



## The United States miller. Vol. 24 1887/1888

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FLOUR MILL AND GRAIN ELEVATOR OWNERS SHOULD REFER TO PAGE 12.

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124 Grand Avenue.



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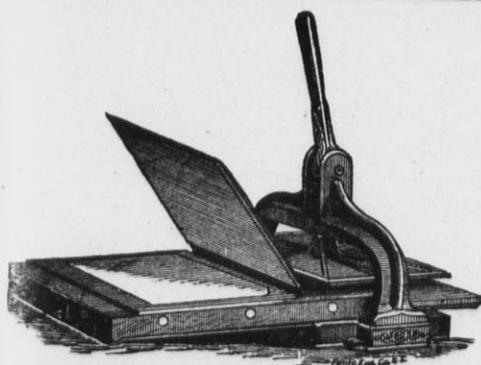
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We wish to say a few words in regard to WHEAT CLEANING, and to ask you whether our views are not correct. With the exception of some few cranks, who cannot be convinced, until it tells on their bank account, NO ONE DOUBTS the existence of a certain amount of dirt in the crease of the berry. Nature put it there, and there it is, and you can call it by any name you choose. It is a self-evident fact, that unless this dirt is removed, it must be incorporated with the flour, and to incorporate it, is to lower the grade. The BEST SCOURER or even DECORTICATOR, will not do more than to clean the exterior of the grain, and hence the removal of this crease dirt, requires a different method of treatment.

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NOW GENTLEMEN, consider that this **PROCESS** has been in successful operation for the last five years, and has been thoroughly tested in hundreds of mills in this country and abroad. IT HAS NEVER FAILED TO IMPROVE THE GRADE OF FLOUR IN ANY MILL WHERE IT HAS BEEN ADOPTED. **LONG SYSTEM MILLS, SHORT SYSTEM MILLS, BURR MILLS** have all been benefited. You need this Process and cannot afford to do without it, as we can convince you.

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# The United States Miller

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## SHORT SYSTEM AND BUHR MILLS,

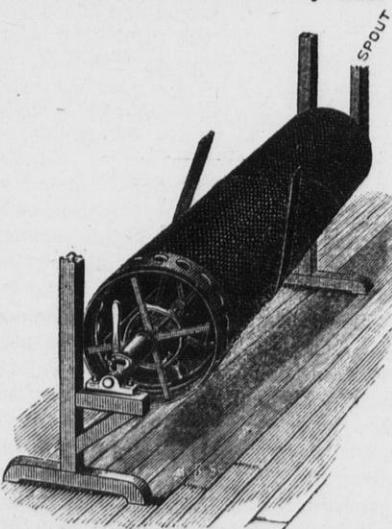
Since the introduction of short-system milling there is less occasion for serious consideration of the department of buhr milling. Short-system milling, as carried on by many millers, is not only short as to the number of breaks and as to the surface, but as to the number of separations as well, and for that reason may meet with favor from those who would otherwise mill by millstones. The great objection that has been found with gradual reduction milling by those who would mill in this way is that it is so complicated, and that about the same number of separations and reductions are necessary in the small mill as in the large one. This is true upon general principles of any kind of milling. Nevertheless, it is a fact that with the short-system a smaller number of reductions and a smaller number of separations are necessary, and it is true that quite satisfactory work can be done in this way, much more satisfactory than by buhrs, and with an outlay not so great as with a full gradual reduction mill. Thus it is that we say that the short system of milling will make further inroads into the buhr mills of the country. It is true that there is still a large number of buhr mills, a much larger number than is generally recognized, and it is also true that such mills are desirous of competing with their neighbors as fast as competition is necessary. The man who owns a buhr mill may feel entirely satisfied with it, and may feel that buhr milling is the proper thing as long as he does not have the roller mill to compete with. As soon as that becomes true, he must drop his prejudices, or drop his business. It frequently happens that he adopts the latter course. Prejudice is often stronger than reason. We say that the number of separations in short-system milling is much less than in the long system, which is true for the reason that the rapid reduction of the stock leaves a smaller number of classifications necessary. There are not so many different kinds of stock to be handled. The middlings are finer in size. There are flour and middlings and tailings and bran. There are only about two grades of flour and one grade of middlings in a small mill. That is, only such grades will be recognized. Of course there may be any number that one may choose to distinguish, however, the differences are not so apparent in this kind of milling as in buhr milling, or in the full gradual reduction mill. Short-system milling, if practiced in a very short way, is a good deal like buhr milling, only that the reduction is done on millstones. There is the same number of classifications

to be handled. Thus it is that it will meet with favor from those who still mill with buhrs.—*From The Millstone for November.*

## PRINZ'S PATENT COCKLE MACHINE.

The name of Faustin Prinz is sufficiently familiar to the millers of this country, in connection with his inventions in mill machinery. We give in this column two cuts explanatory of the Prinz Patent Cockle Machine, which is now being introduced to the notice of millers. It is designed for small mills as well as for large ones, and the price has been placed at a figure which will attract the favorable attention of both classes of millers. Our illustration shows a single reel without frame, so that it can be placed anywhere in the mill, and so that any mill can find room to accommodate it.

The machine consists of a cylinder about



PRINZ'S PATENT COCKLE MACHINE.

70 inches long and 16 inches in diameter, mounted on a stationary shaft 82 inches long, which is supported at both ends, either as seen in the cut, or it can be hung up under the ceiling or in any other suitable position. Inside of the cylinder is a trough suspended on springs and agitated by the revolution of



FIG. 2. SECTION OF COCKLE CYLINDER.

the cylinder itself, to receive the cockle which is carried up by the indentations of the cylinder and properly discharged into this trough. By the agitating motion of this trough the cockle is discharged at the front end of the cylinder. The wheat enters at

the end of the reel which is rolling at the lower side of the same in the direction to the discharge, and by this rolling the cockle finds its way into the indentations and gets raised up and discharged into the trough. There is nothing complicated in the machine, consequently nothing can get out of order to make trouble and annoyance. It has only two bearings to oil, and oiling once a day is all it needs, as it runs only at a speed of eighteen revolutions.

The greatest convenience of the machine is the entire control by the operator. By a single lever seen at the front of the cut, it can be set either to take out any quantity of cockle, or if there is none in the wheat, it can be set to take out nothing at all. The indentations (see Fig. 2) are of a new design and protected by U. S. Letters Patent granted to F. Prinz. This enables the manufacturer to indent sheet-iron or steel plates. The machine is driven by simply taking a two-inch belt around the reel at any point. The above described machine has a capacity up to twenty bushels per hour.

In addition to the machine described above, the manufacturers are building machines of larger capacity with a grading reel, and also with two or more cockle reels. This grading reel is of a new type and is guaranteed not to clog up. All parts of this machine are readily accessible, not one being placed inside another, and in a substantial frame, with slow motion so that very little power is required.

These machines have already been placed in a number of mills of the manufacturers. FAUSTIN PRINZ & CO., 659 East Water street, Milwaukee, Wis., will take pleasure in giving millers any desired particular respecting them.

THE printed report of Col. W. F. Switzler, chief of the Bureau of Statistics on wool and manufactures of wool is now ready for distribution. It shows:

The number of sheep in the United States rose from 19,000,000 in 1840 to 51,000,000 in 1884, but declined to 45,000,000 in 1887. This decline occurred mainly in the Southern and Western states, notably in Texas, and is attributed in great part to the decline in the price of wool since 1884. The increase in wool in imports has about kept pace with the growth of our wool products, both having about doubled since 1860. While our product of woolens has increased since 1850 nearly seven-fold our imports have increased 62 per cent., but the consumption per capita has doubled.

## SOUTHERN PROGRESS FOR ONE YEAR.

The Baltimore *Manufacturers' Record* which has taken great pains to obtain information concerning the industries and manufacturing enterprises started or put in operation in the Southern States during the year just ended, has published in its issue of June 1, 1887, detailed statistics of the industrial progress of the several Southern States. From them we summarize as follows:

	1885.	1886.
Alabama.....	\$7,841,000	\$19,848,000
Arkansas.....	1,220,000	15,240,000
Florida.....	2,019,000	1,659,000
Georgia.....	2,500,000	3,599,000
Kentucky.....	18,303,200	28,404,000
Louisiana.....	2,118,500	2,240,000
Maryland.....	6,668,800	8,765,000
Mississippi.....	761,500	774,000
North Carolina.....	3,230,000	3,676,000
South Carolina.....	856,000	1,208,000
Tennessee.....	2,692,000	21,240,000
Texas.....	3,282,000	5,694,000
Virginia.....	3,314,000	8,514,000
West Virginia.....	12,056,000	8,365,000
Total.....	\$66,812,000	\$129,226,000

It will be seen, in comparing the figures for 1887 with those for 1885, that there has been an increase of \$62,400,000 in capital and capital stock devoted to starting new enterprises and increasing those already existing.

