

# IN THE WHEAT PIT

By JAMES A. PATTEN

*In Collaboration With Boyden Sparkes*



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## CHAPTER I

**M**UCH of the important information in the grain trade relates to insects or the weather. In 1908 my sources of information were exceptionally reliable and extensive for that time. For instance, in the Argentine they commence to gather the wheat crop at the end of November, and prior to that time I received word of a heavy frost down there. It was no secret. Many of the large grain commission firms relayed that news to all their customers. Every grain trader in the Chicago wheat pit, as well as in other grain markets here and abroad, shared in that information. Hundreds of thousands of farmers read or heard that weather report on the same day that I did. But there were conflicting reports as to the extent of the damage to the Argentine wheat crop. We could get no true picture of what had happened.

Sometimes, after a frost, if you go out into a wheat field, it appears as if the grain had suffered no damage. The fields are still a golden yellow and there is nothing to suggest that frost has damaged the kernels inside their sheathing of husk. Usually it takes several days for the shrinkage of the spoiled grain to reveal itself. Conflicting reports about the severity of the frost continued to come by cable under the sea and by telegraph wires over the land.

### Open Buying

"Boys," I said finally to my associates in the office, "there is only one way to settle this question. Let us find out what the temperature was in the Argentine on the night of the frost."

We cabled our question to correspondents in that South American republic, and back came their reply: "Rosario, 28; Buenos Aires, 26."

That was all that it was necessary to know. No wheat can escape damage in such a temperature. I said then that I was going to buy wheat, and I proceeded to do so. What a man buys in future dealings, as every grain trader knows, are contracts—the contracts of other men who agree to deliver to him a specified amount of wheat on some day during a specified month. I bought for delivery in May, 1909.

About the end of August in 1908, Canada had a heavy frost. There were conflicting reports concerning that situation, too, but time showed that there had been a great deal of damage to the grain standing in the fields of the country to the north of us.

"Gentlemen," I said to all our customers, "there is going to be a shortage in the supply of wheat that will last the crop year through." I made no attempt to conceal my position in the market. Everybody in the grain trade had the facts. Not all of them, though, were using their brains.

I told all my friends what my position was in the market. A number of men who took the same point of view that I had taken profited richly; but the world is full of people who are constantly sold on the idea that nothing is ever accomplished in the open. Some of these reasoned that if I said I was long wheat, I must be short wheat, and so they sold May wheat. I suppose I went over the whole thing a hundred times or more,

R. C. Barrow

in conversations in front of the quotation board in the brokers' offices, on the floor of the Board of Trade, pitching my voice so as to be heard above the roar of the men trading in the wheat, corn, oats and cotton pits. Some that I talked with differed honestly, and backed their judgment that there would not be a shortage by selling their promises to deliver wheat during the month of May. In the usual phrase they sold wheat short.

#### A Penny Fine for Being Wrong

The newspapers of that day credited me with having bought 30,000,000 bushels—a modest exaggeration for the newspapers. Actually I had bought 10,000,000 bushels. When I had begun to buy wheat for delivery in May, it was selling at 89¾ cents a bushel. The men who had contracted to deliver it to me had to pay, during the last week of May, as high as \$1.35¼ a bushel.

On the last day of May many of the shorts who had to deliver or buy back their contracts from me, paid \$1.34 a bushel. The night before, as I recall it, the price had been \$1.33.

That extra cent was just a tag on the deal to certify that I had been right. It was the confirmation of my judgment. Under the rules of trading I suppose I might have exacted a much higher price from those men who had to come to me to buy back the contracts they could not fulfill.

I did not hold anybody up. A few weeks previously an exporter had complained to me.

"Patten," said he, "you're holding wheat too high for export."

"That's all right," said I. "We'll need every bushel of it here in the United States." And we did. Flour was so scarce that grocers limited the amount they would sell to a customer.

Now—I make no bones about it—I went into the market to make a profit, but if I had not done so, a large part

of the available supply of wheat would have been shipped abroad. America would have experienced a wheat famine. The nearest thing to a world empire ever devised by statecraft was that which was awed by the armies of Rome, yet all the world today, as for a long time in the past, lives under a banner of wheat. It is a world crop grown to supply the demands of many hundreds of millions of human stomachs. Black rust in a Dakota field affects the lives of humanity on every continent.

Some men who have tried to trade in grain or other commodities on a large scale have been defeated by their inability to dispose of what traders are accustomed to speak of as the corpse. I had to dispose of all that body of grain that had been delivered to me before new crops began to come on the market.

Sometimes the price of a commodity falls because buyers who actually need it delay their purchases in the hope that the immense carrying charges, warehouse-storage fees, insurance and other costs will force an owner of such a huge bulk to unload his property faster than the market can absorb it. I was not embarrassed by the corpse of my May wheat deal.

I shipped wheat to Kansas City, to Louisville, Minneapolis, to markets 100, 200 and 300 miles distant, and in July the price of wheat was higher than it had been in May. I had not operated a corner. I had established a property interest in a commodity that my judgment told me was going to increase in value. That is exactly the action and motive of a man who buys real estate or shares of an industrial corporation.

#### On the Underground Railroad

There was a dinner in Washington at which I was introduced to a number of members of the House of Representatives. All but one of the Illinois delegation were present. Knowing how com-

monly held are the delusions about grain trading, I told them about that May wheat deal; chiefly because it was not a complicated enterprise and served as an illustration of the natural conditions that govern the rise and fall of prices reflected in the trades on the floor of the wheat pit. When I had finished I asked them:

"How many of you, possessing that information and the knowledge as to its significance, could have resisted the temptation to buy wheat?"

I had them. They really saw what I had done and that my wheat purchases had served to keep a reservoir of grain in this country in a time of shortage.

Bills for the betterment of the grain market are always coming up. Probably they always will, but one may be sure that if the grain-marketing machinery is ever improved, the improvements will be designed and put into effect by the men who use that machinery and understand it. It seems complex to the majority of people; it is less of a mystery to me because my life has been bound up with it. The woodsman learns first of all the short stretch of path in front of his door, and later dares to penetrate deeper and deeper into the forest, confident of his ability to find his way out.

There was wheat waving in the fields about the farmhouse where I was born, May 8, 1852. That farm was at Freeland Corners, on the Galena stage road, about four and a half miles from Sandwich, Illinois. It is in the southern end of DeKalb County. My grandfather, George Beveridge, my mother's father, had settled there after moving from Washington County, New York. There were no roads in his day; just a dirt trail that followed the highlands several miles back from the Fox River. That road ran past my grandfather's place, and, incidentally, furtive black people traveled over it from the South by night and stopped at his farm. He was a vio-

lent abolitionist and operated a station on the underground railroad. As a very small boy, running barefooted when there was no snow on the ground, I was, of course, totally unconscious of the somber-faced man living farther along that stage road, at Galena, where he was regarded as a failure, who had been unable to make a career for himself in the Army. Ulysses S. Grant was trying at Galena, with no great success, to make a living in a country town. To the south, in Springfield, and traveling sometimes to within a few miles of where I lived, was the small-town lawyer, Lincoln. Nowhere in the world then was there a speculator with the foresight to see in its full proportions the struggle that was coming because of those runaway slaves, nor to identify the men who would lead the people in their gropings.

It is a curious thing about men that they are rarely given the insight to understand the relentless economic forces that sweep them into battle. Given such understanding, it is impossible to conceive of them as laying before such a flood the puny barriers of stupid laws.

#### At the Source

My father, Alexander R. Patten, originally a farmer, kept the store at Freeland Corners. When tuberculosis devoured his strength, he sold the store on condition that when I was older the buyers were to take me in, teach me the business and allow me to become a partner with them in the enterprise. My father died when I was eleven. Many years afterward, when this disease had killed my brother and business partner, George, I gave half a million dollars into the hands of men who were fighting tuberculosis. The day is coming when men will have no cause to fear it.

From my thirteenth to my seventeenth year I lived on my grandfather's farm. From then until my nineteenth year I attended Northwestern University at

Evanston. After that, until I was twenty-one, I worked for Culver brothers in the store at Freeland Corners. Then I went back to the farm and worked a year for an uncle, three miles west of Sandwich. He paid me twenty dollars a month. I was at the source of wheat there.

The methods with which we sowed, reaped and harvested our grain then represented a considerable advance over Biblical days, but they were crude in contrast with the mechanical-powered operations of the well-managed farms of today. I can remember my grandfather, when I was a little fellow, telling me how he used to haul a farm-wagon load of wheat sixty miles to Chicago; of loading it himself into the hold of a Great Lakes schooner.

"All I'd have left when I got home," he used to tell me, "would be my scoop shovel."

Wild sod of the Illinois prairies was still being turned under in preparation for its first sowing to wheat in that last year I spent on the farm. From our fields I sometimes saw the covered wagons of immigrants and heard the creaking of the wheels that were rolling them westward. There were plows swung under the axles of those caravans and sacks of wheat seed rode in every wagon bed. Beyond Iowa, in the Dakotas, pioneer farmers were turning into wheat fields soil that was still stained with the blood of the white men and Indians who had fought for its possession. As these grimly fertilized crops were harvested they were started on an eastward journey that nearly always brought them to Chicago.

No longer were the farmers in our neighborhood obliged to sacrifice the time and the labor or suffer the hardships that had been imposed on my grandfather in earlier years, when he wanted to get his grain to market. The supply had continued to increase at Chicago, until the first railroad was built out to

Geneva, about thirty-eight miles. That road is now the Chicago & North Western. The Burlington Route started from Aurora and ran to Geneva on the west side of the Fox River. The flow of wheat had been long increasing, until in 1848, four years before I was born, force of circumstances brought the Chicago Board of Trade into existence. The trade in grain was so large that there had to be some kind of system. It grew naturally, and as fast as an abuse developed and was identified as an abuse, rules were made to check it.

Better handling machinery had to be devised, because better farm machinery had been developed. Where at first a week's labor was required to produce twenty bushels of wheat on an acre, the time was to come when improved implements made possible the production of the same amount on the same land with one and a half days' labor. In the forty years after Lincoln became President more land was brought under cultivation than in all the years since the discovery of the New World. In that same forty years the number of miles of railroad increased from 30,000 to 162,000 miles. Much of the track was laid because of the wheat that would be freight for the steel roads.

In the prairie states the surveyors who laid out those rail routes had a fairly simple task. Natural conditions had made Chicago the great grain market of the country. For one thing, there were many small ship lines on the Great Lakes, and Chicago was the terminal port for that cheap transportation.

The call of free land was taking many, many thousands westward. For me there was a counter pull toward Chicago, sixty miles eastward. After a year on the farm, through my uncle, Gov. John L. Beveridge, I obtained an appointment as clerk in the Registrar's Office of the State Grain Department in Chicago. This was in 1874. I was twenty-two and

Chicago was a city of more than 500,000 people.

#### Dramatizing Dependability

For about three and a half years I worked as a grain inspection clerk, getting \$100 a month and some knowledge of the grain-handling machinery. I was in the registrar's office, where the duties were to register grain received and to cancel the grain receipts when it was shipped out of the elevators. In those days \$100 a month was a liberal wage, and when I told my fellow clerks I was going to quit and take a six-dollar-a-week, errand-boy job with G. P. Comstock & Company, grain brokers, they laughed at me.

"You'll be wanting your job back," they predicted.

"No," said I; "if I can't make a success here, I'll be going back to the farm."

Those men thought I was crazy to throw away a good, soft job. In after years I had to take care of some of them. I had seen that my state position depended on the whim of an incoming governor, and that at best it seemed to lead to nowhere.

G. P. Comstock & Company were members of the Board of Trade. I did odd jobs around their office, copied letters into the letter-press book and carried the small sacks of sample grain about town, from freight-cars and elevators to their office and from their office to the offices of their customers.

Accidents play a large part in any man's life. Seemingly trivial things, when they occur, sometimes set in motion the gears and levers of his character, so as to send him into more swiftly flowing currents of life.

Mr. Comstock drove a fine horse with a little buggy that was kept polished until its glossy paint fairly reflected his pride in its possession. He rode to work in it each day, and the horse was allowed to stand in front of the office while he was

at business. Many a time did I covet the possession of that turnout.

One time when I had to make a trip over to the river at Eighteenth Street to get a sample of grain, it occurred to me that I would like to ride instead of walk. There was some need for hurry, too, as excuse for my temerity in going to Mr. Comstock and asking permission to use the horse and buggy.

"Can you drive?" he asked.

"Of course," I replied. "I was brought up on a farm."

"All right," he agreed; "but be careful."

No such feeling of pride, I think, ever comes to the young man who pilots an automobile with thirty or forty horse power stirring under its hood as possessed any young man of my day who found himself driving a fine horse. On the way to the river, though, misfortune overtook me. There was a traffic jam.

I was hedged in so that I could not move. A careless teamster's truck struck one of the rear wheels and dished it. I could drive on, but that wheel wobbled and did not track by six inches. It was a miserable journey for me. I expected to be fired if I told Mr. Comstock, and I knew that if I didn't tell him he would know that I was the only one who had used the buggy.

As soon as I returned to the office I walked in and approached my boss.

"Mr. Comstock," I began, "I want to tell you that I have damaged your buggy. The rear wheel is dished. I want you to have it repaired and I will pay the cost of it. It was not the result of my negligence, but it happened while I was driving the buggy and I want to make good the damage by paying you what it costs to repair the wheel." I told him how it happened then.

"It's all right, Jim," he said. "I'm glad you came and told me frankly about it as soon as you came back. I'll have it fixed and it won't cost you anything."

That same day Mr. Comstock commended me to the office manager for my honesty, and in a short time my pay was raised from six dollars to ten dollars a week. Not many months later, when the firm had to send someone East to sell grain for them, they selected me probably, I should say, because they felt they could depend upon me.

I was dependable, and though that accident had not increased or strengthened that quality in my character, it had dramatized it for my employers.

#### Starting in the Grain Business

Two years after I went with them, G. P. Comstock & Company failed. At the time I was working for them in Montreal. I returned to Chicago and started in the grain-shipping business with two partners. They were my brother, George, and Hiram J. Coon. Together we had \$11,000, and we saw an opportunity in supplying the New England demand for grain, which was very large at that time.

We shipped by schooners at first, when there were only a few steamers in the Lakes trade. Then the steamers began to increase. In those days there was no such thing as mixing—the term used in the grain trade for the practice of introducing cheap rye kernels into expensive wheat. There were no such things as private grain elevators. Quantities of grain were sold in the freight cars in which it had been hauled to Chicago. It was bought on the tracks and stood there in the possession of its new owners until some such concern as our own bought it on the floor of the Board of Trade, accepting an inspection certificate as proof of what we had, and then sent it—say, two cars of No. 2, yellow corn—to store in a regular warehouse.

At that time we could ship grain eastward by water almost any day during the navigation season. There were four lines that carried most of the trade. One ran to Ogdensburg, New York. The

Lehigh & Western Transit Company boats sailed between Chicago and Buffalo. The Pennsylvania had a line that ran to Buffalo and Erie. Each of the lines had from ten to fifteen steamers, and between them they had a thriving transportation business. We could ship any time we had orders for 40,000 or 50,000 bushels. Nowadays it is necessary to wait until there is an accumulation of demand representing several hundred thousand bushels. Why?

Congress, setting out to correct some abuses in a business it did not apparently understand, passed the LaFollette Seaman's Act which resulted in shutting out the small shipping concerns. Household-ers are directly injured because package goods go, at greater cost, by rail nowadays. We talk, as a nation, about freight rates that are too high, and then won't take the obvious method of reducing them—which is to restore our water transportation. It would be a great benefit and convenience to the country if those small shipping lines on the Great Lakes were restored.

The first year we were in business my share of the profits was \$8000, but I lived on \$900 that year. Frugality helped me immeasurably. It enabled me to accumulate the money with which to enter business. The money I saved then was for me what those sacks of seed had been for the immigrants who went West to take up sections of free land. I was a bachelor and boarded on the West Side. Board was seven dollars a week. Brother George was there also. George used to be the first man at the office in the morning. He would scold me because I was not down as early as he was.

George was always working. That helped to kill him. He was a careful student of the market, watched every factor and kept track of every detail of the business. But it took seventeen years for tuberculosis to kill him.

I could not have stood it to work as

he did. We were not alike. I had a good stomach; I was careful, usually, to get plenty of sleep, and it was an absolute rule with me never to enter a saloon. I used to tell my associates, "Boys, if you go in saloons your clerks will see you and think they can do it if you can." The older I get the surer I am I was right about that. All I have to do to confirm my judgment is to review the men who disappeared from the wheat pit because they could not leave whisky alone. Many of the older traders died poor.

There was B. P. Hutchinson; Old Hutch to everyone behind his back, or Mr. Hutch when we addressed him. He had a room—a shabby one—just across from the exchange. There was a sofa in there where he slept at night. He must have had \$10,000,000 at one time, and that was when such a sum was a lot of money, as much as \$20,000,000 or \$25,000,000 in 1927. He was a crotchety old fellow most of the time.

There was an old Civil War veteran who was doorkeeper at the south end of the exchange. He had Bright's disease, rheumatism and other physical deficiencies. As time went on he was rarely able to come to work. He never would apply for a pension, and much of the time the board had to have another man to take care of his duties. His wife ran a boarding house. Brother George, who had been staying there, came in one morning and said the old doorkeeper had died during the night.

I went out to his house, representing the others who had liked him, and told the widow not to worry, as we would take care of their bills and pay the funeral expenses. Then two of us set out to raise some money, preparing a subscription list. We wanted a thousand or so dollars. Finally, after going about the floor, the other man said to me, "Have you asked Old Hutch?"

"No," said I; "we are not on good terms."

"Well," he said, "I haven't been on speaking terms with him for a year either."

"I'll go to him," I said. "Give me the paper."

Old Hutch had his elbows roosting on the marble top of one of the cash-grain tables. As I approached him and stood there, he waved me away impatiently.

"Don't want to sign any petition," he said.

"This is not a petition," I explained, knowing that he thought it was one of the frequently recurring efforts to change some trading rule. "It's a subscription list of contributors to a fund to bury the old doorkeeper who died last night."

"Take it away," said he, scowling at me savagely.

I got mad and asked him indignantly, "Wouldn't you want your friends to look after your remains?"

"They can take me out and lay me in the field when the time comes," he retorted. "Good enough for anybody."

"You are an old brute," I said, and left him.

It was several years later before I spoke to Old Hutch again, and on that occasion I had not seen him for a considerable length of time. It was on the floor and Old Hutch walked past me a couple of times, watching me from the corner of his eye. Finally he said:

"You're Mr. Patten, aren't you?"

"Yes, Mr. Hutch."

"You called me an old brute one time."

"Yes, Mr. Hutch, and I'm sorry. You are an older man—much older than I—and I should have shown more respect to your years. I am sorry."

"No," he protested, "you were right; perfectly right. I was an old brute."

But Old Hutch then was no longer a multimillionaire. He was a penniless old man. In his successful days he had

been a wild sort of genius. One time he went on the floor and passed around his cards in the corn pit.

"Take as much as you want, boys," he told the traders. "All you want at fifty cents a bushel."

They bought hundreds of thousands of bushels of corn from him, and then he collected his cards without seeming to glance at them and left the place. E. W. Bailey entered the corn pit then, wanting to buy. He suggested an old church deacon in appearance, with a smooth-shaven upper lip and white whiskers sprouting fanwise from his chin.

