 for the privilege of belonging to the Stock Exchange. It is safe to say that in an active year of speculation the public pays as much as $100,000,000 in commissions to the members of the Stock Exchange on stocks alone and almost as much for bonds bought on its floor and not over the counter. In this estimate there is not included the brokerage the public pays to members of the grain and cotton exchanges as well as to the minor exchanges of the country, of which there are quite a number scattered through our different large cities.

But it is not in the commissions the members of the Exchange receive that the most imposing statistics are to be found. It is in the aggregate wealth they are instrumental in swinging back and forth, which causes astonishment and reflects the great power of the Exchange.

Here again, by striking an average for the 300 or more days in a year the Stock Exchange does business of only 500,000 shares as the daily volume of transactions, we arrive at the enormous total of $15,000,000,000 in securities changing hands, not considering bonds at all in this estimate. Some years the figures are even larger.

It is true that a great many of the active securities change ownership many times during an active session. It is a fact also that there is considerable duplication and that a great bulk of securities are bought and sold by speculators with no intention to hold for more than a short time and to be disposed of as soon as there is a profit, or when the holders are compelled to let go on account of exhausted margins, but the multiplicity of transactions can in no way overshadow the real function of the Exchange, which is, as already stated, that of a central market. In like measure is the statement true of the cotton and grain exchanges, where, instead of shares, commodities are bought and sold.

Viewing our exchanges, therefore, in their proper light, we must appreciate their importance. Were it not for their ability to make capital mobile, there would exist a great disparity in prices. It stands to reason that the greater the number of buyers and sellers gathered together, the better and firmer tone there will be to values because of the concentrated market.

It is not because Reading or United States Steel shares are superior securities in point of intrinsic worth to a good many other securities that makes it possible to find a market for them at a moment's notice. It is due to the fact that they have a concentrated and active market which the Stock Exchange alone has made possible. People will buy these stocks and buy others equally active and listed on the Exchange as they realize they can sell them quickly and at fractional changes in the price, and banks will lend money on them with equal readiness for the same reasons. They will do this in preference to purchasing unlisted securities as a market, for this latter class of securities may not be available at the time one is most wanted. Thus we see where the exchanges perform two useful purposes, that of being a price-making arbiter, a power unto itself of fixing values, and that of being a quick and facile market, rapidly regulating itself to existing conditions.

In a larger way and almost unconsciously, the exchanges accomplish what a country at all times is in need of, and that is a source through which to raise capital for the development of its resources. By the facilities for trading that they are in a position to offer, they quicken the speculative instincts of the people.

It would have been impossible to have raised the capital for the billion and half United States Steel Corporation without the Stock Exchange and its facilities. It opened the sluice ways to the nation's wealth. It made at once possible the marketing of its shares.

The fact is undeniable that capital can be more quickly raised for general industry and for the expansion of our railroads when the public is aware that there will be a market for the new securities. What the public wants is a market in which it can sell as well as buy and this the Exchange provides. Capital gravitates to the moneyed centers. This is a natural law as much as is the law of gravity which makes the apple fall to the earth. It will flow to the center where it can beget the largest return for its use. What is more natural then, than that it should congest itself about the portals of the principal exchanges and its masters avail themselves of their facilities. For capital has its masters. If they are not in the form of the "captains of industry" as we are wont to call our great underwriting bankers, they are unconsciously in the shape of accumulated deposits in the banks. These deposits, to employ themselves profitably and still be instantly available for other purposes, find the avenue whereby this object can be accomplished through loans on securities listed on the exchange or in commodities, as in grain, cotton or metals.

That is the underlying reason fully explaining why it is that our exchanges, like a great big drag net, can attract to its doors from every direction and from what seems the most inaccessible places, the liquid capital of the nation.

Our exchanges bring in the capital from the four points of the compass, some of it for investment, other portions for speculation and again other portions, the minor part, from foolish people who, sad to say, deliberately attempt to acquire wealth overnight by simple gambling on the fluctuations. To the shrewd and fortunate ones, the Exchange returns their money with substantial profits. From the misguided and unfortunate ones, it exacts its toll. Such will always prove the case. There is no law to prevent it. It is but one of the phases of the operation of the exchanges over which no control can be exercised, for in their function of establishing prices there is no way to prevent gambling in the fluctuations in the quotations.

It has been pointed out by reformers that this could be done by prohibiting margin-trading, by forcing the outright purchase of securities and commodities. But this is a foolish conclusion. Suppose this were attempted. What then, would happen? Instead of the brokers arranging the loan the purchaser of a security would attend to it. He could not be prevented from borrowing a certain sum of money from a bank on securities if there was in existence a law compelling him to purchase securities outright.

If margin-trading is illegal, either from a moral or legal standpoint, then it is equally illegal to purchase real estate subject to an incumbrance. Fundamentally the practice is not wrong. Where it is at fault is its abuse by people who, because of their financial circumstances, ought not to buy on margin any more than a person with a few thousand dollars should attempt to buy a piece of property he could not carry, but does carry it because he expects to sell it at a profit before he is called upon for more money. This is not speculation; it is gambling.

The real purpose of an exchange is to make capital mobile by gathering it together. It provides capital with the opportunities to make money. It opens channels for investments. It is a price maker, a barometer of trade, in fact it is a great big heart through which come the power and blood needed to feed the arteries of commerce. Without them the commercial progress of a country could be put back many years.

XXV. METHODS OF TRADING IN STOCKS.

All transactions on the New York Stock Exchange are for cash. There is no margin-trading. Members must settle all differences between them for the transactions of the previous 24 hours before or at "Hammond's Time" or 2:15 p. m. At that time all securities must be delivered. All stocks bought on the previous day must then be accepted, and all stocks sold, delivered. Otherwise a purchase or a sale is not good.

If a member cannot settle, he is declared insolvent, and the secretary announces his embarrassment from the rostrum of the Exchange. His accounts are then closed. The Exchange assumes no responsibility for the liabilities of a bankrupt member. They fall entirely upon the members who are unfortunate enough to be the creditors of the insolvent member.

Whatever value a member's seat possesses, however, according to the rules of the Exchange, reverts to his creditors. While failures on the Exchange are unavoidable, the percentage is no larger than in other lines of business.

The Exchange operates a clearing-house, much on the same plan as the clearing-house for an association of banks. This clearing-house makes it convenient for the members to settle their obligations to one another with the least delay.

It would prove a slow and cumbersome process were it necessary every time a member bought stock for a client to draw a check to the member from whom it was purchased or if stock was sold, to deliver the certificate to the buyer and in turn receive a check. Through the clearing-house such details are simplified. Each member has an account against which is credited stocks bought and debited with stocks sold, and settlement made accordingly.

But the mechanism of the clearing-house is not of such importance as are the methods of trading employed on the Stock Exchange. These methods may be broadly divided into two forms; after this they may be subdivided.

First there is the purchase of securities outright. This is the simplest form. All that is necessary in this case is to give a member of an Exchange an order to buy a certain amount of stock at a given price, or at the market price. The broker has the order executed and he delivers the security, charging the usual commission of $\frac{1}{8}$ per cent. His transaction is completed when the stock is delivered.

Market orders are much more easily executed, as they give the broker full liberty to buy at whatever the market price may be at the time the order is given, but such orders are not always to the advantage of the customer. In an active session a stock may jump a number of points in price before the broker can fill his customer's order. Sometimes it occurs in a declining market, that a market order is filled at a lower price than a customer expected. Still, it is not a practice among shrewd traders to place market orders, especially in inactive securities or those stocks in which there is very little trading when it can be avoided.

In buying bonds on the Stock Exchange, or for that matter, over the counter of a bond house, it is understood that accrued interest is added to the price, although this is not mentioned. For example, a bond bought in May, whose interest is due in July, carries three months' interest which is represented in the coupon attached to the bond. This interest for the period between January and May properly belongs to the holder of the bond from whom it is purchased, and must be paid to him in addition to the purchase price.

When a stock is sold, the same proceedings are followed. The member of the Exchange disposes of the security at a fixed or market price, and when the sale is confirmed and the stock delivered, the broker pays his client, less his fixed brokerage.

The more complex form of operation on the Stock Exchange is that of trading on margins. This, as already explained in the previous section, is a method of doing business by which brokers finance the purchase or sale of securities in part for their clients. Say, for example, a customer wishes to purchase one hundred shares of Union Pacific stock. Suppose at the time the stock may be selling at $150 a share. The buyer does not wish to purchase the stock outright, which would cost him $15,000, plus $12.50, the broker's commission. The customer makes a deposit, say, of $1,500, or 10 per cent of the purchase price. Members, unless they are thoroughly satisfied with the financial responsibility of a client, will not accept a deposit of less than 10 per cent of the market price of securities, and will often demand more if the securities desired have an inactive market. Some inactive stock brokers will not buy for customers except by outright purchase, since those stocks have no wide market and the brokers do not wish to be caught with them on their hands in case their customers cannot take them up.

But since the majority of Stock Exchange members will buy active stocks for clients on a 10 per cent margin, the illustration will serve my purpose in explaining in detail how such orders are handled. After the customer deposits his margin and gives his order, the broker, upon executing it, arranges with his bank for a loan for the greater part of the purchase price. It is the usual custom for banks to lend on active securities up to 80 per cent of their market value, always with the proviso that the borrower must deposit additional collateral if the market price declines to where the bank's equity in the loan is impaired.

With a loan from his bank for approximately 80 per cent of the market price of a stock, with his customer having deposited 10 per cent margin, there remains for the broker therefore, only 10 per cent, which he must provide out of his own capital. On some securities he must put up more, while others he must finance wholly out of his own capital, as the banks will make no loans on them. Here we have a succinct illustration of what is called margin-trading in its simplest form. Now, if Union Pacific stock advances to $160 a share, the customer then has a profit of $10 a share, or $1,000 on his one hundred shares, less, of course, commission and the interest he owes on the balance due on the stock.

Although not stated, it is usually understood, unless agreed otherwise, that all loans on stocks are call loans, made on the prevailing rate of interest on such loans throughout the period the bank carries the stock.

Call loans differ from time loans in that the lender is empowered to demand at his discretion and without previous notice from the borrower, the payment of his loan. With a time loan, or a loan extending over a specified period, the lender must wait for payment until the loan matures.

Large Stock Exchange operators whose business is worth having because of the large profits in commissions, in their trading, have an advantage over small traders as they can privately arrange through their brokers for time loans at reasonable rates of interest as a safeguard against any unusual flurry in interest rates, as is likely to occur in an excited period of speculative activity.

When there is an accumulation of capital in the vaults of the banks, interest rates on call loans are unusually low. There have been times when such loans could be made by large borrowers at interest rates as low as one per cent. But this condition may quickly change. It is often reversed around the crop-moving period, when interior banks draw on their central bank reserves to provide for the borrowing demand at home. Then it is when loanable capital becomes scarce, and commands a premium. Call loans will then sometimes jump to 100 per cent or more.