The figures represent plant and labor for mining coal and ores, for manufacturing iron and steel, quarrying granite and marble, establishing cotton mills, cotton seed oil factories, flour mills, compresses for cotton, lumbering mills, woodworking establishments, ice factories, electric light works, tobacco factories, furniture and wagon factories, and a great variety of important and new industries. Included in the list may be enumerated as among the most important 28 iron furnaces, 50 ice factories, 68 foundries and machine shops, many of them of large size, 1 Bessemer steel rail mill, 26 miscellaneous iron works, including iron pipe works, bridge and bolt works, etc.; 8 stove foundries, 24 gas works, 34 electric light companies, 11 agricultural implement factories, 174 mining and quarrying enterprises, 16 carriage and wagon factories, 8 cotton mills, 23 furniture factories, 42 water works, 58 tobacco factories, 92 flour mills, 448 lumber mills (not counting small portable saw mills), including saw and planing mills, sash and door factories, stave, handle, shingle, hub and spoke, shuttle block factories, etc., in addition to which there was a large number of miscellaneous enterprises.

All this development represents so much money invested in machinery and plant, and so much paid for material and labor. It is scattered through fourteen States, giving to many thousands of persons the means of making an honest subsistence, building up centres of industry and civilization in mountain glens, and on hills and plains where there was before but a scant population, and showing in all directions substantial progress. There is nothing like these new industries for the Southern people. They preach a new gospel of work which means independence and prosperity.

## BARON LIEBIG ON FLOUR AND FERMENTATION.

The following remarks are by Baron Liebig: "Many chemists are of the opinion that flour, by the fermentation in the dough, loses somewhat of its nutritive constituents, from a decomposition of the gluten; and it

has been proposed to render the dough porous without fermentation by means of substances which, when brought into contact, yield carbonic acid. But on a closer investigation of this process, this view appears to have little foundation. When flour is made into dough with water, and is allowed to stand at a gentle warmth, a change takes place in the gluten of the dough similar to that which occurs after the steeping of barley, in the commencement of germination in the seeds, in the preparation of malt: and in consequence of this change, the starch (the greater part of it in malting, in dough only a small percentage) is converted into sugar. A small portion of the gluten passes into the soluble state, in which it acquires the properties of albumen, but by this change it loses nothing whatever of its digestibility or of its nutritive value. We cannot bring flour and water together without the formation of sugar from the starch, and it is this sugar and not the gluten, *of which a part enters into fermentation*, that is resolved into alcohol and carbonic acid. We know that malt is not inferior in nutritive power to barley from which it is derived, although the gluten contained in it has undergone a much more profound alteration than that of flour in the dough; and experience has taught us, that in distilleries where spirits are made from potatoes, the plastic constituents of the potatoes and of the malt which is added, after having gone through the entire course of the processes of the formation, and the fermentation of the sugar, have lost little or nothing of their nutritive value. It is certain, therefore, that in the making of bread there is no loss of gluten. Only a small part of the starch of the flour is consumed in the production of sugar, and the fermentation process is not only the simplest and best, but also the cheapest of all the methods which have been recommended for rendering bread porous."

## GROW MORE OATS.

The use of oatmeal as food for human beings is rapidly extending in this country. Fifty years ago there was not a bushel of oats used for any other purpose than horse feed in the United States. Now there are mills owned and run by millionaires in this and other states which are exclusively employed in making oatmeal for diet for men and women.

It is well known that this commodity has been a favorite kind of food in Scotland and other parts of Europe over a hundred years. Bobby Burns in his poems more than once celebrates the virtues of "porritch" in the rearing of branny men and healthful women. And yet so fixed are national prejudices that the use of a new article of diet, however desirable and meritorious, is slower than it ought to be; so that to find a family that has oatmeal on the table once every day is the exception rather than the rule in this country; and as simple as the preparation of a good dish of the material is, one rarely meets a cook or a housekeeper who knows how to make it well.

During the Irish famine, some thirty years ago, we recollect that a cargo of corn, which was shipped from Marietta, in Ohio, to Cork, and offered as a bounty to the poor people to prevent starvation, was rejected with scorn at first as food only fit for swine.

"Oats is only fit for horse feed," say our scornful American youth; "for our part we are satisfied with beefsteak, boiled ham, eggs, hot cakes and coffee." And thus they gorge themselves with viands and drinks which induce dyspepsia and other diseases in proportion as they are taken hastily and in excess.

The writer has partaken of many a good, satisfactory and nourishing breakfast on oatmeal and cream, and can warmly commend their use as producing branny men and beautiful, healthy women. Physiologists and economists attribute to the Scotch much of their energetic and effective character to the hearty porridge on which their youth is mainly reared, and we are inclined to believe there is much in the claim.—*Cincinnati Commercial Gazette*.

## TAKING THE PREMIUM OFF STRIKES.

It is Mr. Powderly's belief that there will be fewer strikes and labor disturbances the coming year than occurred during the last year. He believes that the abolition of the assistance fund, which was accomplished at the Minneapolis meeting of the Knights of Labor, "will tend to take the premium off strikes." He is undoubtedly right in this view. It was, in fact, nothing else than putting a premium on strikes to assess the working members of the order for the benefit of the strikers. With a large fund to draw upon when their wages should stop, there was a standing inducement for men to go on a strike even when they had no grievance worth striking about. They were more ready to walk delegates and disturbers than they would have been had they realized that they must stand or fall by themselves, and that the loss of their wages would not be in part made up to the idlers by a tribute levied upon the earnings of those at work. It was the "assistance fund" that started or maintained many a strike, and the Knights have done wisely in cutting off this incitement to industrial disturbance. Industrious and temperate workingmen grew very restive upon being frequently called on to support a lot of strikers in idleness who, for all they could see, had nothing to strike for and might as well be at work as themselves. This feeling was expressed in the action of the General Assembly at Minneapolis. With the "assistance fund" cut off, there is a good reason to believe that there will be fewer strikes and more arbitration. Workmen who understand that when wages stop there will be nothing to take their place will think several times before throwing down their tools at the order of some paid agitator whose business it is to traverse the country and stir up trouble.—*N. Y. Commercial Bulletin*.

THE MEXICAN GRAIN TRADE AND THE RAILROADS.—The latest received *Mexican Financier* has the following: "The grain dealers are beginning to open fire on the National Railway and also on the Vera Cruz Road in the matter of corn (maize) transportation. The National and Vera Cruz railways have been, and still are, making special rates on corn to Yucatan, which is a public benefit, inasmuch as the people of the Peninsula are now able to buy Mexican instead of American corn. Undoubtedly some speculators have found their plans interfered with, and hence the outcry which will be received by the general public with philosophical serenity."

## GRAIN ELEVATOR FIRES.

Two hundred and sixty-eight fires in grain elevators and storehouses in the United States reported in *The Chronicle* fire tables during three years ending with 1886 show as to losses:

An aggregate property loss of.....	\$3,994,318
An average property loss of.....	14,901
An aggregate insurance loss of.....	2,493,366
An average insurance loss of.....	9,304

## AS TO CAUSES OF FIRES:

Number of fires from unknown and not reported causes.....	128
Number of fires due to exposure.....	66
Number of fires, reported causes, aside from exposure.....	74

Reported causes, aside from exposure, distributed as follows:

Incendiary.....	31	Engines and boilers.....	3
Sparks (locomotive).....	12	Tramps.....	2
Friction in machinery.....	10	Spontaneous combust'n.....	1
Lightning.....	7	Stove.....	1
Defective flues.....	3	Accident (not other).....	1
Sparks.....	3	wise reported.....	1

The apparent chief cause of fires in grain elevators and storehouses, as ascertained from the reported causes, aside from exposure, is incendiaryism. Percentage of incendiary fires, reported causes, aside from exposure, 41.9.

A twelve years' record of the number of grain elevator and storehouse fires (money losses and causes not given in *The Chronicle* fire tables prior to 1884) shows an average burning of 44 annually.—*The Chronicle*.

## FEEDING GRAIN TO CATTLE.

Hay being scarce, there will be various devices resorted to, in order to carry cattle through the winter. Of course those who have grain will feed it, as the prospects of the price of corn will make it cheaper food than hay. In that case, it is well to consider the best way to feed hay and grain. It is well known that in feeding corn either in the ear or shelled, a large portion passes through the animals without being digested. And if hogs do not follow them, a large portion of the corn is lost. And when corn meal is fed it is ascertained that more of it passes through undigested than of whole corn. It is claimed that meal, taken by itself, passes immediately to the fourth stomach, where it is beyond thorough digestion. Prof. Arnold says he sold four fat steers to the butcher. He followed them to the slaughter house, and there just before they were killed, he fed them a peck of corn meal each. So soon as they could be slaughtered, and their stomachs reached, he found all the meal had already reached the fourth stomach. Not a particle could be found in the first, second or third stomach. Food should remain in the first stomach or the rumen long enough for the saliva, or pepsin, from the salivary glands to saturate it and be well started in the process of digestion. And then it will progress as it passes through the other stomachs to the paunch. That in this process of passing through the various stomachs the meal should be mixed with coarser food, such as hay, straw or corn fodder. And the more intimately it is mixed with and attached to the forage the better. Hence practical feeders claim that it pays to cut all hay, straw or fodder fine, wet it and sprinkle the meal upon it in a way that it shall adhere to and be masticated with it. In this way cattle never

have the scours caused by corn meal, nor does scarcely any of it pass through the animal undigested.—*Iowa State Register*.