The other traders were not in a humor to sell corn, but they told him Old Hutch was selling, and presently Old Hutch returned.

"I want to buy 40,000 to 50,000 bushels at fifty cents, Mr. Hutch," said Bailey.

"No, sir," denied Old Hutch; "you can't have it."

"But you were just letting the boys have as much as they wanted."

"No, sir, I won't sell you any," insisted Hutch. "I have just been out and had a drink. I feel a lot better. I want to buy corn now myself." Then he started in to buy.

The idea of trading that way! Of course he went broke.

Before that happened, but after his fortune had begun to decline, some of his friends went to him one day and said, "See here, you are losing your money here steadily. Now we insist that before you lose any more you must establish a \$1,000,000 trust fund for your wife."

He fumed and raged around, and swore he would not do anything of the kind, but they insisted, saying:

"You must establish that trust fund tomorrow or we shall go into court and, as your friends, ask for the appointment of a conservator of your money. The court will listen to us too."

Old Hutch was angry, but the next day he did establish the trust fund.

After his money was gone and he no longer could trade, one of his friends gave him \$5000 and some advice. He went East and into the grocery business. When he had lost that stake he came back to Chicago enfeebled, and remained until he died.

E. W. Bailey, who tried to buy corn from Old Hutch that time, was one of the exceptions among the old traders. He got out with a fortune.

#### Character in Business

One time Mr. Bailey got caught in a corner that John Cudahy tried to run in the lard market. Even after Bailey had failed, I trusted him with about \$75,000. Dishonorable conduct was anathema to him. He settled with his creditors for forty or fifty cents on the dollar and was legally square with the world, but not with his Vermont conscience. Within five years after his failure he invited all his creditors to a dinner and there presented each man with a check for the balance of his debt, with interest. You can't put too much emphasis on character in business. Ownership, or undertaking the ownership of any commodity, implies risk, but risk is lessened in dealing in an institution such as the Chicago Board of Trade or the New York Stock Exchange, or any similar markets of the world where the traders are banded, for their mutual protection, to enforce rules that make for fair dealing. Essentially such places are designed to be a meeting place for buyers and sellers.

A stranger, standing, during a session, in the gallery suspended from one wall of the vast chamber that incloses the world's greatest grain market, is not likely to realize the all-important fact in the uproar that fills its cathedral-like space. In that din of buying and selling, a nod of a man's head is a contract more likely to be performed than if, in a

market place less well organized, less rich in experience, it was an engraved paper, sealed and signed by witnesses. To me it has long been a puzzling circumstance that the fairest and the most efficient mechanism participating in the phenomenal enterprise whereby grain is produced from the earth and transformed into human energy, should be the institution that is constantly threatened by tinkering demagogues.

#### The Contending Forces

On one side of the floor of that large hall are some thirty marble-topped tables in three long rows. Around them gather the buyers and sellers of cash grain, to bargain over the sale of freight-car loads of wheat, corn, oats or rye. Each car under consideration is standing somewhere in the railroad shipping yards about the city, but it is represented on the floor of the exchange by a sample of its contents contained in a paper bag marked with the official grade of the grain it represents, as determined by Illinois state grain inspectors and representatives of the sampling department of the Board of Trade, according to standards fixed for the entire country by a law of the United States.

Occupying the entire middle section of the hall are other groups of traders, whose activities are focused in five pits, one each for wheat, corn and oats, another for provisions, and one the smallest—for rye and barley. A pit is formed by superimposed octagonal platforms, having for its center an eight-sided flight of three broad steps descending concentrically to a depression that is the floor of the exchange. Its design makes it possible for the trader who shoulders his way into the mass of yelling man who bargain there to see the faces and the hand signals of all of them. Without shifting his position in that forum—supposing it to be the wheat pit—he may confront—nay, he will confront—the

world's supply of wheat, and the world's demand.

In the grain pits the unit of trading is the bushel, and the trading is in contracts for delivery at a future date. One trader buys and another sells a contract calling for the delivery of a specified number of bushels of grain of a standard quality in a month that is specified in their agreement. The wheat pit is the most competitive market that has ever been devised by men. Two influences contend there day by day in a struggle that is registered second by second, and which determines how much gold men will pay for a bushel of wheat. Those influences are supply and demand. In so far as politicians have allowed it to be so, they are without allies in their duel.

In the swarms of men who have contended there for fortunes or for bare livings, I have seen the owners of fabulous riches using their wealth as flails to beat down opposition, but they increased that wealth only when they guessed correctly as to which force was becoming dominant, supply or demand.

On that floor I have seen P. D. Armour, tufts of grizzled whiskers before each ear, a broad-brimmed hat jammed on the back of curly hair, shrewd, powerful and domineering. I have seen Old Hutch out there selling May wheat furiously in the face of a government prediction of a shortage, and have watched the prices slipping downward until he reaped great wealth that he was using a few months later with greater success to buy even more than he had sold. There was two-dollar wheat in September, 1888, not because Old Hutch was buying but because the Northwest's crop was ruined. I have seen, in the year of the Spanish-American War, traders buying there for young Joe Leiter, and seen the transactions through which he lost eight of his father's millions because he held a month too long the property rights he had estab-

lished in the river of grain that has its tributaries all over the world.

But I have never seen a true corner in wheat. I have told about my deal in May wheat in 1909. It was not I who raised the market price of wheat then. It was the shorts covering their contracts, but if there had been no grain exchange wheat would have cost as much. Probably it would have cost more.

#### Beyond the Ticker

Justice Oliver Wendell Holmes of the United States Supreme Court once set down in an opinion he wrote concerning trading in futures on the Chicago Board of Trade: "Speculation of this kind by competent men is the self-adjustment of society to the probable." When the competent man speculates regarding the probabilities of the future, he tries to know all that he can about the certainties of the present. He may buy wheat or corn or cotton, but the real raw material of the speculator is information.

We go to a lot of trouble and expense to gather information upon which we can rely. There were about two men in every wheat-growing county in the United States who contributed jig-saw sections to the picture puzzles I would work out before taking a position in the market.

I think I see conditions in pictures, rather than in tables of statistics. Brother George used to add up the columns of the crop reports. As for me, I saw reflected in the dark surface of the quotation board many scenes:

The sun shining in Texas; reapers in the Kansas fields; farmers in the Dakotas, frantic at the discovery of black rust; shivering Indians on the pampas; grain ships from Australia sinking in the Indian Ocean.

War, famine and pestilence, and, sometimes, plenty, are mirrored in the quotation board for the man who can see beyond the ticker machine.

## IN THE WHEAT PIT

### CHAPTER II

ONE year, on the day after the Fourth of July, I started for Colorado with my family. They had all been eager for a trip out there to a springs resort owned by a friend of mine. He had invited us sometime before. My boy Tom was a baby then. It was in the mountains, fifteen miles from a railroad or a telegraph wire.

We had been there two weeks, having a good time and shut off from all news, when one day a man rode up to the house on a horse. He had a telegram for me. It was from Brother George; a message asking me to come back to Chicago because of great excitement in the market. I knew that it had been raining for some days before we had left Chicago, but his message told me for the first time that it had been raining steadily also during those two weeks I had been in Colorado.

Because of that continued rain only a small amount of oats could be found in the country by those men who had contracted in January to deliver 1,000,000 bushels of oats to me in July for forty cents a bushel. Oats that had been quoted at about forty-eight cents at the end of June, rose by July twenty-fifth to seventy-one cents, which was the climax. There was no manipulation by me. A short crop had been indicated at the beginning of the year, and I had purchased oats. If it had not been for the rain I might have been licked. I do not mean that I would have lost money, but I should have made less had it not been for the rain. Men have learned to build shelters of steel and concrete that dwarf the pyramids, but they are as dependent for existence on favorable weather as when they lived in caves.

Much as I enjoy being right, I cannot say I knew in advance that it was going

to rain day after day for weeks that summer. My sources of information have never been so good as that, although they have been pretty good. Chance, or Providence, helped me then, as it did many other times.

Chance and character make a man's life. At Freeland Corners my people had been United Presbyterians, psalm singers. I knew a Presbyterian woman down there whose son went away to study for the ministry, and when he came home an ordained Episcopal clergyman she refused to go to hear him preach.

#### The Teamwork of Character and Chance

At first when I came to Chicago I stayed at a boarding house where there were a number of young fellows of my age. Some of them were also employed at good salaries in the state grain-inspection department. We had good times, but after a while I discovered I was spending all the money I earned. We would go to the theaters or drink beer and play cards to determine who should pay for our fun.

I knew I had to have money if I was going to get anywhere in the world, and I knew I never could save any unless I changed my way of living. So I determined to find another place to board. Finally I heard of a couple out on the West Side who might be willing to take me in. I went out there and an old fellow came to the door. I introduced myself and explained my errand. He asked me a number of questions and was particularly concerned about my religious habits and beliefs. I met his final test when he discovered I was a United Presbyterian, for he was a deacon in the First United Presbyterian Church.

"We'll take you in," he said, "on one

condition. If you are not in the house by ten o'clock at night, mother and I must know where you are." I think he expected me to object.

Instead, I said, "This is just the place I'm looking for."

I never had to tell them where I was after ten o'clock, though, because I was always in my room by that time. Thereafter for the four years I was with them, instead of spending all my money, I saved half of it. On Sundays I went to church with them. That was character; but it was there that I met my wife, and that was chance.

A gambler is a man who creates the unimportant risk that he assumes; a speculator assumes a risk that already exists. A speculator is a gambler only in the sense that we all are gamblers in this narrow margin of the universe we call the earth, where the stakes are existence, some measure of happiness, and a lively interest in the struggle. We cannot avoid taking chances.

The oats would not grade that year I took my family to Colorado. It was so wet the farmers could not get into the fields. If any deal I have ever conducted has been a corner, it has also been an accident. I never in my life set out deliberately to corner the market. If any man tells you he can corner the oats market buying 1,000,000 bushels, he is a fool. It cannot be done. Nevertheless, this was a successful deal, and at the end of July, when I received only half the volume of oats I had contracted to buy, the men who had sold short and could not find oats fit to sell had to buy back their contracts from me.

#### Playing the Supply and Demand Tip

There was then, of course, a tremendous demand for oats. Corn and oats—the coarse grains—were for the world what oil is today. They were the source of power for farming, for all kinds of distribution from farm and factory to

rail, from rail to sea, from store to house. There was not a public garage in the country, and such automobiles as existed were objects of curiosity. The filling stations then were livery stables. In that day 75,000 bushels of oats were devoured every day by Chicago horses alone. Many shiploads of our oats went abroad for the millions of horses in other lands. That is demand.

Men fed oats to their horses in the warm seasons, and in cold weather gave them a ration of corn, because it is a richer food and more heating. Cheap electricity and the internal-combustion engine using oil fuel have created a revolution in power and are the main causes of the depression in coarse grains, with consequent trouble for the grain-growing farmer. You can't get away from that by passing McNary-Haugen bills. In the same way, demand for wheat has been lessened in America because people can afford to eat more of foods they like better; and it has been lessened in Europe because the people there—many of them—cannot afford to buy as much white bread as they did before the war.

I bought oats that year knowing that the reserve supply was nearly exhausted and that continued wet weather during the previous autumn had lessened the supply. Plenty of other men knew all this, but they simply did not make up their minds to buy.

Whether a man buys oats or rye, wheat or cotton, or any other commodity in large quantities, his purpose is to make a profit. A man buys because he thinks, or hopes, the price is going to increase. He sells short, or rather he contracts to deliver in the future, because he thinks the price is going to decrease.

I never was much of a hand to sell short. I do not mean that I never have sold a bushel short, but generally speaking, I have been on the bull side of the market. I'm too optimistic to be a bear. In all of my big deals I have been a

buyer, and when I have bought wheat, it has been because of some condition in the world that suggested the approach of a shortage.

There are 2,000,000 farms in the United States producing wheat. The grain is grown in all but six states. Two years before we went into the war those 2,000,000 farms outdid all previous records and produced more than 1,000,000,000 bushels; but when anyone in the grain trade speaks of the wheat crop he refers to the world crop—that is, the crop of the United States plus that of other exporting countries. Wheat is being harvested literally every day in the year, so that there is never a moment when the traders may sit back and say: "This is the inventory; this is the order list; therefore the price must be so much."

The axis of the earth inclines so that we who live north of the equator are turned beneath the sun as though we were on a spit during June, July and August, and then the axis inclines another way so that people south of the equator are experiencing summer while we are trying to keep warm. Two of the great wheat-exporting countries are the Argentine and Australia, both below the equator. When our chief wheat-producing areas are buried beneath snow their grain is ripening.

Revolution in Russia, frost in the Argentine, black rust in the Dakotas, war in Europe, all contribute to that riotous yelling in the Chicago wheat pit. It is a constantly changing picture, and to no man is there given the discernment that will enable him to say whether the fall of a government in Germany is the repercussion of a frost in Canada; or if a bumper crop from the Argentine sets up a train of circumstances that induces a Northwestern congressman to write a law designed to be a valve to control forces that are not yet controllable by mankind. One who spends his life watch-

ing the eddies and whirlpools of the economic current may only wonder.

#### The Struggle for Wheat Control

It is plain silly to talk of manipulating such forces. A man might cause a brief flurry in the market, a price change of a few cents, but I think he would lose more often than he would win. I know I cannot guess changes of that kind. They seem to be without meaning. Even the struggles between some of the big traders of the past, when great quantities of grain were shipped out of the country, did not control the price, although it was a common thing to hear people speak as if individuals had such power. Old Hutch and Ed Partridge used to fight each other in the wheat pit, but that merely means that they had adopted different views of market conditions. When Joe Leiter tried to corner the wheat market and P. D. Armour fought him, it was just a case of two men with big fortunes backing their opinions, except that Leiter tried to keep from accepting some of the grain that P. D. brought to market, and P. D. performed what seemed then to be extraordinary accomplishments.

It began in 1897. I was elected a director of the Board of Trade that year. There was a shortage of wheat and rye in Europe and a famine in India due to a crop shortage there, and in the previous year, when William Jennings Bryan had been licked at the polls after preaching a silver-standard doctrine, the American crop had been unsatisfactory. There was less wheat in the world than the world needed. Neither P. D. Armour nor Joe Leiter had anything to do with that fact, and bakers would have raised the price of bread if neither of those two men had ever been heard of.

For some time after Leiter started to buy wheat there were rumors on the Board of Trade that the buying orders were coming from a syndicate that

included Rockefeller and J. Pierpont Morgan. If there had been richer men the rumors would have included them. Sometimes such reports are spread by the actual buyers of grain. The reports also named as the operators supposed to be handling the deal, the tall, spare and taciturn Jim Keene and Deacon S. V. White. Leiter was regarded as too inexperienced for such work. He was then about thirty years old. September wheat had been around seventy cents in July, but it reached \$1.03½ by September twenty-sixth. It was not known until later that young Joe Leiter was the holder of most of the short contracts.

Much of his trading had been done on the floor by a brokerage firm two of whose members were young fellows to whom Leiter had taken a fancy. They were honest and dependable.

#### From Natural Causes

It was late in September that it was learned that the two large interests pitted against each other in December wheat trading were P. D. Armour and Leiter. Armour's men were combing the Northwest, buying all the grain they could get, to be delivered to Leiter in December. Peavey of Minneapolis was contending with the Armour men for that grain. Leiter's plan was to export as much as he could to create a scarcity here. The price of corn was way up, too, and the farmers were so prosperous that the embarrassed Mr. Bryan, who had been telling them the year before that they were going to be crucified on a cross of gold, said in an interview that higher prices for wheat and corn had nothing to do with the political situation; that they had been caused by crop shortages in Europe and India, and Mr. Bryan was absolutely right. The export movement that was part of Leiter's plan began late in November, and in a single day more than 700,000 bushels were shipped overseas. Prices mounted until

wheat was selling for \$1.09 and farmers were sweeping the floors of their barns to find wheat to sell at that price. The price was supported by a continued drought in the fall that had left the ground in a poor condition for seeding, so that the acreage in Illinois alone was more than 400,000 acres less than in the preceding year. Supply and demand again, not manipulation, you see.

Armour was supposed to be hopelessly short in December, and if he had been an ordinary man I suppose he would have been. There was wheat in the Northwest, but to fulfill his contracts he had to deliver that wheat into Chicago elevators—for the most part, his elevators. He had a system of eight of these immense warehouses, with a capacity of 12,000,000 bushels. Only a portion of that space was available for wheat, because necessarily there were millions of bushels of corn, oats and rye stored in many of the bins, that were like deep towers nested inside the sheer sides of the wooden structures rising higher than a ten-story building.

The fresh water of the Great Lakes freezes over in winter, so that navigation ceases ordinarily in the month of December. Practically all shipping had gone into winter berths, but P. D., undertaking their insurance himself, chartered a score of the biggest lake vessels—those graceless boats with pilot house and bridge away forward, and the machinery that drives their propellers way aft. One of them can carry a large cargo of grain. These boats were sent to Duluth to load with the grain his agents had concentrated there. He contracted with a towing company, at fifty dollars a day each, for five tugs to keep plowing through the forming ice of Duluth harbor where the surface water was constantly turning crystal hard as though by some magic chemistry of Joe Leiter himself.

From another company he chartered tugs to keep the water open in the Soo Canal; and three tugs were breaking up the ice in Thunder Bay, where others of his cargo boats had gone for the wheat stored, by his command and money, at Fort William. As the big ships started for Chicago, each was convoyed by two tug boats, the prows of which rammed an open-water channel for the more vulnerable metal skins of the grain carriers.

Ten ships in the first fleet so conveyed to Chicago brought more than 1,000,000 bushels to be delivered by Mr. Armour to Mr. Leiter, and then many of them, after unloading, went crunching out into the lake on another perilous winter voyage for more wheat.

All of this was unprecedented. The Armour elevators had been constructed to receive from cars and load into boats. Now in winter they had to be made ready to receive from boats, and in the estuaries beside the sheer sides of the warehouses tugs snorted back and forth fighting the ice while the skippers and mates of the bigger boats cursed and jockeyed for places alongside the docks. It was then, as I recollect it, that P. D. built a new warehouse in thirty days, working an army of carpenters and other mechanics day and night to create a suitable receiving house for the grain Joe Leiter did not think Armour would be able to deliver. Armour had fulfilled his contracts, and Leiter had an immense corpse on his hands. Insurance and storage on his wheat were said to have cost him \$4450 a day, the storage money, at the rate of three-quarters of a cent a bushel a month, going to P. D. Armour, who owned the elevators.

Europe was still hungry for more wheat, and Leiter came through the winter believing probably that he understood the forces that governed the price of grain. He bought heavily of

May wheat and then, with all that grain on his hands, tried to carry over into July.

#### Leaving the Oatbin Full

It was then 1898 and the United States was involved in the war with Spain. May wheat touched \$1.85, but by October it was down to sixty-two cents a bushel. The supply of wheat that came flooding into the market in July swamped Leiter. In the preceding January it had seemed as if he had a profit of \$2,000,000, even though he had paid a storage bill of \$500,000; but with the end of July the profits had been consumed, and the young man owed the banks somewhere between \$6,000,000 and \$8,000,000. Levi Z. Leiter, his father, had guaranteed his borrowings at the banks and had to foot the bill, which he did. But when he died he still left plenty of money for his children. There is said to be between \$25,000,000 and \$40,000,000 in the estate today, much of it in Chicago Loop real estate. A man who owned blocks of property in that square mile could afford to drop millions in the wheat pit. If young Leiter had known how to handle the corpse of his May wheat deal—but he did not, so there is no use to go into that.