During the so-called Gates boom in stocks, call loans touched as high as 200 per cent. For one half hour, in October, during the climax of the 1907 panic, call loans were not to be had at any price, although frenzied brokers, whose tense and blanched faces saw disaster staring them in the face, were willing to make any terms to get money to save them from the ruin that seemed inevitable. A powerful banking syndicate was hurriedly formed to lend $25,000,000 on the Stock Exchange. The money was obtained, and it saved the day.

In adverting to the variability of interest rates for call money it is my purpose to direct attention to the influence these changes exert on speculation. In fact observing speculators watch call money interest rates almost as closely as they study prevailing tendencies and conditions in trade, to determine their effect upon security prices.

Take up once more the case of the imaginary buyer of one hundred shares of Union Pacific stock. If he has a profit, he can close his account and draw from his broker his margin, plus the additional amount represented by the advance in his stock, or if he desires to extend his operation, the increase in his credit balance allows him then to do so.

On the other hand, if Union Pacific, costing $150 a share, declines in price, say in the neighborhood of $140, where the broker fears an impairment of his customer's margin, to the point of exhaustion, he will call upon him for an additional margin and unless this deposit is immediately forthcoming it is within the broker's discretion to close the account, sell the stock and settle with his customer. He does not have to wait until the stock touches $140 a share before doing this. For his own protection, he is allowed this privilege and it is so stated in the agreement the customer signs when placing an order.

The operation slightly varies when a buyer turns a seller of stock. A speculator, believing that Union Pacific around $150 a share is selling too high, will sell the stock through the broker at this price. Suppose he agrees to sell one hundred shares. He deposits with his broker a margin of 10 per cent or $1,500. As he is selling, he does not have to borrow any money. He simply agrees to deliver one hundred shares for $150 a share when he is ready to do it. Should Union Pacific decline to $140 a share, the seller could buy one hundred shares in the open market at this price and by so doing would be making a delivery of his stock on his selling contract. As he has sold it for $150 and bought it for $140 he has made a profit of $10 a share or $1,000 on his sale of one hundred shares. The greater the decline in the price, the larger his profit. But should Union Pacific advance instead of decline in price, every point above $150, the price he agreed to deliver it for, means a loss of one dollar on each share as each point represents the equivalent of one dollar. If the stock advances to $160 a share, his margin would be exhausted unless he had made an additional deposit to further protect himself.

Now, we here have an illustration of what is called margin-trading, and upon which so much abuse is heaped by reformers who regard it as a malevolent influence upon the country. How inconsistent is the assertion can be demonstrated. A man of wealth or even one in comfortable circumstances may feel perfectly justified in the purchase of a block of stock on margin. He may not wish to tie up the entire purchase price by paying for it outright, although if necessary he could advance the whole amount and take the securities out of the market and put them away in his safe. Has he not the right to make such a purchase? To deny him the privilege and permit a tradesman to use his credit for the purchase of goods would be unfair and unjust.

Suppose he were cut off from the privilege of trading in this manner through a member of the Stock Exchange, he could not be prevented from carrying out a similar operation though more cumbersome, in another form. If he has credit at his bank he could borrow the money to buy the stock outright, and when it has been delivered to him take it over to the bank and pledge it as collateral for his loan. When the stock shows him a profit he could then sell it, pay the loan and the matter would be closed. Assuredly banks could not be prevented from making loans upon good collateral. That is their business. It is one of the principal mainstays for the profitable employment of their deposits.

Between the two methods there is no difference, save the one operation is more mobile than the other. There is nothing fundamentally wrong in margin-trading. It is not an evil. The evil lies in the abuse of the system by persons whose circumstances and lack of knowledge does not justify their trading in this manner. Such people attempt to do the impossible on a "shoe-string." To some extent it is the fault of the brokers, but it is fair to say on behalf of the majority of the members of the Stock Exchange, that they do not encourage speculation among those whose financial resources are limited, or by the ignorant, while speculative accounts of women are regarded as particularly offensive by the Stock Exchange itself.

It is well-nigh impossible to wholly exclude these people from speculation. Somehow or other they will gamble in some form or other, and find a means to satisfy their cravings. The Government put a stop to the Louisiana lottery, yet the people kept on gambling. Racing was stopped by different states, but the restrictive measures failed to check betting on the races. So is it true with card-playing. Illegal it is, but gambling rooms continue to thrive.

There are other abuses of the machinery of the Stock Exchange, as I shall try to point out later, but they can in a large measure be controlled without enforcing the suicidal policy of striking a blow at the foundations of the function it performs for the country—of providing it with a great central market for the greatest mass of its securities.

Selling stock on margin is regarded a greater evil than even buying on margin. No one should sell what he does not own, is generally the claim made to justify this contention. How inconsistent this is can also be easily demonstrated. All of our millers sell flour long before they know what the harvest is to be. They bank on the correctness of their judgment as to the size of the crop, expecting to buy their wheat cheap enough from the farmers to make a good profit out of the difference. The contractor agrees to build a house for a certain price, relying on his judgment of the market for labor and material to net him a good profit, although in the meanwhile prices could have gone up above his estimate. Even the laborer sells his labor "short," and theoretically, when he finds he cannot make his living expenses square with his wages, he has lost money.

Wherein then is the difference between the examples just cited and selling securities? If a person believes a security is commanding, in his opinion, too high a price, he is morally justified in selling it, even if he does not own it, as much as the miller has the right to sell flour he expects to grind from next season's wheat harvest, or the contractor estimates on constructing a building from material he has not yet bought or labor he has not yet hired.

Nor can the lay mind fully appreciate, without being thoroughly familiar with the economic value of speculation, what a great bulwark the selling of securities which are not owned at the time they are sold is in times of stress, and when everyone seems to be anxious to unload securities. In such times these "short" sales are the only mainstay of the market. What has been sold and is not owned, must be bought back sooner or later by the sellers so that they may turn their profits into cash. Were it not for these "short" sales buttressing the market, prices would not only decline perpendicularly, but they would fall all to pieces and the widespread fear it would arouse would have a most disastrous result.

XXVI. METHODS OF TRADING IN STOCKS.
(Continued.)

On the stock exchanges, the dollar mark is the sign of values and it is divisible into fractions of eighths. Each $\frac{1}{8}$ stands for $12\frac{1}{2}$ cents of the dollar. To more clearly illustrate the proposition, take, as an example, such a popular stock as United States Steel and suppose it is reported in the opening quotations as selling at the even mark of \$70 a share. The next quotation is at $70\frac{1}{8}$: this means the stock has been bought for \$70.12½. If the quotation is $70\frac{1}{4}$, it represents \$70.25; at \$70⅜, it is \$70.37½; at \$70½, it is \$70.50; at \$70⅝, it is \$70.67½; at \$70¾, it is \$70.75; at \$70⅞, it is \$70.87; and then \$71. Conversely, every eighth fraction less in the reported price of a stock represents a loss of exactly $12\frac{1}{2}$ cents in its market value and correspondingly a greater loss when the fractional declines are larger.

On the board of trade or the produce exchange the transactions in grain are on the basis of bushels. On the cotton exchange cotton is bought and sold in bales. On the grain exchange the dollar is the mark of value and it is also divisible into fractions as small as 1/16. In cotton it is divided into points.

On the stock exchanges are to be found shares and bonds only. On the grain exchanges agricultural products are the staples in which the public barters, including live stock and the different farm products. The popular staples forming the bulk of the business are wheat, corn, oats, rye and barley. From a trading standpoint the lesser staples are live stock, under which head are cattle, hogs, lard and tallow. Live stock is sold by the pound; lard and tallow by the tier. On the cotton exchange all the dealings are confined to cotton and its principal constituent, cotton seed oil. In New York City there is an important coffee exchange and a metal exchange, but neither one has much of a public following. As important as are our dairy products, such as milk, eggs and butter, in point of aggregate money value, very little trading is done in them on the exchanges. Whatever speculation there is in them is carried on directly among the dealers who, under favorable circumstances, sometimes attempt a coalition in their interests to maintain higher prices and towards that end the storage houses prove an important ally, as they enable the dealers to store their purchases until they can market them at profitable prices.

The followers of the different exchanges are divided into two camps. We know them as "bulls" and "bears." The bulls on the stock exchanges are the optimists, are the men who are prepared to back their judgment of the betterment of trade and its consequent reflection in a better price for securities. With the bears it is different. They see the darker side of business and expect to benefit by a decline in values which may be brought about by slackening in trade and from commercial disasters which they try to anticipate through sales of securities before the occurrence of the trouble.

On the constructive side of values are ranged the bulls; on the destructive side, the bears. Although, in public opinion, the bear's position is an unenviable one, his is a necessary role in the scientific game of speculation. As already pointed out, the bears in a critical period act as about the only mainstay against a wholesale destruction of values.

Still, it is more or less a stock market truism that there are few chronic bears who, in the long course of events, have kept the large fortunes they were popularly supposed to have made, notwithstanding that their opportunities for quick and substantial profits, when their position is the correct one, are much greater.

Our greatest stock market bears, those who have made stock market history died comparatively poor men. Occasionally there passes over the stock market horizon a meteor in the shape of a successful and spectacular bear who happens to plunge on a decline in security prices at a psychological moment and is carried by the avalanche in the slaughter of values from comparative obscurity to a position of great wealth. Yet, usually his good fortune is only temporary. Somehow or other these striking figures seem not to realize that stock values can no more continuously decline than they can constantly and without interruption keep going up. They overstay their market and within a short time all their wealth slips away as easily as it came to them.

A recent illustration of this, and which is still remembered, is that of J. Brandt Walker, a daring Chicago speculator, who burst into fame as a big stock market bear on the eve of the great panic of 1907. The newspapers all over the country printed columns about the many millions he was credited with making. There can be no question about his temporary success; no doubt his profits ran into millions, but it was less than a year later that he lost all his winnings and, as a prominent stock market figure he became only a memory.

The chronic bear sooner or later invites disaster upon himself. So also does the chronic bull. The successful trader is that person who can adapt his opinions to the long trend in the course of values, whether it be downward or upward. That there takes place periodically an adjustment in business cannot be refuted, but it does not occur at regular periods, for if such were the case much of the uncertainty connected with speculation and upon which it thrives would be eliminated. Adjustments often come quite suddenly and unexpectedly. There will come a check to a boom. It usually occurs when we have exhausted, in the rapid haste for expansion, all the available capital at our command. In the same order a check to a decline will occur when all the forced liquidation has been completed. Between the two extremes there takes place a period of stagnation, a sort of pause in our activities, a pause to afford an opportunity to form new conclusions.

Yet, broadly speaking, every one who deals in securities is at one time or another a bull or a bear. When a person sells a stock it is the sign that he has concluded the rise in the stock's value has reached its apex and he is willing to let someone also take the chance of a further appreciation. He may sell for other reasons. Nevertheless, whatever the cause, the seller is constructively a bear. On the other hand, the buyer is a bull. If he is buying a stock he has sold to someone previously to make his delivery, it is the sign that he has decided in his own interest that the decline in value has run its course. But in a growing country the predominance of opinion is towards the bullish side of the market. It is a natural position.