## STEAM FLOUR MILLS IN BRAZIL.

## REPORT OF U. S. CONSUL TRAIL.

The proposed establishment of several steam flour mills in Rio having caused some discussion in United States newspapers in regard to their probable effect on the importation of American flour, I have collected a few articles, which are herewith inclosed,\* that are of interest both for the information they convey and in that they look upon the enterprise from different points of view.

As the editor of the *Rio News*, of February 5, says:

"Regarding the production of wheat, it may be considered as an indisputable fact that Brazil will never (or at all events, not for many years to come) figure in the world's market as a wheat producer. Certain localities in the south and in elevated regions may produce a small quantity, but of inferior quality, for flour-making purposes."

The duty on flour per barrel being from 65 to 75 cents, varying with the rate of exchange, and wheat being admitted free, it is claimed by the promoters of the undertaking that by the use of the best machinery and careful management a large profit can be realized here in flour milling with imported wheat, until such time as a sufficient quantity of the cereal is grown here to satisfy the home demand.

The companies have not obtained, nor so far as I can learn, have they as yet asked for any concessions from the Government. It is proposed simply to take advantage of existing tariff regulations and to interest Brazilians to an extent that will insure against the placing of wheat on the tariff list. It naturally follows that if the experiment does not prove successful from the start, a strong pressure will be brought to bear on the Government to have the duty on foreign flour increased. Should these undertakings succeed and so drive out of Brazil, American flours, our Government will doubtless render to its millers such assistance as the case calls for. In view of our large and increasing purchases of Brazil's staples, it would seem to be only polite on the part of the Empire to show some slight mark of favor to an American industry threatened with destruction.

Of course these mills, if ever erected, will be an experiment whose success is not by any means assured. I am informed from an intelligent source that the whole affair is simply a gigantic speculation, out of which certain parties expect to reap a rich harvest. But for this I cannot vouch.

## FLOUR IN COLOMBIA, SOUTH AMERICA.

## REPORT OF U. S. CONSUL VIFQUAIN.

Forty dollars and more per barrel is the price of flour here along the coast, a great portion of which is custom duties. As a result, the imports of flour from the United States are not what they might be, the laboring classes being unable to use such an expensive article.

I estimate, from figures collected, that where 1 barrel of flour for consumption, say 5 bushels of wheat, is imported now, 8 barrels, or 40 bushels of wheat in the grain,

\*The articles are extracts from a number of Rio newspapers.

would be imported and consumed if it were manufactured here and sold at "reasonable" rates, i. e., from \$5 to \$7 per 100 pounds weight. That is to say, if 100,000 barrels are imported from the States for the Colombian market, outside of the Isthmus of Panama, the equivalent of 500,000 bushels of wheat, eight times this amount in wheat, or 4,000,000 bushels of wheat, would be imported.

To be sure, this is not much in proportion to what our crop generally is in the States; but then it would always be that much, with promise of a large increase in the near future; it might become an immense factor in establishing on this continent a substitute for the market for wheat that we have lost in Europe, and facilitate perhaps not a little in enabling the fixing of the standard value of silver as a staple in the United States instead of Great Britain, for the South American States are essentially silver communities. I might also call your attention to the fact that the wheat for this coast can come all the way from St. Paul, Minn., or Omaha, Nebr., by means of water transportation.

I am lead to believe that if parties in the United States were to establish flouring mills at this place, or at Cartagena, all the machinery for these mills, and all the material necessary for their construction, would be admitted free of duty; nay more; I make bold to say that every bushel of wheat needed for these mills would be admitted free of duty; and this is the one great point I wish to make in this report. Unable to create such a market for our flour as we ought to have, we should strive to create one for the raw product.

The consummation of this by American millers would be an entering-wedge, which would be of telling effect between the trade of the United States and Colombia for the future. Concessions by the Government of Colombia can be secured for all this, which will, so to speak, give a monopoly to the United States for the wheat to be used here.

VICTOR VIFQUAIN, Consul.

United States Consulate, Baranquilla, July 6, 1887.

MISS YATES' RECIPE FOR WHEAT-MEAL BREAD.—*Ingredients.*—Fourteen pounds of wheat-meal, three ounces of French or German yeast (larger quantities of meal require a smaller proportion of yeast), three quarts of water (some meals are improved by using rather more water), one and a quarter ounces of salt (this small quantity of salt, half the amount used for white bread, is a great improvement to wheat-meal bread).

*Method.*—Dissolve the yeast in cold water (about 66 deg. Fah.). Wheat-meal ferments so rapidly, that, if the water used reaches a temperature of 70 deg. Fah., the bread, especially in hot weather, is very liable to become sour.) Mix the meal and salt, then stir in all the yeast and water with a wooden spoon, making a slack dough or batter. Do not knead the dough. Place it at once in tins and let it rise for an hour and a half in a moderately-warm place, about 100 deg. Fah. Bake in a moderately-hot oven with plenty of steam for about an hour and a half. The oven should be made cooler the last half hour. If this cannot be done, place a flat tin at the top of the loaves to keep in the steam. Take care that the oven is not too hot. The crust of wheat-meal bread becomes hard if baked in the hot ovens required for white bread. Avoid using white sponge. Avoid using chemical baking powders, as the product left in the food are almost always more or less objectionable.

## UNITED STATES MILLER.

E. HARRISON CAWKER, EDITOR.

PUBLISHED MONTHLY.

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We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

MILWAUKEE millers express themselves as satisfied with the business of late. The mills are running in full time and are making a fair profit.

WE respectfully call the attention of all parties receiving this paper to the liberal offer made subscribers, on another page. In substance it is as follows: For Two DOLLARS we will send post-paid to any address in the United States or Canada THE UNITED STATES MILLER (monthly) and *The N. Y. World* (weekly), for one year and a "Pocket Atlas of The World," containing 138 maps and valuable condensed descriptive matter, and either one of the following books (see description in advertisement on page 11.) "History of The United States"; "History of England"; or "Everybody's Guide." These are handsome books, elegantly bound and very suitable for Holiday Presents. *Can give but one book with each subscriber.*

WE call the attention of Millers and Flour Brokers to the Private Telegram Cipher advertised on page 11. It is pronounced to be the simplest and most accurate work of the kind published. It is the result of years of labor and practical experience in its use.

CAWKER'S AMERICAN FLOUR MILL AND GRAIN ELEVATOR DIRECTORY FOR 1888 is now in course of preparation and will be ready for delivery in February, 1888. The publisher (E. Harrison Cawker, No. 124 Grand avenue, Milwaukee, Wis.) desires all flour mill owners to send him their correct name and postoffice address, with the capacity in barrels of flour per day of 24 hours and to state whether they use steam or water power or both, or rolls or millstones or both. Elevator owners are desired to send elevator capacity and number of elevators owned by the firm. Full replies will be of benefit to the entire trade.

## MILWAUKEE ITEMS.

JOHN DUGAN, for over twenty-five years an employee in the St. Paul Company's Elevator B, was killed Nov. 7. While walking along on one of the upper floors, he accidentally

stepped into a grain hopper, not noticing in the darkness that a trap door had been left open. The iron buckets at the bottom of the hopper were in motion at the time, and nearly amputated the man's legs. His body was also dreadfully squeezed. The machinery was stopped as soon as the alarm was given, but his injuries were so great that he died in an hour from the time of the accident. He was 72 years of age.

Mr. Eckel, of Blue Rapids, Ks., made us a call. He has sold out in Kansas, and is looking for a location.

## FOREIGN ITEMS.

THE first sod of the Manchester Ship Canal was turned Nov. 11.

BRAN LOAVES.—A Berlin company, called the Berlin Bread Making Company, has introduced a new article in the form of loaves made of bran; local vegetarians prefer this to wheaten bread, we are told; certainly there is no accounting for tastes.

THE duty on machinery imported into Austria has been reduced fifty per cent.

IT is a matter of considerable difficulty to obtain a patent in Germany. All applications are referred to a technical committee for examination and approval. This committee has a right if they desire to do so to reject any application without giving any reason.

SEVERAL Austrian millers are stated to have lately joined in a petition to the Government asking that means may be taken to put down the gambling in grain, of which the Vienna Corn Exchange is said to be the theatre. The petition sets forth that this gambling is not only injurious to public morality, but that it inflicts direct injury on the milling trade by subjecting their staple raw material to sudden and artificial fluctuations in value.