Because I was in the cash-grain business I never was troubled by the possession of a great stock of grain at the end of a big deal. I knew how to sell grain as well as when to buy contracts.

One time I bought May oats along in the fall of the year. I had, or thought I had, all the facts in front of me. It had been too wet for the oat crop that year, and on top of that, the Eastern dealers had let their supplies run too low. They were getting down to bare boards because they thought the price was going down, while I thought the price was going up. I had purchased contracts for millions of bushels when

along about Christmastime one of my friends who wanted to go to Europe asked me to go with him; and there I was, long all those oats.

It was considered a risky thing to go away from the market in the midst of a deal of such proportions as I was engaged in, but I announced that I was sailing for Genoa on January seventeenth. All the traders promptly began to sell short. I did not do a thing, nor change my plans. The boys all thought, of course, that I would sell out before I left. Instead I merely left instructions at the office for word to be cabled to me when my ship was due at Gibraltar as to the condition of the oat market. I knew there were just as many horses in the world to create demand, and I knew, or thought I knew, there was going to be a scarcity.

#### Helped by the Hungry Horses

I guess many of them expected I would sell when I got to New York, but there was never a word from me. I was keeping my oats. When the ship dropped anchor at quarantine in the harbor under the shadow of the Rock of Gibraltar and the medical and other authorities came aboard, among the papers they brought was a cable message for me. It said:

"Oats four cents higher."

I had known just what would happen. I had gone into the market because of a condition. That condition was operating to justify my foresight. Every horse with his nose in a feed bag was making my position more secure by decreasing the supply.

After several months in Europe I started home, timing my schedule so as to arrive about the first of April. Oats had gone way up. Because I had bought quantities of this grain? Not at all. Because there was a limited supply to feed all the horses. The yield had been low.

On the first day of May the men whose contracts I had bought delivered 6,000,000 bushels of oats to me. I paid them the low price that had obtained the previous fall. They had been compelled to pay much higher prices in order to get those oats for me. Some settled with me privately instead of delivering oats. I think the close was around fifty-one or fifty-two cents a bushel.

Now 6,000,000 bushels of oats is a tremendous quantity of grain. Many trains had hauled that feed into Chicago. It represented the harvest of thousands of farms and filled the bins of skyscraping elevators. The word had been going about, "Patten's got a corner," and everyone had been shifting oats into Chicago from the country.

The Eastern dealers, knowing I had all that grain on my hands, hoped the load would be too much for me and that I would be in such a hurry to sell that the price would drop. One of their agents came to me and said, "Patten, I suppose you want to sell some of your oats."

"No," I said, looking at the end of my cigar—"no, there's no rush about it."

The next day he was back. "How about selling some oats?" said he. "No use paying all that storage and insurance."

"Not ready yet," I told him.

The third day he tried again, but I still insisted I was not in a mood to sell any oats.

On the fourth day James Simpson came to see me. He was a good friend of mine and represented an Eastern firm. We called him Sawed-off Jimmy, as he wasn't shoulder high to most of us.

"When are you going to sell?"

"Oh, I don't know."

"I'd like to buy 50,000 or 100,000 bushels," he said.

"You can have them," I told him.

"But I'm afraid you'll drop the price." "I'll guarantee the price to you for ten days."

"I'll take 50,000," he said. Jimmy knew he could count on my word. By offering to guarantee the price I meant that if I sold any oats for less money during the succeeding ten days I would rebate the difference to him. In other words, I guaranteed that the price to him would be the lowest price at which I might sell oats during the next ten days, but I did not sell them any lower.

"Fuller," I said to one of our men, "you make this price down East, with the freight added." He did so, and back came the bids of the dealers there, a quarter of a cent under the price at which I had offered them. The next day and the next we renewed our same offer, and then they gave up and commenced to take oats. One day I sold 800,000 bushels.

They took them all, every one of my 6,000,000 bushels, and then the price went up ten cents more. Oats, you see, really were scarce.

Sawed-off Jimmy Simpson died not so long ago. Pneumonia carried him off after a few days' illness. He was a good friend. Jimmy and the other men who bought large quantities of cash grain in the Chicago district represented demand in my mental pictures of the situation, I suppose, rather more than any fantastic visualization of all the horses of the world munching oats and corn. A man in the cash-grain business knew that this firm would require so many hundred thousand bushels for its customers; and that one would require half a million, and so on. The demand was constant for oats in those days. Other men knew what the demand was, and many of them must have realized there was going to be a scarcity, but nobody else that year had the courage or the foresight to go in and buy oats on that theory. Perhaps there were some

who saw the situation as I did, but if there were any, then they must have lacked the money to back their judgment.

#### Knowing When to Quit

It took money, nerve and courage, and fortunately for me I had plenty of money. I knew while I was carrying all that grain that if I had to, I could go and get some securities out of a safe-deposit box. I never had to though. As I have grown older I have accumulated experience; sound information is easier to get; and I suppose there is room for wonder as to why I don't try to confirm my judgment of the market by bigger deals than any I ever operated in the past. The answer is not hard to find: I have not the courage.

I have seen many men lose everything they possessed and seen others lose a large part of their fortunes by tempting fate too many times. A man should know when to quit.

Jim Keene lost a lot of his money in later life; so did N. B. Ream. Old Hutch went broke. One year there were seventeen failures. It hurt their pride too. Some of the failures drifted back to their home towns. A few hung around the Board, growing shabbier with each month. They had lost more than their money. When a man loses his nerve he does not always obey his judgment. John W. Gates had lost a lot before he died.

Many fortunes made in other fields of commerce have been lost in the markets of Wall and LaSalle streets by men who saw those intricate but convenient mechanisms of trading only as gambling devices. Some speculators beyond dispute are gamblers but speculation is not gambling.

John W. Gates was a great poker player, and so were a number of his intimates—all of them rich men. Their chief enjoyment was in trying to make

one another surrender to a bluff. If Gates succeeded in scaring one of his friends into laying down a hand better than his own, he regarded that triumph as a joke good enough for many a day's laughter. But it is not poker that is played on the floor of the exchange.

One time, I remember, Gates was long May corn when prices were pretty high. One of the uncertain factors of the corn market always is the amount of the grain that is being held in storage by farmers. Sometimes they hold their corn three and four years. There is no better place in which to store corn than a country crib, and no man is ever able to make an estimate more reliable than a guess as to the supply of corn being held by farmers. On a certain day 200,000 bushels of corn came flooding into our elevators. The high prices had tempted many farmers to release their corn.

It was a routine performance for us to inform our customers and the trade generally concerning the receipt of those 200,000 bushels. This news went out in a market letter, and not long after its dispatch, into our office came John Scotten, Gates' agent. He flourished our letter.

"I don't believe a word of this," he protested. He had told Gates that it could not be true, before coming to our office.

#### Best Friend and Greatest Foe

We showed Scotten the telegrams from our elevators—so many cars from this point, so many from that one. Finally he was convinced and returned to his office to tell Gates, who let go of his corn promptly. That 200,000 bushels of corn must have seemed like a flood to Gates.

I made money speculating, but I never bought on hunches. My position in the market was dictated by information painstakingly gathered by many

men and elaborate machinery. I never confused the wheat pit with a poker game, and yet I knew a man who one time bought 40,000 bales of cotton on a hunch. Imagine trading that way! He lost his money, of course.

I have known plenty of farmers who speculated when they thought they were merely farming. There are 20,000 country elevators in the United States, but there are 3,000,000 farms with corncribs. It is easy enough to learn how much grain is in small elevators, or stations, as we call them. Once I had a line of fifty or sixty of those along the railroads that cross Illinois. No man is ever in a position to make better than a guess as to the total amount of grain being held by farmers in their barns and cribs. It is the  $x$  quantity of supply.

One time when corn was selling at \$2.36 a bushel, in August, 1917, our firm bid for the corn of a farmer who had 10,000 bushels in his cribs. He refused the offer. He was sure corn was going to \$2.50 a bushel, but like a lot of speculators, he was wrong. When he sold his corn he got \$1.10 a bushel.

Many of us would like to see higher prices for corn and oats, but the horses are gone—the factor that used to represent demand. I can remember when the farmers wanted to drive the automobiles off the highways. That was because the machines scared their horses, but those mechanisms were going to do something worse to the horses. They were going to banish them from the roads and streets. The farmers who used to jeer and rail at the first venturesome motorists never suspected that they were sneering at a mode of travel that was going to be, in a few years, at once their best friend and their greatest foe. The automobile has destroyed a great part of the demand for coarse grains, but in time it may carry the farmers around enough for them to discover that their salvation lies in diversified farming. The one-crop

farmer is as much a speculator as anybody in the wheat pit.

In recent years the farmers have learned to chop up their oats or grind them and feed them to pigs and other livestock. That is helping demand. Oats are an easy crop to sow, and farmers plant them when they wish to rest a field from which they have been producing corn. We used to think, when corn was more than ten cents a bushel higher than oats, that it was time to buy oats; that oats were too cheap. In 1927 oats have been selling for less than fifty cents, while September corn is quoted at \$1.10. Yet the crop reports show that the farmers of the country are producing more oats than they were when most men's idea of success was the possession of a horse and a side-bar buggy. I know I used to long for the day when I could afford to drive horses of my own.

Then, as now, the world was mirrored for me each day in a blackboard in a broker's office. Half of it is used to reflect the price changes of important industries being sold on the floor of the New York Stock Exchange; the other half is the one that has usually held my attention. A young man with a piece of chalk stands before that board throughout the trading hours of the day, writing down the latest prices at which grain contracts have been sold in that great market across the street. There, on what we call the bridge—a narrow structure raised above the pits—other young men have interpreted the hand signals of the yelling buyers and sellers, written down the price and passed it to telegraph operators behind them.

London traders have those prices posted before their eyes not many seconds later than we who sit in arm-chairs, as though we were in a theater, and separated from the actual trading only by two walls and a street.

By walking to a window of the office one may see across the street through

the windows of the Board of Trade—see the cash-grain traders there fingering samples, and on warm days when windows are open, hear the roar from hundreds of throats. We, in Chicago, may hear the roar, but its meaning is interpreted almost as quickly for men in every city in the land where grain is bought and sold. Repercussions of that clamor from distant quarters of the earth occur there with amazing speed—that is, they are still amazing to me. Often, within two minutes after a man in London gives an order to his broker here to buy or sell grain in Chicago, that order is executed on the floor of the Board of Trade.

#### Hedging for Protection

Trading on that floor is by individual contract between private parties, in the open market, under rules that are known to all. It is the auction place for the grain crop, and if there were no such institution in the country, farmers would receive less for their grain, and ultimate consumers would pay more. The prices paid there represent the composite opinion of the world on the existing balance between supply and demand. A stream of 400,000,000 bushels of grain flowing from farms to bread boxes and feed bins is handled every year by the membership of the Chicago Board of Trade. The changes of property rights in that immense volume of grain are what is known as the cash market. Necessary to the cash market and inextricably involved with it, is the futures-contract market, which provides hedging. A hedge about a lawn or a farm is a living fence intended to give protection. That is the purpose of hedging in the grain market—to give protection. It is a form of insurance. Manufacturers, provision dealers, packers, livestock raisers, exporters, millers, country grain dealers and farmers, by hedging, insure themselves against price fluctu-

tuations. By making use of the speculative market they avoid speculating. Because they are able to shift the risk of ownership, they are able to perform their respective economic services on a narrower margin of profit. But if some men are able to shift the risks of ownership, it is only because other men are willing to assume them.

Suppose a miller buys five carloads of wheat at one of the cash tables on the floor of the Chicago Board of Trade, to be shipped to his mill in Ohio. Experience has taught him that while there is a chance that wheat will increase greatly in price before he has manufactured that wheat into flour and sold the flour, there is an equal chance that it will decrease in price. The miller is concerned primarily with the profit that will come to him from his industry in transforming wheat into flour and selling that flour. Two transactions are involved there—the purchase of the wheat and the sale of the flour. He wishes to protect himself against a disastrous fluctuation in the price of the wheat he has bought, so he promptly sells five carloads of wheat for future delivery. His books then show that he is long five carloads and short five carloads. His books balance.

#### Shock Absorbers of the Trade

Later, when he has sold the flour—making the third transaction of his dealings—he buys back his short contract at the prevailing price of wheat, and that fourth transaction leaves him possessed of the profit on his milling operations, but without either profit or loss on any price fluctuations that may have occurred.

A farmer who has harvested his wheat, say 10,000 bushels, but who has been unable to carry that wheat to the nearest country elevator—his market—because of the condition of the roads, may reason this way: If I can get \$1.50 a bushel for my wheat, I shall be richly content.

If the prices go up to \$1.75 before I get it to market, that would be fine, but if it drops to a dollar a bushel, I should be pretty nigh ruined.

That farmer, by giving an order to a broker, can sell 10,000 bushels for future delivery at the existing price. When he does so he has hedged.

Later, when he has delivered his grain to the country elevator, he buys back his future contract; but the proprietor of the country elevator, having assumed the risk of owning the farmer's grain, likewise wishes to hedge. He wants to get his profit as safely as may be, for handling the grain in the elevator and for storing it. He, too, sells an equal amount of grain for future delivery; and buys back his contracts when he has sold the actual grain to a big terminal elevator. The terminal-elevator owners are no more anxious than anybody else in the chain to assume the tremendous risks involved in carrying all that product of the soil. They are looking for the profit they will earn by handling the grain, by cleaning it, grading it and sheltering it. So they, too, hedge their purchase. Let the price of wheat go up or down then, they are protected.

It is the speculators who are on the other side of those important trades in contracts, and especially an important kind who are called scalpers. Some of the largest speculators began to operate as scalpers. Arthur Cutten was once a scalper, a wheat-pit trader, a bull one minute, a bear the next, glad to make an eighth of a cent a bushel profit, making a living by showing such a profit on three trades out of four.

Those scalpers remind me sometimes of a school of small fish nibbling at one another's fins and tails. You wonder how they exist; but they provide a service that is tremendously important in a commodity market. Because they are there it is possible for a merchant or a farmer

to hedge at any moment he cares to, because they are ready to buy or sell. They are the shock absorbers of the grain trade. Drive them out of the field and the price of wheat would be less and the price of bread more.

They trade where they do—on the floor of the Chicago Board of Trade—because more information about the

many factors influencing supply and demand is available there than anywhere else on earth. I have supplied some of that information myself a great many times. Sometimes I have traveled as much as a thousand miles to look at a single wheat field to learn if there was truth in a report of the presence of black rust.

THE first time I ever made any big money was in a corn deal. It was the year Baring Brothers, the great London banking house, was on the verge of failure. There had been a drought, and the corn crop was withering. Brother George and I were long corn. We had about 1,500,000 bushels. We had not been able to buy more because we did not have the capital. With the corn in the fields burning up for lack of moisture, the price had been fifty-five cents a bushel. Then it began to rain and everyone was talking as if the rain was going to save the crop.

"You can't bring a dead horse to life," I said to the boys. I had been out to look at the fields and I knew the corn was past saving. Nevertheless, the rain caused the price to break down to forty-six cents, and on top of that came the menace of a failure of Baring Brothers. They had gone too heavily into Argentine railways, and the world was full of rumors of their impending collapse. London then was the center of the financial machinery of the world, and as Baring Brothers had been one of the strongest banking houses in Great Britain, there was no telling how far-reaching might be the effects of their closing. We knew that trouble in London meant trouble in New York, and trouble there might have meant disaster in Chicago. Brother George and I had plenty to worry about. Earlier in that deal I had made long trips through the Corn Belt, going by train into the heart of the producing region, hiring a rig and then driving many miles through the fields. I was satisfied that no power could save the biggest portion of the crop, but the London situation made us feel insecure.

The Annual Gamble With the Weather

I used to go nearly every day in Chicago to see H. R. Simons, who was called the watchdog of the First National Bank, to get his opinion of the situation. He was a shrewd banker, and I had great confidence in his financial judgment. Finally he said to me:

"They are working hard on the Baring Brothers matter in London. My opinion is that there will be no failure. The financial institutions there won't allow it. The disaster would be too great. They will pull Baring Brothers through." And they did. The Argentine then was not a large producer of corn, and the drought here was a serious matter for Europe. Corn went to seventy cents and, as the market advanced, Brother George and I let go of what we had. Our judgment was sound because our information was correct.

People generally entertain a great many wrong ideas about the grain markets, and, in fact, about all commodity markets. If a trader was anxious to learn what Partridge was going to do, what Armour's position was, how Old Hutch was trading, it was not because those men controlled the market, but because, especially in the case of Armour, they were supposed to have sound information upon which to form their judgments.

Often, with all the facts concerning the market, a man would do well to postpone making up his mind until certain mysteries incased in the tough green sheathings of the ears of corn have been made clear. There are a few dramatic days in every crop year when the farmers are tortured with suspense. A hot wind at certain times may burn up a crop in three days' time. Such a calamity may occur if a wind that is too hot

blows on the delicate life-giving pollen of the tassels. When that happens the corn fails to fertilize, and that wealth-creating miracle of reproduction toward the fulfillment of which all of the farm energy of plowing, planting and cultivating has been directed for months fails to occur. There stand the stalks, but only a few of them have nourished seed. The yield is low; farmers' sons have to postpone their departure to school; the old car must be made to run another year, and sometimes the penalty is far worse. In years when the maturing of the crop is delayed, frost may blight the corn. All you have to know about a frost, to reckon the damage, is the temperature. People do not always remember that corn is a tropical plant. The nights as well as the days must be hot for its satisfactory development.

One of the fundamental traits of my character is a habit of relying on my own judgment once it is formed. If all the traders in the wheat pit were selling wheat when I believed there was going to be a shortage, I would buy, and not be changed by their clamor. This does not mean I have ever been afraid to alter an opinion once formed. There have been times when, discovering I was wrong, I have run like a scared cat. But if I have valued my own opinion, it has been because of the trouble to which I have gone, as a rule, before forming it.

There is still talk on the edges of the wheat pit of the year of the black rust. That time there had been a lot of gossip around the exchange about black rust in the Northwest, but there was no definite information, so that finally I determined to find out for myself.

I got on a train for Fargo, North Dakota, and there I hired an automobile and rode fifty or sixty miles along a road that ran through an endless field of wheat. Here and there on the rolling landscape were the clusters of houses and barns that sheltered the attendants

of that growing grain. Those farm families may not have thought so then and they may not think so now, but I was equally with them an attendant of all that plant life so vital to the welfare of mankind. Were it not for the men who run the railroads, who operate the elevators, who navigate the ships, who supply the credit by which that means of sustaining human life goes from farm to market, those wheat fields might as well be left to grow weeds.

Black-Rust Year

I journeyed by automobile from Fargo to Grand Forks, and the black rust was awful. I could not understand why the reports had been so vague. The fields appeared dirty from the road. It seemed as if black soot had been sprinkled over them. When the spores of this parasite get into the heads of the wheat it is seriously damaged.

I took a night train out of Dakota for Minneapolis and talked with one of the important grain dealers there.