J. Pierpont Morgan gave it as his opinion some years ago that anyone who is not a bull in this country would eventually go broke. His saying has become a stock market adage and not without good reason. Our financial history so far has clearly shown that the country has emerged from every panic and depression stronger than ever and capable of greater progress.

In the eighties, when nearly two-thirds of our railroad mileage was in charge of the courts, men who had faith in the country's future, men like Morgan, Hill, Kennedy, Vanderbilt and others, were laying the foundations for their present huge fortunes, whereas other men who could not see the sunlight behind the heavy clouds of pessimism, one by one went broke.

Then, too, it is only a natural trait of human nature to be a bull. Underlying the greatest progress is the spirit of optimism. It naturally comes to most all of us to see the brightest side of business. In fact, our wishes are fathers to this hope. Our prosperity individually and collectively has progress as its foundation. Morgan knew this and that is why he gave utterance to this now famous axiom.

The very fact that nearly nine out of ten people are naturally bulls in their inclination is what bucket-shop operators banked on in the successful conduct of their outlawed business before the authorities decided upon a concerted plan to put a stop to them. Bucket-shops are institutions which never buy anything, but simply gamble against the judgment of their customers. A bear panic or a bear market was essentially necessary for their success as such moves wiped out the paper profits of their customers, most of whom were perpetually "long" of stocks, or chronic bulls. These concerns were simply gambling places whose backers bet their capital on the price fluctuations against the capital of their clients. When bucket-shops were tolerated a long protracted bull market usually saw a great mortality in their number, whilst a bear market found them sprouting in numbers as fast as mushrooms.

In the grain, cotton and coffee markets, the position of the bulls and bears is a reversal of that occupied in the stock market. The bull on these staples is not the advance agent of prosperity. He does not expect to see higher prices because of the greater out-turn in the harvest. Higher prices come to him as a result of a shortage in crops. The bear is really the bull considered in the light of the benefit accruing to the public from his operations. He works for lower prices on his expectations of a bumper harvest.

You will be interested in the definitions of some of the principal terms employed to designate trading on the different exchanges. The "longs" and the "shorts" are other names to differentiate between the bulls and the bears. The "longs" buy for a rise, the "shorts" sell for a decline.

"Ex dividend" means that on the given day when a corporation's books close for the payment of the dividend to all stockholders of record, the stock is quoted with the dividend deducted from the price. Unless this is known the lower price of a stock selling "ex dividend" is likely to confuse the uninitiated. When Union Pacific declares a quarterly dividend of 2½ per cent and should the price of the shares be $175 the day previous, the day the books close, Union Pacific will sell "ex dividend," or at $172.50, meaning that the $2.50, the equivalent of the dividend on each share, has been deducted. It is the same when a corporation declares a stock dividend in addition to a cash dividend. Sears Roebuck & Co., in 1911, gave the stockholders a stock dividend amounting to about the equivalent of $12 a share. The day after the stock dividend was payable the stock sold, stock and cash "ex dividend," or about $14 less than on the previous days.

"Rights," which one sees frequently mentioned, denote the market value of the privilege accorded to stockholders of record in a corporation to purchase additional shares it has authorized. In value these rights vary in accordance with the market premium the stock may command.

Of course, if a stock is selling for less than its par value, there is no value to the rights to subscribe for new stock. But with some corporations such rights are extremely profitable. It has been estimated for some years back that besides their cash dividend the stockholders in such a prosperous corporation as the Chicago & North-Western have received rights to more stock which brought their average return upon their investment nearer to 25 per cent than 7 per cent, provided that they availed themselves of their privilege to sell their "rights."

A corporation with a $100,000,000 capital may elect, upon the favorable vote of the majority stockholders, to increase its capital by $10,000,000. Each shareholder would then have the privilege to take ten new shares for each ratio of one hundred shares owned. If the stock sells for $125 the market value for one hundred shares would be $12,500, and for ten shares $1,250. Therefore, if a corporation offers its shareholders the privilege to take the newly authorized stock at par, the rights would be worth $250 on each block of ten shares or $25 on each share.

In stock market parlance, these rights are also called a "melon cutting." These "melons" may consist of new stock or the distribution of a large extra dividend, either in form of cash or stock. Such prospects frequently lead to a considerable outburst of speculation in the shares which are expected to receive liberal treatment.

While the bulk of the business on the Stock Exchange is transacted in the unit of one hundred shares or multiple thereof, there is also considerable business done in smaller units and to designate this trading the term "odd lot" or fractional orders has been coined among brokers, meaning the purchase or sale of shares in less number than one hundred shares.

An "Irish" dividend is a term of sardonic derision. It stands for an assessment levied by an embarrassed corporation on its stockholders in an effort to re-organize and place itself once more among solvent corporations.

Then there are such contracts as "puts," "calls," "spreads" and "straddles." A "put" is a contract which gives the holder the right to deliver to the maker of the contract a number of shares of stock at a specified price within a limited time. On the other hand a "call" gives the holder the right to demand from the maker of the contract a certain number of shares at a specified price within a limited time.

Speculators often make such contracts with others as a precautionary measure to limit their losses. The buyers of these "put" and "call" contracts pay a certain price for this privilege to demand or deliver stock within the time limited by the contract.

A, for example, will buy one hundred shares of American Car & Foundry stock for $60 a share. He may not wish to take more than a loss of $5 on each share, so he sells a "put" to B on one hundred shares, good for thirty days for $150. Should the stock decline below 55 within these thirty days, each point decline represents a profit to B of $100 on the one hundred shares. If the stock goes to the $50 a share then B, the holder of the "put" can go into the market, buy the one hundred shares at a cost of $5,000 and deliver it to A, the maker of the contract, for $5,500. His profit then would be $500, the difference less the cost of the "put," $150, and the broker's commission, $12.50, or $337.50. Should the stock not decline during the term of his contract, he is only out his $150.

The operation is similar in a "call" contract. A, in this instance, will sell one hundred shares of Car & Foundry stock at $60 in anticipation of a decline but wishes to limit his loss to $5, that is, he wants to protect himself against any further advance than $65 a share. So he sells to B a "call" contract that gives B the privilege of calling upon him for one hundred shares at any price above $65 a share within the specified thirty days. Every point advance above $65 represents then a profit of $100 to B, less the cost of his call and broker's commission.

The cost of such privileges varies in accordance with the duration for which they are given: the shorter the time, the cheaper the price; and the longer the time the dearer the price. The only risk involved to the purchasers of these privileges is their cost. They are out this money if the opportunity to exercise their privilege at a profit fails to offer itself within the specified time. General conditions and the technical position of the stock market usually determine the market value of "put" and "call" contracts.

A "spread" is a privilege to combine a "put" and a "call" contract. The holder of a "spread" has paid for a privilege for a certain time to either deliver a stock at a stipulated price to the maker of the contract, or call upon him for the stock. In buying a "spread" contract the purchaser expects to profit through a large advance as well as a decline. In either case, should the stock pass his contract price, he could execute his "spread" and take his profit, figured on the same basis as illustrated in the "put" contract. Should the stock both advance and decline within the contract period to a favorable point of execution, the holder of a "spread" would doubly profit, but should it touch neither figure then he is out the money the "spread" has cost him.

A "straddle" is not unlike a "spread" contract, except that it is made at the market and the execution of either one of its privileges nullifies the other. The cost of the "straddle," however, is the most expensive of any of these mentioned privileges.

These contracts are favorites with small speculators who are willing to assume the risk the privilege cost for either a "call" or a "put" on a stock in the expectation that the chance will occur during the life of their contract to execute it at a profit. However, such privileges ought to have the endorsement of a member of the Stock Exchange. They are only good if the maker of the contract is himself solvent.

There are other technical terms employed in the Stock Exchange operations, but they are of minor importance. The reader already knows what a margin is, also that interest must be paid on the balance of securities which remains unpaid.

"Arbitraging" is a form of trading requiring the most scientific skill and rapidity of thought. It means taking advantage in the difference in prices on the same securities between two markets, and may be transacted profitably even on the variation of a slight fraction. The principal arbitrage business is done between New York and London Stock Exchanges.

XXVII. OPERATIONS ON OTHER EXCHANGES.

Operations on the grain exchanges are for future deliveries. Wheat, corn and oats are dealt in according to grades. If an operator buys a certain number of bushels of wheat he does so with the understanding that he will accept and settle for what he has bought on or before delivery day when the wheat must be tendered him; vice versa, he agrees to deliver the wheat if he is the seller.

All deliveries must be made on the last day of the month, when all settlements are also made and if the operator is unable to meet his contracts, it is at once a confession of insolvency and his contracts are bought in for his account on the same basis of settlement as on the stock exchange.

In reading over the grain quotations in the daily press, it is to be noticed that the grain concerned in the trading is designated by different months. This implies that all sales and purchases are for the wheat or other coarser grains, which must be settled for on the last day of the designated month.

The two principal crops in wheat on which the liveliest speculation converges are the Spring and Winter wheats. The last day of May is usually an important day on the Chicago Board of Trade, for it is settlement day for one of the principal crops. In size the Spring wheat crop is the smaller. The Winter wheat crop is the larger of the two.

In New York there is a produce exchange which was organized at the height of our large export business, but with the falling away of this part of our grain business, trading on this exchange has narrowed considerably.

It seems to be the fate of large agricultural nations for their exports of agricultural products to grow smaller as their population increases. It was not so many years ago, it will be remembered, that our export of wheat was depended upon by financiers to establish for us a large credit balance abroad, thus providing gold to import when it was most needed. But for this purpose we can no longer depend upon our wheat. In fact, we raise now only one important staple which we still sell abroad in large quantities—that is our cotton.

James J. Hill about hit the nail on the head when he described our decline as a wheat-exporting nation, when he said it was to be expected that we would not have much to spare after feeding the mouths of 90,000,000 people. It was not that we grew less wheat but we were not keeping pace in increasing our acreage. We are a much larger family today than ten years ago and use for our own domestic purposes, the bulk of the crop.

Our greatest crop in quantity is corn, but we do not export as much of it as we could spare. Our corn crop has grown steadily until now it causes no surprise when the yield reaches such an enormous total as 3,000,000,000 bushels annually.

The value of our harvest, including all the live stock and dairy products was last year estimated by the government agricultural statistical department to be over $9,000,000,000. Of this wealth the corn crop alone contributes nearly 20 per cent; wheat comes next; after that the cotton yield. The value of such minor crops, such as hay, rye, flaxseed, etc., runs into the hundreds of millions; so also with that once despised growth of uncultivated fields, alfalfa, or long shoot grass. The hen with whose industry even the busy city housewife is thoroughly acquainted, contributes each year nearly $200,000,000 to the nation's wealth.

The out-turn of our fields is really the corner stone of our prosperity. As it is all new wealth, reproducing itself every year, it can be readily seen without my pointing to it, how much every artery of business depends upon our harvest for its life. It is this wealth which supplies the blood that keeps trade going along briskly. While our mining industry is second in importance, its prosperity largely depends upon the continuation of good harvests.