AUSTRIAN MILL INSPECTORS.—It is clear that in Austria factory inspectors do their work in no perfunctory manner. Many millers in that land are still smarting under the last inspection, and here are a few of the injunctions which one of the inspectors lately laid upon a miller. That individual was strictly charged to repair all faulty stairs, to provide the best covers for all his manholes, to protect his water-wheel and its approaches with stout wooden walls, to provide all shafts with automatic lubricators, to remove or cover up all set screws, to protect by a covering of some sort all shafting and belts within a foot and a half of the ground, to provide all belt-driven machines with slack and fixed pulleys, to instruct his staff to warn all entering the mill of possible dangers, and to enjoin on all in authority in the mill to call attention to every careless act, and on a repetition of the offense to report the offender for punishment, etc., etc., to which a Viennese milling journal remarks: "All very well and desirable, and if the mills of the country had to be built over again we might bear these precepts in mind, but having to do with many ancient structures we have to make the best of them." Moreover, it is urged, this is not the time to call on the millers to make costly changes, however theoretically desirable.—*The Miller, London.*

## ITEMS FROM OVER THE SEA.

A THREE hundred barrel all roller steam mill is being erected in Sandhurst, New South

Wales, for Messrs. Webb & Co., by an English firm.

THE Argentine Republic is subsidizing almost every kind of scheme that will in any way develop the country. According to a late census the population of Buenos Ayres is now 460,000, and at the present rate of increase will be 800,000 in ten years.

GREAT destitution and suffering are reported from Cilicia, province of Adana, Asia Minor, on account of the failure of crops and consequent scarcity of grain.

THE quantity of wheat required in New South Wales for the present year is estimated at 6,722,086 bushels. These figures show a deficiency over the harvest returns of 766,927 bushels. Last year the short crop made the imports much larger than usual, although the colony for many years has not been able to produce a sufficient quantity of wheat and other breadstuffs for home consumption. The imports of wheat into the colony during 1886 were 1,105,079 bushels, valued at \$1,000,435, against 545,423 bushels, valued at \$477,725, for the year 1885. Of the imports for 1886, New Zealand furnished the largest proportion. The quantity imported from that colony was 437,486 bushels. The United States came next, with 356,005 bushels. Victoria furnished 285,721 bushels, and the remainder was from India, South Australia and Queensland.

## FLOUR MILL DIRECTORY FOR 1886-87.

All persons desiring to reach the milling trade should invest at once in a copy of Cawker's American Flour Mill Directory for 1886-7, issued Feb. 1, 1886. It is carefully compiled; contains 18,289 addresses in the United States and Canada; Shows in thousands of instances the capacity, power and system of milling (i. e. whether the stone or roller or combined system is used). It also contains a list of millwrights and American and European flour brokers. The book is sold at \$10 per copy and can be obtained by addressing the United States Miller, Milwaukee, Wis. This Directory is published once in two years.

THE ice palace and carnival celebration at St. Paul will open on Wednesday, January 25, 1888, and continue until Saturday of the week following. The plans for the ice palace imply a building 190 feet in width and 195 feet long, with a tower 120 feet high and 50 feet in diameter, in the center. At one corner is the maze, 80 feet in diameter, with five circular walls before its center is reached. The four corner towers will be 80 feet in height, and the towers on the wall will be from 40 to 60 feet high. The outer wall will be of an average height of twenty-eight feet.

A DISPATCH from Jackson, Mich., dated Nov. 25, says, that George T. Smith, president of the purifier company of that city, stated this morning that the company had been offered ten acres of land worth \$20,000 and a cash bonus of \$4,000 to remove its works to St. Paul. He said, the company would probably accept and be in St. Paul inside the coming year. The purifier plant is worth \$1,000,000 and employs nearly 500 men. He said they wanted increased facilities.

## NEW YORK FLOUR INSPECTION.

LOWERING THE STANDARD AND ITS EFFECTS  
ON NEW YORK MARKETS—HOW TO MAKE A  
LARGER MARKET OF NEW YORK.

Since the standards of inspection of flour for the new crop have been made there has been a great deal of complaint in the trade regarding the changes which have all been in the direction of lowering the grade to the detriment of New York as an export market, so it is stated. In order to ascertain what foundation there is for these complaints the opinion of one of the largest export buyers of flour in this market was asked in regard thereto. "Plenty of foundation," was the answer. And when asked to explain, he made the following statement:

"The trouble is two-fold; there has been an idea on the part of some receivers of flour, who seem to have a full representation on the Flour Committee this year, that by lowering the standards of inspection in New York more flour would be attracted to this point, and thus make a larger market for flour here and bring back the export trade, the bulk of which has gone west direct to the millers in the past few years. The other trouble has arisen from making inspectors of a lot of bung drivers, said he, who know no more about the close distinctions in flour, which require a trained expert to make, than a blacksmith does about the jewelers' art. This is the greater evil of the two, for these inspectors can't tell whether they are working up to the standard given them or not, and as the tendency is to work the grade down instead of up in the Flour Committee, of course these inspectors when in doubt err on the safe side. Now the effect of all these changes can be easily seen, and instead of accomplishing the laudable object intended of bringing more trade to New York, it is actually being driven away, for the very apparent reason. As stated, the Committee yielded to the demand for these changes, in order to get back the export trade that has been done so largely with the mills in the west direct. But it did not occur to them that the means adopted would more surely drive export buyers away from this market than they would attract consignments from the western mills. Without an export demand here for the flour consigned, because of an easier inspection, the western millers would cease shipments to this market; and as they would find the exporter more ready to trade direct at the mills on their (the millers') terms than before, the little export trade left to New York would be driven away, and only forced sales at prices below the mills would tempt exporters to buy here, except in cases of scarcity, or when quicker shipment was required than could be had from the west, when our city mills would get this business, and not the receiver of western flour, in whose interest these changes were supposed to have been made. This result has already been seen in the recent unusually heavy purchases we have been compelled to make of city mills flour, of which the largest sales on record were recently made. These city millers are therefore the only ones benefitted by these changes in the standards of inspection."

"The only way to make a larger flour market of New York is to attract buyers here first and the sellers will follow. The Flour Committee have got their cart before their horse and are trying to go ahead backwards, and with the result already seen. Now I will give

them one or two points gratis on the means necessary to get back the flour export trade that has gone west, for which good object we exporters will co-operate cheerfully, as it is as much to our interest as that of receivers of flour to have the business done here through us and under our personal supervision instead of direct by the importers in Europe with the millers in the west; for this direct western business is mostly done over our heads and hurts us who lose the commission for buying as much as it does the receivers who lose the commission for selling. Let the Flour Committee, backed by the influence of the Produce Exchange, demand of the Inter-State Commerce Commission that the Inter-State law shall be enforced by the Trunk Line railroads, which are not only discriminating against the New York market, and against this port as a shipping point by open or secret violations of this law as badly as they did before it went into force, but they are building up a few large millers in the west at the expense of all the smaller ones, who cannot make contracts for large and continued shipments of flour at cut rates as the big western millers did recently, when the Trunk Lines opened war on each other apparently with a general reduction of rates just long enough to let these big millers in on the 'ground floor,' for all the flour they could ship till into January next.

"After this was done with the flour millers as it was with the big western pork and beef packers, the 'war was stopped,' rates 'restored' and the millers who were left out in the cold of course have had to pay 'tariff rates' since then. But, in spite of all the Trunk Lines officials' denials of cut rates and discriminations and contracts 'made since' the restoration of rates, I happen to know that contracts made before that restoration at the cut rates of the early fall, are still in force and were made to run into January next for all that those lucky millers can ship, by which they are able to undersell the New York market 20c. per bbl. or 10c. per 100 lbs., and have been doing so for 2 months, during which I have been buying all the flour they would sell me, for these big mills are sold ahead on the other side for two to three months, or until these contracts, at the cut rates on which they are shipping flour for me and other exporters who buy of them instead of here. Let the Flour Committee dare the railroads to retaliate on them personally by withdrawing all favors and press their demand for a correction of this abuse by the Trunk Lines and see to it that these amateur inspectors of flour are either educated to the business or replaced by experts, and then restore their own standards of inspection, and they will have the hearty co-operation of shippers, instead of their opposition, as now, for changes that will bring both buyers and sellers of flour to this market and hold them here.—*N. Y. Commercial Bulletin.*

A WOMAN farmer in California has cause to be proud of her record in raising wheat this season. She has a farm of 3,000 acres; from this she harvested about 2,000 tons of wheat, which she sold at \$31 a ton, clearing about \$60,000. She owns a combined harvester which will cut, thresh and sack 30 acres a day. When her crop was ready for the sickle she started her machine, hired four more and the five went marching around her golden fields—20 men and 120 horses, cutting thresh-

ing and sacking 150 acres of wheat each day. It kept five of the men busy sewing up the sacks of grain as they came from the separator; five drove each a 24-horse team, five tended each a sickle, and the other five each to a separator. In a minute the standing grain is in the sack ready for transportation. The owner, whose name is Crow, is a widow and attends to the business herself.