"Got any word about black rust?" I asked him. There is always a great deal of human satisfaction in putting the other fellow in a position where he can't discount the importance of your news by saying he has known it all along. "Have you heard whether it's bad?"

"Oh," he replied, as if to dismiss the subject, "we have had a little complaint."

"A little complaint, hey?" I exclaimed. "Well, I just want to tell you that you are sitting over dynamite. I tell you the wheat has gone. You had better tell your station men to leave their elevators and get out into the fields to make an examination." Then I started for Chicago, having previously sent an order to buy wheat.

Well, the telegrams commenced to come into the board from all sections of the Northwest telling of the ruin that had been visited on the crops. The market went on fire. The shorts, cover-

ing, sent the price up where it belonged in view of the coming scarcity. The traders literally had to fight their way in and out of the pit. Anyone watching that scene from the galleries must have felt that they were seeing a lot of madmen. Hundreds of perspiring figures clustered in a wooden bowl, yelling themselves hoarse and signaling with frantic hands. There the hand outflung is an invitation to buyers; when the gesture is toward the man who makes it, it is an invitation to sellers.

Ever since that black-rust year there have been recurrences of black-rust scares. It takes peculiar weather to bring it out, but the infection is capable of spreading very fast, for it travels on the wind. It develops in hot, sultry weather when there is plenty of moisture, and if it comes at a time when the wheat is heading out, it works havoc with the crops.

Two or three years after that time which we traders still call the black-rust year there was another bad scare. We could not tell from the reports we had what the situation was, and so I went into the Northwest to make a personal inspection. I got off the train at Watertown about six o'clock in the evening. As the days were long I knew I had two hours of daylight left, and decided to go into the fields at once.

I happened to meet the fellow who had sent us the black-rust report that had brought me up there, so I said to him:

"You take me to the field where you saw that infection." We drove out into the country and presently came to a field where he said dramatically:

"There!"

I climbed out of the car and went into the field. "Why," I said, after making an examination, "this is not black rust."

There were a few spots on the stems, but the heads were clean. When those black spots attack the heads it saps the vitality right out of the grain, but a few

black spots on the straw after it is glazed do not hurt it any. I wired Chicago that night, and the next morning the market went right down.

When I have made those trips through the fields of grain I have not gone as an expert. I do not regard myself as an expert. Any good farmer knows as much about growing crops. Some of them know more, but the farmer is occupied with one farm, and I think, instead, of tens of thousands of farms. There is no mystery about it. Just common horse sense is all there is to it. Only you want to be sure you have common sense. It is by no means as common as it should be.

#### Quenching Their Fiery Zeal

The rewards for common sense are large in any field. What money I have derived from speculation has been a reward for common sense. It may be that the reward was too large, but what I know of the law of supply and demand impels me to believe that this is not so. At any rate I have had for many years a keen sense of the responsibility that goes with the possession of wealth. I have given freely of time and money to many civic projects. For two years I was mayor of Evanston, where I live. I suppose I shall be recalled for many years as the mayor who squirted water from the fire hose on the Dowieites.

It was natural for me to move to Evanston to live when I began to raise a family. I had retained pleasant memories of its wide avenues, like spacious green corridors, from the days of my youth when I was a student at Northwestern University Preparatory School. So in 1901 I became the mayor of Evanston and retained that office for one term.

I ran for mayor in a fit of pique against the incumbent, Tom Bates. Nobody asked me to run. I just calmly decided the matter for myself. I think it was a statement issued by Bates that settled the matter for me. As a member

of the city council I had commented on his procedure as a candidate, and Bates retaliated by saying publicly, "If Patten is the boss of the council, why not elect the boss mayor and be done with it?" I ran and they did. So when the Dowie trouble developed I had to deal with it.

The white-bearded John Alexander Dowie's followers were holding nightly meetings in the streets of Evanston. His preachments concerned faith cures, condemned the use of tobacco, the flesh of swine, and certain other customs of American humanity. I had no quarrel with all that, but in those meetings in the streets of Evanston the Dowie disciples were making attacks on the creed and practices of another church. Voliva, who now rules Zion, Illinois, was conducting those meetings.

Because they were held in the streets the meetings were a nuisance, and then some of the men of the town came to me and said that there would certainly be trouble if the meetings continued. Some of the symptoms of trouble were alarming anyway, so I gave orders that the street meetings had to cease. Voliva and his crowd went ahead with their plans for another meeting, so I went ahead with mine. I gave orders to the chief of police to have all his men on duty and I instructed the chief of the fire department to have a couple of lines of hose hooked up ready for use.

That night the Dowie followers gathered as usual, but there were several thousand other people present who had come with the intention of attending not a religious meeting but a riot. Voliva was on a soap box or some other kind of stand. The women were grouped around the speaker and on the outside were the men. The men had locked arms so that no outsider could break through.

The speaking began. I gave orders to the police chief to haul the speaker off his perch, but as soon as that was done another of the Dowie followers mounted

the rostrum and began to speak. I guess we must have hauled down four or five of them when I got up on the box and ordered the crowd to disperse. Reading the riot act seemed to have no effect, so I told the firemen to turn on the water. Then the crowd scattered, but a lot of them got wet.

Some of the speakers had been taken to the police station, and when I got there Voliva accosted me, saying, "Are you the mayor?"

"Yes, sir."

"Well, what are you going to do with us?"

#### Settled, or Unsettled, Out of Court

"Look out of the window," I said. There were thousands of people swirling around. "Think you're safe? Those boys'll mob you if you go out there now."

"What about the men downstairs?"

"I'll let you all go as soon as this crowd is cleared away, if you will agree to hold your meetings hereafter in a hall. But you can't abuse people on our streets."

He promised and that ended it, or nearly so. In a day or so a messenger came up to me on the Board of Trade and told me some men were inquiring for me in the corridor.

I went out and one of them, a Dowieite, came up and said, "You're the mayor of Evanston."

"Yes," said I.

"Well, I had a daughter at that meeting in Evanston and she got all wet when the fire hose was turned on the gathering. I want to know who is going to pay for her dress."

"I can tell you one thing," I said to him: "I am not."

He began to bluster and I took him by the arm, leading him to a window.

"Down there, four blocks," I said, "is the courthouse. If you want to collect from me for your daughter's dress, go there and sue me. And if you don't

think you can find the courthouse, I'll show you the way."

That was the end of that incident; but today in Zion, a few miles to the north of Evanston, on the lake shore, Mr. Voliva is a much, much sterner mayor than ever I was. I never held political office after that, although I was invited to run for Congress. It did not appeal to me, though, because I should have had to neglect my business.

One year when I got a lot of May corn the weather had been so wet the farmers would not haul, and what they did haul would not grade. That was before they had these dryers which are now used to evaporate the excess moisture from the grain.

I had several million bushels, much of it bought for around fifty-seven cents. Brother George was worried for fear our clerical force would not be able to handle the paper work in connection with the receiving of such a bulk of grain and the payments that had to be made. There was a rule of the board then that a buyer must pay cash for grain delivered to him not later than eleven o'clock on the morning of delivery. There was a possibility that we might find ourselves technically in default because of the physical difficulties in the way of writing and delivering so many checks. We had plenty of money to carry our lines, but not everyone believed so. I guess they were kind of hoping. I was carrying a heavy line of oats, as well as all that corn.

In the latter part of April I sent word around that I would be glad to get my grain before the first day of the delivery month. Moreover, I paid on the nail all those who undertook to make early deliveries. That was terribly discouraging to the shorts who had not covered, and in their anxiety to buy corn they ran the price up to 82¾ cents a bushel, which was more nearly where it belonged. I took tremendous deliveries, but there was a shortage of corn and the high price

of the crop year was not reached until July, so that I had ample time to dispose of the corpse. As the market advanced I let them have it.

All that occurred in 1908, the year Taft was elected President. Before I had closed out all my corn I had begun to buy a line of September wheat. In many ways it was one of the busiest years of my career on the Board of Trade.

If I had all the money newspaper gossip has attributed to me, I suppose I really would have a corner in gold. In the old days, if the market declined rapidly, it would be published that Partridge had made a million and a half or two million; or if it went up, that Old Hutch made as much. Men made millions and lost them, and it has always been a significant thing for me that the only men who recovered their fortunes after losing them in the market were those whose word could be counted on.

#### Fortunes Lost and Won

John Cudahy went bankrupt in 1893, but in 1896 he was again one of the leading traders and paid off more than \$400,000 of the indebtedness left from the collapse of his deal in '93. He was a ruddy, rotund person with a face that masked his thoughts. Generally there was a twinkle in his eye. He was frequently on the floor directing his brokers.

His difficulties in 1893 came from the collapse of a pork corner that involved in some fashion his deal in lard. Pork had opened August first at \$18.75 a barrel. In half an hour it had tumbled nine dollars and many firms were ruined. Cudahy's big loss was in lard. He had about 200,000 tierces. A tierce contains between 360 and 390 pounds of lard. His failure was announced at noon. Then in one minute lard dropped way down. It went from \$9.35 a tierce, at the opening, to \$6.40 at the close. That was a frantic day, for there were seventeen

failures. One man killed himself because of an unpayable balance of fifty-six dollars on his books. Actually, I suppose, he killed himself because the emotional strain had been too great.

Cudahy's creditors accepted fifty cents on the dollar along with his promise to pay more when he could. E. W. Bailey offered twenty-five cents on the dollar in cash and more later. He paid his debts with interest, won another fortune and took it with him into retirement.

Edward Partridge died in 1896. He had been a consistent bear and a great plunger. Several times he was on the verge of bankruptcy. He lost about \$600,000 when the market advanced sharply in the spring and summer of 1892, but the next year, when there was a panic, his winnings were tremendous. A panic is usually a time of plenty for the short seller. He was an unassuming little fellow who had made his first business success as a dry-goods merchant in Buffalo. He came to Chicago and opened a store in 1869 and then was attracted to the wheat pit by the published accounts of the operations of Ream, Singer, Kent and Jones, as other men might be attracted to a play by a favorable dramatic criticism.

When he was short a long line of wheat in 1892 a South Dakota farmer made an attempt to assassinate him. It would be amusing, were the consequences less tragic, to review some of the foolish antics of men who have believed that because a trader took advantage of his belief that there was more wheat than the world could use, he was therefore responsible for that condition. The price of wheat would have gone as low if Partridge had never contracted to deliver a single bushel that year.

#### Above the Uproar

Partridge was a consistent short seller because he was usually tempted to enter the market by conditions that caused

him to believe the price of wheat was too high. A certain pattern in the economic condition of the world was significant for him. It was a different pattern that appealed to me. He was one of the few men I have known who made considerable money selling short, but even Partridge was carried to his grave a bull. His executors, closing out his short line, bought wheat so fast that the market reacted.

Partridge seemed to have nerves of iron; so did Cudahy; others eased the strain with drink. I stood it by not drinking. But the noise, which seems maddening to those who look on sometime from the gallery, is the least nerve-racking feature of the trading. Many men have broken under the strain because they took a position in the market before they were sure of their facts, and for that reason, before they had any right to form a judgment. I tried to be sure of my ground and then I did not have to worry.

The outsider who listens to the roar of the wheat pit hears only a great volume of sound that drowns the words of individuals as the orchestra dominates in Tannhäuser; but for the experienced trader there may be sounds there that will echo as sweetly in his ear as when Pareto sings the Bell Song in Lakmé.

There have been blind men who traded in that pit, and deaf ones. John Schaack, who used to be the head trader for my brokers, still goes into the pit on occasions and in that uproar easily distinguishes the phrases and identifies the voices crying: "Sell fifty sep at forty" or "Buy ten decee at forty-five." He knows the voices, though he can no longer see the faces or the hand signals. Schaack's lost vision was the penalty of the strain of wheat-pit trading. But he may buy or sell a hundred thousand bushels of wheat in darkness there in the wheat pit with the same confidence that a housewife may purchase a loaf of

bread. For me that is proof of the fineness of the market mechanism we call the Chicago Board of Trade. Herbie Blum trades there and has told me that he hears and distinguishes every voice in the mad orchestration, which is unusual only because Blum in ordinary dinner-table intercourse is quite deaf. Just how the vibration of the wheat-pit voices tightens his ear drums, I cannot say, but in that awful din he hears, and when he leaves it he is deaf.

There have been traders there, and there are a few today, whom I would not trust; but that is true of any large assemblage of men. We all know the world contains many dishonorable people. They are to be found in any company. That is why we have laws. Sometimes I think there are so many crooks and so many crooks' tricks that I wonder how an honest man can make a living, but for the great majority of men in the grain trade I have deep respect; and in their integrity I have an abiding faith. Had I felt otherwise I should not have spent my life in the business.

Not long ago there was a scandal in the grain trade caused by the discovery that the men in control of one of the large elevators—grain warehouses—had been cheating their customers. Since the trading in future deliveries has had to bear so much of criticism, let it be understood at the start that future transactions were not involved. This was a scandal of the cash-grain business. State officers, employees of the grain-inspection department for which I worked when I first came to Chicago, take samples of the grain which comes to market. The samples, in paper sacks about the size of those small bags in which banks handle coin, are brought to the floor of the exchange so that buyers may be saved the trouble of going out into the maze of freight cars in the vast reaches of railroad yards that make Chicago the greatest inland city of the world. Each sam-

ple represents a freight-car load of grain, or else it represents a much larger quantity stored in a bin sixty or a hundred feet deep. Each sample is marked with the grade of the lot it represents as determined by the inspector who examined it and took the sample. The prestige of the state of Illinois and the honor of the business men who make up the Board of Trade are involved in the integrity of those samples.

In the scandal to which I refer certain men had switched samples. At night they slipped into the office of the warehouse where were stored the samples taken by state inspectors and substituted for them samples of higher grades of grain, having less of dirt and moisture in them. That old Roman injunction of *caveat emptor* is supposed not to apply on Board of Trade transactions, because the merchants there are banded together for the primary purpose of making it unnecessary for buyers to beware. Still, this did happen. Some men involved were expelled from the Board of Trade and forced to restore their soiled profits.

I do not think that kind of cheating is likely to happen again. But it had to be tried before we could stop it.

#### Bins With False Bottoms

Many years ago, before I became a member of the Board of Trade, there was another bad scandal. A firm of elevator operators secretly had some false bottoms made for their bins. Quantities of grain were poured onto those boards so that a few hundred bushels of grain suggested the presence of many thousands of bushels, in the manner that a few artificial trees on a stage are made to suggest a forest. Grain receipts in that day did not have to be registered with state officials. The men who worked that scurvy trick were short in the market.

By displaying bins that were apparently full, the crooked operators were

able to pretend to the men with whom they had contracted to deliver grain into Chicago elevators that such delivery actually had been made.

This is the way they profited by the trick: With the end of the delivery month—May, let us say—the price fell off and then they bought cash grain for much less than they would have had to pay earlier. Against those empty bins they had previously issued false receipts that were supposed to represent grain actually in storage in Chicago.

As a result of that scandal the state of Illinois took charge of the registration of grain receipts. We build up our defenses in commerce as the weak places are discovered by men who are looking for ways to cheat. Honest men cannot be expected to anticipate all the ways of crooks. Rules and regulations have come in the grain trade, as in others, as reactions to unfair behavior.

Sometimes, unhappily, the regulations are drawn by men lacking in understanding, so that the rules sometimes hamper the legitimate transactions of honest men quite as much as they embarrass thieves. Similarly the Board of Trade has had to make strict rules about the spreading of false information concerning supply and demand in the grain trade. Expulsion would be the fate of any man who deliberately and knowingly started a false report in the trade.

#### Inside Information

There are four crop reporters with credentials of the Chicago Board of Trade. With one of them, Bernard Snow, an employe of the Bartlett-Frazier Company, through whom I traded, I have countless times made long journeys of hundreds of miles so as to get a cross-section view of the corn or wheat or oats crop. There are about two men in every wheat-growing county in the United States who contribute information to him. If one of those correspon-

dents sends a message having unusual significance, Snow, more often than not, goes at once to that section to look at the fields for himself.

That is what I mean by information. But there is a lot of it—the price in Liverpool, the temperature in France, rust in Australia, war in the Balkans, rain in the Argentine, drought in Texas. There may be 10,000 such scraps of information in a man's head before he evolves for himself a sound opinion, and then maybe that opinion will have as its foundation a single authenticated bit of news about the grain, such as frost in South America.

On the New York Stock Exchange, when you trade, you frequently encounter smoke screens. You need inside information there. In buying wheat or corn or oats there is no such thing as inside information. The facts are there for anyone who can interpret them.

One of my friends had an extraordinary ability to get inside information. For a long time he has been long on stocks that went to sensational highs in 1927. How did he get that information? Certainly not in the way that he would get information about the supply of wheat.

Two years ago he said to me, "Jim, buy some Blank Manufacturing Company."

"No, sir," I told him. "I'm past speculating."

"Well," he agreed, "I guess that's a good thing. Speculating means worry. You save yourself a lot of trouble."

"Trouble?" I repeated. "Do you call it trouble when 70,000 shares of your stock go up ten points in a day?"

He grinned at me. His Blank Manufacturing stock had done that, and since he advised me to buy its climb has been sensational.

"No," I went on. "You are twenty years younger than I am and speculating

is the thing for you, but I don't have to do it."

I never did see as much in stocks as in commodities, but I have noticed that as men get older they lose their power. My understanding and insight, I believe, are as good as they ever were, but I lack some of the courage I used to have. Twenty years ago I was afraid of nothing, but today, if I had a deal like that of my friend, I might not sleep well at night. My sleep has become increasingly precious.

It is hard to trade against those fellows who have inside information. You often cannot tell by the statement what a company is doing. Sometimes they have heavy charge offs, and you do not see their earnings. You may then think it is time to sell a stock, though the insiders know it is time to buy. Later they bring out all the earnings, making an extremely favorable showing; then, if you buy, the insiders may be selling.

Frazier was quite a trader. Bartlett-Frazier opened an office in Wall Street and Frazier went to a banker there to get some money. He was one of the cold type, a financial glacier.

"Mr. Frazier," he asked portentously, "do you ever speculate?"

Looking him right in the eyes, Skip said, "Yes; don't you?"

The banker's pose wilted. He laughed and loaned Frazier the money.

A report got started somehow down there in New York that Bartlett-Frazier Company was going to fail. A reporter came to see Skip.

"May I ask you a question, Mr. Frazier?"

"Surely; spin your yarn."

"Well, what about this report that Bartlett-Frazier is going to fail?"

"Son," Frazier told him, "do you see that building across the street? That is going to fall down before we fail."

I do not mean to imply that all the information of the grain trade is accurate. If it was there would be no room for speculation.

There is Broomhall, the British authority on crops. He keeps tab on the whole world, but sometimes he is woefully wrong, as, for example, in 1926, when his estimate of the European requirements was 100,000,000 bushels out of the way.

Sometimes the government crop reports are inaccurate because men's brains are as yet incapable of foretelling the fate of the growing grain. Is it any wonder there are speculators?

You do not speculate about the sum of two and two. You speculate about the uncertainties of the future.

## IN THE WHEAT PIT

### CHAPTER IV

I HAVE had an interesting life in one way or another, and it is a source of deep satisfaction to me that I have kept the respect of everyone in the grain trade. I have known intimately bankers, lawyers, politicians, doctors, merchants of every sort, and I know that I am most nearly contented when my routine permits me to pass between my home and that frontier in Chicago where the farm products of the great plains of America are met by the buying power of the cities of the world.