The smaller the crops we raise, the more diminished is our prosperity. A crop failure would be disastrous. Fortunately, for a good many years we have escaped such a calamity. Our immunity from such a misfortune for nearly twenty years is largely credited to the gradual improvements in our agricultural methods. Whether this is true or not remains to be demonstrated. There are many who doubt that this is a logical explanation and the consistency of the weather supports at least to some extent their skepticism. But this is neither here nor there. The point I wish to make is the natural evolution in speculation in these important staples in which the operators specializing in them are concerned to no greater extent than are the operators in stocks and in cotton. For them all a large crop spells prosperity; a short crop, a period of adversity; and it is quite natural that all keep a sharp eye on the weather conditions and the preliminary crop estimates which the Government publishes during the growing season.

But the large grain houses do not rely entirely upon the Government's figures. The majority, to supply their clients with intelligent information as to the progress of the different crops, employ men to travel over the crop belts and make their reports. These men, because of their training and keen perception, have acquired the reputation of being crop experts. A number of them from their reports might also be said to have an inclination to regard themselves as naturalists, for in their own vernacular they have added some species to the number and kinds of bugs and insects destructive to farm products. One species in particular is the June bug, which very few people knew until the crop experts discovered it.

When Spring bursts upon us, the crop experts get busy, and until the season closes and the several crops are safely in the barns, we are liable to have a half dozen crop scares caused by the different conditions, maybe through lack of moisture, bugs, a protracted dry season or early and severe frosts. Still, were it not for all these elements of uncertainty interspersing themselves in the period between the seeding and the final harvest, there would be little speculation.

It is from these uncertain elements that differences of opinion arise which make bears of some people and bulls of others, while with stock market operators, although only on-lookers, they nevertheless form their judgment as to the course of their market from the crop prospects, and they strive to correctly anticipate them in their commitments. Furthermore, there are a large number of industrial corporations and railroads, known as the granger roads, for they largely depend for their principal traffic on a generous harvest, whose prosperity is vitally wrapped up in our crops. For that reason it is well for every student of finance to know of what importance the crops are to us.

In other directions is the attention of the operator on the grain exchange drawn. He watches the progress of the harvest in Argentine, Russia and Canada, the three countries which still rank as the large exporting nations, as it is the size of their crops which affects the price of the surplus in our crops that can be exported. A small crop in these countries means higher prices for what portion of our cereals we can sell abroad.

If the people of Europe took more kindly to corn, we would have here a nucleus for an extremely important export business. But people abroad do not take kindly to corn, still considering it largely a food fit only for live stock, rather than for human beings.

In the production of cotton this country largely retains its monopoly. We have only one competitor worth considering—Egypt, and even there the cotton crop is in the aggregate, compared with ours, of small proportions. Our cotton crop runs between 12,000,000, to 17,000,000 bales each season. A bale weighs about 500 pounds.

Dealing in cotton is all done on contracts calling for future delivery and for brevity they are designated in the market reports as "futures." The quotations are divided into points, each point representing one cent and so many points make a bale. What is called spot cotton means cotton for immediate delivery and on hand.

There are two principal cotton exchanges in this country—the New York Cotton Exchange, and the New Orleans Cotton Exchange. Between them a considerable business is done. The operations on the Liverpool Cotton Exchange are closely intertwined with the dealings upon our own cotton exchanges, for Liverpool is the greatest distributing market for our enormous exports of cotton. The importance of our principal cotton exchange, which is the New York Cotton Exchange, as a center of speculation is apparent from the fact that, next to the New York Stock Exchange, its memberships command the highest price.

Among the other exchanges the Boston Stock Exchange is by far the most important. The principal securities on its boards are largely mining stocks, and those consist mostly of the copper stocks. But even of them the New York Stock Exchange has absorbed a large number. The transactions there are along lines similar to those on the New York Stock Exchange. So also with the Chicago Stock Exchange. But in Chicago we have an exchange with an imposing structure for its home but transacting very little business. This exchange has never recovered from the shock it received at the time the Moore Brothers first took their flyer on a large scale in the stock market, using the Diamond Match Co. shares as their object of manipulation. As a result of their operations, the Chicago Stock Exchange, which was then located at Dearborn and Monroe

Streets, was forced to close its doors for a few days to prevent a panic. All the brokers, when they tried to liquidate their Diamond Match Co. stock, found there was no market upon which to sell and the exchange stopped doing business temporarily, to enable brokers to effect private settlements. The disastrous experience of the Moore Brothers spread the belief that the Chicago Stock Exchange did not provide a market big enough for large operations, from which impression it appears never to have recovered. Even at the present time there is seldom a day when the total transactions reach 3,000 shares in all, and this business is mostly done in securities of local enterprises whose issues are not large enough to warrant their listing on the New York Stock Exchange.

Conditions on the Philadelphia Stock Exchange are similar but not in such a pronounced form. The principal securities, like Lehigh Valley and the Philadelphia Company, which were once the popular stocks on this exchange, have finally found their way to New York City which seems to be the logical center for all securities, and to which they finally come when ready for the broadest market.

There are smaller exchanges in the other leading cities like Cleveland, Cincinnati, Pittsburg, and St. Louis, but the business done on them is in small proportions and hardly worth mentioning. Even that small business is all in local securities. While all these points are important financial centers, most of the transactions in securities are made over the counters of the investment concerns.

The younger members of the Pittsburg Stock Exchange tried, in the hope to revive operations on a more extended scale, to introduce dealings in mining shares. For a while their plans met with partial success, but it was a dangerous innovation, as results soon proved.

As most of the shares were in mining enterprises in the early development stages, the operations resulted disastrously in most cases to all who participated in the speculation, and this was mainly caused by the enthusiasm of the brokers, who, although ignorant in the first place of the fact that such securities are in most cases precarious speculations, still were desirous to give them a rousing introduction by a campaign of manipulation which ran prices up to excessive heights. The fall was sudden and disastrous. The exchange has not yet recovered from this ill-starred episode.

San Francisco has a mining exchange, where the nature of the mining business is better understood, and as the city is the natural banking center of the industry, it is also the logical market for these securities. There is a smaller mining exchange in Salt Lake City, and one also in Butte, Mont., and one in Duluth, Minn.

The development in the oil industry in California brought into existence an exchange for dealings in oil stocks. Whether it is to become a permanent exchange remains to be seen. When oil was first discovered in Pennsylvania, Oil City had an oil exchange and it thrived while the excitement lasted. But as an important factor it passed away with the collapse of the oil boom. Such was also the case in Beaumont, Tex., when oil was first discovered in that part of the state. It, too, went out of existence with the passing of the boom.

With a brief mention of the New York and Boston Curb markets, I shall have finished with the principal exchanges in the country. The New York Curb is a peculiar institution. Until the present, there has been no sort of control over it. The brokers who traded there were under no rules of restraint whatever. Any security could be listed there, for what a listing meant was merely that some broker introduced it to the other brokers who were willing to execute orders in it. If there was enough business in old clothes and shoes, they could just as well have executed orders in them, if there was any money to be made. A market as lax as this could not escape becoming the scene of a large number of financial scandals which was unfortunate for its own prosperity, as the crookedness revealed, in the end, drove the public away when it realized no efforts were made to protect investors from financial sharks.

Fortunately for the Curb market, which can be made an important market, an important reform was inaugurated in the formation of an organization to supervise its conduct, pass upon all securities, and the character of brokers. This will restore the market in public confidence, provided the reforms inaugurated are vigorously enforced. Quite an array of securities now listed on the Stock Exchange have found their way there through the Curb market, where they made their first bow to the public.

The Boston Curb market was organized along this line a year ago and is now housed in a building. While a few industrial stocks are dealt in on both these markets, the principal listings are in mining stocks.

The most important market for our securities abroad is in London. There some of them are listed on the Stock Exchange; the greater number, however, are listed on the Curb. There is a difference in time between these markets of about five hours, a sufficient margin for trading between the two. American traders will sometimes sell in London five hours ahead of the New York market and buy their stocks back in New York the same day, expecting to profit by a decline here as a cause of a weak opening in our stocks in London.

The London market quotations sometimes exert a pronounced influence upon our own shares, and consequently stock market operators closely watch London prices which are on hand before our own day's business session begins.

There is some dealing on the Berlin Bourse in the American stocks, but not to an extent worth mentioning. Of late, France has shown considerable interest in our securities, a few of which have succeeded in forcing their way into the sacred precinct of the "parquette," which is the Bourse proper. But the majority of American securities in the Paris market are still kicking their heels out on the "Coulisse," which, as a market, corresponds to our Curb.

Holland, next to England, is the most important market for American securities.

XXVIII. PANICS.

There are two kinds of panics—one, a commercial or business panic, the other, a stock market panic. A commercial panic affects the country as if it were stricken with paralysis. In most cases it is superinduced by over-expansion. A stock market panic is an affair more localized, whose injurious influences may prove of temporary duration only.

Some economic theorists attribute the responsibility for business panics to an excess of speculation. I am, however, inclined to the opinion that speculation is rather the symptom of it than the actual cause. It is a human trait, during prosperous periods, when money-making becomes a comparatively easy task, to keep on expanding as long as capital can be borrowed with which to spread out.

The result is an excess in speculation. The easier profits come, the more daring is the use for which they are employed. Men, who have accumulated their fortunes rapidly, are anxious to double their wealth, then triple it and then quadruple it. The more they make, the more they want, usually. They blindly plunge ahead without considering that the pace they set cannot always be maintained. They raise their structures on weak foundations. Therefore, they are totally unprepared to withstand any pressure placed upon their resources by a sudden tightening in the supply of capital, of which they have been free borrowers and they quickly find themselves financially embarrassed.

Creditors demand their money; they cannot always get it. As other creditors are in turn dependent upon them, they are quickly and similarly affected. Like a prairie fire, financial embarrassment then jumps from one place to another, hurtling over weak business structures and impairing sound ones. A policy of drastic curtailment is hurriedly enforced in every direction. Capital grows extremely apprehensive and is not obtainable except at usurious rates of interest and only on gilt-edged collateral. Fear also largely enters as a factor into a business panic. In fact it is from fear the name "panic" originates. There is a sudden rush of creditors for their storm cellars and when such stampedes occur, values are sacrificed and often go begging. It is then that the unprotected suffer the most. They are composed of that class of borrowers who have borrowed until they have nothing left in reserve—no other collateral to offer to protect their outstanding loans when payment is demanded without delay.

Here we find a real estate operator forced into bankruptcy because he was over-extended, there a wholesale merchant, and at another point a large retail merchant. Banks are discovered to be in a weak position, for their loans are in collateral which cannot be marketed quickly and their reserve in cash is at such a low ebb they cannot long withstand a run from affrighted depositors. All this is the psychological side of a panic.

While panics are largely the logical outcome of over-expansion, the severity of their effect is produced by fear. This is demonstrated frequently enough in the process of readjustment following, when embarrassed ventures are brought back to solvency without any loss to the creditors.