THE driven well patent has been declared invalid by the Supreme Court of the United States, in the case of Andrews, Green and others against George Hovey, appealed from the U. S. Circuit Court, Southern district of Iowa. Heretofore the decisions have nearly all been in favor of the patentees on the issues presented, but this defendant proved to the satisfaction of the court that the invention was used in public at Cortland, N. Y., by others than the patentee for more than two years before his application for a patent, which fact is fatal to the validity of the patent. This decision will rejoice the hearts of those Western farmers who have steadily resisted the payment of a royalty for the use of driven wells, but it comes too late for those who were afraid of a lawsuit.

IN respect of the horse-power required for milling, *Power and Transmission* says:

It ought to take about 40 horse-power to make 100 barrels of flour per twenty-four hours. This, if steam is used, will require the evaporation of from 15 lb. to 40 lb. of water per hour per horse-power; or from 1,000 lb. to 1,600 lb. of water per hour; say 21,000 lb. to 39,400 lb. of water for the 100 barrels of flour. This will be from 240 lb. to 384 lb. of water per barrel of flour. The boiler will require from 1-5th lb. to 1-10th lb. of coal per lb. of water; so that if the water required is only 240 lb. per barrel of flour, the coal required may range from 24 lb. up to 48 lb. per barrel of flour. If 384 lb. of water are required per barrel of flour, then the coal required may run from 38.4 lb. per barrel, up to 76.8 lb. So you have the extreme of 24 lb. and 76.8 lb. of coal, the maximum being about three times the minimum.

IT has been computed that the carrying capacity of a freight car of ten tons is: Wheat, 340 bushels; corn, 400 bushels; potatoes, 430 bushels; apples, 370 bushels; oats, 680 bushels; lumber, 6,000 feet; butter, 20,000 pounds; flour, 90 barrels; whisky, 60 barrels; wood, 6 cords; cattle, 18 to 20 head; hogs, 50 to 60 head, and sheep, 80 to 100 head.

A CHRISTMAS EPISODE.—All the guests but myself were seated around the table, and I had just left it. While passing through the passage where hung the coats and hats, I felt one of the pockets of a coat brushing rather heavily against my elbow, and I took from that pocket a bottle of champagne that I recognized as being brought up to the table an hour before. A pretty mean thing to do—accepting a man's hospitality and then stealing his wine. But what was my astonishment at hearing as the guests were departing, old Shabbiman say, as he discovered his coat pocket to be minus the bottle. "What! that bottle's gone! I never see such a lot of thieves as there is 'ere in my life!"

## PUBLICATIONS RECEIVED.

THE AMERICAN MAGAZINE for December will be a Christmas number. Its leading article, by Wm. H. Ingersoll, will discuss the peculiarities of the accepted likeness of Christ, and recount the legend of its origin. This likeness is traceable in the sacred art of all Christian nations from the beginning of our era. Mr. Ingersoll will more especially describe the endeavors of distinguished American painters and sculptors to represent this ideal. This article will be abundantly illustrated.

SCRIBNER'S MAGAZINE for December is a Christmas number and full of good things.

H. C. Bunner's story, "The Zadoc Pine Labor Union," is filled with humor and genial satire exposing the absurdity of the foreign ideas about labor and capital which have found a foothold among workingmen in this country. E. H. Blashfield, the well-known painter, and his wife, who have been frequent residents and close students of Florence, have contributed a delightful paper associating some of the most picturesque features of that city with the scenes of George Eliot's famous romance, "Romola." Mr. Blashfield has made sixteen beautiful drawings to illustrate it. Bret Harte's story is entitled "A Drift from Redwood Camp." The scene of it is on the Pacific coast—the region of his early successes. The hero of it, "Skeesicks," is an interesting type of the "no-account man." Among the skilful engravers whose work will appear in the Christmas *Scribner's* are such well-known names as Robert Hoskin, Frank French, E. Heinemann, Elbridge Kingsley and Fred. Juengling. The cover of the Christmas number of *Scribner's Magazine* will be something entirely unique in the field of magazine publication.

THE INTER-INTERNATIONAL TELEGRAPHIC CODE for the use of flour merchants and their agents, compiled by W. H. Dunwoody, is published and sold exclusively by *The Northwestern Miller* Minneapolis, Minn. This Code is used quite extensively by the trade, and the revised edition just out will no doubt meet with an excellent demand.

WISCONSIN FARMERS' INSTITUTES for 1887, edited by W. H. Morrison, Superintendent Board of Regents of University of Wisconsin. This work contains a number of essays valuable to farmers. Thirty-one thousand copies have been printed for free distribution among the farmers of Wisconsin. It is to be hoped that the Farmers' Institute will be of great benefit to Wisconsin farming interests.

THE AMERICAN NEWSPAPER ANNUAL for 1888, by N. W. Ayer & Son, Philadelphia, is a volume of 1170 pages, containing a full list of Newspapers and Periodicals of all descriptions in the United States and Canada, with all essential particulars, and conveniently arranged. It enumerates also the various Press Associations, and comprises descriptions of States, Territories and Canadian Provinces, and of the countries as to location area, navigable streams, surface, soil, productions and manufactures. It gives the population of every State, County and County-seat, and of all the large cities and towns; and the number of votes polled in each State by the various parties. It shows in alphabetical order the cities, towns and villages having a population of 5,000 and upwards; the number of counties in each State, and how many newspapers are published in each. There is a large amount of miscellaneous information, presented in the best form, and for business and other purposes the volume is worth three dollars, the price of it.

R. G. DUN & CO.'s *Mercantile Agency* dated N. Y., Nov. 19, says: More than a third of all the wheat which will leave the farms throughout the country during the entire crop year, was sold in this one city during the past six days. Reported sales reached 107,300,000 bushels wheat, 22,257,000 corn, 8,273,000 barrels oil, 1,046,400 bales cotton and 468,000 bags coffee. Wheat advanced 3½ cents, corn 4½, oats 1½, oil 1½ and coffee half a cent, while cotton declined a sixteenth; hogs, pork and pork products were excited, hogs rising 40 cents per 100 pounds and lard 20 cents; tin jumped 3½ cents again, and copper nearly one cent. Apprehended deficiency of supply

is the excuse for the excited advance in some products, but the bottom fact is, that more currency is in circulation than ever before, and Treasury deposits with banks feed the speculative fever, while removing the fear of monetary pressure at the chief centres of trade. Meanwhile, money remains light at many interior points, and complaints of slow collections do not abate. \* \* \*

The great speculation in wheat goes on, in spite of a decline of 3,200,000 bushels in October exports, and 3,300,000 bushels in September. "Never mind the exports; we are making money," the traders say; but the quantity remaining on hand November 1st, after allowance for a full year's consumption, was 109,900,000 bushels, whereas the exports for the remaining months of the last crop year were 100,768,941 bushels. Corn is excited because of the Bureau reduction of 50,000,000 bushels in its estimate; at the same time pork products and cattle rise. Yesterday's markets showed a sharp reaction in grain, but whether the speculation has culminated no one can say. Cotton has reacted but little from the great advance caused by the Bureau report, but receipts continue large beyond precedent; if the Bureau estimate of 6,300,000 bales is correct, the quantity which has come forward already, about 3,254,000 bales, is not less than 51.6 per cent. of the year's yield. It is strange that some are in doubt about it. \* \* \*

Coal is in great demand, the Reading having given notice of another advance for the 21st.

Exports for two weeks from New York fall 15.1 per cent. below last year, but imports here also fall short by 85 per cent. The Treasury continues to swell its deposits with banks, adding \$2,450,000 since last week, but has taken in \$2,400,000 gold, while putting out \$1,600,000 silver notes. Money is in fair supply at the chief centres of trade, but the movement westward has not even yet entirely ceased.

A SUBSTITUTE FOR HYDRAULIC CEMENT.—According to a statement of Mr. Miles, a well-known engineer, it is a fact peculiar to Spanish countries, that ordinary brick dust, made from hard-burned, finely-pulverized bricks, and mixed with common lime and sand, is universally and successfully employed as a substitute for hydraulic cement. Mr. Miles says that during an engineering experience of some six years in Cuba, his opportunities were ample for testing its merits, and he found it in all respects superior to the best Rosendale hydraulic cement for culverts, drains, tanks or cisterns, or even for roofs. In an experiment to test the strength of this product, it was found that a block of it, 1½" in thickness, without sand, and after immersion in water four months, bore without crushing, crumbling or splitting, a pressure of fifteen pounds per square inch. It is thought that, by the addition of pulverizing mills to brickyards, to utilize the waste and broken bricks, a profitable manufacture might be carried on.