Because of that unique market for farm products in Chicago, a farmer in Texas or Nebraska or Wisconsin on any day in the year may haul a wagon or a truckload of grain a few miles to a country elevator and get a price for it that represents the world's appetite, backed by the gold of banks in cities everywhere. No other farmers have had such a market as that which turns into cash the crops of the United States. Yet few of the farmers seem to understand this, and fewer to appreciate it.

One day in the year of the Columbian Exposition there was a tragic occurrence when the galleries of the Board of Trade were crowded with the visitors trying to get some meaning from the strident clamor and tensed hands in the pits below them. This was on a day in September in 1893. The galleries had been filled every week day during the exposition with visitors drawn from all parts of the world. Few of them, perhaps, had any great understanding of that strange auction scene, but all of them seemed to sense its great significance. The galleries hang above the floor like choir lofts in a cathedral, and are shrouded in gloom. Suddenly that morning there sounded above the roar

of buying and selling the report of a pistol shot, and then another.

#### When Terror Reigned

A man in one of the galleries was shooting down into the swarm of traders, messengers and telegraph operators on the floor. The trading noise died away so that for a moment there was a terrible silence followed by more shots, the reports of which were amplified in the dim spaces up among the dusty girders and trusses of the ceiling.

Panic seized the bewildered visitors in the galleries. They fled for the stairways. Many were knocked down and trampled on. On the floor there was a wild rush for cover under the galleries and beneath the heavy marble tops of the cash-grain tables. Only a few remained out there in exposed positions among that queer furniture we know as pits. Those few were the wounded, the victims of that crazy firing from the gallery.

A few men thought clearly in that situation and acted courageously. One of them was a bootblack named Henry Hudlum; another was Thomas Barrett. Those two ran up the stairs to the gallery, leaped upon the man standing there with the smoking revolver in his hands, and disarmed him.

Three of his bullets had found living targets. One lead slug shattered the jaw of C. W. Roswell, assistant chief operator for the Western Union; A. M. Bennett, who was secretary of the Board of Trade Mutual Benefit Association, was wounded in the neck and a third ball had pierced the side of a woman, Mrs. C. W. Lewis. Thoroughly angered by the mad attack, many of the brokers who had been but a few moments before

crying "Sell fifty Deece" or "Buy ——" now were yelling with greater frenzy, "Fling him over the railing," "Lynch him," "Kill him." They behaved as any crowd of undisciplined men might be expected to act under such circumstances. But soon the discipline of the Board of Trade asserted itself.

The president of the board, Charles D. Hamil, and the vice president, Reuben Grigsby Chandler, sternly demanded that the wretched captive be surrendered to the authorities. Others joined with them in pleas to save the board from the disgrace of a lynching. There was real danger of a lynching for a time, because someone had found a rope and half a hundred men were eager to use it. There was a struggle for the possession of the captive, and in the confusion a trader who was mistaken for the guilty man was struck several times before he identified himself in the semi-darkness of the corridor.

When the assassin had been taken to a police station it was discovered that he was not a man who had any real grievance against the traders, nor was he even a crank. He was an insane man and it had been known before his outbreak of violence that he should have been confined. No attempt was made to punish him. Instead, this maniac was sent to an asylum.

During the brief period when his shots were being fired and the traders fled from the pits no grain was bought and sold in Chicago. Economically the interruption had no importance, but suppose it had continued? Who would have suffered most, farmers or traders or buyers of bread? There have been many attempts to write laws designed to interfere with the trading in the Chicago grain market, but in my mind some of them are classed with that crazy shooting of the lunatic.

#### Slim Profit

There are some things a politician ought to know before he undertakes to regulate a business, but I suppose it is only in the perfect state that politicians will also be sound economists. Out of experience mankind has found ways of sustaining the lives of myriads of people. The chain of operations whereby factory workers produce machines to be sent to the farms to assist farm workers to produce more foodstuffs which feed the factory workers as well as the farmers represents an accumulation of experience that may not easily be improved. Attempts to do so usually are nothing more than tampering. There has been a steady, sound development of the mechanism which moves grain from producer to consumer, but the improvements have been made by the men in the business.

About the time Harding became President the Federal Trade Commission sent some investigators to our brokerage firm to go over the books. It seemed that we were suspected of making money.

"Just what do you fellows want to learn?" the investigators were asked.

"We want to know what your profits are on the grain that is handled in your elevators."

"Well," was the reply, "it is not much."

"We've heard rumors," retorted the investigators.

"I don't think the average profits are three-quarters of a cent a bushel."

The investigators were incredulous. They were full of figures and statistics. They knew that a car of corn sold by a farmer, for, say, forty-two cents a bushel in Ireton, Iowa, might be expected to sell to a consumer in Chicago for sixty-two cents a bushel. If those investigators had been as old as I they might have recalled that some of that spread in

price represented payment by the farmer for that service my grandfather used to be required to give with his grain. My grandfather, along with the other pioneers of his day, had to haul his grain from Sandwich, Illinois, to Chicago in his own wagon, feeding himself and his team on the way, and there fling the load into the hold of a schooner with his scoop shovel. Then he had to drive back to Sandwich, staying at inns along the way. It was no wonder that he counted himself lucky to get home still owning the wagon, team and shovel.

Those Federal Trade Commission investigators worked on the books of our firm for five weeks. They were shoulder to shoulder with our bookkeepers and had complete access to all information. To their astonishment they discovered, and so reported, that the profit was seventy-two one-hundredths of a cent a bushel.

Freight is the heaviest item of expense in the total of marketing costs. It is larger by far than all the other costs combined—country-elevator profits, commission merchant, car inspection, grain inspection, weighing and several smaller items such as war tax on freight.

The freight charges are the heaviest item, and properly so. The engineer, the fireman, the brakeman, the trackwalkers, switchmen, telegraph operators and myriads of other railroad workers who help to carry the stream of grain to market are as important factors in changing corn into cash as the farm hands who guide the plows.

Could the people of France afford to eat white bread made of Dakota wheat if that wheat was hauled to market in the fashion of my grandfather's grain? It is machinery, railroads, ships, and a fine credit mechanism that make those distant plains farms a part of civilization. Without the machinery farmers

might live out there, but they would live primitively.

The system whereby, with ingenuity and economy of effort, hundreds of millions of bushels of grain are brought every year from millions of farms to some 20,000 country elevators, then concentrated in the larger elevators, and then fanned out once more in a distribution system that leads to tens of millions of kitchens and kitchenettes, constitutes one of the fundamentals of our civilization. If the world were suddenly deprived of its service many soft-handed people would have to begin grubbing in the ground for the means of satisfying their hunger. It would be that or starvation.

Yet it is a novelty that has developed within fifty years, a thing that explains how America has grown. You may see this miracle of a nation flowering in Canada today. There the grain crop has been multiplied seven times in twenty years, while the population has barely doubled. Their grain must find a market overseas, but in the United States the national appetite grows larger with each year and will continue to grow until, I predict, there will be no surplus to export. So long as there is a surplus, though, no man is going to be able to control the market.

#### The Machinery of the Grain Elevator

There are two main currents into which the grain raised in America may flow after it reaches the big terminal elevators: One leads into the domestic market; the other goes overseas. But first it all travels a similar way from the farm in a wagon or truck. In such vehicles it is hauled to the nearest of our 20,000 country elevators, or stations, that stand beside the tracks of railroads in all our grain-growing states. Those receiving houses act as valves to adjust the flow of grain brought in by farmers to the speed with which railway

cars are obtained to take it away. They are ugly structures, a typical one being a rectangular tower seventy-five feet high and covering a ground space thirty by thirty. The bins, usually about nine in number, occupy most of the space in the building and are from thirty to fifty feet deep. The farmers drive their wagons up an incline into the building, and, after their loads have been weighed, halt over the dumping sticks by means of which the front of the wagon is raised and the rear depressed so that the grain falls out of the back of the wagon through a trap in the floor into a hopper leading to the boot of an elevator leg.

The leg is a device used in all grain elevators, but it has been applied to many forms of American activity, until we have come to think of it as a synonym for quantity production. Its principle is to be seen in the packing plants at the Chicago Stockyards, where hosts of workers only slightly skilled individually perform highly skilled work in the mass with incredible speed as endless conveyors move their tasks before them. It is found in the automobile factories at Detroit. It has taken on a hundred forms and positions, but it is still the leg of the grain elevators. There it consists essentially of two pulleys, one in the boot and the other in the head, over which runs a belt that is usually made of rubber. Fastened at regular intervals along the belt are metal cups that scoop up the grain from the boot and carry it high into the elevator, where it is turned out into a spout through which it may be diverted into any one of the bins, or, in the larger elevators, onto a horizontal moving belt and then into the processing machines with which mixed grains, and dirty, are sorted and cleaned with superhuman speed and accuracy.

In one of the country stations the leg will lift 1000 bushels an hour, but in the great elevators in Chicago there are

gigantic legs that will lift about twenty-five times as much. In some of those big terminal elevators freight cars are emptied of grain as if they were toys; the bins in which their grain is stored are as deep as the elevator shafts in moderate-sized office buildings; but in all elevators, large and small, the essential operations are the same, so that the grain is lifted up by power and then brought down by gravity.

In the great terminal elevators the grain is conveyed to the various bins by horizontal rubber belts that carry a yellow stream either backward or forward along the floor that is formed by the bin covers high up in the gaunt structures beneath the shoulders of the roof. Comparatively few men work in those huge terminal elevators because of the excellence of the machinery they control.

Sometimes they have as many as eighty grades of grain in separate bins of the elevators. White as clowns from the starch dust that adheres to their faces and clothing, they understand all that intricate machinery that has been designed to meet the need for removing impurities from grain; and the farmer benefits because they transform his product into a thing that can be sold. For example, the government standards allow only 4 per cent of rye in wheat to be ground into flour. Some that comes to market has considerably more than that amount. Seeds are stubborn guardians of the life they contain.

#### The Standard

Rye that is sown one year to rest a field that has previously produced wheat springs to life again and again through the years when the farmer has sown only wheat. Birds flying above the fields drop the seeds of other grain that sprouts, matures and is reaped along with the crop the field was intended to produce. Then, too, some farmers sow

wheat that has rye seeds in it. It has just as much nutriment.

It would be an impossible task for human fingers to sort out the smaller rye grains from the wheat, but by passing the mixed grain through a series of sieves the wheat is made to pass out through one spout, the rye through another, the corn, picked up in transit, through another, and bits of brier, weed stems and other impurities through yet another. Dirty wheat that contains chaff and even some soil can be screened until it is first-class material for millers. The rules also require that wheat shall not have more than 13 per cent of moisture. All this shows the necessity of proper equipment in the big elevators.

Sometimes, though, wheat comes to market with less than the allowable content of rye. It has become the practice in elevators to increase the quantity of their wheat by adding as much rye—a cheaper grain—as the law allows. In a dry harvest, wheat—which is permitted to have 13 per cent of moisture—may reach the elevators containing only 11 per cent. From another section where it has been wet comes wheat that contains, say, 15 per cent of moisture. At the elevators the extremely dry and the extremely wet wheat are mixed so that all make the grade. Mixing has been developed by the elevator men into a fine art, an expert process necessary to the business.

There are certain practices that I regard as evils, but my years of experience offer me plenty of evidence upon which to base an opinion that these evils will be corrected by the men in the trade. I recite all this because for a proper understanding it is necessary to know that the grain that is exported and the grain that is sold to millers is by no means simply the stuff that farmers shovel into their carts and haul to the nearest country elevator.

During the war, when Europe's fear

of famine was a tragic thing to behold, a grain firm of this country exported very poor stuff as wheat. They even threw in, besides off-grade wheat, bits of trash the trade knows as screenings. Europe was so desperate for food it dared not refuse to take this stuff when it arrived in the ships that were so scarce. The people on the Continent were at the mercy of such practices. Great Britain and France did protest at the sudden lowering in the quality of what they had come to regard as the American standard of wheat, but there were so many other things to worry about when this was going on that it never became an open scandal. Yet it was largely because of the damage this practice was sure to cause our whole oversea trade that the Federal Government stepped in and established a system of grain inspection.

I could recall a score of cases where failures were staked generously by men who had not the slightest reason to feel any trace of responsibility for the failures. For me the Chicago Board of Trade means that sort of behavior quite as much as it represents trading. Rich men fall into two classes for me: Those who give and those who do not.

Happily, I think my tastes have remained simple. It is a joke in my family that my wife gave me for three years in succession as a Christmas present the same necktie. I never would have discovered it, either, if it had not been too good a joke to keep. She had to tell me about it.

#### An Overdue Funeral

Mrs. Patten was reading to me recently from an article about Chicago society being the most exclusive in America. I guess it is true enough, but what of it? I know and like many individuals who are embraced by the word "society"; but as a competition I am and have been totally uninterested

in it. I have seen many men develop an interest in it, egged on generally by their womenfolk. As a rule it means turning your back on a lot of old friends.

One of my old business associates and his wife went to New York largely because of a desire to mingle with people whose names had a written glamour attached to them. They met with some success apparently, because we learned they were going around with the people whose names are symbols of social prestige in the East. But what did it amount to? When they died I went East to their funerals and each time there was hardly a soul there. There was no real friendship behind the acquaintanceships they had formed. A lonely funeral is the dreariest of spectacles.

I was warned some years ago that mine was overdue. A letter came that fell naturally into the stack of appeals for money. This one read: "I need \$10,000. You put that much in a shoe box and hide it in the hedge on the south side of Dryden's place. If you fail to do this you will be a dead man inside of ten days."

I read that letter a couple of times and then I went to the chief of police of Evanston.

"I'd like to catch this fellow," I said. "What shall we do about it?"

"Well," he said, "you better put the shoe box there as directed. There could not be a better trap. I'll have my men posted around the Dryden home."

George B. Dryden married a niece of the camera manufacturer, Eastman, of Rochester, New York. It is one of the large residences of Evanston, set in a lovely lawn thick with shrubbery and great trees.

I went through with my part all right, taking a shoe box that had been filled with scraps of paper, and carried it to that hedge that marks the south boundary of Dryden's yard. I had no idea

the Drydens were having a party that night.

Whoever this man was who wanted \$10,000, I knew he must be a person at least a little familiar with Evanston. I kind of hoped to be able to make him acquainted also with Joliet. I saw nothing of any of the detectives as I approached the hedge and stuffed my box into its greenery. Then I strolled back home to wait.

Along in the evening after it had grown dark Dryden and some of his dinner guests wandered out of his house to smoke their cigars. Suddenly they saw a figure crouching behind a tree and then other figures that blended into the dark masses of the shrubs.

"What are you doing there?" challenged Dryden. There were yells from some of his friends. Doors slammed as people rushed in and out of the house. Then one of those crouching figures on the lawn came forward.

"It's all right, Mr. Dryden," he explained. "I'm a policeman."

Other men came out of the bushes then and identified themselves as policemen. I guess about half the Evanston force must have been hiding there.

We left the shoe box in the hedge for several days, but the letter writer never called for it.

Most of the attacks that have been made on me have been less bloodthirsty. There have been silly newspaper articles describing me as a manipulator of the market. I never have been a manipulator. There have been cartoons that have pictured Patten as flying from the wheat pit to escape a bear, and as a giant lifting a sack of wheat to indicate the rise in price. Really, a cartoonist should be obliged to know more than merely how to draw pictures.

John T. McCutcheon caricatured me from time to time and then, some years ago, I was invited by my friend Charles G. Dawes, also a resident of Evanston,

to attend a dinner he was giving McCutcheon on the eve of the cartoonist's departure for Africa to hunt lions. There had been times when I should have liked to have seen McCutcheon in a place deeper than the wheat pit, but I went to the dinner and, when my turn came, spoke.

"What amazes me, Mr. McCutcheon," I said, "is that you should go to Africa to hunt creatures that may strike back. I should think you would want to remain in America, where you can shoot at people that can't shoot back at you." Mr. McCutcheon had an extra dish that night served only to him—raspberries. Since then I have met him often enough to know that he is an excellent fellow, well worth the friendship of Charley Dawes. One time Charley Dawes invited me over to meet Uncle Joe Cannon. There were just the three of us there at the Dawes home. There was a curiously appealing quality in the voice of that old politician, a timbre like that of a cello. That night, however, he was full of spleen against Theodore Roosevelt, and how he did rake the former President of the United States over the coals. He told about their controversy over battleships. I could listen sympathetically because I was never numbered among Roosevelt's admirers, although I was a delegate at the Republican National Convention that nominated him.

#### Free-Silver Days

The same factors of uncertainty that make dealings in commodity contracts fascinating attach to politics.

In the year of McKinley's first campaign, when silver and gold were the chief issue, I was spending a good deal of time in Denver.

Brother George had been out there fighting tuberculosis. He would stay a few weeks in a town in New Mexico and then move on to Arizona or Colorado. He was going from place to place and

I could tell that he was dreadfully homesick.

Finally I said to my wife, "I'm going out to Denver and establish a home for George."

For some time after that I spent two weeks in Denver and two in Chicago. Out there you could hear only talk of Bryan and silver. Bryan was going to win. They were sure of that. He would carry Illinois by a tremendous majority. I did not believe it, and when I got back to Chicago as the campaign was drawing to a close, I went to see a friend of mine who was well informed about the affairs of the Republican Party.

"In Denver they say Bryan will carry Illinois," I told him.

"Don't you believe it," he assured me. Then he added: "This election means so much to the money interests of the country that they have had a secret poll made of the state of Illinois. It showed that McKinley would carry the state by 150,000. Then, because they felt they had to be sure, they ordered the poll made again. The result was the same. Illinois is going Republican by a big majority."

While in Denver I had heard complaints from the free-silver crowd that they could not get anyone to bet on McKinley, so I went to my office and sent off a wire to a friend in Denver. He was a miner; had some claims in Idaho that I had put some money into. I had invested \$5000 at first, but that was just a start. Before I got through I had sunk \$25,000 in those gold mines. I don't think they ever did get any gold out of them. However, I wired my friend to bet \$1000 that McKinley would be elected and \$1000 that he would carry Illinois by 50,000.

#### A Panorama View

He telegraphed that he could not find any of the Bryan crowd who were willing to risk money on the result of the

election in Illinois, in spite of the boastful statements they had been making. He did place the \$1000 bet that McKinley would be elected. I succeeded in getting another bet by wiring to another part of the state. There would have been a fearful time in America if Bryan's notions had triumphed.

In the Harrison campaign of 1888 I won a bet of fifty dollars and I have never ceased to nag my wife about it. Mrs. Patten was a Democrat in sympathy then, largely because her father had been one. We had been married but a short time. She could see nothing but a Democratic victory.

Still, when I came home with fifty dollars and gave it to her, saying it was money I had won on Harrison, she exclaimed, "Oh, Jim, why didn't you bet more?"

She never will hear the last of that. I was poor then and fifty dollars seemed like a lot of money. Later on, when there were times when I had everything, nearly, tied up in a grain deal, you might think she would have worried. She did not, though—because I never told her. Why should I bother her with

my business worries? I used to leave them outside the door when I went home in the evening.

