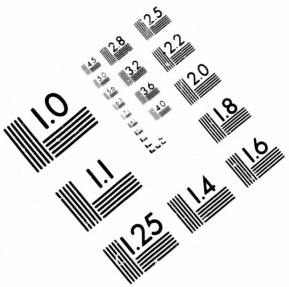

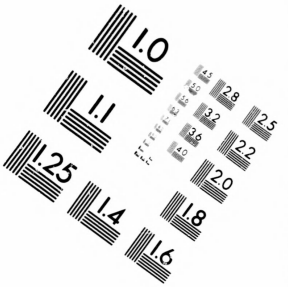

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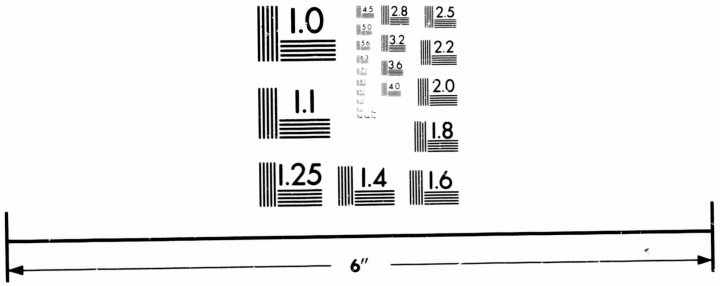

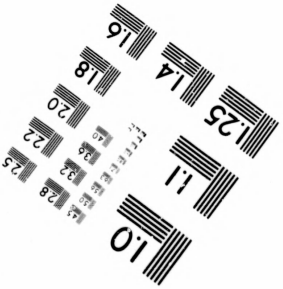

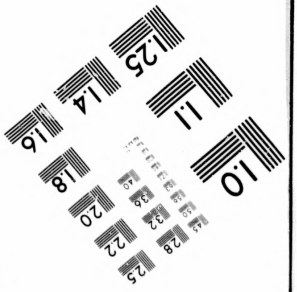

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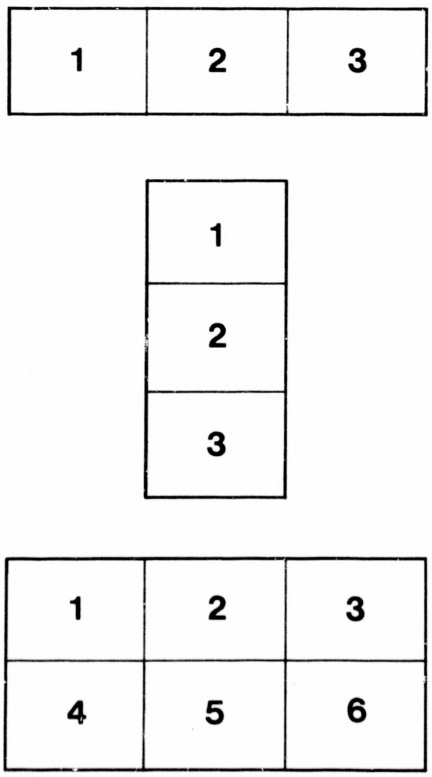

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BENNER'S PROPHECIES

OF

FUTURE UPS AND DOWNS IN PRICES.

WHAT YEARS TO MAKE MONEY ON PIG-IRON, HOGS, CORN, AND PROVISIONS.

BY SAMUEL BENNER,

An Ohio Farmer.

"I know of no way of judging of the future but by the past."—PATRICK HENRY.

TORONTO:
BELFORD BROTHERS.
1877.

DEDICATED

TO THE

AGRICULTURAL, MANUFACTURING, MINING, MERCANTILE,

INDUSTRIAL, FINANCIAL, AND COMMERCIAL

INTERESTS OF AMERICA.

There is a time in the price of certain
products and commodities,
Which, if taken by men at the advance,
leads on to fortune ;
And if taken at the decline, leads to
bankruptcy and ruin.

INDEX.

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PREFACE.

IN the following pages the object of the writer is to give brief, full, and clear exposition of the ups and downs in prices for certain products and commodities in the markets of our country, to all who are struggling in the same for a competence.

To foresee the future intelligently, in regard to supply and demand, production and consumption, is the great want that finance and commerce are to-day struggling and grappling with and striving to solve.

The question of prices will always be of great interest to the producer and consumer. The spirit of the age is tending towards speculation in the products of the "Farm, the Mine, and the Factory." All business operations for profit and future contracts are attended with a great deal of risk, and the leading branches of trade demand information on the subject, and that the uncertainties of the future be lessened.

There is always a hesitancy and a desire for further intelligence, in regard to engaging in any business where the chances for profit depend upon so many contingencies and circumstances.

The author, in presenting a practical book to the public on the subject, and on the branches of trade of which it treats, is inspired with the belief that it will be the greatest boon to the reader to have the years of high and low prices pointed out in the future.

It should be the highest aim of the farmer, manufacturer, and trader, in a business point of view, to penetrate the future, and calculate what years he can realize the best prices for his products.

Content to be useful, instead of being voluminous, the writer has confined the book to a few of the most important branches of trade. To have extended the work to the dimensions of embracing other branches would have made it more copious than the designed brevity of the book would admit.

It is hoped that to this volume will be accorded the merit of directing more attention to the ups and downs in prices, and the causes producing and influencing the same.

And now, submitting the results of our labour, experience, and observation to the industry and con-

merce of the country, the author's wishes will be fully realized if this little volume contains any information which may be useful or of service to those interested.

INTRODUCTION.

THE advance and decline in the average price of pig-iron, hogs, corn, and provisions in the markets of our country, for a series of twenty years past, and for certain periods, have been as alternately certain as the diurnal revolutions of the earth upon its axis; and the periods of high and low prices have been as regular in rotation, as the annual return of the four seasons.

NOW, READER: You who may study the ups and downs in prices as collated and considered in these pages, and operate in accordance with the advance of prices and tendencies of the times, as here indicated, will surely be successful; whilst those who stubbornly and blindly prosecute on the decline, will do an unprofitable business, and will meet with continued disaster and loss.

I am well aware that my prediction of the downward tendency in the prices of pig-iron, hogs, corn, and provisions, and dull trade for the next two

years, will be to some as unwelcome as the tolling of the fire-bell at the hour of midnight; and to others as unexpected as was the approach of the Medes and Persians, under the walls of Babylon, to the banqueters at the royal board of Belshazzar; but we can not be blamed for foretelling that which can not be averted, and which past prices, and signs of the times indicate, and which a conscientious conviction of duty compels us to predict, with the hope that our premonition may serve to diminish disaster and save national and individual interests from ruin.

I now at once make my predictions, and will endeavour to demonstrate their certainty and fulfilment to the comprehension of all, by an examination of past prices, and their bearing upon the future, as analyzed by the light of practical experience and sound analogy.

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PREDICTIONS.

PIG-IRON.

I PREDICT *that* the average price of No. 1 foundry charcoal pig-iron in the markets of our country will be lower in the year 1876 than in 1875.

I predict *that* the average price of No. 1 foundry charcoal pig-iron in the markets of our country will be lower in the year 1877 than in 1876, and *that* the daily price in some months of that year will run below twenty dollars per ton.

I predict *that* the average price of No. 1 foundry charcoal pig-iron in the markets of our country will be higher in the year 1878 than in 1877.

I predict *that* the average price of No. 1 foundry charcoal pig-iron in the markets of our country will be higher in the year 1879 than in 1878, notwithstanding the resumption of specie payments.

I predict *that* the average price of No. 1 foundry charcoal pig-iron in the markets of our country will be higher in the year 1880 than in 1879.

I predict *that* the average price of No. 1 foundry charcoal pig-iron in the markets of our country will be higher in the year 1881 than in 1880, and that the daily price in some months of that year will run above fifty dollars per ton.

The average prices are determined for the "American Iron and Steel Association."

HOGS.

I predict *that* the average price of fat hogs in the markets of our country will be lower in the year 1876 than in 1875.

I predict *that* the average price of fat hogs in the markets of our country will be lower in the year 1877 than in 1876.

I predict *that* the average price of fat hogs in the markets of our country will be higher in the year 1878 than in 1877.

I predict *that* the average price of fat hogs in the markets of our country will be higher in the year 1879 than in 1878, notwithstanding the resumption of specie payments.

I predict *that* the average price of fat hogs in the markets of our country will be higher in the year 1880 than in 1879.

The average prices as determined by the "CINCINNATI PRICE CURRENT."

PANIC.

I predict *that* there will be great depression in general business, and many failures in the years 1876 and 1877, and *that* there will be a commercial revulsion, and a financial crisis in the year 1891.

Here are twelve prophecies of certain events to take place in the future, and they are of no uncertain sound; either one of them, if taken advantage of, by large operators and speculators, would make and save them millions of money, and would be of incalculable benefit to every person in this country. To know *when* to shape our agricultural, manufacturing, and financial operations, so as to secure the best markets instead of the worst, is the end much to be desired by all.

These prophecies are made not upon supposed fanciful speculation, but from the testimony of twenty years' observation by the writer, from living and experienced facts; from the yearly average prices compiled by recognised official authority, and by analogy, relying upon "history to repeat itself."

The writer does not claim a "gift of prophecy,"

but he does claim a *Cast Iron Rule* that will do to keep in sight, and that future ups and downs of the markets, and high and low prices in certain products and commodities, can be calculated for some years to come with as much certainty, and upon the same principle that an astronomer calculates an eclipse of the sun.

It is not upon record that Joseph had Egyptian weather statistics, or tables of production and prices to base his prediction and interpretation of Pharaoh's dream; but he relied upon divine power to *fulfil* his prophecy. On our part, we base our predictions upon the records of the past, and their relation to the future, as governed by the unchangeable laws of nature, and only rely upon providence for their *fulfilment* to give us the continued regular progress and development of these laws, and to its usual dispensation for seasons to make large or small crops, and not on the peoples' efforts merely.

The author firmly believes that God is in prices, and that the over and under production of every commodity is in accordance with His will, with strict reference to the wants of mankind, and governed by the laws of nature, which are God's laws; and that the production, advance, and decline of average prices should be systematic, and occur in an

established providential succession, as certain and regular as the magnetic needle points unerringly to the pole.

Are not all kinds of business at loose ends—astray, tossed on the tempestuous sea of uncertainty—from our imperfect knowledge of natural causes and the laws by which they operate; and our lack of accurate statistics of production and prices, a knowledge of which would enable us to discover and establish reliable rules for our guidance in the future? Is there anything certain and settled in farming, except that a broom-handle is a sure cure for hoven in cattle! Are not farmers, furnace-men, manufacturers, traders and speculators at random, like a ship without a compass or rudder? Do not all operations in business depend for success upon a certain number of fixed, reliable rules? The rules we have to commence and transact business upon are stereotyped rules, that "HONESTY is the best policy;" that industry, energy, perseverance, prudence, economy, and so on, lead to riches and competence. These are all good enough in their line, and indispensable to success, but are they all-sufficient? Is this knowledge all that is absolutely required for successful business in every department of trade? Is there not a knowledge of something more which a

business man wants? And who is not a business man? In order to guide him in reference to future prices that are to rule in the markets of our country, we cannot close our eyes and ignore the fact that there is a want of rules by which to interpret the "signs of the times," and to enable us to comprehend the future status of the markets, so we may know six months or a year ahead what are to be the conditions and circumstances that will produce the coming ups and downs in prices for any product or commodity, and when the changes from high and low prices are to take place.

How are we to get this information, this insight into, or foresight of the future?

Do the Records of the Weather Give the Rule?

In seeking to forecast future prices of agricultural products, the weather is an important element of uncertainty. With the rapidly increasing means of observation, and the deep interest taken by governments and scientists everywhere in the laws of climate, the development and path of storms, nature of calms, theory of winds, movements of masses of hot and dry air, and the phenomena of rain and snow, we may in time learn to calculate with certainty what

years will be dry or wet; when we may expect years of heat, storm, and cold; but with all the weather statistics of the past, tables of meteorology, and not excepting the weather wisdom of almanac makers, it will not come within the province of this work to lay down rules by which to forecast the future of the weather. It will require time, research, with improved means, and a more complete series of meteorological and climatological observations to form a system of probabilities that can be useful; and when the weather probabilities are reduced to a science, it will then be a long step to determine agricultural productions and prices from them; and if the time should come when the weather bureau at Washington can predict twelve months ahead instead of twenty-four hours, we can then know in advance what the seasons are to be, the number of bushels or pounds of anything to be produced, what prices will rule; and we can all make money.

It will not be one of the points of this book to determine the *causes of things*, or the conditions and elements which will produce the coming ups and downs in prices; with these questions these prophecies have nothing to do; it will only come within its sphere to ascertain and point out the periodical re-

turn of effects, in the changes from high and low prices.

We know the effects as manifested in the ups and downs of average prices, and good and bad trade, and it seems as though there ought to be an established cause to produce results of so much certainty, periodicity, and alternate regularity.

The difficulty encountered in determining the causes producing the changes in production and prices is, that we are compelled to reason *a posteriori*, from effect to cause, and "what can we reason but from what we know." All original causes are invisible, and that which is rendered visible through development is an effect; the cause must exist antecedent to the effect. The manner in which causes and their laws operate to produce these effects may be found in our solar system, upon which we hereafter give some theories. All nature is found to be the servant of law: spring, summer, autumn and winter succeed each other in unchangeable regularity, and the recurrences of the various convulsions of nature are being determined on scientific principles; none of these things happen by chance, but all of them by some law which will shortly be solved; and when the causes producing the changes in the weather and the operations of their laws are better

understood, we may be then better able to discover their influence on the state of business in manufacture, trade and commerce; then we may be enabled to fathom the conditions and elements that will produce the coming ups and downs in prices which are to rule in the markets of our country.

Do the Statistics of Production Give the Rule?

To ascertain when the changes from high and low prices are to take place:

Who is it that can tell us what is to be the production of corn, cotton, wheat, tobacco, or any product that grows from the ground, and is dependent upon the season for the life or death of the plant? No one; after they have gathered and collected all the information obtainable in regard to the acreage to be planted or sown, the seasons make large or small crops, and not the farmers.

A cold, wet spring through the months of April, May and June, is almost fatal to the corn, cotton, tobacco and other plants. Also, a dry, hot summer has the effect to destroy the growing stocks. Floods and early frosts are great destroyers of the cereals in our northern latitudes; either one of these elements operating diminishes the number of pounds or

bushels, and produces short crops; therefore, we can not beforehand determine what will be the production of any year by that which has been planted or sown.

Statistics of agricultural products or manufactured commodities are generally too late to be available for present use; they come after a person has made their investment or disposed of their property. Agricultural statistics, as generally compiled at Washington, tell the farmer the aggregate amount or number of bushels produced six months or a year after their crops have been harvested and sold.