Nor do panics often throw before them the shadows of their coming. They more generally burst upon us unheralded and when least expected. The first signs of our last panic, that of 1907, appeared in March, when there occurred a sharp and sudden break in the prices of securities, for what reason few at the time were aware and others only half surmised. The real cause was the sudden demand for a large amount of capital from interior banks when the financial centers were unprepared to meet it.

It may be somewhat difficult to those unacquainted with our intricate financial machinery to determine how a sudden demand for money can affect securities so seriously. But it will be better understood when some light is thrown on our peculiar banking structure. Our national banks are compelled to maintain a certain per cent of their deposits at the reserve centers. The banks in which they keep these deposits allow interest on them while they in turn, to earn this interest, must lend it out in demand loans, which loans are principally upon securities having an active market.

Thus it happens that loans on such securities are the first to be called. The borrowers, finding their loans called, find they cannot borrow elsewhere and are forced to sell their collateral for what they can obtain. They have no other recourse. Such were the conditions on the day in March, 1907, when the first signs appeared in the stock market of the panic of that year. In October when the pressure could no longer be withstood it burst in all its fury. It required almost a year and a half for the country to get over its worst effects. The recuperation has been slow, as it always is, as it takes some time before the damage can be repaired.

That the stock market should furnish the first warnings of a panic, is but natural. It is here in the first place where over-speculation, the most pronounced symptom of a panic converges and as it is a quick market it is here also that lenders of capital hurriedly rush to liquidate their loans, and get their money back. Months afterwards the effects begin to make themselves felt at distant points.

Imagine a pool of water into which a pebble is cast. At first the pebble makes a small ripple but rapidly one ripple after another is formed each in larger dimensions until finally the entire edge of the pool is affected. This is exactly what happens in a business panic: first to be affected are the financial centers, then its circle of influence extends further, until finally the whole country is engulfed.

But with all their bad effects, panics are useful, since they are viewed as necessary at times to bring about an adjustment between industry and capital available for its exploitation and such readjustments come at varying intervals. I shall not here enter upon a long discussion about the causes back of panics and some of the remedies proposed to ward them off. This subject can be better left to others, for it could be extended into chapters while the space at my command is limited. I shall, however, touch upon the agitation for a Central Bank as one of the means to prevent panics and, if it cannot accomplish this, it can at least temper the severity of their effects. The idea in back of a Central Bank is to provide a citadel of financial strength that could be depended upon to automatically expand or contract credit facilities. In England, France, Germany and the other continental nations are such institutions. While they do not succeed in staving off a period of business stagnation, they at least demonstrate that they can minimize the harm through their note-making powers.

We need some like institution patterned along somewhat similar lines in this country which through its credit facilities could extend aid where most urgently needed and required. As incoherent as is our banking system today, our banks attempt the functions of a Central Bank in a panic through their associations and by means of clearing-house checks that temporarily take the place of money until all danger of large withdrawals of deposits has passed. This was done in the panic of 1907 as well as during a number of previous panics.

If we can consider that there are any visible forerunners of panics, carrying warnings ahead of their coming, I should say that they would make themselves apparent in at least three forms, namely, an excess of land speculation, excessive interest rates and an abnormal shrinkage in the reserves held by the banks. These reserves are the percentage of cash to the amount of deposits on hand to meet the demand from depositors. But these indications are not infallible, for it has often occurred that where there existed all the conditions pointing to a panic, a panic never occurred, for correctives were applied in time.

What makes an excess in land speculation a dangerous menace, is that it is the most unliquidable form of collateral of any for loans in hard times. Buyers cannot be found when they are wanted. Land speculation is also the last extreme of speculation. It marks the period of speculative excesses. Therefore its progress is closely watched by keen students of financial conditions.

The tightening in interest rates denotes a growing scarcity of available capital. Money follows the law of supply and demand, as it is but a commodity in the final analysis. If there is plenty of money, interest rates are low and correspondingly they increase as it becomes scarce. The difference between loans and deposits of the banks shows their available cash resources. The smaller the difference, the greater the danger to business and the weaker is the structure to withstand the assaults of a panic or fear on the part of creditors.

Corners Can Cause Stock Market Panics.

Stock market panics can, however, take place without disturbing the country's prosperity. Their bad effects can be localized. But such flurries of fright are largely caused by the attempt on the part of daring speculators or powerful financial interests to corner certain stocks.

The Northern Pacific corner is an example of this. The late E. H. Harriman, to prevent himself from being excluded as a railroad factor from the Northwest, made an effort to buy enough shares in the open market to acquire control of the Northern Pacific. Opposing his efforts were James J. Hill and and J. P. Morgan, who in turn were buying all the stock they could lay hands on to prevent Harriman's securing control. A good deal more stock was sold to both by speculators than there was authorized by the road or was outstanding, with the result that when the time for the delivery of the shares drew near the sellers began to scent the scarcity of the stock and began frantically to bid for what they had sold and could not deliver, bidding it up rapidly until it touched a price of $1,000 a share. The day will long be remembered in the annals of the New York Stock Exchange, as it was a day of intense fear and demoralization. It meant the ruin of a great many Stock Exchange members if they could not get the shares of Northern Pacific they sold and in turn would have dragged down to bankruptcy other members who were not concerned in the Northern Pacific speculations but were large creditors of the members who were involved. The warring financial interests were aware of the dangerous conditions and arranged matters so that a private settlement could be effected and by their efforts the danger of a great many failures was averted. The panic lasted but a day. Beyond the Stock Exchange it did not extend. The only individuals injured were the stock market speculators. Yet the case clearly illustrates how a panic might occur on the Stock Exchange and go no further.

But corners are very dangerous things to attempt. They very seldom succeed. A corner, to be successful must be so operated that the security whose price was bid up to a high figure can be in turn sold readily. It happens at times where this is impossible.

Many corners have been attempted on the Chicago Board of Trade. "Old Hutch," as Mr. Hutchinson, a wary speculator was nick-named, tried it a number of times only to find himself penniless in the end.

Young "Joe" Leiter had the idea that a crop of wheat would not reach its usual proportions, so he kept on buying all the wheat that the other traders were willing to sell him and which had to be delivered to him on a certain day. On paper his profits ran into the millions. To turn those profits into cash his corner depended upon the inability of those who sold him their wheat to make deliveries which would force them to buy it back from him to make their contracts good.

But when the final day for delivery came around, wheat poured in upon Leiter from places he never expected any existed. Elevators were ransacked for wheat and rushed in cars to Chicago. There was such a deluge of the cereal upon the young speculator that his wheat corner was quickly knocked to pieces and instead of profits in the millions, Leiter lost all his fortune and a few millions which his wealthy sire had to put up to square his son's accounts.

Another spectacular speculator who came to grief on the Chicago Board of Trade as the result of his efforts to corner wheat, was "Ed" Patridge. Most of us still remember the Waterloo which overtook Sully when he attempted to corner the available cotton crop.

There have, though, been men who successfully operated corners. One of these speculators is Charles Patten, the Chicago speculator. He has cornered oats, wheat and cotton successfully in their turn and has reaped millions as his gains for his daring. He now claims he has withdrawn from the market. If he holds to this resolution he will retain his millions, but should he venture back into the Pit and try to repeat his speculative coups, there are many who believe he would lose what he has by trying to run a corner once too often.

It is fortunate that the Stock Exchange does not tolerate any attempts to corner a security, as it realizes the harm which could arise from such attempts. Through its discretionary power it can enforce private settlements and largely interfere with the profits which could be made from a corner and this, of course, discourages any deliberate and preconceived plan to bring about a corner. The Northern Pacific corner served as a good lesson towards this end.

XXIX. POOLS AND MANIPULATION.

A great deal of the speculation on the New York Stock Exchange is artificial. By this I mean that it fails to reflect the actual transaction in securities by the trading public. Such artificial speculation aims to incite, through a display of activity, a buying or selling movement in certain securities and then leaves the attainment of its purpose to the impetus such efforts have started.

A number of brokers will often organize what we call a pool, to exploit certain stocks. Many such pools are constantly operating in the stock market, especially when the trading is active. These pools work with great cleverness. They pull their strings behind the scenes and only the shrewdest market observers can trace their operations.

Only when some cog in their plans slips, as occurred in the case of the Columbus & Hocking Coal & Iron pool, does the public get any inkling of how pools operate and then when their operations become known, the revelations do not always reflect credit upon the Stock Exchange.

What happened to the Columbus & Hocking Coal & Iron pool was this: The members of this pool, after they had succeeded in rigging the price of the company's stock to over $90 a share, and they began to suspect that the public could not be induced to buy their stock at fancy prices, grew apprehensive about how they were to get rid of their holdings, and to get out whole, started to betray one another in their selfish desire to protect themselves. When this treachery become known, there was a sudden rush to sell and within a few minutes the pool was smashed. The stock, which only an hour before had been quoted around $90, declined rapidly and did not stop until it touched a price around $10 a share. Two Stock Exchange firms which were financing the pool failed, while James R. Keene, the pool's manager and manipulator, lost not only a big slice of his fortune, but a goodly part of his reputation likewise.

To be successful, a pool must sell its accumulated holdings to the public at a profit, but in this it does not always succeed, since the public is at times too wary to be caught.

An amusing instance showing what strange effects can sometimes be brought about by a slight mishap in orders given by a pool, occurred in 1910 in the preferred shares of the Rock Island Company. It seemed that on the night before this incident happened, a leading operator in this stock, who was managing this pool, placed large buying orders in the stock with different Stock Exchange members, but forgot at the same time to give enough selling orders to balance the fluctuations in the stock so as to make them appear normal and not arouse any suspicions. What took place was startling. The simultaneous appearance of these large buying orders without any offerings of the stock, resulted in a sky-rocket advance of $30 a share in the price in less than fifteen minutes and when it became known that a serious blunder had been made in the distribution of the orders, there was a foot-ball rush to sell, the stock sliding back quickly to the price from which it had started but a quarter of an hour previously. The error ever after put the stock under suspicion. The public would have none of it and for months afterwards Rock Island shares were carefully shunned by speculators.

The way pools operate is interesting. A group of Stock Exchange members will agree to form a pool, which in some instances they call a syndicate, to provide a more dignified tone to their scheme. Pools are not always formed by members; they may be organized by speculators as well who in no way are affiliated with the Stock Exchange. Each member of the pool agrees to handle a certain amount of the stock in which the pool is interested and these orders are distributed at scale prices over a certain period of time.

In this manner efforts are made to induce activity towards whatever direction, up or down, the pool plans. If the pool's plans are successful and it has succeeded in distributing at a profit what stock was purchased, or has covered what stock was sold short at a profit, a distribution is made among the members.

Sometimes a pool makes enormous profits. The losses are equally great where a pool's plans meet with defeat. A powerful pool was organized in United States Steel common stock in 1907, in the midst of the panic. This pool, fortified with millions of capital and aided, as some authorities claim, by the Steel Corporation itself, which through its charter is empowered to deal in its own securities, persistently bought all the stock coming upon the market. This buying kept United States Steel common stock like a rock, withstanding all pressure, around $20 a share throughout these parlous days.