We were going through a great time in the development of America and you could get the whole picture of it in Chicago. I know a banker, an influential one, who put \$5000 into a chewing-gum business and he has lived to see the day when his chewing-gum stock is worth more than his bank holdings. How could a man anticipate a demand like that?

I invested in a salmon canning factory one time and some of my friends were inclined to laugh at me, but they began to think, instead, when I showed them how the open-range country was dwindling year after year. With less meat to eat, humanity will have to rely more and more on the sea for food.

You must try to get the whole picture when you deal in commodities. Similarly I watched the spread of the boll weevil, and saw how, year after year, it was spreading across Texas into Louisiana, Mississippi, until all the cotton-growing states were infected.

## IN THE WHEAT PIT

### CHAPTER V

**H**EVY exports in the fall of 1908, lean yields over a period of several years, increasing domestic consumption in the United States, and finally, to cap all this, killing frosts in the Argentine and Canada, had persuaded me the time was ripe for a bull campaign.

So I started to buy wheat and kept buying until I had 10,000,000 bushels pledged to be delivered to me in May, 1909. Other bulls who believed as I did, that there was going to be a shortage that would last the crop year through, bought until they held contracts for 30,000,000 bushels. With the end of May, wheat that I had bought at 89¾ cents a bushel was priced at \$1.34, and would have been higher if I or my associates had been the sort of men to desire the ruination of those who were unable to fulfill their contracts.

America was still in the throes of the trust-busting madness. It was fashionable then to decry almost any business that was too large for the understanding of the average mind. Thomas W. Lawson was writing that he was going to put me in jail; bakers were protesting against the high price of flour. They blamed me and the Board of Trade for the advance. But if it had not been for me and that bull campaign which I led there would have been much smaller stocks of wheat in the United States, and, as a consequence, much higher prices.

#### Caught in the Maelstrom

That deal was a satisfactory climax to my career in the grain trade, so it was not hard for me to reach a decision that I came to in the spring of 1910. Brother George was failing fast. He was losing

visibly in the fight he had been making for seventeen years against tuberculosis.

His family and his friends wanted him to give up business, but he resisted such pleas until finally I spoke to him.

"See here, George," I said, "I am going to quit. You have plenty for yourself and your family. Why don't you retire?"

"All right," said he, "if you are going to stop I will too."

I was pretty well evened up in all my trades by the end of June; Bartlett was arranging to retire to a 400,000 acre ranch in New Mexico; Frazier wanted to go to New York; Brother George and I talked of an extended trip we hoped to take abroad in the fall. The four of us just walked out of Bartlett-Frazier Company, giving the business to the younger fellows—the big elevators at Calumet, the string of country elevators, and all the rest of the equipment. I have never engaged actively in the business since then.

In September Brother George died; the previous year I had lost my mother; and in 1911 I was to lose my boy Tom.

For a while Tom had gone to the public schools in Evanston while I was mayor, then I had taken him to Laporte, Indiana, to the school conducted there by Dr. Edward Rumely, and after that he had gone to the Northwestern Preparatory School as I had done before him.

Mrs. Patten and I first met Doctor Rumely when we went to Laporte to investigate his teaching methods. I explained to him that Tom seemed to get more pleasure staying around the garage talking to our chauffeurs than he did in school.

"How much do you pay your chauffeurs?" asked Rumely. I told him, and then he asked:

"How much do you pay school-teachers?"

My answer showed him the teachers were getting considerably less than the chauffeurs.

"There is an explanation for you," he said. "Besides, the boy wants to be doing things. Probably he is fascinated by machinery and the men who understand it."

That was true enough, and at the Rumely school Tom had plenty of opportunity to work with machines, to do things. The students there operated a farm and Tom got along finely. In 1911 he was taken sick with a mastoid infection. He was a strong fellow, a red-head like my boy Jack. We had thought he was recovering after his hard fight against the infection that spread through his system.

I remember I met Cyrus McCormick and he said he thought it would be an excellent thing if I would take the boy to Jekyll Island, off the coast of Georgia. He told me he would give me a guest card. That afternoon when I went home I sat with Tom and he brightened at the prospect of the Jekyll Island vacation.

The next morning they came in to tell me he was dead. There had been too great a strain on his heart. I tell this because it serves to explain the development of our friendship for Doctor Rumely.

Although I retired in 1910, I have never lost contact with the grain trade, and though I have been more concerned with investment than with speculation since then, still I was to see a time when the wheat pit, frenzied by the buying orders from Europe, ran wild from unprecedented demand. I was to have my part in that, too, although not in the same role as in the past.

My wife and I saw the beginning of the war. We went abroad in 1914, landed in Hamburg on the Fourth of July and went to Berlin. War councils

were in progress there then. We went on to Carlsbad and then to Nuremberg by automobile and there we were taken to a police station. Germany, all of Europe, was seething. A foreigner anywhere was regarded as a potential enemy. Our chauffeur was able to establish that we were American tourists and we were not disturbed further, but early the next morning we started for the seaboard. I felt that it was time to go home.

At Cologne the streets were filled with marching men. Overhead were airplanes and Zeppelins. Flags were flying from every building.

The train from Cologne went only to the Belgian border. From there we had to walk in a rain to the first railroad station on the Belgian side of the line. From there to Liège we rode part way in a country cart and part way in a wagon with long seats, taking with us five other stranded Americans we picked up on the way. We got into Liège only a few hours ahead of the German army.

#### With Little Cash and No Credit

Food was scarce on that trip. Our supper one night consisted of a slice of rye bread apiece. I have bought a lot of wheat in my time that eventually became bread, but I never took any greater satisfaction in such purchases than I did in the acquisition of those thick slices of dark bread in that frantic little Belgian town.

We got passports from Brand Whitlock, the American minister in Brussels, when we arrived there, and three days later sailed from Antwerp. I had just two dollars left in my pocket when we landed in New York. Letters of credit in that time of confusion had been, of course, just so much paper.

War sent the wheat pit into a frenzy. Big export sales had featured the market during July, and when on July twenty-eighth Austria-Hungary formally declared war on Serbia there were frantic

periods on the floor of the exchange. I did not see them, of course, because I was then trying to find my way out of Europe.

The market was beset by information. Reports of black rust, Hessian fly, brown eaf, green bugs and weather conditions and their effect, of course, day by day. The opening of the Panama Canal meant improved export conditions and had its effect on the trading; but the age-old struggle between supply and demand was to be fought for the next four years and more with new weapons—strange information and uncontrolled demand—the like of which had never before been heard by speculators or other men. The world had gone mad.

Though reports of black rust had seemed more important to the grain trade than the assassination of the Archduke Ferdinand, when that tragedy occurred realization came with the successive declarations of war that occurred in August. Wheat precisely like that that had been selling at 92 cents in May was selling in late August for September delivery at \$1.12. Overnight on September fourth there had come news that sent the price up from \$1.12 to \$1.21. Ten days later it had dropped down to a dollar a bushel, only to swing upward twelve cents in a week. In December the European demand sent the price up to \$1.28 $\frac{3}{4}$ . During those months the fluctuations had been caused by the same facts that became first-page headlines in the newspapers: The news that Turkey would join Germany and Austria sent the price up because it was realized this meant shutting off the Russian supply of wheat by the closing of the Dardanelles; the capture of a Turkish fort would send it down again; the sinking of two or three Allied warships would send it up; and so it went. The situation in the Dardanelles was always, throughout the war, a subject of great interest in the Chicago grain market.

European buying orders were sending the market up. Five days after Germany declared war on Russia there were 12,000,000 bushels of wheat at Montreal, with as much more concentrated at Atlantic and Gulf ports. Those idle fields I had seen on my way to Antwerp were a factor in this sudden demand. Europe knew that famine is one of the consequences of war. The coarse grains were affected, too, because when artillery moved, it was drawn, as a rule, by horses, and horses required oats.

In November, 1914, America exported 20,000,000 bushels of wheat, as against 3,000,000 bushels in the same month of the peaceful year of 1913. Napoleon's maxim that an army travels on its belly was being demonstrated; and prices were strengthened by the fact that not only was the Russian supply cut off but there were only small surpluses for export from India, Australia and the Argentine.

During that year there were suggestions from outside sources that the Chicago Board of Trade ought to be closed. A worse thing could not have been done. If the country had been denied the benefit of a constant market for the surplus of its principal crops, all the trade and commerce based on the purchasing power of producers throughout the country would have been seriously injured.

#### Supply and Demand

In January, 1915, I began to buy wheat. Prices had been affected temporarily by the restricted exportations caused by the difficulties in the way of handling grain in foreign ports and also by the troubles on the sea. Great Britain, for example, had seized \$15,000,000 worth of meats that had been shipped from Chicago, consigned to neutral countries. There were rumors that President Wilson might declare an embargo on grain shipments.

Then there was an announcement that United States attorneys, because of com-

plaints from bakers, were going to investigate a so-called market plot by means of which prices were supposed to have been advanced. It is true that the upward trend was apparent once more, but it seemed to me then, as it does now, that there could not be a more elemental case of supply and demand. Millions of men had been withdrawn from the farms of Europe and sent into the battlefields, and the tremendous supplies of wheat in Russia were shut off from the markets they normally served as effectually as if there was no such land as Russia.

Proof of this functioning in response to supply and demand was offered for any thinking man by the promptness with which a slump in price followed the launching of the British expedition, fostered by Winston Churchill, against Constantinople and the consequent hope for the opening of the Dardanelles. The accumulation of evidence that Italy was planning to cast her lot with the Allies, which action was then believed to foreshadow the end of the war, also served to depress prices. Even so, prices were high, and the reason was not far to seek. In a bull market your greatest bull is the farmer. The farmers were holding their grain back from market. They wanted still higher prices.

Production that year—1915—was the greatest in our history, exceeding 1,000,000,000 bushels.

Up in Canada near the end of the year the government decided to commandeer all wheat at the head of the Great Lakes or eastward at a price of \$1.04 a bushel. This meant the seizure of about 20,000,000 bushels, and the exchange in Winnipeg was demoralized by the action; but it meant higher prices in the American market, because other nations were forced to turn to the United States for grain.

On December 27, 1915, bulls in Chicago—myself among them—sold large

quantities of wheat at \$1.28 $\frac{1}{4}$ , much of which had cost \$1.04 earlier in the month. The price would have been as high if there had been none but European grain buyers in the market. They were not skilful buyers.

One night during the week between Christmas and New Year's of 1916, I had two visitors. Doctor Rumely had written to Mrs. Patten that he wanted to bring a gentleman to see me, and she had invited them for dinner. Six-thirty, the time set for dinner, came and they had not arrived.

At seven the bell rang and I went to the door. There was a cab outside. Doctor Rumely had arrived with the gentleman about whom he had written. He introduced him.

#### Looking Forward to Peace

The man was Dr. Heinrich Albrecht, or, as his name was spelled in our newspapers, Doctor Albert.

"Go right in to dinner," I told them, and when, at the conclusion of the meal, Doctor Albrecht said he wanted to have a talk with me, I led the way into the library, where we sat down with cigars.

Doctor Albrecht was a fine-looking man, about fifty then, I should say, and at least six feet tall. He spoke English fairly free from any German accent.

A few weeks prior to this visit the Pope had made a move designed to bring peace. The liberals of Germany were also working for peace, or so we were being led to believe.

"Mr. Patten," began the doctor, "I've come out to see you because I want to know how to buy a lot of wheat."

"For Germany?"

"Yes."

"Have you got ships?"

"Yes."

"Where are they?"

"Lying in your harbors. Interned."

"You mean the war is going to cease?"

"Yes, sir."

"How much wheat do you want to buy?"

"Sixty million bushels," Doctor Albrecht replied.

"You can't get it." It was preposterous. "America could not afford to export so much."

"Even so," he went on, "I want to get as much as I can and we want to buy a lot of other commodities right away. Copper, for instance."

"Well," I told him, "if you attempted to buy large quantities of cash wheat it would be known at once. You will put up the price quite as if you went to any other auction sale and bid against yourself."

"How shall I go about it, then?"

"What I'd do," I told him, "would be to buy options. You can trade options for cash grain. You can do that also with provisions. Then, if you should be mistaken, if peace does not come, you can get out with a small loss. But if you buy cash wheat and then have to dump it back into the market your loss will be tremendous."

He thanked me for my advice and left. I do not know whether he ever began to follow the course I suggested, but we all know that peace did not come.

I told that story to Samuel Insull, who is one of my friends, and afterward, in 1917, when there was a big bazaar held in Chicago for the Allies, he repeated it to an English officer who was there in charge of an exhibit of guns. Then Insull called me on the telephone:

"Recollect that story about Doctor Albrecht? I wish you would tell it to an English officer that I am sending to see you."

The Englishman came and I told him about the incident.

"That explains where he disappeared to," he exclaimed. "We had spies shadowing him when he left New York on the Twentieth Century, but when the train arrived in Chicago he was not

on board. We had a devilish time picking up his trail again."

Afterward I found out that Doctor Albrecht had left the Twentieth Century at Elkhart about six in the morning, had taken a car to South Bend to a factory to discuss the purchase of farm machinery, had come on in the late afternoon to Chicago, and thence to Evanston to keep that appointment with me.

Misunderstanding of those forces in the grain pits was even greater in those times of stress than in normal periods. People want to believe sensational things. They find facts dull and unconvincing.

In the fall of 1916, when American irritation with Germany's submarine policy was reaching the breaking point, I was visiting the Produce Exchange in New York and a Hollander spoke to me.

"What are you bulling the price of wheat on us for?" he said.

"Eat corn," I said.

"We don't like corn," he objected.

"Before long," I warned him, "your people will be glad to get corn or anything else that is edible."

After America got into the war I did not buy a bushel of wheat. I sold out when it touched \$1.50. I thought it was too high because it did not seem to me that a bushel of wheat could be worth so much money. In Old Hutch's corner back in 1888 wheat had gone to two dollars, but that was an extraordinary squeeze, and when I sold at \$1.50 I had not the faintest notion that I would see the time when the men in the pit would be howling for wheat at \$3.25 a bushel. I did not anticipate the high prices that would be paid for labor.

#### Fantastic Farm Prices

I thought the price was too high at \$1.50, and besides I did not want to be accused of putting it any higher. So I made up my mind to stay out of the market. I kept that resolve, but when

wheat did go to \$3.25, I took some action that kept it from going any higher.

That was in connection with the greatest wheat corner in the existence of the Chicago Board of Trade, which occurred during the war. It was the work of buyers for the British Government, helped along by the purchases of grain buyers for other foreign governments.

Some of the difficulties of certain farm areas in 1927 may be traced, I think, to the high prices paid for grain in those days. It is not strange that farmers who discovered their land was producing a commodity that sold for \$3.25 a bushel in the open market at Chicago should develop fantastic ideas as to the value of that land. Farmers were getting extraordinarily high prices for grain as late as 1920, with the result that some of them found buyers who were willing to pay as much as \$1,000 an acre for farm land that only three generations earlier could have been had as a gift from the Government.

All of us were worried about the situation in the grain trade. The ships that had been sent to the bottom of the ocean by German submarines had shortened supply just as it is shortened in peaceful years by frost or black rust or unfavorable planting conditions. Every grain-laden hull rent in mid-ocean by a German torpedo meant the destruction of the product of tens of thousands of acres of American farm land. Every shipload of grain that was sunk was a factor in raising prices in the pits on the floor of the exchange. Every time a ship was sunk the buying increased, until the Allied governments owned contracts for many, many millions of bushels of grain.

I had not owned a bushel of wheat since the price passed \$1.50, and it was \$3.25 a bushel when George Marcy, of the Armour Grain Company, invited me to attend a luncheon at the Chicago Club

for the men who were in Chicago to buy wheat for the Allies.

One of these was A. G. Anderson, of Liverpool, Chairman of the Royal Food Commission of England.

#### Hedging in Wheat

"I'll come on two conditions," I told Marcy. "Invite the United States district attorney, Cline, and give me a chance to talk." Marcy agreed. Cline had been asked by Washington to investigate the high prices, and I thought this would be an excellent chance to tell him what he was trying to find out. This was about May, 1917.

There were present at the luncheon a number of men prominent in the grain trade, about twenty-five all together. Mr. Anderson, who had been for many years in the grain business in Liverpool, talked after we had finished eating. He explained how the pressure on the available shipping made the Allies dependent for their food supply on the shorter haul from America, and expressed concern at the prices they were having to pay. When he had finished and his colleagues had spoken, John C. Shaffer, the newspaper publisher, who was presiding, turned to me and said:

"Mr. Patten, would you like to say something?"

"Yes," I said, "I'd like to ask these gentlemen two or three questions." Then I turned to the English wheat buyers:

"How much May wheat are you long?"

They looked surprised, but answered by saying, "Twenty-nine million bushels."

"Did you buy any more today?"

"None today," they said.

I turned to J. Ogden Armour. "Are you long wheat?"

"No," he said.

"Well," I added, "neither am I, and somebody is telling a wrong story. On the board this morning one of the brok-

ers—a reliable one, too—came up to me and said he had just bought 100,000 bushels of May wheat for the Easterners. He meant you gentlemen who are buying for the Allied governments."

They denied positively that they had bought any wheat on that day. Then Marcy spoke up:

"I can explain this transaction," he said. "Portugal has been in the market for 600,000 bushels of wheat. They tried to get it from the Armour Company and we did not have it for them; but I happen to know that they have bought from a Duluth firm, which, having sold it to them, has hedged by buying 600,000 bushels in the wheat pit."

"There," I said then, "is a picture of what is going on. Gentlemen, we are getting into a serious situation. Everybody is long and there is not available the wheat to deliver to those who have bought it."

Wheat was \$3.25 a bushel that day. I turned to Cline, the Government attorney.

"What price do you predict that wheat will go to?" I asked him.

"I think it will go to eight dollars," said he.

"It will go higher than that if we do not take some action," I predicted. "We have got to do something or else somebody will come along and do it for us."

"The Board of Trade is not responsible for these high prices, but the machinery of the Board of Trade is being used to put the prices up. The president of the board should call a meeting to deal with this situation."

They all agreed to that, the meeting was called, a committee was appointed to draft a plan and I was a member. We held our meeting at the Union League Club. It was a long session, lasting all day Saturday and Sunday, interrupted only when we stopped to eat. When we had concluded our work, Charles Pierce presented to the directors of the Board

of Trade a resolution that we had worked out, and it was adopted forthwith.

We were dealing with an unprecedented corner and what we did was to frame a rule which prohibited anyone from going long another bushel. Anyone could buy the amount he was short; and anyone could sell short, but if a purchaser paid more than \$3.25 a bushel he became subject to discipline by the board of directors.

The new rule was flashed to grain exchanges everywhere; it reached the 20,000 country elevators and millions of farmers, with the result that country speculators, small elevator proprietors, farmers and others began to sell. Since the market was at its peak, obviously there was nothing to be gained by holding the grain any longer. Wheat broke a dollar a bushel, and the St. Louis and Kansas City exchanges followed the example we had set.

No other action could have had the same result. If the price had gone to five dollars the farmers and small elevators that were holding grain would have continued to hold it in the hope that it would go still higher, and if the foreigners had continued to buy in competition with themselves and the shorts had been forced in, it might have gone to unknown heights.