Statistics of production, either estimated or sold for consumption, are not sufficient to operate upon; one is too soon, the other too late.

Commercial estimates are too high.

The future can not be calculated upon intelligently by agricultural statistics. The reason why they are not reliable is, that they are not given in by farmers correct: one farmer will think it has something to do with taxes, and he will give them in low; another, to magnify the yield of his farm, and other purposes, will give them in high; therefore, they can not be a criterion for future calculation and prices.

Again, statistics of what has been produced may vary considerably from the available supply. We

can not make any correct estimate or compile any statistics of what has been done with a crop. The corn crop of one year may not feed more than two-thirds of the stock that the crop would of another year.

Statistics of foreign exports are not to be depended upon. The estimated aggregate amount of the yearly production of any crop or manufactured commodity, does not from year to year approximate any regularity of increase or decrease that indicates future production; and therefore the course of future prices can not be determined by them.

Statistics are generally huge columns of figures, of which no one knows all the channels from whence they came, all the clerical errors in their compilation, and parties interested in their manipulation.

In attempting to explore and explain the elements in these statistical tables and problems of which people think are few and easily read, the real supply and demand will be as unfathomable as the waters of the briny deep.

Does the Price Give the Rule?

The price of any product is the exponent of the accumulated wisdom of the country in regard to the

available supply and prospective demand for that product; and as the price advances or declines, so it indicates the surplus or deficit of any product or commodity.

The daily price is always known in the markets. There may be incidental causes, which are always producing slight and temporary fluctuations in value. The variation in price in one locality from another may be found in the cost of transportation or other local causes. The price is always known; the amount of any product and the demand for the same, is not so easily obtained. The books are always posted in regard to price, but several pages behind on amount of product available and the demand for the same. The price is the index of the probable amount of any product or commodity that is demanded for general consumption.

The price which an article will command tomorrow or next week can not always be known, as there are so many contingencies to cause temporary fluctuations in the markets. One or more of the various products may be manipulated so as to influence the price to advance or decline for a short time, but speculators can not influence any market only temporarily.

It is not within the wisdom of finite beings to

comprehend all the temporary circumstances connected with prices, as governed and influenced by supply and demand, weather and seasons, combinations and corners, longs and shorts, puts and calls, and bulls and bears to operate upon the market.

Now as the temporary price is uncertain, let us look further into the subject of prices to find a rule, and take the average to ascertain if there is any regularity existing in the run of the markets. As prices of agricultural products are governed by production, and production is governed by the seasons, and as it takes the four seasons to determine the abundance or scarcity of a crop; therefore we are compelled to take the yearly average price to get above and beyond the control and influence of speculators, manipulators, and corners upon the market.

The yearly average price is ascertained by taking the price each day, week, or month, at one or more of the markets where the articles are bought and sold, and by adding the whole together, and then dividing by the number of times taken, the quotient will give the average for a year.

When the yearly average price is very low for any product or commodity, and next year advances, and so on until it reaches the highest average, is that which is here denominated an "*up?*" When the

average price declines from one year to another to the lowest average, is that which is here denominated a "*down*?"

The "ups and downs" of yearly average prices, in a series of years for some articles, are very noticeable; and it can be observed that it takes a required number of years to complete an "up and down."

Now to find a rule that can give us any foresight of future markets, we must look to the past ups and downs of average prices; then ascertain how many years it takes to complete an up and a down in any product or commodity, then determine in what order the ups and downs are repeated in the next cycle; and if there is found any noticeable periodicity in cycles, then we have a rule which can be applied to the future. An up and down or a down and up in average prices, is in this book denominated a cycle.

The cycles in yearly average prices.

Give Us the Rule.

The indubitable evidences and testimonies of observation have established this rule as the safest we have ever practised and have ever found adapted to this purpose. And inside of this rule, like a wheel within a wheel, is to be found our "Cast-Iron Rule,"

which is, that *one extreme invariably follows another*, as can be witnessed in all the operations of nature, in all the business affairs of man, and in all the ramifications of trade and industry; and in every cycle of average prices it is shown to what extent these extremes run. This rule when applied to pig-iron, hogs, corn, and provisions, is as persistent as the attractive and repulsive forces of the magnet, and as unchangeable as the laws of the Medes and Persians.

This knowledge of the years in which high and low prices return in the markets, belong to the farmer, the manufacturer, and legitimate trader, as well as the speculator; and it is as important that this intelligence should be known to the one as to other.

The ups and downs in prices, as considered in this book, have reference to a series of years as distinguished from the daily and weekly fluctuations. War, panic, and elections have not changed the general yearly course of prices in some articles for many years past; and we only go back so far as we have been enabled to obtain reliable yearly average prices, or the official records of monthly prices at New York, and from them we can date their unfolding,

and since that time establish by our rule the full development of our system of prophecy.

It is not necessary for us to look beyond the present century, or the history of prices in older countries, for epochs of abundance and scarcity, to prove recurring cycles in prices.

The alternation of good and bad harvests is well known in English history. "Tooke" published a history of prices in 1838, giving an exhaustive analysis of the causes producing abundance and scarcity in crops in the eighteenth century, but did not establish any rule by which the future course of prices could be arithmetically calculated.

It is to the present nineteenth century, and in the land of free America, the most favoured nation upon the earth, that Divine Providence has arranged this matter, for not only the spread of the true principles of religion and liberty, but the full development of the operations of the unchangeable laws of nature around and about us.

The battles of Lexington, Concord, and Bunker Hill, the Centennial of which we celebrated in 1875, was the commencement of our struggles for freedom from the tyrannical yoke of England. The war of 1812 was the final consummation of our independence in the arts and sciences, commerce and politics; and

the period in our history after which we can date the development of the reaper and mower, sewing-machine, grain elevator, power loom, cotton gin, stereotype, steam press, railroad, steamboat, electric telegraph, the compilation of average prices, new elements and sciences, and a multitude of inventions and discoveries for the advancement of man in his onward path of progress, and in the knowledge of the ways of an inscrutable providence.

Now, instead of pondering over farmers' deliveries, weekly receipts, visible supplies, and entering into an expensive collection and elaborate examination of statistics of what the probable production of pig-iron, corn, and hogs will be, and the commercial demand for the same, and what old elements will be wanting and new ones to be developed, and watching and waiting to hear from New York, let us call history to the witness stand, and see what it has to testify on the subject; and also bring into court the testimony of observation and experience, by taking the course of the averages in past markets, as compiled by reliable and official authority; and also the years in which money has been made and lost in the different branches of trade, and then by our rule make the application for the future.

PIG-IRON.

The following statement, prepared by the Hon. Henry C. Carey, in 1849, embraces all that is definitely known of the progress of the iron industry in this country prior to 1854.

Mr. Carey's Pig-iron Statistics.

In 1810 the whole number of furnaces in the Union was 153, yielding 54,000 tons of metal, equal to 16 pounds per head of the population.

In 1821 the manufacture was in a state of ruin.

In 1828 the product had reached 130,000 tons, having little more than doubled in eighteen years.

In 1829 it was 142,000. Increase in one year nearly ten per cent.

In 1830 it was 165,000. Increase in two years more than 25 per cent.

In 1831 it was 191,000. Increase in three years about 50 per cent.

In 1832 it was 200,000, giving an increase in three years of about 60 per cent.

In 1840 the quantity given by the census was 286,000, but a committee of the Home League, in New York, made it 347,700 tons. Taking the me-

dium of the two, it would give about 315,000 tons, being an increase in eight years of 50 per cent.

In 1842 a large portion of the furnaces were closed, and the product had fallen to probably little more than 200,000, but certainly less than 230,000 tons.

In 1846 it was estimated by the Secretary of the Treasury at 765,000 tons, having trebled in four years.

In 1847 it was supposed to have reached the amount of not less than 800,000 tons.

In 1848 it became stationary.

In 1849 many furnaces being already closed, the production of the present year can not be estimated above 650,000 tons; but from the accumulation of stock, and the difficulty of selling it, it is obvious that the diminution will be greater.

The above statement, it will be observed, is only statistical in regard to production, although it is stated that in 1821, the manufacture was in a state of ruin; and in 1842 a large portion of the furnaces were closed. This probably was in consequence of low prices that prevailed at this time.

In the report of the Secretary of the Treasury for 1863, the only official source for average prices since the war of 1812, or the panic of 1819, and prior to 1844, that I am able to obtain, is, however, sufficient

for our purpose; it is recorded that 1825, '26, and '27, were years of very high prices in pig-iron: after these years the price declined, the tariff of twelve and one-half dollars per ton was reduced in 1833, and in the year 1834, the price had declined to a very low figure for that time. Business was depressed in all branches of trade; the aggregate amount of duties on all imports were the lowest that had been collected for many years before that year; this date is forty-two years ago, and I commence my table of the ups and downs in prices of pig-iron at this time.

The finance report of 1863, in giving prices for the New York market, states that in 1836 there was a material rise in prices in all articles, especially pig-iron, which is quoted at sixty dollars per ton; and in 1837 the prices advanced to seventy dollars per ton for Scotch pig, which was an extremely high price, and three years from the low prices of 1834.

The panic in money caused the suspension of specie payments by the banks in May, 1837, yet the price of pig-iron had commenced to decline in March of that year, before the panic had cast its blighting shadow over the country.

In the years 1838, '39, '40, '41 and '42, the price continued to decline, and 1843 was a remarkable

year for the extreme depression in prices that prevailed for all staple articles. Scotch pig was quoted in September of that year as low as twenty-two and one-half dollars per ton; this low price was six years after the high prices of 1837.

In the year 1844, the price commenced to advance, and in 1845, in the month of May, the price is quoted at fifty-two and one-half dollars per ton. The price had increased thirty dollars per ton in twenty months. The maximum price was reached in a few months less than two years from the minimum price of 1843—mark this!

Yearly average prices in Philadelphia of No. 1 Anthracite foundry pig-iron, from 1844 to 1874, both years inclusive; and production of pig-iron from 1854 to 1874, as compiled for the American Iron and Steel Association.

TABLE OF YEARLY AVERAGE PRICES.

YEARS.	PRICE.	TONS.
1844	$25\frac{3}{4}$	
1845	$29\frac{1}{4}$	
1846	$27\frac{7}{8}$	
1847	$30\frac{1}{4}$	
1848	$26\frac{1}{2}$	

YEARS.	PRICE.	TONS.
1849	22¾	
1850	20⅞	
1851	21⅜	
1852	22⅝	
1853	36⅛	
1854	36⅞	736,218
1855	27¾	784,178
1856	27⅛	883,137
1857	26⅜	798,157
1858	22¼	705,094
1859	23⅜	840,627
1860	22¾	919,770
1861	20¼	731,544
1862	23⅞	787,662
1863	35¼	947,604
1864	59¼	1,135,996
1865	46⅛	931,582
1866	46⅞	1,350,343
1867	44⅛	1,461,626
1868	39¼	1,603,000
1869	40⅝	1,919,641
1870	33¼	1,865,000
1871	35⅛	1,912,608
1872	48⅞	2,854,558
1873	42¾	2,868,278
1874	30¼	2,689,413

The following are the high and low priced years in which are the highest and lowest monthly averages, which shows when the changes commence in the ups and downs of the markets for pig-iron.

In Finance Report the highest daily price in 1837 was, in January, 70 dollars per ton. In report of the Secretary Iron and Steel Association, the highest monthly average are as follows :—

1845, May	$34\frac{1}{8}$	dollars	per ton.
1854, June.....	38	"	"
1864, August.....	$73\frac{5}{8}$	"	"
1872, September	$53\frac{7}{8}$	"	"

The Financial Report gives the lowest daily price for 1834, in April, 38 dollars per ton ; for 1843, in July, $22\frac{1}{2}$ dollars per ton.

In report of the Secretary Iron and Steel Association, the lowest monthly averages are as follows :—

1850, July	20	dollars	per ton.
1861, October.....	$18\frac{5}{8}$	"	"
1870, December.....	$31\frac{1}{4}$	"	"

After the high priced year 1845, the price of pig-iron declined, and in 1846, '47, '48, '49, it continued on the downward scale ; and in 1850, the average by the table is $20\frac{7}{8}$ dollars per ton, making five in number of declining years since 1845, and recording

severe depression in the iron trade, following the depressions of 1834 and 1843.

Our war with Mexico in 1846, '47, '48, and the influx of gold from California, did not have the effect of changing the direction of the price of iron, as it continued to decline during the war and after peace was declared. After the year 1850 the price again advanced in 1851, '52, '53 and in 1854, the price reached the high average of 36 dollars per ton, making four years of advances from 1850.

The uncertainty of all manufacturing business, especially the manufacture of pig-iron, for the want of general knowledge when the periodical decline in price is to commence—of which it seems our sharpest and most experienced men have made mistakes, as serious and fatal as persons of less pretensions, experience, and business qualifications—is exemplified in the following:—

The *Iron King* of the Hanging Rock iron region in Ohio, in the year 1854, was so led astray by success and fortunate operations in making pig-iron, as to order wood chopped and ore mined the fall and winter of that year, sufficient, it was claimed, to run a certain furnace the succeeding year "*thirteen months out of twelve.*" As pig-iron at fifty dollars per ton would make all furnace owners rich, it

was surely the veritable "Alladin's Lamp," and it was only necessary for furnace men to touch King Pig-iron and "*mirabile dictu*," up would come the oriental genii with untold wealth. But alas! what of the times? Had the chances been studied, or were furnace men courting the "delusive phantom of hope" and blindfolding themselves? What did the balance sheet of that year show? A loss of fifteen thousand dollars. And why? Because the the price of pig-iron had tumbled in obedience to the effects and mandates of that uniform, universal and inexorable law of over-supply and under-demand.

There were a host of furnace men at that time whose thoughts were in the same channel, and who claimed that iron was the sceptre to wield and control the commerce of the world; and demanded fabulous prices for their furnace property, ignoring and forgetting the records of past history, that iron has its ups and downs like other articles of manufacture; and that its power to control is as potent on the decline as when on the advance. And in the year 1855, without their consent and beyond their control, and in accordance with an established natural rule, their pig-iron was left "high and dry," and as time glided along in the seven succeeding years, their

property would not sell for one-half the sum that before a reasonable price demanded. The business became prostrated, and furnace men lost stacks of money; the great majority of owners were compelled to realize on their stacks of pig-iron and sacrifice their furnace property to keep out of bankruptcy. The price continued to decline to the year 1861. The writer knew of merchantable hot blast charcoal pig-iron selling as low as thirteen dollars per ton during the winter of 1860 and '61, in the city of Cincinnati, The seven years from 1854 to 1861 were very disastrous to the iron trade, and prostrated more furnaces than any period of declines in the history of this country.