The firmness in the price of the stock had the desired influence when confidence and reason again returned. The strength of United States Steel common stock was a topic that was on every one's lips and firmly implanted in the public's mind. The stock became the popular speculative medium and steadily advanced in market value until it touched a price near $95 a share. In the interval, the rise in the stock was assisted by a number of increases in its dividend. The millions the pool had to use to support the stock were multiplied a number of times by the advance in its value which followed.

In some financial quarters pools and their purposes are justified by the claim that the public will not notice a security, irrespective of what merit it possesses, unless there is some leadership and it is such leadership they aim to supply.

Probably there is some logic in their contention. Yet not all pools are organized on such a praiseworthy plan. Quite often they are formed to inveigle the trading public with some security at prices wholly out of proportion to their intrinsic values. Most of the criticism involving the New York Stock Exchange in recent years may be directly traced to operations of this character.

Pools are largely responsible for the manipulation in stocks, about which so much is written and which is so frequently mentioned in the financial reviews in the daily press. The weight of their orders makes a stock rise or fall and often to such an extent as to frighten real holders to throw their shares onto the market or cause a scurrying to buy in anticipation of a good advance. Pools work upon the avarice and credulity of the public or on its fears.

Before Governor Hughes of New York State appointed a committee of citizens to investigate the operation on the Stock Exchange with the purpose of recommending reforms for the protection of the public, pools were allowed to carry on their manipulations with almost no restraint whatever. While "wash" sales and "matched" orders were not openly tolerated, they were secretly connived at and permitted.

"Wash" sales are sales where two or more members get together to buy or sell stocks between themselves to establish quotations so that they may be reported in the official transactions of the Stock Exchange. This is also true with "matched" orders, which is but another name for "wash" sales. One broker will have an order to buy one hundred shares or more at a certain price and another broker an order to sell a similar amount of stock at the same price, each order emanating from the same source. The public, unaware that these orders are artificial, accept them as actual transactions.

But this sort of deception is now largely a thing of the past as a result of the investigation made by Gov. Hughes' committee. Another practice, now forbidden, is the one by which a member was allowed to bid for or offer a certain price for a large block of stock, but did not have to execute the order unless exactly the amount of stock his order called for was offered, or taken, at his price. This practice allowed a member to bid $160 for a block of 10,000 shares, all or none, when the price was only $150, very well knowing beforehand that no other member could fill his order. Orders like this were mere bluffs made ostentatiously to impress the public. Now a member, whatever he makes a bid, must take stock in whatever blocks it is offered and this, of course, negatives the sort of manipulation just described and which is designed to deceive the public.

All manipulation, however, does not spring from pool operations. Some of it is caused by large underwriting bankers who in bringing out an issue of new securities listed on the Stock Exchange, bring about an advance in the price of the already outstanding securities in order to create a good impression for their prospective financing and secure for it a successful reception on the part of the public, which is more likely to be keen for anything indicating a likelihood of a quick profit.

On the floor of the Stock Exchange are arranged rows of posts, around each of which gather the traders who trade in a certain security. To facilitate the trading, each member selects some stock of which he wishes to make a specialty and makes his headquarters while on the floor at the post allotted to his security. As examples, one member acts as specialist in Reading Railroad stock, another in Union Pacific shares and so on. For the more active shares there may be a number of specialists. They execute orders in their specialties for a commission of $2 for each one hundred shares when the orders are from fellow members. In this way members are saved a good deal of running about on the floor of the Exchange and also considerable of their time.

But the specialists in the more inactive shares are often subjected to severe criticism. They are in a position to make considerable money if not over-scrupulous. They are in a position to execute an order of their own before that of a customer. For example, a customer gives a market order to sell 100 shares of an inactive stock. The specialist could, were he so inclined, break the price three or four points and buy in the stock his customer sold. To the next buyer who came along he could sell this very same stock at an advance of two or three points, making not only his commission from both seller and buyer but also the difference in price. I don't say that this is done, but contend it can be done and believe that among the much needed reforms should be more stringent supervision over the specialists in the more inactive securities.

Some of the Pitfalls of Speculation.

I cannot attempt to elaborate upon the many different pitfalls dug by crafty schemers to catch unwary and ignorant speculators. On this one subject alone a book might be written. The bucket-shops, for one, have proved the principal menace to the public but fortunately they no longer exist to the great extent they once did, now that the Government has gone after them with a big stick. A bucket-shop, as already described, is nothing less than a gambling room. Bucket-shops can only carry on a prosperous business by misleading their patrons. This they do by inducing them to take on stocks likely to decline or sell stocks more liable to go up.

It is always to the best interest and protection for a person who wishes to deal in stocks or commodities to carry on his transactions through a member of a regular exchange, as such transactions thus come under the supervision of the members, who are compelled actually to execute all their orders. For a member to be caught "bucketing" orders means his expulsion from any reputable exchange. By dealing with members a patron is also dealing with a person of more or less financial responsibility and one whose commission is sufficient compensation for the services he performs. Moreover, it is possible for a customer, when transacting his business through a member, to check his orders from the official records.

"Tips" on the market are the bane of speculators. They prove the ruin of a great many. A speculator will hear from some one about whom he knows nothing and with whom he has scraped up a passing acquaintance in some brokerage office, that such and such a stock is either going up or about to have a big break. He hurries to get in on the "good thing." In most instances such tips are mere guesses. On such flimsy foundations many speculators will sometimes stake a small fortune. Is it then any wonder that they soon lose all their money? Other speculators will pay a weekly or monthly stipend to some advertising tipsters for inside information. The inconsistency of such advice is plainly apparent when it is known that if these self-criers of their ability to forecast prices were only correct about a small part of their prognostications, they could retire in a short while with great big fortunes.

Yet these financial charlatans month after month catch a new crop of suckers; otherwise they could not continue in the game as long as they do.

It is a remarkable phase of human nature that prompts individuals to back with their money the claims of perfect strangers, but when it comes to buying even only a pair of socks they will inspect them closely to be sure they are getting what they bargained for. Still it is true, for, were this not a fact, no such schemes like the 520 per cent Franklin Syndicate operated by a clerk by the name of Miller or the Dean Syndicate or the Storey Cotton Syndicate operated by ex-convicts, could be possible. These were all blind pools, so to speak. They advertised that speculation could be conducted profitably and without loss and would declare out of their supposed operations big weekly dividends. The Franklin Syndicate, while it lasted, paid 10 per cent weekly dividends. They secured some person in a community as a customer and it would not be long before the dupe would be telling all his neighbors about the fat dividends he was receiving. The result would be that the cupidity of others was aroused and they also fell victims.

Their schemes were simple. The dividends paid came from the money their dupes sent, and not from speculation. In the early stages of the crooked game, the dividends paid did not amount to very much and for every dollar distributed in this way they were sure of ten more coming back. Few of their victims ever got their money back, for they kept sending more money than they received so as to increase their large profits. A day must come when such schemes as these are raided or their operators decide to make a big clean up. Then all their dupes find that they have not been speculating but have been swindled out of their money.

Luckily, such discretionary pools, as they are styled, have ceased to exist. The authorities are now too watchful. But in their place have sprung up individuals who will handle speculative accounts for clients for a share of the profits. They catch their full measure of victims. These people are merely gambling with their clients' money. If they guess rightly, they take a share of the profits; if not, their customers, not they, lose money.

In the first place, no person should speculate who has no knowledge of securities. One must not forget that intrinsic value and possible increase in income return are the moving forces behind a rise in the price of a security, and conversely, a depreciation in the intrinsic value and the likelihood of a reduction in the dividend, are behind a decline in the price of a security.

Such possibilities can be detected only by close study of prevailing conditions and by thorough analysis of the earnings statement, as published by corporations.

In fact, to be successful in speculation a person must devote as close study to conditions as he would to any profession he desires to master.

Speculation is a rich man's pastime, not a poor man's road to fortune. The latter has no business in it. A rich man is in a position to recuperate his losses by patient waiting. If he is a buyer, he can take his securities out of the market, put them away in his strong box and bide his time until they not only recover their price but go high enough so that there is a profit in them for him. If he is seller, he can close his transaction, sell again at a higher level until the decline anticipating takes place. But even then men who adopt this method are not always right in their conclusions.

The most successful speculators are the actual investors who buy their securities outright after a severe break in prices and store them away until a recovery occurs in which they can resell at a profit. They do not buy more than they can well afford to buy and as they own the securities outright they cannot be called upon for margin.

XXX. THE PROMOTER'S PLACE IN FINANCE.

He who proves himself a successful and capable promoter is a very useful individual. As the difficult task falls to him of bringing capital and opportunity together for their mutual exploitation, no one can dispute that such men, when honest in their efforts, really perform a very valuable service when they succeed in raising capital to finance legitimate and meritorious enterprises.

In reality they are the men who find legitimate opportunities in which capital may be profitably employed. Born optimists as they are, they are never at a loss to devise methods of presenting their projects in a form sufficient to interest people of means.

Today, many cities and towns are richer in either new industries, electric light, gas, or water plants, or transportation facilities, because of the efforts of some promoter whose confidence that such ventures would prove profitable, induced him to devote all his time and energies to raise the required capital to start them. Many communities owe their railroad facilities to the same tireless boomers.

But not all promoters are upright and honest. Some are shifty and dishonest and are in the business to plunder investors. Honest promoters are constructionists; they are the men who do things in an honest way, never undertaking any proposition unless they are first thoroughly satisfied it is sound, and then they stick to it until it is a success. The crooked promoter is the reverse; he is an individual who is not only indifferent as to the ultimate outcome of a project, but mercenary, since he has but one purpose always in mind, which is to use his schemes to unload stocks or bonds on investors, caring little whether the securities are sound or not. His schemes are only traps to catch the money of the public, and are not newly developed opportunities for making money. It is unfortunate that this type of promoter is largely in the majority. Because of their pernicious efforts the business of promoting has in late years come into bad odor, although undeservedly, as it is a line of work that always will be necessary. Men capable of bringing capital and enterprises together will always be required; their services cannot very well be dispensed with.

The legitimate promoter has no brass band to herald him; he works very quietly and unostentatiously. He is a mole who keeps burrowing along without noise. If he is planning a merger of a number of industrial concerns, to bring about greater degree of stability for a certain line of manufacture, he usually starts by obtaining options on the plants and has his plans and statistics showing the possible profits well worked out before he is ready to lay them before capitalists. If he is bent upon building a new railroad or furnishing a community with some very much needed public service, he first has his rights of way or franchises safely tucked in his pocket before undertaking to raise the necessary capital. He never begins half-way, as he realizes the futility of attempting to induce large capitalists to finance his projects unless he is in a position to fulfill every promise he makes.

Furthermore, a promoter who has a good money-making opportunity and is intelligent enough to present it properly, usually experiences no difficulty in finding capital for it. Capital is hunting him as much as he is seeking it. The promoter, however, whom the public must watch very carefully and be on guard against, is the man who has a half-baked scheme which he wishes investors to finance entirely and take all the chances. He may not exactly be a knave, but simply a fool who imagines he has a good thing and believes he can raise enough money to exploit it by a direct appeal to the multitude of investors. Whether he is a knave or a fool, the result to the investor in the end is equally disastrous, if enough capital is not raised. All those then who have backed the promoter's confident promises with their capital, lose it when the critical period is reached, when more capital is required, but can no longer be obtained.