#### In the Grip of Fear

The large hedge that I had inquired about at the luncheon at the Chicago Club was just a sample of no one can say how many deals of the sort. European buyers were ordering grain from anyone who would promise to deliver it. Those who contracted to deliver, not having the faintest idea where to get the grain in order to protect themselves, would go into the wheat pit and buy a similar quantity for future delivery. This frenzied buying, buying, buying turned the pit into a maelstrom.

Still, I do not know that it could have

been done any differently. The foreign buyers were urged continually, I suppose, by their governments to get more wheat. A fear-psychology ruled Europe then. They feared defeat and they feared famine. No matter how fast the price advanced, they would take all that was offered. The rural regions went wild. Everyone knows what happened to the price of farm lands, and yet, when deflation came there was a disposition to blame the Government, which happened by that time to be in the control of a Republican administration. Deflation had to come.

The action growing out of that luncheon I have described was not prompted by the Government. It was a voluntary action by the men of the grain trade; nevertheless the time was coming when the Government had to take control, just as it had to take control of the railroads and take possession of the bodies, the lives, of its citizens.

Wheat, it should be remembered, is one of the chief raw materials of human energy. In 1917 we had to deal with a variety of extraordinary circumstances. The acreage sown in the fall of 1916 was 21 per cent larger than in any year since 1912, but the acreage harvested was less than any year since 1912. More than 13,250,000 acres had to be abandoned that year because of unsuitable weather. Such a condition taken by itself in an ordinary year would have justified a bull campaign. Besides, the submarines of the Germans were taking a toll of supply day after day.

The loss of ships loaded with wheat may not have been as dramatic as the loss of the Lusitania, but it constituted a much greater threat to Allied success.

On the demand side there was our own increased consumption, due to heightened industrial activity. Bigger pay rolls mean bigger meals; increased work means increased appetites. In Europe there was lessened production and waste,

an almost complete dependence on American sources of supply, and to make all other matters worse, there was a breakdown in railroad transportation in the United States and a desperate condition at sea.

#### Mr. Hoover Steps In

It was imperative that this situation be controlled. Congress passed the Food and Fuel Control Law, known as the Lever Act, which became effective August 10, 1917. The following day Herbert Hoover, as United States Food Administrator, appointed to exercise the powers conferred by this act as it related to food, sent from Washington this letter:

BOARD OF TRADE,  
Chicago, Illinois.

*Gentlemen:* You are no doubt familiar with the provisions of the food bill as to exchange trading. I am, however, keenly desirous of securing the most friendly cooperation with the exchanges to effect a common national interest. Some time since, the exchanges met the total breakdown in the international wheat markets by constructive action on their own part.

On September 1, 1917, we propose to undertake Government purchase of wheat at the interior terminals with a view to stabilizing the price and to furnish a sure market for all arrivals.

In these circumstances I feel you will agree that trading of quotations in wheat futures will no longer serve their fundamental purposes and that such transactions will confuse rather than stabilize the price.

I therefore would be glad if you would take the necessary steps to suspend dealings and quotations in futures in wheat after the above date.

Three days after Mr. Hoover had written his letter a rule was posted on the floor of the exchange which said:

After the twenty-fifth day of August, 1917, all trading by members of this exchange in wheat for future delivery, in store by grade alone, in Chicago, shall cease, and any members so trading after said date

shall be deemed to have committed a grave offense against the good name of this association.

Nearly 100 representative grain men of the country went to Washington to confer with Mr. Hoover and with another grain man, Julius Barnes, of Duluth, who had been made president of the United States Food Administration Grain Corporation. A former president of the Chicago Board of Trade, Hiram Sager, attended that conference for us. From that time on until the end of the war the machinery of the grain trade, the elevators, the forty-odd grain exchanges of America became an instrument of the Government.

From the end of August, 1917, until July 1, 1920, prices were largely controlled by the Government and no future trading in wheat was allowed. I think there is a lesson to be learned by those persons who think that speculation induces price fluctuations. It does not; and a comparison of the fluctuations in wheat prices under the thirty-four months of war-time government control without future trading in wheat with any similar length of time in the history of the Chicago Board of Trade will show that there was more fluctuation without future trading than there was with it.

I had other things besides the wheat pit to worry about during the war. My boy Jack, was under age, but eager to get to France. This was before we had started to send to France transports freighted with our young men. Jack was a skilled chauffeur, and so, when he said he wanted to go over and drive an ambulance, I told him to go ahead.

"You will be lonesome over there," I told him, "so I would advise you to go along with some other Evanston boy who wants to go. You won't get enough money as an ambulance driver to pay for a cigarette a day, so if you find a companion I'll keep both of you supplied with money."

I went to New York with them when they were ready to sail, gave them more money than they needed, and told them if there were any other young fellows with whom they wanted to share it, to do so and I would send them more. There was not very much you could do for those boys after they set foot on a ship for France.

Jack's ambulance driving was up around Verdun. One of the other boys told me, afterward, how a German officer captured there by the French had boasted that the Germans had refrained from shelling the ambulances in daylight. They shelled the roads impartially at night, of course. The lines were very close there.

"We can see your ambulances plainly in the daytime. One of the drivers has red hair."

The redhead was Jack.

When his term of service in the ambulance corps expired he wrote me that he wanted to go into the American aviation. I wrote back asking him to see if he could not join Charley Dawes' regiment, the Seventeenth Engineers, which contained many Chicago men. He enlisted in that regiment and was in an officers' training camp when the Armistice was signed.

A. Stamford White was president of the Board of Trade in 1918 and died in office. As vice-president of the board I succeeded to the office and served out his term. The wheat pit was an idle piece of furniture then under wartime governmental control, and after a time we moved the corn traders into the wheat pit. Future trading in the coarse grains was only interfered with from time to time.

The Government had established a basic price of \$2.26 a bushel for wheat. If anyone with a stock of wheat could not get more than that sum from any other buyer, it could always be sold to the Government for the basic price.

There was no limit on the amount that might be paid for any of the cash grains, but there was a limited sum more than which might not be paid in future contracts for the coarse grains.

The cash-grain trade was in a state of chaos. A man could not find out what the price of grain was. It is difficult for an outsider to imagine the state of confusion that is caused by arbitrary interference with economic machinery.

#### The Gleaner

At times when prices kept going up farmers who were in a panic because there were no freight cars to haul their grain to market discovered that they had made as much as a dollar a bushel as a result of the enforced delay.

A jesting statement made a long time ago by P. D. Armour to George S. Thurber, who was then working for Frank Logan, is still repeated on the floor of the exchange.

"Better come to work for me, Thurber," said Armour; "I'm going to make a skating rink out of the Board of Trade."

There were times during the war when some of the men in the business felt that their market place might just as well be used as a skating rink.

One person who profited during the war was Joe Hudlum, the colored janitor of the exchange. The bootblack who seized the maniac who fired into the pits during the World's Fair was his brother. Their father had been janitor from the time the Board of Trade was organized until he died, about 1895. Then the son succeeded him, and has been the janitor since then. One of his perquisites has been the grain that spilled to the floor and was left on the cash-grain tables from the sample sacks.

The litter that was swept from the aisles between the cash-grain tables during the war was precious stuff that brought Joe Hudlum a daily harvest of

cash. The corn meal that government regulations required housewives to take in equal quantities with the white flour they bought in wartime may sometimes have been thrown away, but no grain was wasted around the Board of Trade. If any fell to the pavement from the sample sacks that were brought into the building, there were waiting to peck it up the pigeons that have roosted under the eaves of the Board of Trade as far back as my memory goes. The pigeons that strut about in front of St. Mark's in Venice have no more iridescence in their feathers than our birds; but the Italians seem to set great store by those pigeons at St. Mark's and vendors make a living by selling small bags of grain to tourists who enjoy feeding them, while our pigeons are regarded as merely a Chicago nuisance.

There are people, not thoughtful, who sometimes express themselves as if they thought the Board of Trade was merely a Chicago nuisance, yet if it were made to disappear they soon would discover how wrong they were. Once, in 1896, the German Reichstag passed a law abolishing future trading in grain. The farmers of Germany were strongly organized and had sufficient political power to enforce their will on the lawmakers. What happened?

#### The Sustaining Influence

Price fluctuations increased because the stabilizing influence of the speculative money was gone. The small dealers and commission men could no longer make a living, and abandoned the market to a few very rich men. Large transactions were made in secret, which was surely the reverse of a blessing to the farmers. Country dealers, corresponding to our country elevator proprietors, began to pay the farmers less and to charge their own customers more. After four years the Germans, farmers and all, had had enough. The law was repealed and

Germany reverted to the system of future trading that is used on the Chicago Board of Trade.

Under wartime control we had no real future markets, even for coarse grains. The future market on corn was a curbed market; dealings were limited and regulated. It was not a free market. The cash market was free. This inequality destroyed the relation between the two. Consequently corn was handled on a profit margin of many cents a bushel, instead of the cent a bushel or less of normal times under a free hedging market.

A man may descend from the top of a high building by jumping down the elevator shaft, or else he may descend by riding down that same shaft in the elevator car. Farmers sometimes complain that short sellers depress the market, yet it should be clear to anyone that the bears, the short sellers, are the one reliable sustaining influence in a falling market. They have to buy when the market goes down in order to get the profit for which they have been aiming, and their buying undeniably slows up the downward trend.

There are only a few speculators standing between the producers of wool in this country and the manufacturers, because there is no organized wool exchange for future trading and a comparatively small group of buyers. Instead of a corps of understanding speculators with capital standing ready to buy wool any hour of any business day, the producers may only hope to sell their wool to manufacturers.

Sometimes the manufacturers, because they cannot hedge their purchases, and for other reasons, withdraw from the market. When that happens, as it did happen in 1920, the bottom drops out of the wool market. There is no short interest to come in and take up the slack. The best price a producer may get in

such circumstances is considerably less than his product is worth.

A free and open market is desirable always, I think. Naturally, though, skill has its uses in such markets. Give 100 men the same kind of tackle, access to the same bait can and set them to fishing in the same pool and certain men among the 100 will catch more fish than the majority. Some men can run faster than the majority, and some can think faster.

One of the best traders I have ever known was Billy Long; he is dead now. We gave him an order to buy several hundred thousand bushels of corn. Billy was a corn broker. Instead of going into the corn pit and bidding, he went in and offered to sell at a quarter of a cent over the market. The crowd there laughed at him, and some of them yelled, "Sell you fifty!" "Sell a hundred!"

All the men in the pit who had commissions to sell were offering it, and at the market price. Suddenly Billy said: "Take it all," nodding to the sellers clustered about him, so that we got our hundreds of thousands of bushels of corn at the same price, instead of having to pay an ascending rate as a penalty for strengthening the market. That was skilful buying disguised as a jest. Billy was a quick thinker and he had an amazingly good memory. Quick thinking and a good memory are fine tools for a trader in the grain pits.

So many of the traders who were considered a part of the scenery when I was active have disappeared that it is a bit saddening to contemplate the activity there and note their absence. One of the conspicuous figures in the old days was Josiah Kirby. I remember him as invariably incased in a long frock coat, a high-crowned silk hat on his head, and a fat umbrella held in the hand he carried behind his back. Jim Rankin, another floor trader, is retired now. Charley Buckley is well-to-do and out of the turmoil. There were many who traded there

but a short time. How many persons, I wonder, who when they read in the newspapers of another yacht challenge being issued by the British merchant, Sir Thomas Lipton, recall that in 1900 he was a member of the Chicago Board of Trade and in October of that year ran a corner in pork? Barreled pork, incidentally, has disappeared from the market. It is no longer a trading commodity on the floor. There have been many changes and many of the traders of 1927 are the sons and grandsons of the men who were traders when I first came to Chicago. The present head of the Cudahy Packing Company is the same individual who as a little lad, though it seems only yesterday, was kidnaped from Omaha.

One change that the farmers did not desire was the end of wartime control of the grain trade. When it was seen that the Government was preparing to retire from the grain business, representatives of farmers' organizations went to Washington to urge what they asserted was a need for a continuance of the uneco-

nomie arrangement. The spokesman for the farmers' organizations contended that it was costing the farmers of the Northwest \$2.49 a bushel to produce the wheat they were selling to the Government for \$2.26. They wanted the price fixed at \$2.70 a bushel. Congress maintained the price at \$2.26 and the farmers of the Northwest planted one of the biggest acreages ever known.

I am not denying that the farmers are having trouble, but that trouble is due to oversupply, or, what amounts to the same thing, lessened demand.

On the morning of July 1, 1920, when the bell rang for the resumption of trading, the corn brokers went back to their own place and the wheat traders, buyers and sellers, after thirty-four months, confronted each other again in that queer wooden dish we call the wheat pit. Without the artificial support of Government money wheat prices broke right down and kept declining. Supply and demand were contending again.

## IN THE WHEAT PIT

### CHAPTER VI

**S**PECULATIVE corners in grain are a thing of the past in the United States. Public sentiment is against them, and that is a force which can make itself felt in this country.

There was always a rumble of discontent after every one of the spectacular deals on the Chicago Board of Trade, which were too loosely, I insist, called corners. Tight situations in the market were invariably spoken of as corners.

Back in 1888, when Old Hutch held contracts for the delivery of more September wheat than the men who had sold those contracts could deliver, he settled with some of them at a price of two dollars a bushel. That time a man named T. V. Powderly, head of the Knights of Labor, issued a circular inveighing against corners in foodstuffs. Whenever Armour or Old Hutch or myself was successful in anticipating a shortage of grain with the result that the men who had guessed wrong—the shorts—began frantically to bid up the price on themselves, traders would say of the successful operator:

"Well, the angels have kissed him again."

The traders used that expression, but there were always people who felt that they had to talk about a subject whether they understood it or not who would say much harsher things. Before the war the board had adopted an anticorner rule. Under that rule a seller could not be pinched for more than the commercial value of the grain, plus a penalty of from 1 to 10 per cent. Finally, after we had gone through the war with the Government in control of the grain trade, the feeling that corners were immoral was expressed in a piece of legislation which seems to have made it possible for the Board of Trade itself to outlaw corners.

With the advice of the Supreme Court of the United States to help read itself around constitutional obstacles, Congress, in 1922, found a way to give control of future-contract grain markets to the Department of Agriculture by treating the movement of grain from farms to consumers as a stream of interstate commerce.

#### The Long and Short of It

Since the passage of the Capper-Tincher Bill, which is now known as the Grain Futures Act, the Chicago Board of Trade and other contract markets in the country operate in accordance with rules and regulations made by the Secretary of Agriculture. Those rules were designed to provide him, at any time he requires it, with information about any transactions in the market.

As long as there is intelligent administration of the Grain Futures Act there is not likely to be any hurtful economic result from this control. In so far as the Federal law by licensing the contract markets makes them legal enterprises, it is a good thing. Any time that the Secretary of Agriculture finds that his rules are being disobeyed, the law says he may, with the consent of the Attorney-General and the Secretary of Commerce, sitting with him as a commission, revoke the designation of an offending market and thereby suspend its operations. I do not think there is even a bare possibility of that ever happening so long as there is at Washington an administration interested in the welfare of the country's farmers.

In the present scheme of things it is a committee of the membership of the Board of Trade which acts to prevent corners. Members of the committee pledge themselves to the exchange that

they will not speculate for their own account in any commodity traded in on the Chicago Board of Trade during the period of their service.

The business-conduct committee, as it is called, is charged with the duty and authority to prevent manipulation of prices, as required by the Grain Futures Act, and has general supervision over the business conduct of all members, particularly in so far as such conduct affects nonmember customers, the public at large, the state government, the Federal Government, public opinion and the good name of the exchange. The committee may employ auditors or other kinds of assistants. The findings and conclusions of the committee, based on its investigations, are final and without appeal. If it orders a member to desist from a certain course of conduct and he fails to obey, or if he fails to submit his books and papers for examination when ordered, he is charged with an offense against the Chicago Board of Trade. Conviction means expulsion, or at best, suspension. Such a penalty is as serious for a grain trader as disbarment for a lawyer or unfrocking to a clergyman. It seems to be a sufficient threat.

The business-conduct committee keeps a watch on the volume of trading, and when the members discover that the market is out of balance, that bull traders hold contracts for the delivery of more grain than there is in the market, they order the long interest to sell. It has always been the shorts who have sent prices skyrocketing in a tight market, and the critical time occurs in the final days of a delivery month. Nowadays the business-conduct committee of the Chicago Board of Trade surveys the situation before that final mad scramble for grain is likely to occur. They may say to a short, "You buy at once." They may say to a long, "You sell at once." It is a czar-like power that is wielded by this committee, authority that is dele-

gated for the time being by the Secretary of Agriculture, on the theory that it is better for business to regulate itself than to be regulated by bureaucrats.

#### With the Help of a Futures Market

This is the line of authority: The Government can close an offending contract market, though it cannot penalize an individual trader; but the Board of Trade, which can penalize a trader, stands ready to do so to keep from being closed up. It is effective control and it came about in a curious way.

When the wool market went to smash in 1920 there was a conference in Washington to see what could be done to relieve the sheepmen. The sheepmen said they would take a fair price for their wool; the manufacturers said they would pay a fair price; and the bankers said they would loan money on wool on the basis of a fair price, but nobody knew what a fair price for wool might be. That situation convinced a lot of politicians that a futures market is as valuable as business men know it to be, but there was no way to establish a futures market for wool in a hurry. The grades were not standardized.

Naturally anyone invited to buy wool would want to be sure of the kind of wool that would be delivered to him in the future. This market machinery cannot be created overnight, and the politicians began to see that a futures-contract market was not precisely like a roulette wheel.

After government control of the grain trade ceased and trading in wheat futures was resumed, the price of wheat declined, but the decline was cushioned. The contrast between the behavior of the wool and wheat markets was a lesson in economics for many men of influence in Washington.

During that period of deflation a number of politicians were embarrassed because they had been advising the farm-

ers to hold their wheat for three dollars. When the decline set in, the farmers were looking for explanations and the politicians said that the grain exchange was at fault. They talked of putting the exchange out of business. Their idea seemed to be that by smashing the thermometer they could change the weather. A bill was drawn up that provided machinery which would have made possible the worst kind of manipulation.

Herbert Hoover was called before the Agricultural Committee of the House at that time and was asked if future trading would have made a market for wool. He said that it would have done so beyond question. Mr. Hoover told them that if there had been a futures market for wool there would have been a price for wool. None can say what the price would have been, but there would have been a price. That bill was dropped from consideration, but in the session of Congress that opened with the inauguration of Harding, in March, 1921, there was presented a new bill. That was based on the taxing power of the Government. It was passed, but was held to be unconstitutional by the Supreme Court in an opinion which informed the Congress what form such a bill ought to take. In a new form the Capper-Tincher Bill was passed in August, 1922, and after surviving an attack in the courts the Grain Futures Administration of the Department of Agriculture began to function in July, 1923.

As the act had given the Secretary of Agriculture the right to call for the most detailed reports of trading, his subordinates began to gather that information. The first effect was a reduction in the volume of trading. Some poorly informed people were led to believe that the Grain Futures Administration had the power and the desire to prevent speculation, and many old traders were so annoyed by the thought that all of their transactions were being spied upon

that they stopped trading, or else they dealt in the Winnipeg market.

The poor farmer! How often he is misled by the very people who pretend to be his friends. In the fall of 1924, when Coolidge and Dawes were campaigning against Davis and Bryan, an advance in wheat started, and some of those behind the third ticket said it was all a part of the Republican propaganda system. It was an absurd assertion, yet many farmers ignored the world statistical position of wheat and took that statement at its face value. They sold their wheat; and after election the market continued to advance. Wheat was scarce.