The commercial reaction and financial difficulty of 1857, produced a general calamity; paralyzed the hand of industry and cramped the energies of the people for four long continued years after that revulsion.

In the fall of 1860 the banks of Baltimore, Philadelphia, Richmond and other southern cities suspended, and in the spring of 1861 the war of rebellion burst upon us like a clap of thunder in a clear sky, creating terrible disturbance in all the ramifications of business, stopping the wheels of commerce and

producing general consternation and stagnation in the iron trade.

I assert it here as a stubborn fact, as showing my faith in these cycles, that if the war of rebellion had commenced in 1854 or in 1864, the general course of prices for pig-iron would have been downward in the following seven years after 1854 and the following six years after 1864, succeeding the same *condition to eras* as the price after 1845 declined five years during the Mexican war of 1846, '47 and '48; however, the price would not have ruled so low in 1861 and 1870 as it did in 1850. And I also assert as an unquestionable fact, that if we had not have had the war of rebellion from 1861 to 1865, the price of pig-iron nevertheless would have advanced in the years 1862, '63 and '64, although the price would not have reached so high an average as it did in these years.

These assertions coincide with our remarks heretofore, that war, panic and elections do not change the general course of prices in their cycles; however, it may be that war and commercial revulsions are coincident with the advance and decline of the price of pig-iron in the present century. Now, again we have seen the price decline in 1865, '66, '67, '68, '69 and '70. Six years of decline, although the averages do not run so low as they did from 1854 to 1861.

Again the price takes the ascending scale in 1871, and scarcely two years from the minimum price of 1870 reaching the maximum in 1872, when the average of forty-eight dollars is recorded. Mark this advance, and remember the twenty months' advance from 1843 to 1845! The present cycle commencing with the advance of 1871 and '72, and continuing with the declines of 1873, '74 and '75, brings us up to the present year 1876.

In the table of yearly average prices for the year 1847, the price is higher than in 1846. The Financial Report gives the price lower in 1847 than in 1846—there appears this discrepancy between these two authorities. Also for the year 1858 the price is lower than in 1859; which probably was occasioned by the panic in the fall of 1857, depressing the price in 1858 for a short time below its natural and proper position. And in 1865 we also notice the price depressed a fraction below the price of 1866. And again in 1868 the price is lower than in 1869. These irregularities in the years of declines, if not errors in compilation, are likely effects of accidental and temporary causes. In the years of advance in the price of iron, we have none of these irregularities.

It has been within the experience and observation of the writer; and as for himself requires no au-

thority for the information that the price of pig-iron was very high in the years 1837, 1845, 1854, 1864, and 1872, and that these years were the highest priced years since 1834; and also that the iron trade was severely depressed in the years 1834, 1843, 1850, 1861 and 1870, and that these years were the lowest priced years since 1834.

Now we have our data; having travelled over the facts in a voyage of discovery and secured our evidence, let us form our cycles and see if we can make out a rule. Commencing with the low priced year 1834, we have stated that the price advanced three years to 1837: declined six years to 1843; making a cycle between low prices of nine years. Again the price advanced two years to 1845, and declined five years to 1850, making a cycle of seven years. Again advanced four years to 1854, and declined seven years to 1861, making a cycle of eleven years. Again advanced three years to 1864, and declined six years to 1870, making a cycle of nine years. Again advanced two years to 1872, and declined three years to 1875.

It will be noticed that the years of advances are as follows: 3, 2—4, 3, 2. The declines are 6, 5—7, 6, and 3, up to the present, denoting that the present declines are not full by two years, of which it is ne-

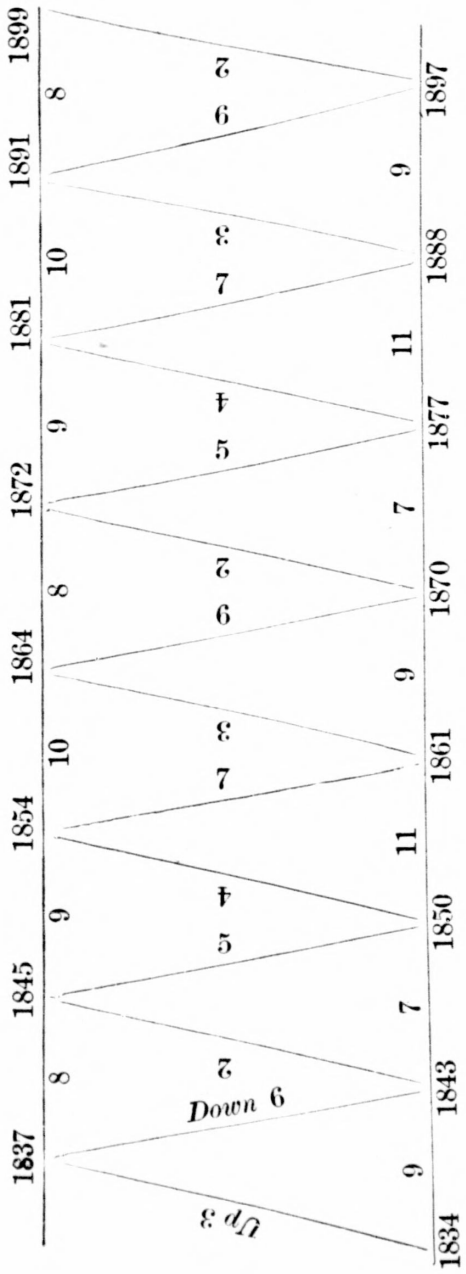
cessary to have a cycle of seven years in its order between low prices. Unless history in detail does not repeat itself, the future can not be judged by the past, and all human calculations as to cyclical movements in prices are as naught; and there is not any thing sure and certain for man at the present day but death and taxes.

We have so far but three years of decline from the high prices of 1872, and if the cycle of seven years, from 1843 to 1850, is to make its periodical return, and be repeated in its natural order of two years of advance and five of decline, then the cycle of seven years between low prices in its order is to be filled up from 1870 to 1877; and, therefore, we must have two years more of decline after 1875 to fill up the cycle, and we have no doubt but that "history will repeat itself" here as it has done in other cycles, which will verify and establish the accuracy of our prophecy.

Let us return to 1837, after which there are six years of decline to 1843, and two years of advance to 1845, making a cycle in high prices of eight years. Again the price declines five years to 1850, and advances four years to 1854, making a cycle of nine years. Again the price declines seven years to 1861, and advances three years to 1864, making a cycle of

ten years. Again declines six years to 1870, and advances two years to 1872, making a cycle of eight years. Again declines three years to 1875, requiring two years more of decline, and four years of advance to make a cycle of nine years, the next cycle in its order, which cycle in high prices ends in the year 1881, this year will be the next highest priced year for pig-iron.

The following scale will enable the reader to better understand the different cycles in high and low prices, and the order in which they return.



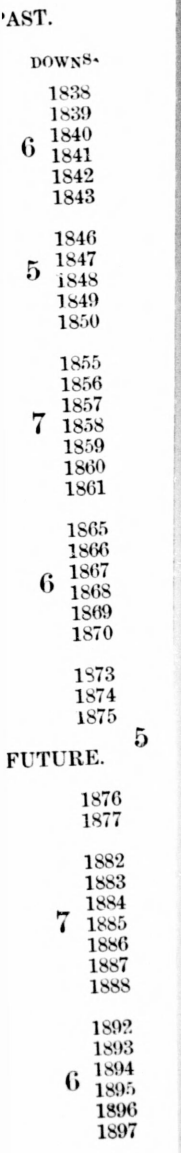
THE PAST.

UPS		DOWNS	
3	1835		1838
	1836		1839
	1837	6	1840
			1841
			1842
			1843
2	1844		1846
	1845		1847
		5	1848
			1849
			1850
	1851		1855
4	1852		1856
	1853		1857
	1854	7	1858
			1859
			1860
			1861
	1862		1865
3	1863		1866
	1864		1867
		6	1868
			1869
			1870
2	1871		1873
	1872		1874
			1875

5

THE FUTURE.

	1878		1876
4	1879		1877
	1880		
	1881		1882
			1883
			1884
		7	1885
			1886
			1887
			1888
3	1889		
	1890		1892
	1891		1893
			1894
		6	1895
2	1898		1896
	1899		1897



At the bottom of the scale is shown the lowest priced years, 1834, 1843, 1850, 1861, 1870; and in the future, 1877, 1888, and 1897.

At the top are the highest priced years, 1837, 1843, 1854, 1864, and 1872; and in the future, 1881, 1891, and 1899.

This scale shows that the cycles of the lowest priced years are in a decreasing series of arithmetieal progression, and in the order of 11, 9, 7, and repeat. The cycles of the highest priced years are in an increasing series of arithmetical progression, and in the order of 8, 9, 10 and repeat. Also we observe that the price of pig-iron advances and declines in a decreasing series of arithmetical progression, the advances in the order of 4, 3, and 2 years, and repeat; the declines in the order of 7, 6, and 5 years, and repeat.

Since 1834 and including 1875, the price of pig-iron has declined twenty-seven years, and advanced fourteen years, making the ratio of the declines to the advances as two to one. The present cycle, ending in 1877, will complete five cycles in low prices since 1834; the five cycles in high prices will be completed in 1881. The return of the commencement of the different cycles in their periodical order in twenty-seven years, one-half the ordinary life-time of man.

On page 46, the year of advances are grouped together, under the head of ups; and the years of declines under the head of downs for the old series, and continued in the future for the new series. We are now in the cycle of seven years between low priced years, and at the beginning of the fourth year of declines in this cycle, two more years will complete this cycle, and also the old series of the ups and downs.

In the year 1878 we shall enter a new series of ups and downs; the advances commencing with four years, and declines with seven years, making a cycle of eleven years in low prices. Also we are now in the cycle of nine years in high prices, and in 1881 the present high priced year cycle will be complete, and end. And after 1881 we shall enter the cycle of ten years in high prices, completing this cycle in 1891.

In the years 1878, '79, '80, and '81, the price of pig-iron will be on the ascending scale, the *iron trade will again be prosperous*, and in these years, especially the last two, 1880 and 1881, money will be made very fast in this business, unless trammeled by unwise legislation upon the currency and tariff; and in the year 1881, in the months of September and October, the price will be at the highest. After

these months in that year, the price will have a downward tendency and begin to tumble, and it will be fortunate for all persons who may be readers of this book, and may regulate their business affairs according to the light here shown, to close out their investment at a good price in that year, and it would be to the interest and benefit of our whole country if our iron men, statesmen, and others, would only take advantage of this information, which would be the means of placing more real money in the pockets of the people and coffers of the nation, than the wonderful alchemy at Washington, which is invoked by politicians to transform old rags into beautiful yet numberless greenbacks.

When the iron trade is depressed, so is trade in every department of manufacture dull and unprofitable. It is to the interests of TRADE UNIONS to ponder and well consider these predictions; as upon their certainty, their losses by strikes for higher wages, or to maintain former rates in these years of decline could be averted, by knowing the unchangeable tendencies of the times.

We have in the beginning predicted that the daily price in 1877 will run below twenty dollars per ton; and in 1881 above fifty dollars per ton. The inspiration that directs this prediction is found

in the fact that "one extreme invariably follows another," and that the daily price runs below twenty dollars per ton in all the low priced years, and above fifty dollars per ton in all the high priced years.

The years 1882, '83, '84, '85, '86, '87, and '88, will be years of decline in the price of pig-iron, and years of depression in this business. These seven years of decline will be a repetition of the seven years from 1854 to 1861. We have had but one of these seven year declines since 1834, and it would be to the benefit of this country if we should never have another; however, the writer is compelled by the rule of cycles to point it out in the future, and warn the iron trade of this *impending danger*. And we proclaim it, to all who may be readers of this book, and engaged in any way in the iron trade, to be prepared after the year 1881 for breakers ahead! What we have to say on these cycles in prices we are positive of, and we may as well, right here, state that this is a positive book.

In the repetition of these seven years of decline, which these cycles surely indicate, every furnace in this country will be slaughtered, unless backed by large capital and ability to stand great loss, or hold their iron, stop their furnaces, husband resources, and wait for better times, as pointed out in these

pages. These declines will not encounter a general panic, as did the former seven year declines in the panic of 1857, or the present five year declines in the panic of 1873; and, therefore, they will be more gradual.

In the years 1889, '90, and '91, the price of pig-iron will be on the advancing scale again, and will be three years reaching the highest price in 1891. This will be a period of money making in the iron business, and these will be three years of general prosperity in all departments of trade and industry.

After 1891 the price of pig-iron will decline for six years, and these declines will again be disastrous to this business; in fact, all business will be on the same retreating road to hard pan, as they are in this year, and will be in the next, as the iron and other trades and industries after 1891 will be under the effects of a commercial and financial revulsion, as shown hereafter under the head of "Panic."

The writer now claims that his showing in the preceding pages of past prices in pig-iron, the cycles between high and low priced years, and their periodical return, has a legitimate bearing upon the future, that no one can gainsay, and no human knowledge can contradict; the predictions are based upon sound analogy; their fulfilment is demon-

strated to a certainty; and that time will surely verify the prophecies.

The changes of the ups and downs in prices and cycles in the iron trade are periodical and not haphazard, and succeed each other in a gradual and natural order.

After the price of pig-iron has declined from the high price of fifty dollars per ton down to as low as thirty dollars per ton, the saying that then is the time to invest in the iron business, is the "*ignis fatuus*" that has swamped the iron men of this country in not having a clear perception of the number of years in which the declines continue.

We can not determine when the price of any product or commodity is at the highest or lowest by the knowledge of when prices begin to rise or fall; we can only determine that by the number of years in the ups and downs comprising each different cycle in high and low prices.

I will record here some axioms which must be admitted, because they are self-evident.

That prices are high when they are above the cost of production on a declining market.

That prices are low when they are below the cost of production on an advancing market.

When the price of an article declines below cost,

production will diminish until demand increases and prices advance.

When the price of an article advances above cost, production will increase until demand ceases and prices decline.

And that the cost of production is the wages of labour, interest on capital, and wear of land and machinery.

When the price of pig-iron is thirty dollars per ton, it may be either high or low, and like a certain game with cards, the points depend upon the trumps that are out.

If the cost of production is above on a declining market, then thirty dollars per ton is high; if the cost of production is below on an advancing market then thirty dollars per ton is low.

The ratio of advance in price exceeds the ratio of increase in cost of production, and there is money made very fast in the iron business during the 2, 3, and 4 years of advance in price.

On the other hand, the ratio of decline in price exceeds the ratio of decrease in the cost of production, and furnaces lose money on the 5, 6, and 7 years alternately of the decline in price, unless wages and expenses are curtailed in time.