Every year hundreds upon hundreds of such ventures succumb, for from their inception they never really have a chance to demonstrate what they are capable of accomplishing, merely through lack of sufficient capital.

The intelligent and successful promoter guards against such a contingency. He usually deals with wealthy capitalists and large underwriting bankers who are prepared to pledge all the necessary capital to insure the completion of the project before inviting investors to participate. They at least go to all lengths to be sure of their ground. It was in this way the steel merger, copper merger, and a dozen other well-known mergers were organized by shrewd promoters. Their securities may have been watered, but at least they always had a market.

Criticism may properly be directed at this watered capital, but it must be said in behalf of the original promoters that the holders of their stocks could realize something on them whenever they wanted to sell. As much cannot be claimed for the stocks of the number of shifty schemes exploited during the last twenty years, by means of flamboyant and extravagant newspaper advertising. To mention the names of all of them would alone require a book as bulky as an Encyclopedia Britannica. Most of the securities issued by these schemers are now worthless. What money the public invested in them has been completely lost.

Only one general rule can be suggested by which an investor may judge the standing of a promoter who is endeavoring to enlist capital. That rule is to find what is the promoter's reputation in the financial community—whether he has any previous successes to his credit, never to accept his mere statements as facts, but compel him to furnish a complete financial report which will show how much capital his project will require and then what assurances he can give that he will be able to raise it all.

By an investigation of his character it is possible to learn whether the proposition is of a substantial character, or the promoter is simply trying to raise a large amount of capital "on a shoe string." Other than this there are no specific rules. There are so many different ventures constantly being brought out and such a great variety in the plans adopted to raise capital, that each proposition must be judged individually and according to its merits.

Listed and Unlisted Securities.

We hear considerable pro and con about listed securities. The subject is very much discussed not only wherever security buyers congregate, but frequently in the financial columns of the newspapers. The most convincing argument brought forward by champions of listed securities is that the latter have a market. That is to say, they can be sold when it comes necessary to sell them. Their point is that individuals, when they make an investment, wish to be in a position where they can always sell what they buy. Then they also contend that it is much easier to obtain loans upon securities listed on some Exchange. But fallacy is to be found in all their arguments.

Standard Oil shares are not listed on the Stock Exchange. This security is traded in on the open market and there is not the least difficulty experienced in quickly finding a buyer, should one wish to sell the stock, nor will a person be turned out of doors by any banker if he wishes to borrow any money, as there is no more desirable collateral for a loan than the shares of the Standard Oil Co. There are any number of other desirable stocks in a similar position, although they are not listed. A few which might be mentioned are Royal Baking Powder, Singer Sewing Machine, American Typefounders, Otis Elevator, Borden's Condensed Milk, and so on.

In the final analysis, it is not whether a stock is listed or not which gives it marketability, but its intrinsic merit as an investment. This is what the buyers of stocks first consider, and quite properly. Furthermore, this element is also what bankers first seek to determine when making loans or at least they should do so. If a corporation is doing a large business, has for years paid good dividends and continues to pay them, then it should not be difficult to sell the stock when the occasion to do so arises, or to borrow money upon it.

Listed stocks are decidedly at a disadvantage with nervous security holders, for any extreme fluctuations in their prices might prompt them on the spur of the moment and without thinking, to sell when they should not, or buy when they ought to let them alone.

There are also many securities listed on the Stock Exchange, which, so far as commanding a ready market, might as well never have been there, so inactive are they. Nor is this to their discredit. It may be a case, as it often proves, that the shares are so closely held by investors that very little stock comes into the market. The position of the shares of the Eastman Kodak Company of Rochester, N. Y., is an example of this. The stock has paid such a good rate of dividends for years that those who own it are reluctant to part with it. The shares of the express companies, although also listed, are inactive a good deal of the time for the very same reason. There are some listed stocks in which sometimes days will pass without as much as one hundred shares changing hands.

I mention this only to prove that all the advantages are not always with listed stocks. There are a great many equally good securities not on the Exchange which it would be the height of folly for investors to ignore because of the absence from the listing department.

When a person buys a security he is prompted to do so because of its value and prospects. That is the cardinal principle in making profitable investments and no one will dispute the argument. While I am not decrying the advantages of securities that are listed, I at least cannot see where it is a mistake when a corporation fails to place its securities on the Exchange.

I have been told by directors of corporations that they have refrained from listing their stocks because of a fear that if they did so the stocks would be in danger of being manipulated, where as it is their desire to keep the stocks free from all stock juggling and have them sell strictly upon their merits. In taking this view they are quite right, for nothing will prejudice a security in the opinion of the public more quickly than a suspicion that the fluctuations in its market prices are artificial. There is no way to prevent this being done on the Exchange should some of the brokers conclude they could make a good profit in buying quietly a block of stock and then by a display of strength in the quotations, distribute their stock on a scale of rising prices. After they are through with their maneuvering, the stock might decline rapidly in price to the great impairment of its market position, although nothing has happened to depreciate its intrinsic merits. This is what makes some corporations hesitate to list their securities.

When the Governors of the New York Stock Exchanges devise means to make manipulation extremely difficult, I am inclined to think the hesitancy shown by directors of the smaller corporations to list their stocks will be very largely removed. Towards this end the suggestion has been proffered to prevent brokers from buying stocks for their own account. Whether or not this is practicable is a debatable question.

But as long as a stock has intrinsic merit behind it, returns good dividends and has borne a good reputation, it is immaterial from the investor's viewpoint whether it is listed or not. It is well to remember that that which has value may be sold and money borrowed on it.

Mining, Oil and Other Bonds.

Ever so often it seems to be our misfortune to run into a boom of some kind or other when the popular fancy for investments turns in one particular direction and then discretion and good judgment which sober-minded people are supposed to exercise, are cast aside in a frenzy to gamble. If it is not in mining, then it is for the exploitation of a newly discovered oil field; if it is not for that, then it is something else which has taken hold of the public fancy. It is during such booms that the flotation of new securities reaches its flood tide.

A great many people then appear to be obsessed with but a single idea, to acquire wealth overnight. When popular fancy runs wild for a certain class of securities, it is a harvest time for unscrupulous manufacturers of securities.

Yet this is not a phenomenon exclusively characteristic with us. Nearly every other nation is afflicted more or less at some time or other, with the same sort of wild speculative mania. The phlegmatic Dutch had a black tulip craze when fabulous sums were paid for this bulb. France was turned into a nation of besottened gamblers by John Law with his fanciful Mississippi bubble, and more recently by De Lesseps and Hirsch with their more ambitious Panama Canal scheme. We are inclined to look upon the French as a thrifty race, yet these incidents prove they can be aroused under peculiar circumstances to throw millions away on baubles.

In England such debacles result frequently. While France was royally entertaining John Law and pouring immense riches into his lap to squander, Englishmen were no less shorn of all sober sense in their great greed to get the immense wealth which the South Sea trading enterprises, and there were a half-dozen of them, promised to bring. With the same rash spirit they launched upon the wildly speculative schemes converging upon the development of the new gold fields of Africa and only recently something approaching a frenzied boom in rubber company shares developed and has since collapsed.

There was a boom in 1849, due to the discovery of gold in California, but our first extensive boom, which is remembered by the present generation, and which reached any large proportions, was the speculation in oil, when the first large oil area in this country was discovered in Pennsylvania. People from all over flocked to the oil district. The early comers made money. Their successes lured others. In this way the fever spread until it ran wild until it died from exhaustion.

The pioneers are the ones who usually make the money in a boom. They are able to do this through the willingness of those who follow to pay fancy prices for their holdings. They, in turn, hand them over to other late comers. The bubble, once started, continues to expand as long as there are people who will take what others have to offer at a good profit, which in boom times attains fanciful proportions. But finally there comes a pause when every one rushes to sell in an anxiety to cash in their paper profits, but buyers are scarce. Then the bottom drops out of the boom, the bubble bursts and property or investments which only a short while before were figured in dollars, are not worth cents. Such, in brief, is the history of booms.

The author distinctly remembers the Texas oil boom, which it was his good fortune to observe at close range from its inception to its collapse. A week after oil was discovered the rush began to the new field. Beaumont, Texas, which was the center of the new field, grew from a small lumber town of not more than 6,000 population to a bustling city of 25,000 people, all this bottomed on a frenzied hunt for wealth. The Lucas Gusher brought this horde of people. It was spouting oil at the rate of 70,000 barrels a day. This excited the imagination of the masses.

Nothing was more easy to estimate than that such a production meant enormous wealth. At fifty cents a barrel the new well was showing a production of $35,000 daily which was all right on paper. If one well could show this, then the profits on a half-dozen would reach enormous proportions. Oil land which could be bought a month before for only a few dollars an acre, jumped by leaps and bounds in price and in a few months was changing hands on the basis of $1,000,000 and over an acre. Derricks were built so close together that it was impossible, in some places, to walk between them.

The outcome was the great over-production of oil, for which there was no market. Oil was soon begging for buyers. The price declined until not more than three cents a barrel was obtainable. But this was not the only mishap to befall the field. The large number of wells drilled on the same spot almost exhausted the field in a year's time. More than a thousand different oil companies were promoted, all with varying capital, from a modest $50,000 to several million dollars. The public invested, it is conservatively estimated, nearly $100,000,000 in actual cash, most of which has been lost, as there are today only a few oil companies compared to the number formerly in this field, and they are largely owned by three or four large corporations.

It is the same with mining. The Cripple Creek, Goldfield, Tonapah and Cobalt booms sucked up one hundred dollars, the money of misguided investors, where it returned one dollar in dividends. Porcupine, the new gold camp in Canada, is likely to repeat history. It is not that these camps lack opportunities for successful exploitation; it is due to the public rushing heedlessly into these things and taking anything offered without investigation, snapping at them like a school of hungry fish at the bait thrown out.

This is what happened also in the great industrial boom following McKinley's inauguration as President in 1897. In those days it seemed that all promoters had to do to induce the public to pour its money in upon them was to incorporate a company, plan the manufacture of something and arrange in their prospectuses a mass of statistics demonstrating how much money could be made. It is needless to say where things are done thus loosely that the majority of the enterprises never can reach beyond the embryonic stock-selling stage.

XXXI. THE GET-RICH-QUICK LURE.

Until recent years, the Get-Rich-Quick Game had attracted little attention, although it had been an evil in the domain of finance which had slowly but steadily grown for years until it had reached proportions where it had actually become a serious menace to our national prosperity. But it could no longer be ignored. It spread so far that the necessity was forced on the different states and even on our National Government to devise rigid restrictions to check the invasion upon our people made by the multitude of such schemes which have been continuously cropping up.