THE OLDEST FORM OF BREAD.—Biscuits are the oldest form of bread. At what period of man's history the lightening of dough by fermentation was first adopted no one, of course, knows. It is, however, certain, that cakes make of nothing but meal and water

and then baked are very much older. Fragments of unfermented cakes were discovered in the Swiss lake dwellings, which belong to the neolithic age—an age dating back far beyond the received age of the world. This is the earliest instance of biscuits as yet discovered, for biscuits are merely unfermented bread. Although this rude form of bread was early discarded for the fermented variety, yet in this, as in many others, it was found convenient to return to the discarded and apparently valueless process. Thin, unfermented cakes were found to possess merits for special purposes. They would keep good for a great length of time, and they were convenient to carry, and thus afforded wholesome and nutritious food in a portable and convenient form. The simplicity with which they could be made and baked was also a point in their favor. It is not a little odd that the word "biscuit" embodies the process by which biscuits were made from time immemorial to within the last century, if not, indeed, later. *Bis*, twice, and *coccus*, cooked, shows that they were twice baked; and although the double process has now been discarded, yet the name is retained.

THE New York *Mail and Express* of Nov. 1, 1887 gives the following as the present elevator capacity and receiving or first storage charges on grain at leading points in this country:

	Storage capacity, bushels.	Original charges receiving per bushel.
New York	28,000,000	3½¢ first 10 days
St. Louis	12,150,000	1 c first 10 days
Buffalo	13,980,000	¾¢ first 5 days
Baltimore	5,050,000	1¼¢ first 10 days
Philadelphia	4,100,000	¾¢ first 10 days
Toledo	7,257,000	¾¢ first 10 days
Chicago	27,025,000	¾¢ first 10 days
Milwaukee	5,630,000	¾¢ first 15 days
Duluth	19,309,000	1¼¢ first 20 days
Minneapolis	13,000,000	1¼¢ first 20 days
Total	135,582,000	

A RECENT official report on the development of trade in India states that during the year ended in March last upwards of 1,000 miles of new railway had been completed and opened for traffic, and there were at that time 3,200 miles under construction or already sanctioned. Since 1873 railways in India have extended from 5,880 miles to 13,390 miles, a development which is calculated to have laid more than 100,000 square miles of Indian soil under contribution to the export trade. This is unquestionably an important factor in the development of the country, and, in one sense, in the future relationship of India to western agriculture. It may be added that India's wheat exports increased somewhat last year as compared with any preceding years. Owing perhaps to temporary depression in European markets, and competition by other quarters of the globe, neither coffee nor cotton acreage was extended. But the tea industry goes on increasing, and wheat cultivation has grown until now the normal area under wheat is put down at nearly 27,000,000 acres, and the yearly product at more than 7,000,000 tons. "There is little doubt," says the Edinburgh *Scotsman*, "that, in the course of a few years, India will have become an important rival as a wheat producer of Southern Russia, the United States and Manitoba."—*Bradstreet's*.

## REFORM IN MILL CONSTRUCTION.

Anton Hamma of Trieste, Austria, says, under the above head:

I have seen in various countries mills which, owing to the superfluous amount of machinery they held, better deserved to come under the head of machinery exhibits. A mill owner near Budapest invited me to visit his mill, a comparatively modern establishment, erected by a well known builder. Employing 40-h. p., with a capacity of under 90 brls. per twenty-four hours, there were 27 men at work, and yet the product did not compare with other flour for excellence. No wonder! The space was so filled with machinery, good machinery in itself, but present in such superfluous amount, that no rational arrangement of it could be secured. For the production named, fourteen middling purifiers were at work, emptying the products into tubs. The results desired were not attained, and it was reasoned that the head miller must be at fault, since neither the theory or the builder could be in error. So the miller was discharged and a series of others tried, till no one could be found to take charge of the mill, still without improvement in results. Finally a head miller appeared who roundly declared, that good work could not be done with the plant as it was, and demanded the advice of an unprejudiced expert. I was called in after another engineer who, after long examination, reflection and computation came to the conclusion that the purifying system needed additions, and recommended the purchase of certain machines for the purpose. It is easy to imagine the astonished expression of the long suffering owner, when I assured him that his mill was suffering from too much machinery, and too little continuity and harmony of operation. A thorough reconstruction was made after he had been convinced, the number of purifiers being reduced to six in the process. At present the mill works satisfactory, and the head miller is not changed.

OREGON TRADE WITH SAN FRANCISCO. There has been quite an increase in wheat and flour from Oregon for the year, in wheat especially, which is about double what the whole of the receipts of 1888 were. By the close of the year we will have received nearly a million and a half centals. Receipts of salmon have fallen off heavily, showing that Oregon salmon for the future will only in small part seek this market. Receipts of apples have fallen off heavily too. In the matter of hides we will do a little better than last year. Our receipts of wool have increased nearly five thousand bales. Shipments of flaxseed hitherto have fallen off, receipts of oats have also fallen off, as also have those of potatoes and bran. The falling off shown here is only temporary. The value of the imports from Oregon for ten months of the year is about four million dollars.—*San Francisco Journal of Commerce*.

NORTHWESTERN WHEAT MOVEMENT.—Some of the Northwestern lines or elevator people are beginning to regard with suspicion the possibility of large farmers' deliveries of wheat for the remainder of the crop year. At some points the wheat is pretty well out of

farmers' hands, and the elevators nearly empty. It has been the intention of the elevator men to stop shipping wheat out of their country houses whenever in their judgment there would be no more left, in the hands of farmers in the vicinity, than to fill the houses. It is their policy to hold wheat in country elevators to get out of them carrying charges. There are points that still have a surplus, and it is from such that the movement now comes. When these points are shipped out, so that the houses in the country will hold the remainder, there will be a sudden ending of the large Northwest movement. That time is not so very far away as many imagine.—*Minneapolis Market Record*.

## NONSENSE.

*Omaha World*: Omaha Customer: "I want a box or herring."

Honest Grocer—"Yes, sir; dried."

"No; packed in cotton seed oil."

"Yes sir. John, bring me a can of those imported sardines."

DINGLEY—Oh, I'm just like I used to be. By the way, Peckham, how's your wife? You used to say you had the boss girl when you were single. Peckham (sadly)—She's still boss.

*New York Sun*: Gentleman (in clothing store)—I find that I have got to go to Montreal to-night, and I want a suit of clothes.

Clerk—Yes, sir. You want a cut-a-way coat, I s'pose.

ADJOURNED THE BEAR HUNT.—"Any bear about this neighborhood?" he inquired as he leaned an \$800 breech-loader carelessly in the hollow of his arm.

"The woods is full of 'em," said a citizen. "One of 'em bit my brother's leg off yesterday, Are ye loaded fer b'ar, mister?"

"No, sir," replied the young man, hastily boarding the train; "I'm only loaded for rabbits."

WIFE—"What are some of the requirements necessary to make a successful poker-player, my dear?" Husband—(thoughtfully)—"Well, a man must be cool, calculating, crafty, deceitful, selfish, sly and have a touch of meanness in his disposition." Wife (shocked)—"I shouldn't think you would care to play with such people." Husband—Oh, I most always win!"

*Omaha Herald*: Mrs. Muggs: "Muggs, you are a wretch."

Mr. Muggs—"Why, why. My dea, what?"

Mrs. Muggs—"Don't 'dear' me, villain. Didn't you tell me that a typewriter was a machine?"

Mr. Muggs—"And so it is."

Mrs. Muggs—"Indeed! Then why did Mrs. Wilkins say that your typewriter had beautiful blonde hair?"

IN AUSTRALIA—Briton (to Chinese bartender)—Give me an 'alf and 'alf, John. John hands him a glass half full. Briton—Blawst you, I said 'alf and 'alf. John—Yes. Allee right—halfee fulle; halfee no fullee.

A FEMALE servant sweeping out a bachelor's room found a four-penny piece on the carpet, which she carried to the owner. You may keep it for your honesty," said he. A short time afterwards he missed his gold pencil case and inquired of the girl if she had seen it. "Yes, sir," was the reply. "And

what did you do with it?" "Kept it for my honesty."

*Nashville American*: "I'm thinking of building me a house," said Jones to Smith last evening. "Good idea," said Smith; "how much money have you?" "About \$3,000." "Three thousand dollars; well, that will build a very neat \$2,200 house, with economy." P. S.—If you have ever built a house you will see the point.

*Texas Siftings*: An Austin mother said to her eldest boy the other night, at the supper table:

"Why, Franky. I never knew you to ask for preserves a second time."

Franky didn't say much, but his little brother Tommy, who was innocent of the ways of bad boys, spoke up with a guileless smile on his pure, little face, and said:

"That's because Franky lost the key he made to open the pantry. That's why he never used to want much preserves at the supper table. He used to get all he wanted before supper, but now he can't open the pantry."

After Franky's father had administered the proper corrective, and the stricken youth was left alone in the shed to repent of his crime, Tommy remarked to himself, as he sat down to study his Sunday-school lesson:

"I expect poor Franky is sorry he didn't give me some of them preserves when I asked him for them. He will know better next time."

HE SHELLED OUT ABRUPTLY.—A German poet having loaned a small amount to a friend found it very difficult to collect the same, as his friend failed to recollect the incident. Meeting his friend in need the poet said:

"If you don't pay that 17 pfennigs which you owe me, I shall have to resort to extreme measures."

"And what may they be?"

"I'll dedicate my next poem in your honor."