To apply our CAST IRON RULE, when the price of

pig-iron has been as high as fifty dollars per ton, the price in the succeeding years has invariably declined to twenty dollars per ton; and, *vice versa*, when the price has been as low as twenty dollars per ton, the price afterward, in a certain number of years, has advanced as high as fifty dollars per ton.

The iron business is a very uncertain trade for persons to engage in who are not acquainted with the number of years in which the price advances, as they are only from two to four years, while the declines are from five to seven years.

The enormous home production and excessive importation of foreign iron in 1871 and 1872 produced a break in prices, and with the over production of 1873 and 1874, and the panic of 1873, the iron trade is again prostrated.

To persons not acquainted with the rules by which these changes occur, as regulated by an overruling Providence, it is to them a wonderful illustration of the peculiarities of trade and the uncertainty of prices, as attempted to be explained by our limited knowledge of supply and demand.

In the spring of 1872 the country was prosperous and advancing beyond all past history; railroads were extending their lines across the continent in every direction, marking the most gigantic railroad

expansion the world ever beheld; creating an unprecedented demand for iron, giving an impetus to the manufacture thereof, that had no parallel in the history of this or any other country, running the production to nearly three millions of tons in that year. All at once comes a snap and a crash: a reaction sets in so speedy and terrible, so general and decided, that we become amazed at the mysterious workings of this trade, and the decrees of an all-wise Providence.

The decline in the price of pig-iron since 1872 has been over fifty per cent.

Iron-masters are crying out, "Give us protection or we are ruined," while the silent whisper to "reduce the product" is not willingly and generally heard. The Secretary of the Iron and Steel Association reports that out of 701 furnaces on the first of February, 1874, there were 398 stacks out of blast; nevertheless there were fifty new furnaces completed in 1873, thirty-eight in 1874, and forty-six stacks in the course of erection, and other new furnaces projected in 1875. What blindness and what folly!!

The remedy at present is not to be found in a tariff alone on foreign importation; a home competition is here in our midst more formidable than all

foreign competition combined. SEVEN HUNDRED FURNACES, some of which cast *one hundred tons of metal per day*, are ready to swell the home production on the first show of an advance in price, beyond the most extraordinary consumption, and producing stagnation more disastrous than ever.

It is a hard alternative for furnace men to be compelled by the "logic of facts and events," to blow out their furnaces and suspend business for so long a time, but to be "forewarned is to be forearmed;" is it not the part of wisdom and policy to stop before the capital is gone and the stock unprofitably consumed?

We have not seen, in our experience or observation, neither do the facts and records of modern history show, a permanent advance until after five years from the highest price; and is the present decline and cycle to be an exception to all others? and in the face of, and succeeding the greatest supplying capacity the world has ever witnessed? and when other manufactures and trades, and all railroading is depressed and unprofitable, and when all Europe stands ready to supply any demand at pauper prices outside of this country?

VERILY, the hand-writing is upon the wall, and so plain it needs no magi to decipher what it means.

HOGS.

The history of the HOG CROP and its various manufactures and products is intimately connected with the growth and progress of the CORN CROP, and the price of one now generally fluctuates with the price of the other.

The packing of pork before the era of railroads was confined to very narrow limits, and there was not much value placed upon the hog at that period, as will be seen by the following sketch, written by Charles Cist, of Cincinnati, Ohio:

"Hog raising has always been a profitable, and therefore a favourite department of farming in what was formerly called the West, but which now constitutes the great centre, as respects population, of our rapidly extending republic. The rich harvests, to be had simply for the gathering, yielded by the oak, beech, hickory, and other trees of our forests, popularly termed mast, formed, to a great extent, for many years, fattening food for swine. The roots in the woods, with the natural grasses, supplied subsistence during the spring and summer months, so that the sole expense to the farmer, in raising hogs, was the feeding of those too young for market, and

of those reserved for stock and for increase, at the cost of the Indian corn necessary for their winter sustenance. In early days, and before the introduction of railways, this cereal would not repay the expense of transportation to market, and therefore hardly entered into the consideration of what it cost to raise hogs. In fact, taking into view the prolific character of the animal, and the small amount of labour and expense involved in its care and cure, it was the general impression in the West that it cost nothing for a man to make his own pork, and for a long time vast quantities of slaughtered hogs were sold in this region at prices ranging from seventy-five cents to one dollar per hundred weight, and considered sufficiently remunerative at these rates. The writer has seen in the southern portion of Illinois, and within twenty-five miles of land carriage to the Ohio, immense quantities of Indian corn offered at six cents per bushel; yet at this low figure the grain would not bear transportation to the river.

"The farmer, unless in the neighbourhood of a distillery, was compelled to feed his crop to his cattle or hogs. Even at a much later date, between the scarcity of timber for fuel, and the low price of corn, large quantities of the latter article have

furnished fuel in the prairie region of the State referred to.

"As the cultivation of the country opened, and the wood ranges became more restricted, it was found that it paid better, while it was more convenient, to feed the hogs on corn than to turn them out to the woods, as they grew faster and increased more rapidly in fat as well as in flesh, while the quality both of meat and lard was thereby greatly enhanced in value. At this period, for want of good roads, grain to a limited extent only was sold to the whiskey distillers; its low price not permitting it to be carried by waggons to the distilleries unless from short distances. Under these circumstances, pork packers commenced at various points in the West for the supply of the eastern markets, while the rapid increase of hogs kept pace with the corresponding improvement of the western country, and the enlargement of its corn crops.

"Then came the era of railroads. It was at once seen that hogs could be delivered at market points, either East or West, at less expense, in shorter time and in better condition, than they had hitherto been taken by droves. There was also no giving out of the hogs on the route. The natural result was to give a new impulse to the raising of swine; and from

that period the hog became one of the most important staples of the country."

In examining the history of prices for hogs the past half century, we find that the price ruled very low up to the year 1830. This was the period when there was so little demand in Cincinnati for any portion of the hog other than hams, shoulders, sides and lard, that the heads, spare ribs, neck pieces, back bones, etc., were regularly thrown into the Ohio river to get rid of them. Afterwards, in 1835 the products of the hog became more valuable, and in the year 1836, in the city of New York, the price of mess pork advanced to thirty dollars per barrel, and lard to eighteen cents per pound. (See Finance Report of 1863.) This year was a very high priced year for hogs and their product. I have not been able to get the average price for fat hogs at this time, as there were probably none compiled; therefore we are compelled to take the price of product as we find it given by official authority. After the year 1836, the price of product declined each year to 1842. Mess pork was quoted in New York at six dollars and seventy-five cents per barrel. The highest quotation in the decade from 1840 to 1850, was in the year 1847, the great famine year in Ireland. Mess pork in New York

City was sixteen dollars per barrel, eleven years from the high prices of 1836—Mark this!

I have not been able to collect reliable yearly average prices for fat hogs prior to the year 1855, as there appears to be no source accessible to obtain them; and as I have not the evidence to show any noticeable periodicity or regularity existing in the return of low prices before that time, I therefore commence my table of averages in the year 1855, which is twenty-one years ago, and forty years since 1836, the commencement of our cycles in high prices for product and hogs.

Table of average prices for fat hogs at Cincinnati, Ohio, since 1855, and the whole number of hogs packed in the West during the winter seasons of 1849, '50 to 1874, '75, inclusive, as compiled by the *Cincinnati Price Current.*

YEARS.	NO. OF HOGS.	PRICE NET.	GROSS.
1849	1,652,220		
1850	1,332,867		
1851	1,182,846		
1852	2,201,110		
1853	2,534,770		
1854	2,124,404		
1855	2,489,502	$6.05	$4.84
1856	1,818,468	6.23	4.99
1857	2,210,778	5.16	4.13

YEARS.	NO. OF HOGS.	PRICE NET.	GROSS.
1858	2,465,552	6.58	5.27
1859	2,350,822	6.21	4.97
1860	2,155,702	5.97	4.78
1861	2,893,666	3.28	2.63
1862	4,069,520	4.45	3.56
1863	3,261,105	7.00	5.60
1864	2,422,779	14.62	11.70
1865	1,785,955	11.96	9.57
1866	2,490,791	7.52	6.02
1867	2,781,084	8.25	6.60
1868	2,499,873	10.51	8.41
1869	2,635,312	11.82	9.46
1870	3,695,251	8.25	6.60
1871	4,831,558	5.45	4.36
1872	5,410,314	4.90	3.92
1873	5,466,200	5.73	4.58
1874	5,566,226	8.74	6.99

Average price at Cincinnati for 20 years is $7.43 net or $5.94 gross.

The difference that Cincinnati pays above the average for the West is as follows:

	1872	1873	1874
Cincinnati net.....	$4.90	$5.73	$8.74
West "	4.65	5.43	8.33
	25	30	41

Gross.
5.27
4.97
4.78
2.63
3.56
5.60
11.70
9.57
6.02
6.60
8.41
9.46
6.60
4.36
3.92
4.58
6.99
s is $7.43

bove the

1874
$8.74
8.33

41

These dates refer to the years in which the crop was made. The packing season commences in November and ends in the following March. It is shown in the table that the average price for hogs was greater in 1856 than in 1855, but less in 1857. This depression in the advance was produced by the panic, however, in 1858, the general course of price asserts itself with an average higher than either of the three years preceding it. After the high priced year 1858, the average starts out on the descending scale, declines in 1859, '60 and '61, making three years of declines with an average in 1861 of two dollars and sixty-three cents per hundred weight gross. This year was the beginning of the war, when farmers were almost compelled to give away their hogs on account of the low prices that prevailed.

It is a well-known fact to the farmers and packers, that when the price of hogs advanced in 1862, '63, and '64, that all parties made money; and that these years of advances culminated in 1864 with an average of eleven dollars and seventy cents per hundred weight gross, which is the highest yearly average price ever paid in this country for hogs. In the years 1865 and '66, the average prices decline, making only two years of decline after 1864. In 1867 the price takes the ascending

scale,—higher in 1868, and still higher in 1869 with an average of nine dollars and forty-six cents per hundred weight gross, making three years of advance after 1866. After the year 1869 the price took the descending scale; lower in 1870, '71 and '72, getting down to the average of three dollars and ninety cents per hundred weight gross, making three years of decline after 1869. In the year 1873 the price advanced notwithstanding the great revulsion in trade of that year, and continued to advance in 1874; and the average will be higher in 1875 than in 1874, making three years of advances since 1872.

Now let us go back in review and form our cycles. Commencing with 1836, a high priced year in product, we find the next high priced year in product to be the year 1847, eleven years from 1836. Extending this eleven years forward we have the high priced year, 1858; our commencing year in high average prices for hogs. Extending the time eleven years further gives us the high priced year 1869, making three eleven year cycles in high prices.

Again let us return to the year 1850, a low-priced year for hogs, and add eleven to that year, and we have 1861, a low priced year, add eleven again and

we have 1872, a low priced year, making three eleven-year cycles in low prices.

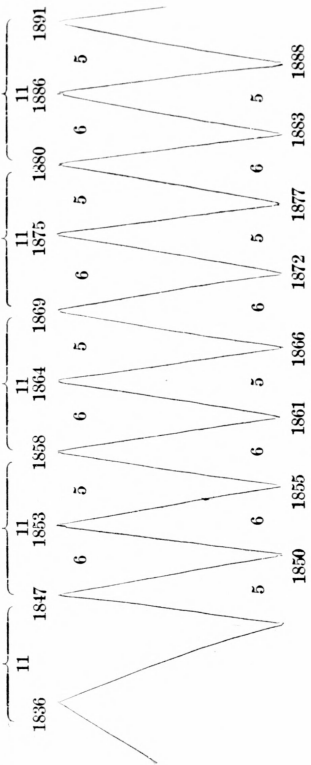
But we are travelling too fast, and we must return to 1847, a high-priced year. After this year the price declined three years to 1850, and then advanced three years to 1853, making a shorter cycle of six years in high prices; also after 1853, the price declined two years to 1855, and then advanced three years to 1858, making a cycle of five years in high prices, and these two shorter cycles from 1847 to 1858, making an eleven year cycle. After 1858 the price declined three years to 1861 and then advanced three years to 1864, making a short cycle of six years in high prices. Also after 1864 the price declined two years to 1866, and afterwards advanced three years to 1869, making a cycle of five years in high prices, and completing another long cycle of eleven years. Now, again, after 1869, the price declined three years to 1872, and then advanced three years to 1875, making a cycle again of six years in high prices, and completing one of the short cycles composing the present eleven year cycle, which will end with a short cycle of five years in the year 1880. Returning to 1850, the next low priced year was 1855, making a cycle of five years in low prices. After 1855 the next low priced year

was 1861, making a cycle of six years in low prices. Again after 1861 the next low priced year was 1866, making a cycle of five years in low prices. After 1866, the following low priced year was 1872, making a cycle of six years in low prices.

It will be noticed that the short cycles composing the eleven year cycles in high prices, since 1847, have been alternately six and five years; and the short cycles in low prices, since 1850, have been alternately five and six years.

The axiom, "History repeats itself," implies a cyclical movement in human affairs, and as it is a generally received opinion that everthing moves in cycles, especially in nature, we are forced to predict, judging the future by the past, that in the years 1876 and '77 the price of hogs must decline in the average, so as to fill the required number of years necessary to complete the present five and eleven year cycles in low prices ending in 1877; also after two years of decline there must be three years of advances to the year 1880, to complete the next five and eleven year cycles in high prices, and therefore, demonstrating to a certainty and to the comprehension of all, the fulfilment of our second series of prophecies.

On the following page is a scale of years to enable



PAST.

UPS.	DOWNS.
1856	1859
1857	1860
1858	1861
1862	
1863	1865
1864	1866
1867	1870
1868	1871
1869	1872
1873	
1874	
1875	

FUTURE.

1878	1876
1879	1877
1880	
1884	1881
1885	1882
1886	1883
1889	
1890	1887
1891	1888

the reader to see the different cycles in their order, also the ups and down in prices for the past and in the future.

This scale shows the years of lowest and highest prices for the hog and its products since 1836, coming down in five and six year cycles after 1847. At the top of the scale are the highest priced years, 1836, 1847, 1853, 1858, 1864, 1869, and 1875 for the past and 1880, 1886, and 1891 for the future. At the bottom are the lowest priced years, 1850, 1855, 1861, 1866, 1872, for the past, and 1877, 1883, and 1888 for the future.

We have now passed out of the cycle of six years in high prices, the year 1875 closing this cycle. The next cycle in high prices will require five years ending in 1880; at that time the price of hogs will be high.