The Get-Rich-Quick Game, as conducted in this country, is no longer a small factor. President Taft regarded all such schemes as constituting a danger to our prosperity, serious enough to make it incumbent on him to devote a paragraph in one of his recent messages recommending that drastic action be taken against these swindles.

The losses the public sustains through get-rich-quick schemes is enormous. But the greatest harm following does not come to intelligent people, as they are not so easily deluded; by far the larger number of victims is drawn from the humbler classes, the thrifty accumulators of capital, who, being totally ignorant of the first sound principles governing investments, and still anxious to make their money yield the largest income, grasp eagerly at different propositions brought to their attention because they promise enormous returns.

The amount which credulous investors lose each year in our many different Wallingford schemes to acquire wealth overnight and on a few hundred dollars, cannot be estimated accurately. Still, I believe I am not exaggerating, but underestimating the total loss, when I place the amount between $150,000,000 and $200,000,000 every year. This certainly is a huge amount of capital to throw away upon ventures which never have had a ghost of a chance to succeed from their very inception, because they were conceived at the start in the womb of dishonesty.

I was asked some months ago by Mr. C. M. Keys, the financial editor of World's Work Magazine, to prepare some statistics of the more prominent get-rich-quick fakes foisted on American money savers during the last few years. In the preparation of these statistics I went no further back than seven years and included only such schemes which emanated principally from the eastern financial centers.

The statistics I furnished World's Work included forty-two oil companies, with an aggregate capitalization of $83,448,128; one hundred nineteen mining companies with an aggregate capitalization of $527,882,500; and eighty-two companies of a miscellaneous character, with an aggregate capitalization of $448,269,780. This list was only a partial one and included only such schemes still fresh in the public's mind. Where one was mentioned there were two score or more unnamed, because space to include them was not available.

Yet here in this incomplete list we see a total capital in excess of one billion dollars, of which but an infinitesimal part actually went into the development of these enterprises; the larger part drifted to the pockets of dishonest promoters, went for flamboyant advertising in the not over-scrupulous newspapers, or was squandered on large commissions to stock salesmen and their sub-agents. All the millions investors threw in these schemes proved a total loss. A country cannot long continue to prosper which will tolerate the snuffing out of so much of its available capital each year.

The Get-Rich-Quick Game is a convenient blind for the high-class confidence man to hide behind. Until the authorities, following the lead of the National Government, became aggressive and made up their minds that it was high time to stop this form of brazen plunder, crooks and crafty promoters found the occupation of despoiling the masses from such vantage points as fiscal agents, fake bankers and brokers extremely congenial, nor were the risks they assumed great. Compared to them, hold-up men were individuals of some courage, for they at least always invited danger from a counter-attack when they assaulted wayfarers to get their booty. The get-rich-quick shark was seldom in danger from physical violence, for if one of his victims came to seek him out in his office to force him to return his plunder by physical persuasion, he was never to be found around.

The get-rich-quick schemer works along clever lines. He acquires mining claims or a lease on some oil property somewhere near where a real boom is on and at once starts a company, capitalizing it for a large amount, or he may get hold of some new invention, like the wireless telegraph, or the wireless telephone, and subject them to the same process of inflation. This preliminary step taken, he next proceeds to have stock certificates and attractive literature printed, promising profits ranging from two hundred to as many thousand per cent. Then he is ready for his work of plucking investors of all the money they can spare.

One of their effective schemes is to offer their stock at a low price, much under its par value. They fix on a low price the better to convince their dupes with their plausible arguments that the investment will rapidly advance in value. In many instances, they hold forth promises that their stock will reach a price far in excess of its par value as soon as their enterprise begins to pay large dividends, which are never declared unless fake payments are made and then they are used merely as a bait to be withdrawn later on.

The difference in the price at which a victim may buy stock and what it is sure to reach, according to the promoter, is represented to him as the profits he can easily make. The profit is so vastly in excess of what it is possible for conservative investments to return that the lure catches ignorant and greedy investors, but not intelligent people, who will investigate thoroughly before biting on the mere promises made by people entirely unknown to them.

Another scheme adopted by get-rich-quick operators is to announce an advance in the price of the stock and urge that it be bought for the profit which can be made from the increase in its market value; this is what they all say. If a stock is offered for ten cents a share and will be advanced to 20 cents a share, it is pointed out that the investor will make 100 per cent. This snare catches a great many victims. The stock has not advanced one mill in value; all that has taken place is that it has been arbitrarily marked up in price. If any effort to sell the stock were made by an investor, he would find out that, virtually, there was no genuine market for its sale.

All sorts of efforts are made to secure the consent of men having some reputation to act as directors for get-rich-quick schemes; some are innocently drawn into the game through an honest belief that it is a good thing and certain of success; others, again, act for a more mercenary purpose, giving their services in return for a salary or a big block of stock which they expect to sell at a profit.

There is a telegraph company whose stock is widely exploited by a concern in the East, which borders as near to a disreputable promotion as it is possible to get without its authors breaking into the penitentiary, for which a number of very well-known public men are acting as an advisory board and among whom is a famous divine. Yet not one of these men ever attended a meeting of the company. They have consented to act as an advisory committee upon the plea of others that their presence will be a guarantee that the enterprise will be free from stock jobbery. The general reputation of these men is proof of their integrity; they are the innocent cat's-paws of crafty promoters behind the scheme, who use their names and high character to inveigle the public into buying the stock. This is by no means an isolated case. There are any number of similar illustrations which could be given. Get-rich-quick promoters are fully aware of the power the names of reputable men have upon the purse strings of credulous investors and they employ every means to secure such men as directors in their enterprises.

Sometimes it occurs that men in good repute will believe they have a good thing. Likely they have, but unfortunately they fall among the crooks in finance who enamor them with promises of quickly raising all the capital to develop their enterprises and ruin them in a short while by their dishonest operations. This often happens. I remember a legitimate industrial enterprise which fell among the financial Philistines who robbed it from all sides and finally forced it into bankruptcy. After that experience it was impossible to raise any money for it.

If a fake advance in the price of a stock fails to entrap victims, then fraudulent dividends are tried. The backers of get-rich-quick schemes are never at a loss to spring any coup if it will suffice to bring them money. They will guarantee to buy stock back within a certain time at a higher price, if that will catch a sucker, with no intention of living up to their promises, and as they are financially irresponsible it is useless to start any legal action against them, as no money could be recovered after once they obtain a strangle hold upon it.

A few years ago some get-rich-quick mining promoters devised, so they claimed, a plan for a guaranty against loss. The scheme consisted of a trust fund into which were deposited a certain number of shares in each of the companies they promoted. It was a sort of grab box. If the investor was dissatisfied with one stock he had purchased because it did not pay dividends or advance in price quickly enough, he could turn his stock into this depository and take out some other stock which he fancied the more. As all the stocks were equally worthless there was no protection against loss. Still it was a good argument and had a good effect while the scheme still had the flavor of novelty.

When this plan wore out its welcome, fake bonding companies were started. These companies guaranteed to repay the investor in twenty years, some in ten years, all the money they had paid for a stock, if in the meanwhile it did not prove profitable, but a failure. This also sounded convincing but none of these bonding companies was ever solvent or could ever live up to its guarantee. After the authorities closed up a number for operating an illegal business, all the others disappeared quickly.

As already related in previous sections, the Government has been carrying on a vigorous campaign to rid the country of fraudulent financial schemes, including the innumerable get-rich-quick ventures. The Government is in the best position to carry on this work very effectively. Such schemes cannot succeed unless they are allowed the free use of the mails, as it is by means of the mails the promoters try to reach investors and to catch them in their claws. By branding them as frauds and denying them the use of the mails, these fakers cannot very well succeed.

Still this is a slow process of extermination, as it requires an investigation in each case, sometimes extending over months before any retaliatory action can be taken. In the meanwhile considerable mischief can be done, for the get-rich-quick schemer is a shifty individual. He does not believe in procrastination; he fully appreciates that it cannot be long before his ventures must attract unfavorable notice and therefore he wishes to gather in his loot before he is smoked out. Nor does he stay long with any one scheme, but transfers his activities noiselessly and rapidly from one to another. Often the same crooked individual, before he lands behind the bars, has foisted on his dupes a dozen or more get-rich-quick ventures. One of them promoted as many as forty-six companies before the Government caught him, each one of which was an out and out fraud.

In the get-rich-quick business, "the sucker list" plays a very important part. This list is made up of names of people who are known to bite at worthless truck. Such people are the "suckers." These "sucker" lists are graded. In one raid by the Government of the offices of one get-rich-quick concern, there was found a card index list of "suckers" marked according to their measures of credulity "good," "fair" and "worth trying."

Once a person writes for literature to any one of these harpies he is for years afterwards tagged as a "sucker." From then on he will be bombarded with all kinds of literature from all the get-rich-quick sharks, everyone of whom is exceedingly anxious to make him wealthy without any effort on his part. His name is peddled from one to another. His name is bandied about or sold, as a large business is done among promoters with "sucker" lists, a name bringing all the way from one cent to one dollar, according to its possible value as a source of good plucking.

Hundreds of people are impoverished every year by get-rich-quick schemes. It is surprising to what extent a mania for worthless stocks siezes on some classes. I remember an instance where a western court was compelled to appoint a guardian for one man in order to keep intact the remainder of his fortune, which at one time was quite large, and save it from being entirely squandered on get-rich-quick stocks. This deluded individual had bought liberally of stocks in every fake to which his attention was called until he had thrown away nearly $300,000. When he was asked why he did it, he said he felt that among the many stocks he had bought a number would prove very successful, so much so, that they would more than double what losses he had sustained in the worthless investments.

This is a theory obsessing a great many persons. They proceed on the belief that if one out of twenty stocks even partially realizes the profits claimed for all, they will be so rich they can afford to lose on the other nineteen. The twentieth, the good thing, somehow never comes up to their measure.

It has been suggested that an effective curb could be placed upon this evil by the Government, compelling every enterprise offering its stock to the public to take out a national charter providing as its principal requirement the filing under oath with the Secretary of the Treasury of a complete statement of its financial condition, which statement would be open to public inspection or a copy could be obtained by an investor for a nominal sum. It is claimed, and not without reason, that such publicity would very quickly develop any fraud if it existed and enable the Government to stop any further stock sale until an investigation disproved the charges.

The idea is a very good one. It would be even more effective were all the directors forced to acknowledge under oath the genuineness of the financial statement filed and if it were further provided that any perjury or false swearing was punishable with a jail sentence, instead of a fine. Then it is likely individuals who valued their good names would use the proper precautions not to carelessly connect their names with any fraudulent promotion.

Still no investor is in danger of falling a prey to a dishonest or visionary promotion if common sense is exercised. By inquiring into the character of the people promoting the venture and by getting a financial statement, they will in a large measure protect themselves. Even should they not feel themselves competent to judge, which in itself suggests they ought to be doubly careful of what they take hold of, then they should consult some reputable newspaper or banker. These latter would only too willingly advise them sincerely of their danger, if any existed. Ignorance alone is responsible for two-thirds of the money losses in investments. Ignorance canont be protected unless it alone seeks the protection.