The friend turned pale and shelled out abruptly.

SOLID WITH THE COP.—At noon yesterday a Michigan avenue grocer made a sudden dash for his open door, and a boy who had been standing outside made just as sudden a dash for the middle of the street.

"I tell you I won't stand this much longer," shouted the grocer as he shook his fist at the boy.

"What was I doing?"

"You were breaking those carrots to pieces."

"Well, can't a fellow see if they are ripe?"

"You look out! I'll have an officer after you!"

"The one on this beat?"

"Yes, the one on this beat!"

"Rats! He's a-courting my sister, and you can imagine the sort of collar he'd give me! Just let him walk me down town and Belle will shake him like an old door mat."—*Detroit Free Press*.

AN old Dutchman, who keeps a beer saloon has his third wife, and being asked for his views of matrimony replied: "Vell, den, you see, de first time I marries for love—dot vos goot; den I marries for beauty—dot vos goot, too, about as goot as the first, but this time I marries for monish, and dis is petter as both."

## NEWS

ASSIGNED—Roger & Shell, millers at Fremont, O.  
BURNED—J. A. Yingling's mill at Seven Miles, O.  
BURNED—Clark, Heaton & Co.'s elevator at Clarks Neb.

DISSOLVED—Birkett & Spokes, millers, Potoskey, Mich.  
BURNED—Flanagan & Co.'s mill, St. Louis, Mo. Insured.

BURNED—McHose & Talbert's mill at Varson, Mich. Total loss.

BURNED—J. S. Eaton & Co.'s grist mill at Taylorsville, Miss.

BURNED—The Goodlander Mill Co.'s flour mill at Ft. Scott, Ks.

DISSOLVED—Marshall & Jones, millers at Battle Creek, Minn.

DIED—S. C. Pierce, proprietor of the grist-mill at Brodhead, Wis.

DISSOLVED PARTNERSHIP—Mapes & Comtes, Spickardsville, Mo.

SOLD OUT—C. Hanson and E. Blodgett, millers, Pewaukee, Wis.

BURNED—A. L. Bryant's flour mill at May Mich. No insurance.

A. SHEPHERD & SON, millers at Petrolia, Ont., have sold out.

DIED, Nov. 12, E. M. Jewell, of the Jewell Milling Co., Brooklyn, N. Y.

A LARGE flour warehouse is to be erected at once at Gladstone, Mich.

DIED—Henry Walker of the milling firm of Wulff, Walker & Co., Neenah, Wis.

DIED, Nov. 16, Gustave Sessinghaus, of the Sessinghaus Milling Co., St. Louis, Mo.

M. MUSSelman, of the milling firm of Riggs & Musselman, Cynthiana, Ky., died recently.

DISSOLVED—The firm of Harvey & McClure, Acton, Ont., has dissolved, John Harvey continuing.

BURNED—Nov. 17, Patterson & Sissons' mill and elevator at Camillus, N. Y. Loss \$300,000. Insurance \$175,000.

BURNED, Nov. 24, the Union Pulp Mills and the Kelso Pulp Mills at Kaukauna, Wis. The mills will be rebuilt at once.

A COMPANY with a capital of \$15,000 has been organized at Talbot, Tenn., to build a flour mill. The company is called the Talbot Mill Company. Mr. W. W. Sunderland, of Talbot, Tenn., is interested.

BURNED, Nov. 5, the Albert Lea, Minn., Roller Mills, with 25,000 bushels of wheat. Loss \$80,000. Insurance \$30,000. The company will rebuild soon probably a larger mill.

THE big elevator of the St. Anthony Company, on the site of the two burned, is rapidly approaching completion. Soon after December 1 it will be ready for the reception of grain. The structure is 448 feet long and 70 feet wide, holds 2,500,000 bushels and cost about \$175,000.

THE workmen in the Iowa Iron Works at Dubuque, Ia., on the night of Nov. 14 were surprised by having a bomb thrown into the shop where they were working. Fortunately no one was injured. The flooring and parts of the building were set on fire which was quickly extinguished.

N. M. LITTLEJOHN has disposed of his interest in the Saratoga Mill property at Waukesha, Wis., to C. H. Chase for \$20,000. The purchaser was long a prominent miller at Rochester, N. Y., and came West a year or more ago for his health, which has so far improved as to warrant his reengaging in business.

## NEW PUBLICATIONS.

THE leading features of the *Youth's Companion* announcement for 1888, just published, are its six illustrated serial stories, by Trowbridge, Stephens and others; its 200 short stories and tales of adventure; its articles by eminent writers, including the Right Hon. W. H. Gladstone, Prof. Tyndall, Gen. Lord Woolsey, Louisa M. Alcott, Gen. Geo. Crook and 100 other popular authors. Every family should take it. By sending your subscription now, with \$1.75, you will receive it free to January 1, 1888, and a full year's subscription from that date.

MESSRS. CASSELL & COMPANY, Limited, New York, announce for immediate publication, "Yule Tide," their Christmas Annual for 1887. The enormous demand for this Annual for last year exceeded by tens of thousands the edition prepared, and the Annual was out of print more than a month before publication. In order to still further increase the great popularity of the Annual, Messrs. Cassell & Company have this year made arrangements for an exceptionally attractive issue of high literary and artistic merit. The Annual for 1887 will contain a magnificent large presentation plate, suitable for framing, entitled "Nelson's First Farewell," after the celebrated painting by George Joy, exhibited at the Royal Academy, painted in the highest style of chromolithography in fourteen colors. A complete story by R. L. Stevenson, author of "Treasure Island," &c., entitled "The Misadventures of John Nicholson." Two beautiful colored pictures by Yeend King and Mary L. Gow, each printed in ten colors. Two handsome tinted plates by Hal Ludlow and C. T. Garland. Christmas entertainment for young and old, consisting of charades, puzzles, etc., etc. The price will remain as heretofore, 50 cents per copy. The International News Company, New York, have secured the entire American edition of "Yule Tide."

SILO VS. GRIST MILL.—John Gould says in the *Rural New Yorker*: "The silo presents this problem for the farmers to solve, a saving of hard work of husking and grinding the corn, costing fully one-fourth of the grain value of the crop. When all this labor and expense have been incurred, we do what? Put the meal made from the corn back upon the stalks from which it has been separated; and has any gain been made? Every one whom I have seen who has tried this plan of putting even the field corn into the silo, has fully indorsed the idea that the grain thus fed is increased in feeding value over the dry meal system, quite as much as good silage is better than dry corn fodder. I am getting my belief confirmed almost daily that the silage of the future will be a compromise between field corn and fodder corn—that we will drill in about eight or ten quarts of our best varieties of northern corn per acre, instead of the southern white corn, and will put it into the silos unhusked, not 'snapping' the ears."

## NONSENSE.

WANTED TO KNOW WHAT THEY DIED OF.—A Wayne county farmer, who had a little time to spare during the drouth, went at it and created seven artificial mounds to resemble graves, in a field close to the road. Sign boards were put up and labeled: "Tramp No. 1," "Tramp No. 2," and so on through, and when the work was finished the granger went up to the house with a grin on his face and said to his wife, "That 'ere dodge will beat all the laws in Michigan to keep tramps away."

Breakfast was not yet over next morning when there was a knock on the kitchen door, and the farmer opened it to find five gaunt tramps standing in a half circle.

"You here!" he yelled, as soon as he could credit his senses. "Didn't you see those graves down by the road?"

"We did, sir," answered the eldest tramp for all. "That's just why we stopped. We want to know if they come to their death by over-eating."—*Detroit Free Press*.

"WHAT'S this gathering of boys in the shed this afternoon, James?" inquired his mother. "Well, you see, ma," replied Tim Tuffboy, "we are going to form a 'walnut trust,' on the plan of the rubber trust, you see." "I don't

quite see." "Well, this is the way: The boys all agree to get as many walnuts as ever they can an' pool in together. I'm interested, 'cause I'm goin' to store the pool."

WHY SHE BROUGHT HER THERE.—"Annabella," said a matron to the naughty little girl whose nurse brought her out on the hotel piazza to receive correction, "aren't you ashamed? What do you suppose I brought you here for?" "Don't know," she answered sulkily. "Don't know?" "No, I don't! You said you must marry off sister Mary this summer, but you didn't say a thing to me." Sister Mary's admirers grinned at mamma's discomfiture; but down they went before Annabella's parting shot, "If you did mean to marry me off, you'd better bring in some other men. I wouldn't marry one of that crowd."—*Boston Transcript*.

REPORTER—Are you going to work to-day, Pat? Pat—Sure, I dunno. Me ould woman says she'll break me head if I don't, and the union men will break me head if I do. Sure, these are hard times for decent men. I think I'll take me chances wid the ould woman.

AS GOOD AS GOLD.—"Why do you wear that nickel on your watch chain?" asked a city hall attache of a milkman who was after a board of health permit to peddle cow juice.