We are also in the cycle of five years in low prices, this cycle ending in 1877, when the price of hogs will be low, and farmers complaining about the prices they are compelled to accept for their hogs. Pig iron will also be at a low price at that time, placing agriculture and manufacture at a low ebb; prices low all round will make "hard times" and "dull trade."

After 1877 agriculture and manufacture will go

hand in hand, the price of hogs and pig-iron will be on the ascending scale, business in all departments will improve up to the year 1880 and 1881, after that time prices will decline and advance alternately in each different branch of trade, until the year 1891, when general business will culminate throughout the country, especially with iron and hogs, two of the most important and leading branches of trade.

It is to be observed that the price of hogs do not go up and down with the number of hogs packed. By referring to the column in 1858, a high-priced year, the packing exceeds any previous year with the exception of 1853. In 1862 the price advanced with the enormous packing of four millions of hogs. In 1869 the price advanced, while the packing exceeded that of 1868; and also the same may be said of 1873 and 1874 over the packing of 1872.

The price of hogs invariably advance three years in succession. In the year 1859 the price declined, while the packing was short of 1858. Also in 1860 the price declined, while the packing was short of 1859. In 1865 the price declined, while the packing was short of 1864 600,000 hogs.

In some of the years, as the packing increased or decreased in number, so the price advanced or declined; an increase of packing diminished the price,

and *vice versa*. Therefore it is not safe to rely too much upon results based upon the number of hogs packed.

The price of hogs decline two and three years alternately in the cycles of low priced years.

The aggregate number of hogs in all the states and territories, as estimated by the Department of Agriculture at Washington in 1873, was 32,632,000; in 1874, was 30,860,900. The packing in 1873 and 1874 was about one-sixth of the whole number in each year. Chicago packs more pork than any city in the United States or in Europe. Total number packed in 1874 was 1,690,348 hogs—nearly one-third of the whole packing of 1874.

As the winter packing of hogs is only about one-sixth of the total number produced, it is an important question what becomes of the other five-sixths, and what proportion is annually killed. I must acknowledge this to be a task, to undertake to make out such an account by any system outside of the art of "double-entry book-keeping." Almost every farmer's family, for domestic consumption, kill from one to twenty or more hogs every year, and there has never been any statistics compiled for a record of the number thus slaughtered.

There were engaged in farming, according to the

census of 1870, 5,922,471 persons, about one-sixth of the population; if each farmer had killed on the average but one hog, the aggregate would exceed the total winter packing for commerce of 1874. Then we must consider the number of hogs that have been slaughtered by butchers in the cities and towns, the number that annually die with disease, and the number that is reserved for stock and for increase. From these facts we can understand why the price is not altogether governed by the number of hogs packed in our large cities; since 1868 the number of hogs packed has yearly increased.

Every farmer, feeder, drover, and packer, should know the years in which the prices of hogs are to advance or decline. There are seldom any two years in succession in which the average price ranges the same. In the table of averages, there are two years in which they are the same, 1867 and 1870; however, they are three years apart, one on the advance, the other on the decline.

In the years 1858, 1864, and 1869, a great many persons made money on hogs, and, elated with good fortune, were tempted to try again in 1859, 1865, and 1870; and through ignorance of the workings of the ups and downs in prices, were caught with

one dollar corn-fed into six-dollar hogs, and they lost the profits and gains of the preceding years, and no doubt the same will be repeated by others in 1876; as 1875 was a profitable and high-priced year. We see continually some of our best traders "caught out in the wet," and to some persons it will always require a Columbus to show them how the egg is to stand on its end.

The prices that hogs will bring each year can be approximated by the course of the past averages; however, it is governed by supply and demand, and state of trade in reference to the past commercial revulsion and the future coming crisis and the condition of the currency. Periodical revulsions do not in their effect change the general course of prices in their cycles, but they have a temporary influence to depress prices below their natural and proper position, and an after influence to keep down the average to lower limits. If the people would only learn such years and stay out of this business, or confine themselves to smaller trade, when these declines in prices are to take place, especially after panic years, they would not complain so much of "hard times" and "high taxes."

Farmers think that packers do not pay a sufficient price for hogs, when prices are on the decline.

Packers think they are paying too much for hogs, when prices are on the advance.

Now in both cases, *farmers and packers* are at a loss to know what the future development of prices will be.

In the farmer's case, he receives all there is in the market, whether it covers cost or not, and the packer loses money on the further decline.

In the packer's case, he pays the market price, and makes money on the further advance.

It is an established fact that the quantity of hogs in this country is ruled and governed by the current price of corn.

In the commencement of the periodical advance in the price of corn, and until it reaches the highest price, large shoats are marketed and butchered, the hogs that should be wintered are slaughtered; small farmers and feeders sell their stock hogs in the fall and winter, to large feeders and speculators. In consequence of hogs being massed they get overlaid by large numbers bedding together during the cold and inclemency of the winter; and without the use of the kitchen slops, and by the use of soft, frosted, and rotten corn, peculiar to these years, they become diseased, and therefore more die by cholera, thumps, and other diseases.

On the other hand, when the price of corn begins its periodical decline, and until it gets to the lowest, farmers and small feeders keep their stock hogs, and by the more equal distribution in smaller numbers, hogs live, are more healthy and plenty. Farmers think it will pay better to feed their corn to stock hogs, and raise more young hogs, than to sell their corn on a declining market; but in this they are mistaken, as they are unknowingly producing cheap pork for the whole world, by an over production, the surplus of which has to go out of the country for consumers.

The amount of hog products exported corresponds inversely with the prices; whenever we export large amounts they are at low prices, and when prices are high our exports are inconsiderable.

To sell corn and hogs at the market price in the fall to others who have not studied the chances, the production in the years of decline is made profitable by them who know when to come in out of the storm. When the periodical advance in the price of hogs is approaching, the butchers, drovers, and packers secure contracts by subtle arguments with the farmers for their hogs, and as a consequence the farmers are not benefited to the full extent of the advance, as they are induced to engage too soon, there-

fore they lose the opportunities which belong to them. It is the usual expression and opinion that when a farmer has his hogs fat, that then is the time to sell; this depends upon what cycle of seasons and prices are ruling in the markets of our country. If on the periodical decline, after a year of short crops and high prices the previous year, such as 1858, '64, 69, and '75, then would be the time to sell. If on the periodical advance after a year of good crops and low prices the previous year, such as 1861, '66, and '72, then, if you have a little "speculation in your eye," it no doubt would be a good time, and pay you to hold for a rise.

As buyers and sellers of products we can only be gainers by scarcity and high prices, and that only for that article which was obtained when plenty and at low prices.

Speculating in hogs is generally with the majority a matter of *heads* and *tails;* when successful they are owlish wise, and of course know all about it; but when tails, then the "devil is in the *hog.*" It is a most significant fact in these price cycles, and a confirmation of the theory that *God is in prices*—that the price of corn and hogs could advance in the years 1873, '74, and '75, during and immediately succeeding the great revulsion in trade of 1873, and when

all business was becoming depressed and prostrated in manufacturing industry, trade unions striking to maintain former rates, mills and furnaces closing their doors, merchants complaining of dull times, millions of labourers and mechanics idle, and no work to do. Yet we say, notwithstanding all this, corn, hogs, and provisions have advanced in price in these years; for the cycle of six years in high prices from 1869 to 1875 was to be filled, and it would have been contrary to the order and laws of nature to have been otherwise.

CORN.

This cereal is known as the largest of all the grain crops, and one of the most useful products known to man. It is the chief basis for provisions, and a very important element in our breadstuff supplies. Notwithstanding the greater value of wheat per bushel, corn is the great item in the prosperity of the West, and upon the good price of corn depends the welfare of the farmer. A large and over-estimated corn crop, that reduces the price to a nominal sum, makes farmers feel poor, and in turn reacts upon merchants and manufacturers, and brings about dull trade.

Our agricultural products and stock are the basis and support of all commerce, and of all business and trade in every department of human activity, and upon which all other industries rest. Their scarcity or abundance depends upon the seasons, and mostly require a year to bring them to perfection and maturity, while manufactured commodities can generally be produced in any quantity, and in a much shorter time.

The commerce of the world is so dependent upon agricultural productions, that to ascertain their probable annual amount, has become an object of the greatest utility. A scarcity or abundance of crops affects the exchanges of the world, and tends to forecast future prices, and to give some clue to future production.

Estimated yield of corn in the United States from 1840 to 1874—the years 1862, '63, and '64, for Northern States only—and average prices from 1865 to 1874 inclusive, collected from agricultural and statistical reports.

YEARS.	PRODUCTION.	AVERAGE PRICES. CTS.
1840 . . .	377,000,000 . . .	
1850 . . .	592,000,000 . . .	
1860 . . .	838,000,000 . . .	
1862 . . .	533,000,000 . . .	34

YEARS.	PRODUCTION.	AVERAGE PRICES. CTS.
1863	397,000,000	69
1864	530,000,000	99
1865	704,000,000	46
1866	867,000,000	68
1867	768,000,000	69
1868	906,000,000	62
1869	774,000,000	75
1870	1,094,000,000	54
1871	991,000,000	48
1872	1,092,000,000	39
1873	932,000,000	48
1874	854,000,000	65

If we could have yearly average prices of corn for the whole country since 1825, we would find that they would show the same regularity in ups and downs that they do after 1862. The Finance Report of 1863, in giving prices for the New York markets (which are a long ways from the corn producing states), shows that prices were very high in 1825, '26, in 1836, '37, in 1847 and in 1858. The statistics of the Department of Agriculture show that the average price was very high for 1864; in fact higher than ever before in this country; and again the price is at the top figures in 1869, as can be seen in the

table of yearly average prices for corn. The average price for 1875 will be high, and it is the next high priced year after 1869. These high priced years correspond with the price of hogs. These years are the highest priced years since 1830, making eleven year cycles up to 1858, afterwards in short cycles of 6 and 5 years to 1864, '69 and '75. The next high priced year for corn, which is in the future, will be the year 1880, eleven years from 1869, and five years from 1875.

We find the cycles of eleven years in low prices by taking the quotations in the Finance Report of 1863 for the New York markets, and commencing in 1828, a low priced year, running to 1840, then to 1850, and to 1861; afterwards according to the yearly averages, as shown in our table to 1872, the last low priced year; the next low priced, coming down to five year cycles, will be in 1877, and the one following eleven years from 1872, will be in 1883.

The same scale of prices for hogs will answer for corn. When the price of hogs has been high the price of corn has been high, and the same when the price of hogs has been low, the price of corn has been correspondingly low. After 1858, high and low priced years run in the same order of six and five year cycles in the price of corn that they do for hogs

Now judging the future by the past, and looking to history to repeat itself with approximate accuracy in detail, it is our judgment upon which we predicate this prophecy, that the average price of corn up to the year 1891 will advance and decline with the average price of hogs, as shown in the scale of cycles in the price of hogs; and that the general advance and decline in the price of corn, will precede the general advance and decline in the price of hogs. This is inferred from the fact, as before stated, that the current price of corn governs the quantity of hogs in this country.

The price of hogs, if $2.50 gross, on the farm, will realize to the farmer 25 cents per bushel for his corn.

$3.00	Gross,	30	cents	per	Bushel.
4.00	"	40	"	"	"
5.00	"	50	"	"	"
6.00	"	60	"	"	"
7.00	"	70	"	"	"
8.00	"	80	"	"	"
9.00	"	90	"	"	"
10.00	"	100	"	"	"

The average prices gross for hogs compared with the average prices for corn per bushel since 1862, in which the fact can be noticed that the price of one

follows the price of the other in the ups and downs since the year 1868 as regularly as evening follows morning.

	HOGS, GROSS.	CORN PER BUSHEL.
1862 . .	3.56	34c.
1863 . .	4.60	69
1864 . .	11.70	99
1865 . .	9.57	46
1866 . .	6.02	68
1867 . .	6.60	69
1868 . .	8.41	62
1869 . .	9.46	75
1870 . .	6.60	54
1871 . .	4.36	48
1872 . .	3.92	39
1873 . .	4.58	48
1874 . .	6.99	65
1875 . .		

Average prices for 1875 not collected and published in time for this book.

The corn crop never falls short in the growing corn as much as one-half, but a large crop can be cut short by frosts, floods, damp, etc., in the amount secured. It is not so much in the failure of the crop, as in that which is done with it.

The rational explanation of the partial failure of the corn crop in any one year may be found in the peculiarities of the seasons. The number of acres

planted is no criterion of future production and prices.

We were well informed in the summer of 1874, by the Agricultural Bureau at Washington, the commercial bulletins of the East, and crop reporters of the West, that there were two million more acres in corn that year than in the year 1873. Some of the eastern papers were clamorous that the crops of 1874 were simply enormous, and that prices would rule very low; therefore the "bears" of the East commenced to fix the price of corn on the supposition of very great abundance, while the merchants began to grow concerned about their stocks of merchandise, for fear the farmers in their poverty would not be able to take the usual amount. Now what was the corn crop and the price for 1874, compared with 1873, taking the estimates of the Department of Agriculture for production and prices, as they are the only statistics at my command.

1873,	Production,	922,000000	Price 48c.
1874,	"	854,000,000	" 65c.
		78,000,000	17c.

A decrease of seventy-eight million of bushels in product, and an increase of seventeen cents in price.

This surely shows if there can be any dependence placed upon these statistics, that seasons make large or small crops, and that future prices can not be foretold by the acreage planted or sown.

The number of acres in corn and production in all the states and territories in the year

1872	was	35,526,836	product	1,092,000,000
1873	"	39,197,148	"	932,000,000
		3,670,312		160,000,000

This statement shows an increase in area planted of three million six hundred and seventy thousand three hundred and twelve acres, while there was a decrease in product of one hundred and sixty million of bushels, with an advance in average price in 1873 over 1872 of nine cents per bushel.

This increase in area planted is equal to the whole number of acres in corn in 1873 in the great state of Iowa, the second state in the union for corn. With this very large addition in area for corn, it is a surprising fact that the number of bushels produced was one hundred and sixty millions of bushels less than the year before.

Is it any wonder that some operate upon an overestimate, and others on an underestimate, when we

see that the seasons have so much influence to make large or small crops, and also when our knowledge is so limited in regard to meteorological phenomena, which repeat themselves in well defined and established periods?

It has been argued, and is proverbial, that it does not make any difference to the farmers whether they raise large or small crops in the aggregate; what they lose in price they gain in quantity, and what they lose in quantity they gain in price.

Now let us see if statistics of agriculture will carry out this assertion. Let us take the last cycle of six years between high prices of which we have the yearly average prices, for all the states and territories. Commencing with the high priced year 1869, and ending in 1874, the year before the next high priced year, giving us three years of small production and high prices, and three years of large production and low prices.