During the winter there was an erratic market. Wheat went up to \$2.00 and then dropped to \$1.50, and finally stabilized around \$1.75. There was another outcry; not against supply; not against demand; but against the market. This time the complaint was from consumers and it was voiced by labor unions. About that time the late Senator Ladd of North Dakota introduced a resolution in the Senate calling for an investigation of the exchange, to be made by the Grain Futures Administration.

#### When Coolidge Told the Whole Story

Finally Secretary Jardine of the Department of Agriculture asked officials of the grain exchanges to come and see him. He told them that sharp fluctuations in the price of grain were detrimental to the country. He confessed he did not know how to remedy the situation, but said that was something for the men in the trade to figure out. What was being complained of at the time of the conference was the drop in the price of wheat. You never hear any complaint from the farmers when the price is going up and you never hear any from the consumers when the price is going down. It just depends on whose ox is gored.

As a result of that conference with Secretary Jardine the grain exchanges worked out a plan for a new clearing-house system; control was to be taken of the volume of transactions; irresponsible traders were to be kept out of the markets; and finally, and most important, an agreement was reached for the establishment of business-conduct committees at each grain exchange. These committees were to make it their business to see that there was no manipulation of the market and try to prevent widespread participation of the general public in the trading where that was likely to work to the detriment of the market.

The appointment of such a committee by the Chicago Board of Trade was a crystallization of an idea that had been slowly taking form through the years the exchange had been in existence. As the arrangement now works, the Government has the power, but the exchange has the responsibility and exercises it.

Just fancy how Old Hutch would have sworn if he had been alive in 1926 and had received a circular from the secretary of the Board of Trade informing him that he would have to report to a government clerk the net amount of grain he was long or short. Try to picture how such a condition would have seemed to Ed Partridge or P. D. Armour or Ream. I can say for myself that I did not like it a bit. I know plenty of men who said they would never trade so long as there was any such rule in force. Some said they would do their trading in Winnipeg.

All transactions above a certain size had been reported to the Grain Futures Administration office by the commission houses prior to that order in January, 1926. It was not so offensive to traders when they did not have to make the report themselves, but when they were told they would have to make their reports in person some of them hit the ceiling.

That order was in operation until February, 1927.

There was fear in Washington then that there would be a bad break in the grain market when the news was given out of the President's veto of the McNary-Haugen Bill. There was ground for such fear, because if the bill had become a law the Government would have entered the market as a heavy buyer of grain. There had been considerable buying of wheat in anticipation of government buying and the veto was expected to cause some unloading. The Administration did not want a break in prices.

Consequently, when a petition was drawn up by the business-conduct committee and sent to the Secretary of Agriculture asking for the rescinding of the rule requiring the names of customers to be sent into the Grain Futures Administration office, it was a timely document. The rule was changed. Names were no longer required as a part of routine reports. The result of this was just what had been expected. Speculators who had been staying out of the market through pique began to trade once more, and the weight of their purchasing was more than enough to make up for the contracts that were sold by men whose buying had been done in anticipation of heavy purchases by the Government. When the McNary-Haugen veto was announced the market, instead of slipping, advanced.

It is so clear to me that I am strongly tempted to be cross with people who do not see it. Any farmer knows that when the furniture, machinery and livestock of a farm are sold at a country auction better prices are obtained when there are many bidders than when there are only a few. If they will keep that thought in front of them when they cogitate on the grain-marketing problem they will understand that it is to their interest to have many bid in those auc-

tion sales held each day in the grain pits. If the market is left free and open there will be plenty of bidders, but if the experienced scalpers and other traders of the grain pits are ever scattered through hurtful legislation it will be a difficult thing to round them up again, something more complex than hog calling.

Corners were the objects of much of the criticism of the past, and now corners have been abolished. All the big exchanges have created machinery that is designed to prevent them. The New York Stock Exchange had so many corners that the leaders there finally appointed a business-conduct committee. When there is any unusual trading in a stock listed on that exchange the committee calls for reports and then takes arbitrary action intended to break the impending corner. The New York Cotton Exchange stops trading to prevent corners. Trading in futures is discontinued five days before the end of a delivery month. That is intended to induce a more orderly adjustment of open contracts. But if future trading should ever be abolished in our commodity markets, there would come a time when grain will be as difficult to sell as barnyard muck.

It is not my purpose to deny that the prices of grain and some other farm products have been unsatisfactory in recent years, but the condition is not going to be improved by quack remedies. Everything that needs to be said on the subject was written by President Coolidge in his message to the Senate that accompanied the vetoed surplus-control act.

"The chief objection to the bill," he wrote, "is that it would not benefit the farmer. Whatever may be the temporary influence of arbitrary interference, no one can deny that in the long run prices will be governed by the law of supply and demand. To expect to increase prices and then to maintain

them on a higher level by means of a plan which must of necessity increase production while decreasing consumption, is to fly in the face of an economic law as well established as any law of nature."

I became enthusiastic when I read that veto message, because it expressed so well the criticisms that were in my mind. Coolidge grew up on a farm and surely there is no one who would dare to say that he is unsympathetic with the farmers. I was raised on a farm and worked as a farm hand before I came to Chicago. Recently I received word from some of my old neighbors out near Sandwich, Illinois. They wanted to talk to me about farm conditions. They wanted my opinion. Out there they remember my grandfather as a farmer.

#### A Superman Needed

He lived to be eighty-six, but he fed his hogs right up to the day he died. They have told me that when he called his hogs he could be heard for two miles. I do not pretend that I am still a farmer, although we have a farm, where Mrs. Patten raises goats. Actually, I suppose, I am the goat, because it is impossible to produce and sell goat's milk at a profit even when the price is fifty cents a quart.

There is a demand for more of the milk than we can produce. Mrs. Patten first became interested in it through her interest in hospitals. Goat's milk is the nearest thing to natural food for infants that has been found, and producing that food is a life-saving work. Children that may be starving for want of a food that will nourish them and which they can digest thrive on goat's milk. It is excellent, too, for old people. I drink it twice a day. Charles Stevens, the Chicago merchant, also raises goats and is the head of a national association of goat raisers. The milk is a vital food for many sickly children.

If we were to give up our goat farm and no other person carried on the work, it is conceivable that some babies might perish for want of this form of sustenance now supplied to them by our enterprise. Yet all of us are just as dependent on others for the food we eat as those ailing babies. We are dependent upon the farmers, and when the farmers are in trouble every American ear should be keenly tuned to hear a remedy for that trouble.

Some of the farmers—a large proportion of them—have seemed to think that the remedy might be found in a wide application of the principle of coöperative marketing of their products. If it comes, it will be a slow growth and not the sudden creation of political magic. It has worked well, I am told, in restricted areas where a single crop is grown for a limited market. Walnut growers, prune planters, and some other types of farmers have been successfully organized, but it would be an entirely different matter to try to organize the wheat growers or the corn growers or the cotton growers.

Wheat and corn are tied in with world forces. Where would the farmers find a leader with the ability to conduct so tremendous an organization? Such a man does not live, and if he did he would want a reward so large for his labor that no organization of ordinary men would be willing to pay his price. I think society is in too imperfect a state for the development of a satisfactory coöperative on such a scale as would be necessary to handle wheat.

The creation of super coöperatives is a dream of farmers, and I know that dreams have a habit of coming true when men long for their fulfillment ardently enough. A recent effort of ambitious proportions was called the Grain Marketing Company and was capitalized at \$26,000,000. For an understanding of the forces behind it

one must recall some of the abuses of which the industry has been cured.

After 1905 there was a rapid increase in the number of farmer-owned line elevators, or country stations, as we often term them. Farmers who had grown curious about the profits of those intermediary grain warehouses had discovered that in many of them there was a practice of accumulating grain until some railroad was persuaded to make a special, and secret, rate for hauling the grain to market. Those railroad rebates were a vicious thing. The farmers in the grain-growing areas decided that if there were to be extra profits made on their produce they would collect those profits themselves. So the farmer-owned country elevators grew in numbers rapidly.

There were also abuses in the handling of grain at the terminal elevators. Some of those abuses persist, but they are minor ones. Uniform bids by supposedly competitive dealers and other factors kept many farmers inflamed with the idea that because they were successful in operating 75,000-bushel elevators beside the railroad tracks at the station nearest their farms they would be equally successful in operating the multimillion-bushel terminal elevators at the water's edge in Chicago. Some extremists even thought that the farmers should maintain their ownership of the grain right through to the kitchen doors of consumers. They thought the farmers ought to control the flour mills.

If that is logical, then the farmers should own and operate the railroads that haul their grain to domestic markets and should, as well, own and operate the steamships that carry it overseas to the foreign peoples who are consumers of our surplus.

In connection with the handling of the period of deflation after the World War the idea was brought home to a group of Chicago grain men that it might be a profitable thing for them to sell their

terminal-elevator business to the farmers who were persuaded that coöperative handling of grain would solve the most pressing farm problems.

#### The Elevator Merger

For several years the terminal-elevator business had not been good and several were ready to go out of business. A significant thing was the fact that several big elevators that had burned down had not been rebuilt. Another significant thing for business men was the increasing evidence of the necessity for Chicago to rebuild her harbor. Wheeled traffic in Chicago is interrupted too often by the lifting of jackknife bridges at the edge of the Loop in busy streets to permit the passage of lake vessels in the river. The proposed remedy, which may not be applied for some years, is to transfer harbor activities from the Chicago River to the Calumet River, farther south. When it does happen some of the existing grain elevators will be marooned.

One Chicago elevator proprietor proposed to some representatives of farmers' organizations the formation of a gigantic farmers' terminal grain-marketing concern.

The new enterprise was called the Grain Marketing Company; it was capitalized, as I have said, at \$26,000,000, and brought about the merger of four terminal-elevator companies.

The properties involved in the merger had an elevator capacity of more than 50,000,000 bushels, with storage houses in Kansas City, Omaha, Minneapolis, Winona, Minnesota; Fort Worth, Texas, and other places, as well as big terminal elevators at Chicago, Buffalo, Cleveland, Toledo, Fairport Harbor, Ohio; Erie, Pennsylvania; Depot Harbor on Georgian Bay, and export houses in Galveston and Texas City, Texas, and Norfolk, Virginia.

Included as a necessary part of such an organization was a network of private telegraph lines, offices, information services and foreign connections.

There were engraved some handsome stock-certificate forms for issues of 2,500,000 shares of various classes of stock. The stock was to be sold to farmers.

#### An Unsuccessful Attempt

It purported to be a farmer-controlled organization, but as a matter of fact the contract provided that the management should rest with the owners of the properties until these were paid for by the farmers.

The merger was so large that it would not have been permitted except for the desire of the Government to aid the farmers, and the fact that it was not in reality going to be farmer controlled caused a bitter fight among the leaders in the farm organizations. While that fight was being waged stock salesmen were out in the grain fields trying to peddle shares in this vast corporate structure to the men whose planting and cultivating and reaping had created the original need for its separate mechanisms. But the farmers were slow to buy, even though their rural-free-delivery boxes were often filled with circulars of the stock-selling campaign.

A quarter of a cent a bushel was all it was going to cost to handle grain in the elevators of this mammoth system, it was sometimes stated. Actually, though, the costs were higher than in competing houses because the merger organization had too many men on its pay rolls.

In June, 1925, the Grain Marketing Company blew up. When it became apparent the sale was not going through, the banks declined to carry the stock of one of the affiliated elevator companies as collateral.

The Chicago man who initiated the deal had agreed to be the active manager

of the properties for five years and the farmers had been given a lease for a year, with an option to purchase at the end of that time. When it became apparent that the large organization was not going to be a success the farmers' representatives decided, of course, not to exercise the option.

The reasons the business could not succeed were varied, but fundamental. There was no real executive head. There was, instead, a board of managers. It was bigger than its organizers and was, therefore, not well organized. There was confusion. Each of the constituent companies had kept its entire force, knowing that if the farmers failed to exercise their option they would need their own organizations again to carry on as before the merger was undertaken.

One of the important factors in causing the farmers to back out of the deal was the character of the appraisal of the things they were expected to buy. The appraisal was made on a reconstruction value, less depreciation. The value set beside the word "total" at the foot of the appraisal was \$17,000,000. The owners had agreed to sell at whichever figure should prove to be lower—the price they set, or the appraisal—and the appraisal was \$900,000 greater than their original selling price. That made it seem as if the farmers were getting a bargain.

Some of the largest of the elevators that were included in that merger were wooden structures. They were included in the appraisal at their reproduction costs, and yet no grain man would think of building a wooden elevator today, because they all know that present-day lumber costs are prohibitive for such structures. A grain man would build his elevator of concrete, which is a cheaper building material and far more satisfactory to operate.

Very heavy sums were set down as the value of the going business and heavy values also were put on the leases. Many

of the olden wooden warehouses with obsolete machinery were owned by railroads and leased to the companies that had been operating them. I should have regarded some of those leases as liabilities.

The greatest problem in the elevator business is to keep space filled with grain. In recent years this problem has been a serious one. The physical handling of the grain has been taking place nearer the fields where it is grown, in Duluth, Kansas City, Omaha and Minneapolis. There has been a decentralization in this matter of grain storage. New demand centers have developed and changed the condition that existed when the country was new and had to have a big storage space at Chicago.

Storage facilities nearer to the fields where grain is produced save carrying costs. During the past twenty years many obsolete elevators have been torn down and not replaced, and in the same period storage facilities have been increasing on farms and at country stations. It is cheaper to store grain on farms than in crowded cities where all costs are high. In Kansas and Nebraska today the visitor may see tanks standing in the fields which are weatherproof bins for the grain grown in those fields.

If the big-city elevators are only one-quarter filled with grain their overhead is just as great as when they are entirely filled. Competition in the grain-warehouse business has grown to be as keen as it is in many other businesses. My friends in many lines of business are constantly complaining about the sharpness of competition today. Men who had this storage space on their hands, eating holes in their fortunes, often went out and paid more than the market price for grain in order to sell storage. There is another factor in this shift of storage demand. The entire railroad structure seems to me to be out of joint. It was altered to make more attractive export

shipments by way of the Gulf, and this, too, has helped to reduce the grain-warehouse requirements around Chicago.

#### The Jefferson Plowshare

It is a long way from the effort to sell millions of dollars' worth of stock in a cooperative-marketing scheme back to the days when my grandfather hauled his wheat sixty miles to Chicago in a farm wagon and unloaded with a scoop shovel, but it is necessary to think of the transition that has occurred to understand what really is the farm problem of the United States.

It has been caused by substituting engine power for the power of human muscles. America has retooled the agriculture of the world, but has been quicker to use the new tools than the farmers of other lands.

In the fall and winter today the traveler in Russia may hear the beat of flails on barn floors, a sound that would be recognized by the oldest characters named in the Bible if they were alive to hear it; but in America some of our farmers are using a harvester, sometimes called a combine, that cuts, threshes and delivers the threshed grain in sacks as it moves through the field. Three men do with a harvester what fifteen men could not do so well under former conditions. Contrast that with Ruth gleaning in the fields. It is not necessary to go back so far to make the contrast, though, because Ruth's method had not been improved in my grandfather's day.

One of my friends read to me one time about the result of a visit Thomas Jefferson made to Alsace just after the Revolution. There he saw a woman and a cow harnessed together and drawing a plow. The vote, he decided, would not lift that yoke; and he began to calculate the mathematical formula for the ellipse that would give to the mold board of the plow the curve that would offer the least resistance to the earth through which it

was drawn. He worked it out, Benjamin Franklin applied it to a deep plow, and it is the same curve that turns the furrows in our fields today.

Jefferson did not stop there, however, but kept on with his cogitations until he determined that men's minds needed to be stimulated to make technical improvements in tools. We owe our patent laws to Thomas Jefferson, and after him came McCormick with his mower bar that enabled farmers to use the muscles of horses instead of human muscles to swing a scythe through their fields. McCormick and Deering at Chicago, Oliver at South Bend, Deere at Moline, with the prairies around them, were inspired to discover ways to build better tools to cultivate that unexampled expanse of grain field and lessen the age-old struggle of humanity for food.

#### Tillers of the Soil

America thus broke the bondage of human muscles. Then 25,000,000 work animals appeared on American farms—an occurrence without precedent in the history of the world. Those horses ate much of the feed their muscles helped to cultivate. The horses in the city had to have hay and oats, and farmers made hay and oat crops to supply the insistent demand.

Then, about 1900, there began the next change, even more radical in its results. Here and there internal-combustion engines were harnessed to that machinery which horses had been drawing. Prior to that some engine power had been used for threshing, but the tractor was coming, and coming more swiftly than any man dared predict.

Canada was opened by the development of the tractor. Some farmers continued to grow hay and oats with their tractors, making feed for the work animals those tractors had displaced.

Today many of us are obsessed by the thought of the expenditure of power in

our factories, but more power is expended on the task of turning the soil once each year than is used in all the factories of the country. There are over eight miles of furrow in a single acre. On some of the great farms more than five square miles in extent the furrow that must be turned is long enough to belt the earth at the equator. It is a long row the farmer has to hoe.

It costs farmers who make a sound use of mechanical power far less to produce wheat or corn or cotton than it costs those farmers who have not progressed far beyond the hand-labor stage, or who still use mules that eat every day in the year, to perform tasks that may be performed better by machines that eat only when they are in use. With power on the farms, a smaller proportion of our population is able to produce so much food that we have a surplus to export. In George Washington's day 90 per cent of the people worked on the land. In Russia today 85 per cent are still living on the land. The trouble in America is that even the part of our people who remain on the farms is a larger percentage than is needed there. The rest of the world is too poor to buy our surplus. The farm problem is bound up with that surplus, and engine power has created the surplus. The time is coming when even fewer persons will be needed on the farms. Work must be found for them to do that will enrich life in other ways. It is because human society is imperfect that we can effect this change only with pain.

When the factory system first came it seemed a curse, because children were herded into those factories to operate the machines, yet we know the factory was a boon as compared with the drudgery

with which the same tasks had been performed in houses.

The cheap power that has upset the calculations of all of us has revolutionized life in the cities as well as on the farms. In Chicago, Samuel Insull, once the assistant of Thomas Edison, had the vision to see the need of a great power pool. About 1901, I think it was, Samuel Insull said to me:

"Patten, I want you to come on the board of the Commonwealth Edison Company."

I demurred, but he insisted, and I went on the board. Insull is one of the ablest men I have ever known. He is the son of an English nonconformist clergyman.

It was Mr. Insull's policy of constantly lowering the rate and of increasing the amount of power that has made possible larger turbines and better equipment. In the same way that farm drudgery has been eliminated by power, so has it been banished from most of the homes of Americans by cheap electricity that operates vacuum cleaners, dishwashers, laundry machines, and performs other tasks that used to bend the backs and wrinkle the faces of women long before there was need for them to call themselves old. It is a changing world, but I am convinced it is a better world.

So long as there are many millions of people in America just so long will there be need for farmers and machines to keep turning the soil in the endless controversy with weeds. Their stream of grain will continue to flow to market. In time to come it may be carried through the air in flying machines of fantastic size, but even then there will be need for a market, like that one we call the wheat pit, where supply and demand can make their adjustments in a clamor of voices crying "Buy" or "Sell."