Years in which were the smallest number of bushels produced and highest prices:

1869	774,000,000	75c.	58,050,000
1873	932,000,000	48c.	44,731,000
1874	854,000,000	65c.	55,510,000
	2,560,000,000		158,296,000

Years in which were the largest number of bushels produced and lowest prices:

1870	1,094,000,000	54c.	59,076,000
1871	991,000,000	48c.	47,568,000
1872	1,092,000,000	39c.	42,588,000
	3,177,000,000		149,232,000

In the large crop years of 1870, '71, and '72, there was produced six hundred and seventeen millions of bushels more of corn than in the small crop years of 1869, '73, and '74, and there was realized in these small crop years by the farmers, nine million and sixty-four thousand dollars more money.

This statement is as clear to the world as the light from a *kerosene* lamp, if there can be any approximate correctness in the estimates of the Department of Agriculture, that it does make a difference, and that all the labour employed and exerted, and expenses incurred to produce and handle this six hundred and seventeen millions of bushels more of corn in 1870, '71, and '72, than in 1869, '73, and '74, was so much labour and money literally thrown away so far as the farmers' direct gains were concerned, while they should have raised twenty millions of bushels more corn to have realized the same money that was realized out of these short crop years.

Let us make a comparison by taking the years in this cycle of the greatest extremes in production:

1869 . .	774,000,000	75c.	58,050,000
1872 . .	1,092,000,000	39c.	42,588,000
	318,000,000		15,462,000

There were produced in 1872 three hundred and eighteen millions of bushels more of corn than in 1869, and there were realized fifteen million four hundred and sixty-two thousand dollars less money.

As corn was cheap in 1872, and the farmers fed a great portion of it to hogs, let us see how they came out with hogs:

1869 . .	2,635,312 hogs packed	9.46,	24,930,051
1872 . .	5,410,314 " "	3.92,	21,208,430
	2,775,002		3,721,621

In 1872 there was sold to packers two million seven hundred and seventy-five thousand and two hogs more in 1872 than in 1869, and the farmers realized three million seven hundred and twenty-one thousand six hundred and twenty-one dollars less money.

It is evident that in the years of decline to low prices, a large over-estimated yield is not the boon

desired by the farmer, and it is undoubtedly to the interest of the farmer to use more of that energy that relaxes no effort; the perseverance that never grows weary in striving to produce more corn in the years of advances towards higher prices.

The farmer, however, is placed in the same category in respect to low prices that the manufacturer is placed; if the farmer has to take a low price for his grain and stock at intervals, he is compensated in being enabled to purchase manufactured commodities in their low priced years, therefore alternately each has its years of high and low prices that either can take advantage of.

It is to the interest of the farmer not to be governed too much by present demand, and not to continue in the course it directs too long. The demand can be calculated—the population does not always vary with the seasons; it is the supply that makes generally the fluctuations in prices. It is in the nature of things that the farmer should receive the benefit of three years advance in his corn and hogs in every cycle of prices, and it would be injustice to him if he should be compelled to lose his labour and toil by the wolfish and bearish cry of enormous crops and low prices.

The ups and downs in prices for corn, hogs, and

pig-iron, and the activity and depression in general trade, are no doubt caused by an over and under production for a term of years, and the writer has an idea that these cycles in prices, which are so well defined, and repeat themselves with such surprising accuracy, are connected in some way with the cycles of nature, which are fixed because they are produced by regularly and permanently fixed causes, which are constant and uniform.

The peculiarities of the weather and atmospheric currents, producing these extremes which are not conducive to large crops of either stock or grain, were seen in the polar current which came down from high latitudes on a course parallel to the Rocky Mountains in the year of 1874, producing the severest and most continued cold we have experienced for eleven years, since the winter of 1863-'64, and in the summer of 1875 the tropical current or trade winds being deflected by the Mexican elevations, entered the great basin of the Mississippi, and again deflected by the mountain spurs in Alabama, they swept freely over the States of Kentucky, Ohio, Indiana, Illinois, Missouri, and Iowa; the great corn region of the world, laden with the aqueous vapours of the Gulf of Mexico, and coming in contact and condensed by these cold northern currents, occasioned in June,

July, and August of 1875 the greatest amount of rain-fall and most disastrous floods since the years 1836, 1847, and 1858.

In all the years prior to and including the high priced years in corn and hogs, we have had extremes in the weather. We had droughts in 1845, '46, and heavy rain-falls in 1847. The heat droughts and cold winters of 1856, '57, and '58 were very remarkable. The cold winters and droughts of 1863, '64, were unprecedented. Extremes of heat, rain, and droughts in 1868 and '69 were disastrous to the crops, and the same can be said of 1873, '74, and '75. The years 1879 and 1880 will again be years of extremes in the weather, producing short crops and high prices.

We have the information from high astronomical authority, that in the year 1880 we are to have a planetary combination as to three of the largest planets connected with our solar system, such as has not occurred before for about 2,300 years. These planets are all to reach the nearest point in their orbits to the sun at the same time, having the effect upon the earth of the most violent and wonderful changes in her atmospheric and magnetic system that has ever been recorded in history.

COTTON.

To give contemporary testimony to corroborate and verify our price cycles in corn and hogs, we will take the price of cotton, which grows out from the ground, and is affected by the weather. Corn and cotton occupy all the territory lying between the lakes and gulf. The cotton crops of the Mississippi would be affected by the floods at the North whenever we would have extraordinary rain-falls, or by unusual early or late frosts.

The price of cotton collected from Finance Reports of 1857, '58, '63, and '73, these prices being from the most reliable sources accessible in the absence of any other official record:—

1821	16c.	1855	8c.
1822	16	1856	9
1823	11	1857	12
1824	15	1858	11
1825	20	1859	11
1826	12	1860	10½
1827	10	1861	16
1828	10	1862	41
1829	10	1863	74
1830	9	1864	1 05 11
1831	9 11	1865	57
1832	9	1866	40

1833	11	1867	23
1834	12	1868	26
1835	16	1869	29
1836	16	1870	20
1837	14	1871	17
1838	10	1872	22
1839	14	1873	19
1840	8	1874	
1841	10	1875	11
1842	8 11	1876	
1843	6	1877	
1844	8	1878	
1845	5	1879	
1846	7	1880	
1847	10		
1848	7		
1849	6		11
1850	11		
1851	12		
1852	8 11		
1853	9		
1854	9	1891	

These prices are for New York, which are sometimes ruled by speculators, and allowance must be made for their incorrectness.

The price of cotton is more influenced by the state of trade in the world than the price of corn and hogs, and therefore it does not follow the production in this country so close as the former pro-

ducts. Commencing in 1825, we find the price of cotton to be twenty cents per pound, the highest quotation in the scale—except during the war of rebellion; the next highest quotation is in 1836, eleven years from 1825. In looking ahead in the table, we find 1847 a high priced year in respect to other years preceding and immediately after that year. Again in 1858, we find a high price with the year before and the year after, all high priced years. Again, in 1869, we have the next high price after the war, the war coming in on a short cycle of six years. Now extending our price cycle of eleven years from 1869, it gives us the year 1880, our next high priced year for cotton, and running eleven years further, we have the year 1891, when cotton, corn, hogs, pig-iron, will be at a high price, and general business prosperous—up to that year.

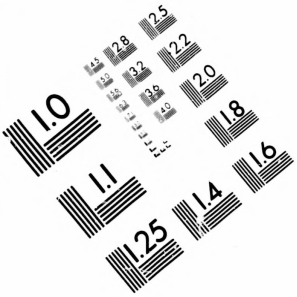
PROVISIONS.

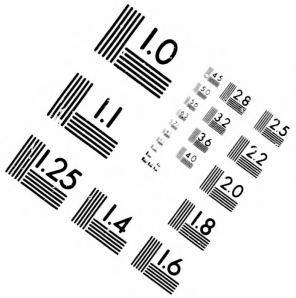
The year of the provision trade begins the first of November and ends on the last day of October.

The statistics are mostly made up commencing with November. However, with these statistics, as generally compiled, the writer in his observation does not lay much store by them.

How many hogs are annually killed is one of the mooted and unsolved problems of the day. The statistics of winter and summer packing of hogs are no doubt reliable, or as near correct as can be compiled, but the domestic killing by farmers and butchers is not collated for the public, which is a very important item to be considered in our provision statistics. Therefore we are forced to take for granted that a part is not sufficient without the whole.

It is almost an impossibility to procure full and reliable statistics of the exact amount of hog products in this country; and also what becomes of all the pork, bacon, lard, etc., that are prepared in this country to be consumed at home, or sold to commerce. And again, what the probable commercial demand will be for hog products within the provision year.





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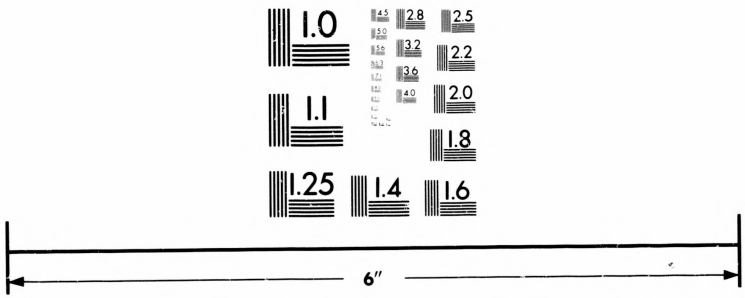

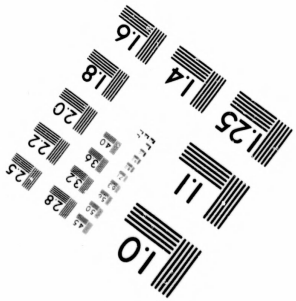

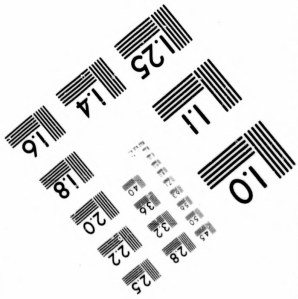

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As there are so many elements entering into the probable supply and prospective demand, that we cannot form a correct opinion in reference to the advance or decline in prices other than by keeping in view of the advance and decline in the general course of prices for hogs from year to year.

The price of the hog products have heretofore followed closely to the price of hogs. Taking the last cycle in high prices for hogs, we find that after the high priced year 1869, the price of provisions declined in 1870, '71, and '72, reaching the lowest limit in the summer of 1872. In the year 1873, when the price of hogs advanced, provisions also advanced. Speculators are generally alive to these facts, and on these periodical advances they are ready and willing to operate, and invest as described in the following.

Chicago was well convinced in 1873, while hogs were advancing in price, that "then was the time in the price which, if taken at the advance, leads on to fortune," and her operators went on a bull speculation, and not only bought up all the stock offered at current rates, and contracted for all prospective supplies for Chicago, but went to New York and bought up all stock offered, and all options, also went into European markets, and bought back their

own stuff that had been shipped early and at low prices, and when the combination had secured the control of the markets, up went the price to extraordinary figures for the first year of advances in hogs and provisions after the former declines. Chicago was happy, and her speculators pocketed millions of money.

This Western bull campaign in provisions, with its lofty Texan horns tossing the markets to such dizzy heights as it did in 1873, could not have been successful, with all its financial strength, in any of the years of decline in the price of hogs.

The speculators who may attempt in 1876 or 1877 to bull the provision markets, can no more thrive and prosper than can swamp fever live on the lofty peaks of Chimborazo. And if this speculation be undertaken in these years, these Western operators will realize that they are mistaken, and will be slaughtered in this business as surely as were the deluded Hindoo pilgrims mistaken in the means of salvation, and uselessly slaughtered when casting themselves between the wheels of the car of Juggernaut.

PANIC.

Panics in the commercial and financial world have been compared to comets in the astronomical world. It has been said of comets that they have no regularity of movement, no cycles, and that their movements are beyond the domain of astronomical science to find out.

It has been admitted by astronomers that the comet of 1874, named Coggia, was a new comet and a stranger; one that has not visited this part of the the universe before within the history of mankind. However that may be, the writer claims that the *Commercial Revulsions* in this country, which are attended with financial panics, can be predicted with much certainty, and the prediction in this book, of a commercial revulsion and financial crisis in 1891 is based upon the inevitable cycle which is ever true to the laws of trade, as affected and ruled by the operations of the laws of natural causes.

The panic of 1873 was a commercial revulsion; our paper money was not based upon specie, and the banks only suspended currency payments for a time in this crisis.

As it is not in the nature of things in each suc-

ceeding cycle to operate in the same time and manner, the writer claims that the "signs of the times" indicate that the coming predicted disturbance in the business world will be not only an agricultural, manufacturing, mining, trading, and industrial revulsion, but also a *financial catastrophe*, producing a universal suspension of specie payments, and the closing up of all the banks in this country.

It is not necessary to give a detailed account of the effects of disorderly banking in our colonial and revolutionary history, and the different panics prior to the war of 1812, to establish cycles in commerce and finance.

Such a history would fill many pages without answering the purpose of this book, and would be as intricate and difficult to understand as the prices of stocks and gold in Wall Street, as the eternal fitness of things at that time were on trial, and necessarily unsettled, so far as man could understand.

The war of 1812 was the period in the history of the United States of America when it was deemed a necessity for this country to become a manufacturing nation, as a balance wheel to maintain the prosperity of agriculture and commerce, and also to declare her independence forever from any nation upon the earth,

It is a doleful commentary upon the times that such calamities in the history of our country, as hereafter mentioned, should have occurred amidst a profusion of all the elements of wealth, prosperity in trades and manufactures, and independence in the arts and sciences.

It will only be necessary for the purposes of this book to state that the business of this country before, during, and after the war of 1812, had culminated in the year 1819, as commercial history will show; and that a reaction in business followed this year, the beginning year in our cycles of commerce and panic.

However, we deem it important to notice at this period the operations of banking in brief as a good criterion of the prosperity and adversity in general business, and the fluctuations in the activity of industry and commerce.

In the Report of Finances for 1854, '55, it is stated that from the adoption of the Federal Constitution in 1787 to the year 1798, no people enjoyed more happiness or prosperity than the people of the United States, nor did any country ever flourish more within that space of time. During all this time, and up to the year 1800, coin constituted the bulk of the circulation; after this year the banks came, and all things

became changed; like the upas tree, they have withered and impaired the healthful condition of the country, destroyed the credit and confidence which men had in one another, and inflicted on the people political and pecuniary diseases of the most deadly character.

The bank-note circulation began to exceed the total specie in the country in the years 1815, '16, and '17, and in the year 1818, the bank mania had reached its height; more than two hundred new banks were projected in various parts of the Union. The united issues of the *United States Bank*, and of the local banks, drove specie from the country in large quantities, and in the year 1819, when the culmination in general business had been reached, and contraction of the currency began to be felt, multitudes of banks and individuals were broken. The panic producing a disastrous revulsion in trade, caused the failure of nine-tenths of all the merchants in this country and others engaged in business, and spread ruin far and wide over the land. Two-thirds of the real estate passed from the hands of the owners to their creditors. Volumes would be required to portray the horrors and sufferings produced by this general commercial and financial revulsion in business and trade.

A banker, in a letter to the Secretary of State, in

1830, describes the times as follows: "The disasters of 1819, which seriously affected the circumstances, property, and industry of every district of the United States will be long recollected.

"A sudden and pressing scarcity of money prevailed in the spring of 1822; numerous and very extensive failures took place in 1825; there was great revulsion among the banks and other monied institutions in 1826. The scarcity of money among the trades in 1827 was disastrous and alarming; 1828 was characterized by failures among the manufactures and trades in all branches of business. Lamentable and rapid succession of evil, and untoward events prejudicial to the progress of productive industry, and causing a baneful extension of embarrassment, insolvency, litigation, and dishonesty, alike subversive of social happiness and morals.

"Every intelligent mind must express regret and astonishment at the occurrence of these disasters in tranquil times and bountiful seasons, amongst enlightened, enterprising and industrious people, comparatively free from taxation, unrestrained in pursuits, possessing abundance of fertile lands and valuable minerals, with capital and capacity to improve, and an ardent disposition to avail themselves of the advantages of these great bounties."

After the year 1828 business continued to be depressed, vibrating according to circumstances until 1834, a year of extreme dullness in all branches of trade; after which our stock of precious metals increased very fast, business revived, and in the years 1835 and '36, the imports of gold and silver increased to an enormous extent; as the banks increased their reserves of specie, they also correspondingly issued bank notes—each increased issue of paper money led to the establishment of new banks.

The State banks that had numbered in 1830 only three hundred and twenty-nine, with a capital of one hundred and ten millions, increased, according to the treasury report, by the first of January, 1837, to six hundred and twenty-four, or, including branches, to seven hundred and eighty-eight, with a capital paid in of two hundred and ninety millions.

Mark the result! and culmination!! a panic!!! in the month of May, 1837, and suspension of specie payments by all the *banks*, and a general commercial revulsion throughout the country, involving the fortunes of merchants, manufacturers, and all classes engaged in trade, in consequence of a ruinous fall in prices. This year of reaction makes the second year in our panic cycles, and is eighteen years from 1819.

It is not necessary to go over almost the same history again to show that business was depressed, and trade was stagnant after 1837 down to the year 1843, and then up and down to the year 1850, a year of extreme dullness in all branches of trade and industry, after which year a change came, and business was again prosperous to the year 1857, when we again experienced a commercial and financial crisis and reaction, not only in this country but all over the world, making the third year in our cycles, and twenty years from 1837.

History repeats itself with marvellous accuracy in detail from one panic year to another. The general direction of business after the panic of 1857 was on the same downward grade that had characterized the times after the panics of 1819 and 1837, until all business had culminated in depression in the year 1861, after which trade again improved, and was very active during the war of rebellion and up to the year 1865, when a temporary reaction set in; and, reader, let me observe here, that if then had been the time for a commercial revulsion and panic in money, the catastrophe would have been the most deplorable national calamity upon record. However, the cycle was not then complete, and the commerce and trade of the country continued to be semi-pros-

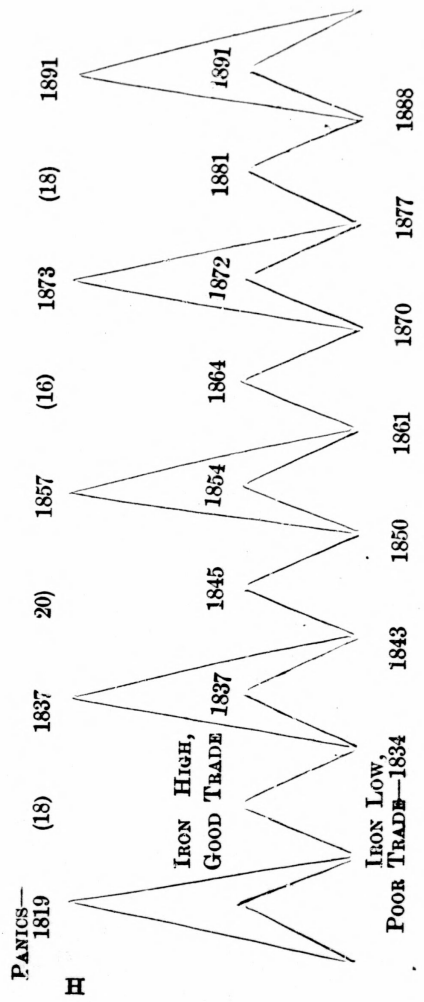
perous until 1870, after which year commercial activity was the order of the day, all branches of business and manufacture flourished and were prosperous; our railroad building was astonishing in the world in the years 1871, '72; but the end must come, and in September, 1873, we had the culmination—a crushing panic, and reaction in all trades, manufactures, railroads, and industries, which is still going on, and we have not yet reached hard pan.

These are facts of late history, and are so fresh in the recollection of the mind of the reader, that it is only necessary to refer to them. The panic of 1873 makes the fourth year in our panic cycles, and sixteen years from 1857.

As to whether it is the paper money or the manufacturing and trading industries of the country, which call out and into use the paper money that produce these periodical inflations and contractions, by which trade is stimulated and deranged, and extremes in business activity is brought about, is a matter for the statesman and historian to ascertain and record; it is only sufficient for our present purpose to point out the panic years, and to show that the preceding years were prosperous and profitable years in trade; while the succeeding years, for a certain length of time, were years of depression and

loss in business; and we observe that since the business of the country has abandoned specie as a currency, and adopted paper money in lieu thereof, the manufacturing interests have attained larger proportions, and that there are more regularity and system in the return of the advance and decline in general business, and that the culminating years in activity and depression can be calculated and ascertained with greater certainty.

The CYCLES in PANICS with the cycles in PIG-IRON in the *same scale.*


Panics—
1819
(18)
1837
20)
1857
(16)
1873
(18)
1891
Iron High,
Good Trade
1837
1845
1854
1864
1872
1881
1891
Iron Low,
Poor Trade—1834
1843
1850
1861
1870
1877
1888

The panics of 1819, '37, '57, and '73, during this period of years, stand out upon the pages of the history of this country in their magnitude compared with other panics, as the planet Jupiter compares with the lesser planets in our solar system.

Commencing with the commercial revulsion of 1819, we find it was eighteen years to the crisis of 1837; twenty years to the crisis of 1857; and sixteen years to the crisis of 1873—making the order of cycles sixteen, eighteen, and twenty years and repeat. The cycle of twenty years was completed in 1857, and the cycle of sixteen years ending in 1873, was the commencement of the repetition of the same order. It takes panics fifty-four years in their order to make a revolution, or to return in the same order; the present cycle consisting of eighteen years will end in 1891, when the next panic will burst upon us with all its train of woes.

Returning to the bottom of the scale, there we find the years of POOR TRADE and HARD TIMES; between panic years in the scale there are two low points, indicating two different times of depression in the iron business; these low points indicate the hard pan years in general business. Confidence after these years, especially after the latter, exercises its empire and casts overboard the incubus that has

weighed down enterprise and energy; these years are the ending of the declines, the beginning of better prices and more prosperous times. The year 1877 is the next low point in our scale for price of pig-iron. This year will be a dull and unprofitable year for the iron trade, and also for general business.

The next high point will be 1881, a prosperous year for the iron business. However, in the year 1882, and the six succeeding years running to 1888, like the years after 1854 and 1864, we may look for squalls in the money market, blue-Mondays, black-Fridays, and tornadoes in banking, and the first financial flurry under the coming specie basis, which will have to rest upon a confidence artificially created and artificially supported, unless the currency is contracted to that minimum which would prostrate the industries of the country, paralyze the life and energy of our people, and produce convulsions and depressions only equalled in the years succeeding 1819, '37, and '57, filling up the pages of history with commercial and financial disasters, as they were filled up to 1834 and 1850. After the year 1888 the price of pig-iron will advance, all business will be prosperous, corn and hogs will be on the advance, agriculture and manufacture will be active, all trades and industries will make money up to the year 1891,

when we predict a panic which will not be confined to the United States, or this continent, but will sweep over the world like the panics of 1819 and 1857, and will be felt with equal severity in other countries.

Since 1819, panics burst upon us after the price of pig-iron had commenced to decline, and therefore it is not chargeable to a general panic as the direct cause of the price of iron taking the descending scale; the price declines without a general panic, (see scale after 1845, and '64,) and the same will be the case in 1881. In 1891, the commencement of the decline in the price of pig-iron will precede the panic of September or October of that year.

The writer claims that the iron trade is the chief and ruling industry in this country, if not in the world. Iron is the most useful of all metals, in fact the bone and sinew of our civilization, and the most important element of progress, as seen in the sewing-machine, reaper and mower, spinning-jenny, power loom, steamboat, railroad, land and submarine telegraph. And as the iron industry raises or falls in the scale of prosperity, so does the general business of the country. Pig-iron is our north star to guide us over the dangerous roads of commerce. It is the barometer of trade, and as the sudden falling of the mercury denotes violent changes in the atmospherical world,

so does the periodical decline in the price of pig-iron indicate panic, depression, and general stagnation in business.

The United States of America will in the future surpass all the world besides, in the production of pig-iron and in the manufacture of its products; and if this trade could be established upon a firm basis, and the labour employed in dull times until it has accumulated capital, with the ingenuity, invention, and skill of the indomitable Yankee in the complex processes of its manufacture, with our abundance of cheap raw material, and by the aid of natural gas for fuel as lately and successfully applied at Pittsburg, a thorough knowledge of the ups and downs of prices in the markets and cycles of good and bad trade, this industry in this country in its colossal proportions would, in a short time, defy the world's competition, give us better and cheaper iron; give more steadiness to prices, and greatly mitigate the consequences of periodical crises and depressions.

The highest and lowest prices in the cycles of high and low priced years for iron are in a progressive order, as reported in the monthly price tables of the Iron and Steel Association. The high prices commencing in January, 1837, going over to May in 1845, to June in 1854, to August in 1864, and to Sep-

tember in 1872. The low prices, commencing in April 1834, reaching to July in 1843, to July in 1850, to October in 1861, and December in 1870; showing that each cycle extends a fraction over the required years. The low prices for 1877 will run into January of 1878.

The panic of 1819 began early in the year, and that of 1837 in May, and of 1857 in September, and of 1873 in September. The price of pig-iron in 1881 will not reach the maximum until September; after that month it will begin to decline. The price of pig-iron in 1891 will not begin to decline before September, as the panic will not appear before that month in that year.

Astronomy tells us that eclipses return in the same order every eighteen years. Every eclipse within this period of eighteen years belongs to a separate series of eclipses; that is, there is but one eclipse during the eighteen years which belong to the same series. This periodical return was discovered by the ancients, and by this rule they were able to foretell the appearance of many of the eclipses, years in advance; and by close observation, through many centuries, astronomers at this day can foretell the exact hour and minute of the appearance of any or all the eclipses. Other cycles of motion in the heavens vary

in their particular order of series. Science will yet show that there is a reality in the connection between human events and the operations of nature; the causes and the laws by which they operate we are now ignorant of.

The cycles in panics and ups and downs in prices of agricultural and manufactured articles are but the effects of a cause, which is manifested in periods of sixteen, eighteen and twenty years in panics; that return in the same order every fifty-four years, in periods of eight, nine, and ten years in the price of pig-iron; which return in the same order every twenty-seven years, and down to five and six years in the price of corn and hogs; which return in the same order every eleven years; and by a series of observations in the future, the particular month and day could be ascertained when these changes in the ups and downs in prices will occur. When once these cycles are defined, ascertained, and calculated upon to a month and day, by a careful compilation of prices in each cycle, and the natural causes producing them discovered and verified, then their return can be calculated to continue in that exact order as long as other cycles in motion; as they are the effects of other motions, and will return with as much certainty and astronomical exactness, as the

return of the eclipses of the sun and moon; and it does not require a belief in the fabulous to have faith in their periodical appearance. These cycles in the operations of cause and effect have always existed. There has been no confusion. Man has been continually making discoveries of the manner in which the laws of nature operate.

In my predictions I stated that 1876 and '77 would be years of great depression in general business, and that there would be many failures in these years; they will come at the end of the five years' decline in the price of pig-iron; and it does not require a gift of prophecy to foretell many failures in all of these years.

The "signs of the times" can be calculated by comparing 1876 and 1877 with other years after commercial panics, and the fall in the price of pig-iron—for instance 1842, '43, and 1860, '61—and the state of business preceding these years, remembering that 1876 is presidential year, and that presidential years like 1820, 1840, and 1860, immediately succeeding commercial revulsions, are years of depression in business, the uncertainty of the times and of future legislation clogs the wheels of commerce and stops business. "Hard times" and "dull trade" are surely upon us for the next two years. The

working man who depends upon his labour for his living, especially they who are engaged in the iron trade, surely have a dreary prospect—compelled by low wages to practise the most rigid economy in the necessaries of life, in the use of bad flour, black molasses, pressed shoulders, and store pay. And in the depression of the agricultural, manufacturing, and industrial interests, as they will be depressed all over the land in the next two years, the sting of hard times will come to every man's home.

In all these years of reaction and depression in general business, Providence works upon the minds of men, as witnessed at the present time by the religious excitement in the East, created by the evangelists Moody and Sankey, as instruments in the hands of God to start in motion a religious wave that will in the next two years sweep over the entire western country.—Men in time of trouble put more trust in God, and are inclined to more thoughtfulness.

The writer stated in his predictions that notwithstanding the resumption of specie payments, the price of iron and hogs will be higher in 1879 than in 1878. The price of iron and hogs will have already suffered a diminution in premium and price in their low priced year 1877. It is natural for prices to

advance in 1878, 1879, and 1880, and no legislative act can prevent it. The return to specie payments will give confidence in business and stability to trade.

Congress made a mistake in not fixing January 1, 1878, as the time for the resumption of specie payments; this delay will cause the government and people to lose twelve months of recuperative strength in the great commercial and financial battle of 1891.

January 1, 1878, is the time when all needful and necessary contraction of the currency for a specie basis will be in conformity with the universal contraction of business, which will have been going on ever since the revulsion of 1873, and when general depression will have reached the very bottom of hard pan, and when the times will demand that contraction in trade and currency must cease, and the ending of the cycle in low prices for pig-iron, the great jupiter of trade.

The combined interests of the people will demand that this incubus and scare-crow upon industry and trade be confined to the shortest period consistent with the times, and that there be no contraction after the year 1877. Agriculture, manufacture, mining, commerce, finance, and the cycles of high heaven demand it; to restore business confidence;

to relieve general distress, and to repair national and individual disaster.

Commercial panic is the reaction from over trading and over expansion of credit and confidence, an excess of commerce and finance. Political economy abounds in theories to explain the cause of panics. It is not necessary to look about for a cause; commercial and financial revulsions are the consequence of many causes.

When the price of iron begins to decline, there is a panic in iron. When the price of hogs commences to decline, there is a panic in hogs. When the price of cotton, wool, wheat, or any product begins to fall, there is a panic in that particular article; the supply exceeds the demand. Prosperity in the aggregate creates general confidence, and expands credit, and this swells the prosperity, increases the demand for money, inducing banks to extend their issues and loans to the utmost, until the climax is reached; then comes the panic, the inevitable crisis and reaction; the pressure to realize produces a decline in prices; confidence is lost, capital, ever sensitive, withdraws; a run commences on the banks, ending in financial and commercial disaster.

Commercial revulsions are governed by a law

beyond the control of man, and are confined to no creed, party, or politics.

The panic of 1819 was in Monroe's administration; that of 1837 in Martin Van Buren's; of 1857 in James Buchanan's; and of 1873 in U. S. Grant's.

No governmental or congressional subsidies; no legislative enactments, tariffs, or currencies; no financial syndicates, convertible or interchangeable bonds; no bribery of legislators or betrayal of constituents can arrest or change their course.

When the period arrives for a panic, any breeze or signal, no matter what reverses the engine, the times take the downward grade, and there is no general recovery until we hear pig-iron demanding

"WATCHMAN! WHAT OF THE NIGHT?"

This ideal will have been standing out upon the dome of the weather-beaten tower of time, gazing into the dim vista of the future, for five long years of disaster and ruin, waiting for the period foreseen and predicted, when the glimmer of the year 1878 can be discerned in the eastern horizon, not a meteoric flash which illumes the night with a transient and uncertain glow; but the continued morning radiance, which is the forerunner of the full light and glory of a bright noon-day—will then exclaim, AROUSE, PIG-IRON! monarch of business! come

forth from the chambers of thy slumbering silence, the dawn of a new era is at hand! hogs, corn, and cotton fall into line, and start in motion the wheels of commerce, industry, and trade!

The resumption of trade and industry in the year 1878 must go on; the Gibraltar of hard times will be passed in 1877; mills and furnaces will start up; the price of pig-iron, hogs, corn, and provisions will be on the advance. Agriculture, manufacture, mining, commerce, and finance, will begin to prosper; the industries of all this country will be born of new life, and with our finances upon a sound basis, and a stop put to the enormous importation of foreign goods, that we can manufacture ourselves, which will give us the balance of trade, and enable us to keep our gold at home, and a general knowledge among the people of the duration of the ups and downs in prices, and when we may expect the return of commercial panics—this country, with its forty millions of population, seventy thousand miles of railway, and two hundred millions of acres of cultivated land, will prosper and advance beyond any nation which has appeared in all ages of the world, and the chronicles of its future history, if well written, will rival the stories of oriental imagination.

THEORY.

We have had to hunt down PRICE CYCLES by establishing periodicity in high and low priced years; the length of the different periods in which they have repeated themselves, and by indisputable dates, facts, and figures, demonstrating their regularity.

The cause producing the periodicity and length of these cycles may be found in our solar system. The writer does not claim a knowledge of the causes and conditions under which they occur, and the reasons why they occur; *meteorological scientists* have been labouring and exploring the records of all ages to discover a *Meteorological Cycle*—the great desideratum of the age.

In the ELEMENTS OF METEOROLOGY, by Prof. John H. Tice, of St. Louis, Mo., published in 1875, are meteorological cycles, demonstrated and verified according to his theory, which is that *Planetary Equinoxes* are the causes of the disturbance to which our earth and atmosphere are periodically subject.

That all the elements of disturbance are physically interwoven with and inseparable from the planetary system, and that Jupiter at his equinoctial points

suffers physical perturbations both in his body and atmosphere, probably more intense than the disturbances at our equinoxes. These cause similar atmospherical and physical paroxysms in Jupiter, as our equinoctial disturbances do; namely, electric and magnetic storms and earthquakes in the body of the planet; and in the atmosphere, violent tornadoes and hurricanes, accompanied with terrible electric explosions, heavy rain-falls and hail storms, and that these equinoctial disturbances in Jupiter affect the sun, and through the sun the solar system. The result upon the earth and its atmosphere is an enormous increase of electric intensity. Gives the equinoxes of Vulcan, Mercury, Venus, Earth, Mars, Jupiter, and Saturn, and also a historical record of the auroras, sun-spots, earthquakes, magnetic disturbances, cyclones, rain-falls, and hail storms, in verification of his cycle, and demonstrates that Jupiter is the cause of the atmospheric, telluric, and solar perturbations that occur once and in a modified form twice in every one of his orbital revolutions, and that the maximum disturbance upon the earth must occur at or near Jupiter's equinox, and that the energy of the equinox of any planet is intensified when that of another occurs at or about the same time. Fixes 11.86 years as the length of the Jupiter

year, and names it the Jovial Cycle, and assumes that on the following years in this century have occurred, and will occur, the Jovial Major Equinox.

1800.58	1859.88
1812.44	1871.74
1824.30	1883.60
1836.16	1895.46
1848.02	

The cycles of 11 years in the price of corn and hogs, 27 years in the price of pig-iron, and 54 years in general business, can not be accounted for upon any known theory in the operations of trade. Therefore we must look elsewhere for a cause and solution of the problem.

The fact of the existence of these cycles is patent to any close observer, and as to whether any hypothesis or theory would be of practical utility when not a demonstrated and *verified* truth, is for the reader to determine.

In our 11 year cycles commencing in 1836, and running to 1847, '58, and '69, we observe that our cycles fall behind the Jovial Cycle. We have not the daily or monthly prices for corn and hogs, so as to ascertain if there are fractions of a year in our cycles; if there should be, they would be found to

be small. We know there are fractions in the cycles for pig-iron extending over four months from 1837 to 1845, and in other cycles from one to two months, but not sufficient fractions in any cycle within the past forty years, and will not be before 1891, to change the number of years in any high priced year cycle of either hogs or pig iron.

The meteorological cycle, as verified by Prof. Tice, seems to be well demonstrated by his array of historical facts.

His forecasts of the weather during the year 1875 was verified with surprising accuracy, and we have no doubt that his theory in regard to sun-spots, earthquakes, auroras, and magnetic disturbances is well confirmed. However, it is to be considered that other elements and influences may operate to cause abundance or scarcity in stock and grain crops.

Facts are the data of all just reasoning, and the primary elements of all real knowledge. The fact seems to be philosophically certain that all the planets which compose our solar system are essential to that system: the sun to the planets, the planets to the sun, and all to each other; and when certain combinations are ascertained which produce one legitimate invariable manifestation from an analysis of the operations of the combined solar system, then

we may be enabled to discover the cause producing our price cycles, and the length of their duration.

It is evident from our showing of the ups and down in prices, and the high and low priced years, that these cycles repeat themselves in definite length and without determining a fixed and exciting cause for their existence, or attempting to verify theories of which we are distrustful, we will risk our reputation as a prophet, and our chances for success in business upon our 11 year cycle in corn and hogs; in our 27 year cycle in pig-iron, and in our 54 year cycle in general trade, upon which we have operated with success in the past.

Modern facilities have brought the ends of the earth together, and nearly obliterated the cycles in famine and bread riots, but in turn have developed well defined cycles in prices. By the aid of steam and electricity, a deficiency in one part of the earth is soon supplied by the surplus of another; therefore, natural productions are more equalized over the country; and as the average aggregate yearly amount is regulated by productive and unproductive seasons, prices follow nature more closely than formerly, and their cycles must correspond very closely with meteorological cycles.

The influence of the sun-spot period upon produc-

tion and prices has formed the subject of numerous discussions during the present century; and it is a singular fact that scientists have made the discovery that large and small crops have occurred at intervals approximating to eleven years, the average length of the sun-spot period. It may be a meteorological fact, that Jupiter is the ruling element in our price cycles of natural productions; while, also, it may be suggested that Saturn exerts an influence regulating the cycles in manufacture and trade.

Herschel and Leverrier, away out in the regions of immensity, beyond the range of human eyesight, may send forth an electric influence affecting Jupiter, Saturn and, in turn, the Earth. Heathen mythology claimed that Saturn was the deity who presided over time, as he was the most distant planet from the earth of any that are visible to the naked eye, and requiring twenty-nine years to make a revolution around the sun. Saturn appears to have been king of Crete, in whose time iron was said to have been discovered on Mount Ida, owing to a fire by lightning producing a conflagration in the woods. Vulcan wrought the new iron mines and made iron implements. Ancient astrology claimed to foretell future events by the motion of the stars, and in this they were not far wrong, although they were not regu-

lated in their predictions by cycles in motion, but by certain changes in the stars at certain times, aided by the celestial globe, and approaches, recessions and aspects of the planets. Ancient astrology is now being superseded by modern science. All great events and convulsions in nature are now being explained and accounted for upon fixed physical causes.

The deluge of Moses, if we look for a physical cause, can be found in the precession of the equinoxes. The perihelion having a period of over 25,000 years, crossed the equator when the translation of the ocean from the northern to the southern hemisphere, would necessarily produce wrecks of countries, great physical changes, and floods upon the earth. For all history concurs in describing a deluge, and science demands its recurrence about every 12,000 years.

CONCLUSION.

In view of the immensity of the interests involved, and the magnitude of the gains or losses incurred in the advance and decline of each price and panic cycle, and the consequences of the effects upon all business and trade, well might we be surprised and astonished at the opportunities afforded for accumulation and the chances for disaster, that by rule of cycles we are compelled to predict.

Persons who undertake to search for coal outside of the coal fields, to mine for ore outside of the iron region, or prospect for any mineral by which through ignorance of the teachings of geology, they would be constantly led to squander their means for that which they cannot find—could be compared to a person who undertakes to make money during the decline of prices. Failures in business are caused principally by our ignorance of *when* the ups and downs in prices are to take place. It has been stated that in the city of Boston, in a series of forty years after the year 1800, that only five in one hundred men remained in business; they had all in that time failed or died destitute of property. It has been stated and ascertained that not more than one per

cent. of the best class of merchants escape from failing in Philadelphia, and not more than two per cent of the merchants of New York ultimately retire on an independence during periods of twenty-five and thirty years. In Cincinnati, out of a list of some four hundred of the principal business men who were in trade in that city at a certain period, there were only five in business at the end of twenty years from that date. Such is mercantile success, and we see the same repeated in all the leading and different branches of trade.

As compiled by Dunn, Barlow & Co., of New York City, for the year 1873, throughout the country there were 5,183 failures of business men, with liabilities aggregating to $228,499,000; for the year 1874, there were 5,830 failures, with liabilities of $155,239,900; and the indications of reports for 1875 are that the failures will number as many as in the former years. The greater proportion of these failures were brought about by losses sustained in the shrinkage of values, and decline of prices in each price and panic cycle. The people seem ignorant of the terrible teachings of history, and few are prepared to take advantage of these turns in trade; and the great majority, through ignorance of the time when the ups and downs in

prices are to take place, are caught with incomplete enterprises upon their hands.

It is noticed that the great majority of the business men of broken down fortunes have become so not by accident, but by dealing too largely when prices were on the decline. In the general declines of business after the panics of 1819, '37, '57, and '73, the loss to the nation, through non-employment of labour and in various ways, is estimated to aggregate a sufficient sum in each of these reactions to pay our national debt. George Peabody laid the foundation of his fortune by buying American securities in one of our commercial depressions, the price which, taken at the advance, led him on to competence.

READER, if you are young, life is short. You can not afford to make any mistakes, or miss any opportunities. You must take the tide at the advance. You can not wait a life time for the results of your experience; you must act upon what others know, or your life will be spent to little use and without much accumulation of property. The cycles of prosperity and adversity alternate inside of every ten years; but few of these prosperous decades are yours in an active business life; therefore do not waste your strength, or impair your energies on these

periodic declines, as foreshadowed in the future by the bright written pages of past history.

Barnum has well said, in his celebrated lecture on the art of money getting, "You can not accumulate a fortune by taking the road that leads to poverty." The whole history of trade and commerce is full with the records of disaster, which has been brought about by mistakes of men who could not read the letters upon the sign posts; while on the other hand our libraries are crowded with the chronology of man's success in business and trade, by taking the price and times at the advance, which leads on to fortune.

Within the present century the increase of knowledge, improvements in machinery, and the discoveries in the arts and sciences, have advanced with a speed unparalleled in the annals of history. New light in various departments of human activity is now rapidly and continually breaking in upon the world. The invention of the steamboat railroad, and telegraph, have imparted astonishing lessons to mankind. Each discovery of the laws of nature unfolds to the mind of man, new and exalting evidences of the wisdom of the Creator. Astronomers who attempt to explore the immensity of the starry regions; to discover unseen and unknown worlds, and to find out the ways of God in the wonders of

the heavens, are not, in this enlightened age, denounced as false philosophers and charged with an impious invasion of the domain of God. Each rising science has fought and struggled with superstition and ignorance; and in all ages no effort has been spared to blast them in the bud of their being, or crush them in the cradle of their infancy.

It has only been a short time before the present century, that if any one had predicted the crossing of the ocean in a vessel driven by steam, or of conveying news by electric agency around the earth, over the land and under the water in advance of time, or of daguerreotyping the human face on a metallic plate by the light of the sun, and then chemically fixing it there; or of forecasting the future of the weather; production and prices by the rule of cycles as regulated by providence; such persons would have been considered visionary, their predictions regarded as contemptibly absurd; their authors the most disingenuous of men, and their theories and systems treated with persecution and ridicule.

The day is past for men to be forced to drink the juice of the hemlock for having peculiar notions of Deity, and sent in chains to the gallows, or imprisoned in gloomy dungeons for announcing scientific discoveries. Galileo was condemned by the inquisition of

Rome for teaching the doctrine of the earth's revolutions. Galileo was right, and the world moves.

Science has many things to achieve in agriculture, manufacture, mining and commerce. The science of *price cycles* is yet in the cradle of its infancy, but waiting its time to mature full development, to unfold its principles, and declare its oracles to all mankind, and to demonstrate that the causes and the laws of nature in production are not past finding out; and that man in his onward path of progress, with the aid of electric science, will ultimately grasp the future, and make plain all the ways of God; which, when accomplished in this world, will be the acme of human knowledge, the consummation of human perfection, and the end of human destiny.

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