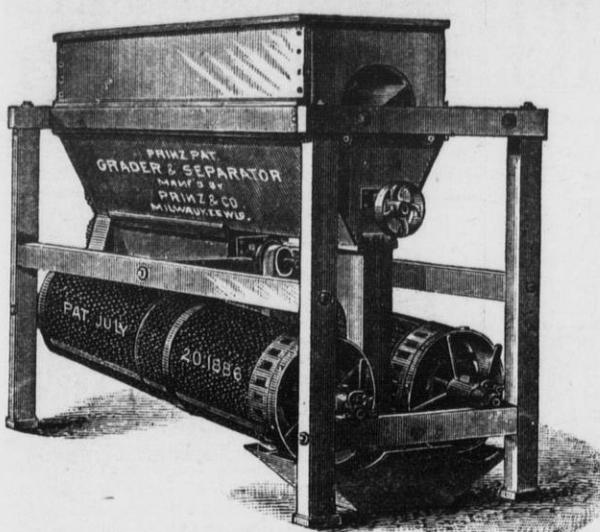
"I wear it as a reminder to get even with one of my customers," was the answer. "Over a year ago I took that nickel, which was then beautifully gold-plated, as a \$5 gold piece in payment of a bill. As soon as I detected the fraud I took it back to the woman who passed it on me, but she refused to make it good. So I attached it to my watch-chain and kept on supplying her with milk as though nothing had happened. But now every day I make her quart one-fourth water, and once a week I credit her with one-fourth the amount of her milk bill in a book which I keep for that purpose. When the sum total standing to her credit is \$4.95 she shall have pure milk once more, and not until then. She knows the milk is watered, but whenever she shows an inclination to complain I handle the nickel and say that my milk is as 'pure a gold.' That settles it."

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machine it displaced. You are at liberty to use this recommendation, and if any brother millers wish to see the machine in operation, we shall be pleased to show them. Wishing you all possible success, I remain,

Yours respectfully, CHARLES G. DEISSNER.

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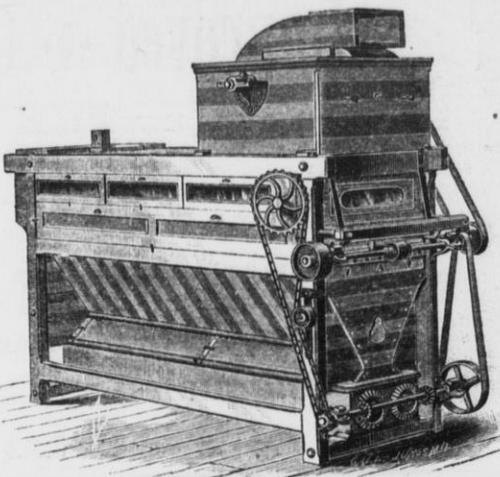
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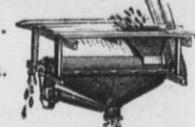
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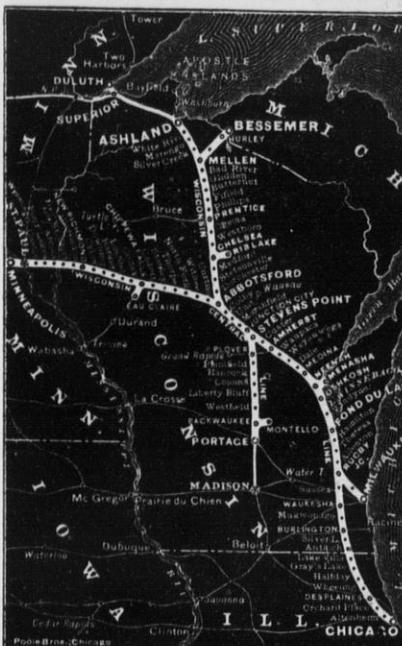
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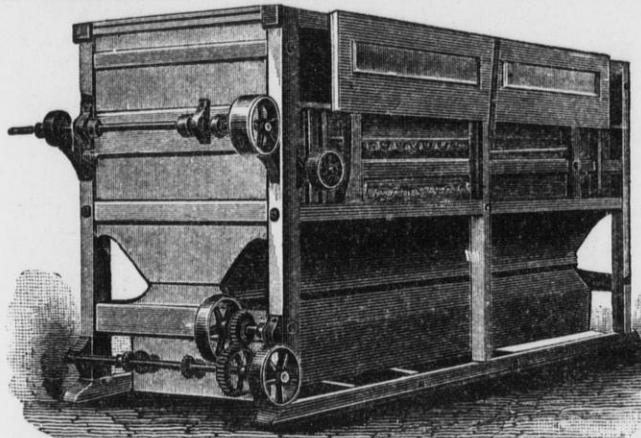
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After Forty years' experience in the preparation of more than One Hundred Thousand applications for patents in the United States and Foreign countries, the publishers of the Scientific American continue to act as solicitors for patents, caveats, trade-marks, copy rights, etc., for the United States, and to obtain patents in Canada, England, France, Germany, and all other countries. Their experience is unequalled and their facilities are unsurpassed.

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**OUR SEPARATOR.**—Is the Equal of any, and Superior to most. Built on Correct Principles, it has met with great favor, and has never failed to give satisfaction.

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**OUR PURIFIER.**—The old GARDEN CITY PERFECTED. This is the machine that you should have where but one or two Purifiers are required. You can purify and grade on one machine (a boon to those millers that want but one). It is the lightest running, does better work, and is easier managed than any other.

**OUR FLOUR BOLT AND CENTRIFUGAL.**—Both machines built on scientific principles, and warranted to give satisfaction. We have these machines down so fine that we can suit any miller, both as to price and quality of work.

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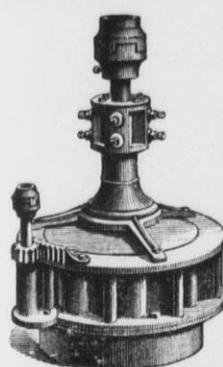
**MILLERS—Give us a Trial Order. That will suffice, as we then know we will have your trade in the future.**

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The "HOPEWELL"  
TURBINE  
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This wheel has a perfect fitting cylinder gate and draft tube combined, and allows no water to escape when closed.

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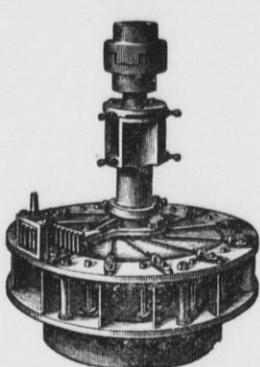
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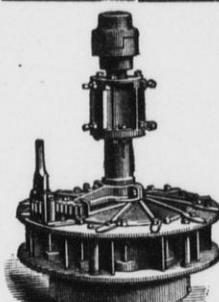
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Fine New Pamphlet for 1887.

The "OLD RELIABLE" with Improvements, making it the **Most Perfect** Turbine now in use, comprising the **Largest** and the **Smallest** Wheels, under both the **Highest** and **Lowest** Heads in this country. Our new Pocket Wheel Book sent free. Address,

JAMES LEFFEL & CO., Springfield, Ohio,  
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POOLE & HUNT'S  
Leffel Turbine Water Wheel

Made of best material and in best style of workmanship.

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From 1 to 20 feet diameter, of any desired face or pitch, molded by our own SPECIAL MACHINERY. Shafting, Pulleys, and Hangers, of the latest and most improved designs.

Mixers and General Outfit for Fertilizer Works.  
Shipping Facilities the Best in all Directions.

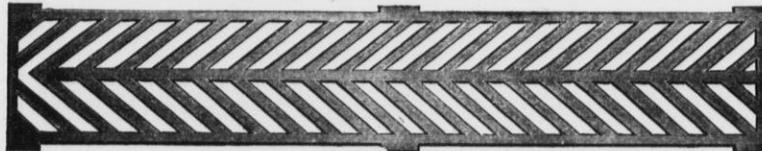
POOLE & HUNT, Baltimore, Md.

N. B.—Special attention given to Heavy Gearing for Pulp and Paper Mills.

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\*Campbell's Patent Grate Bar\*

PATENTED AUGUST 1st, 1882. No. 261,830.



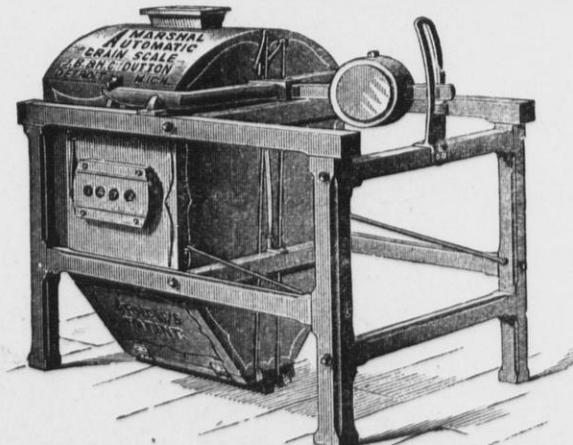
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Weighs and Registers Absolutely  
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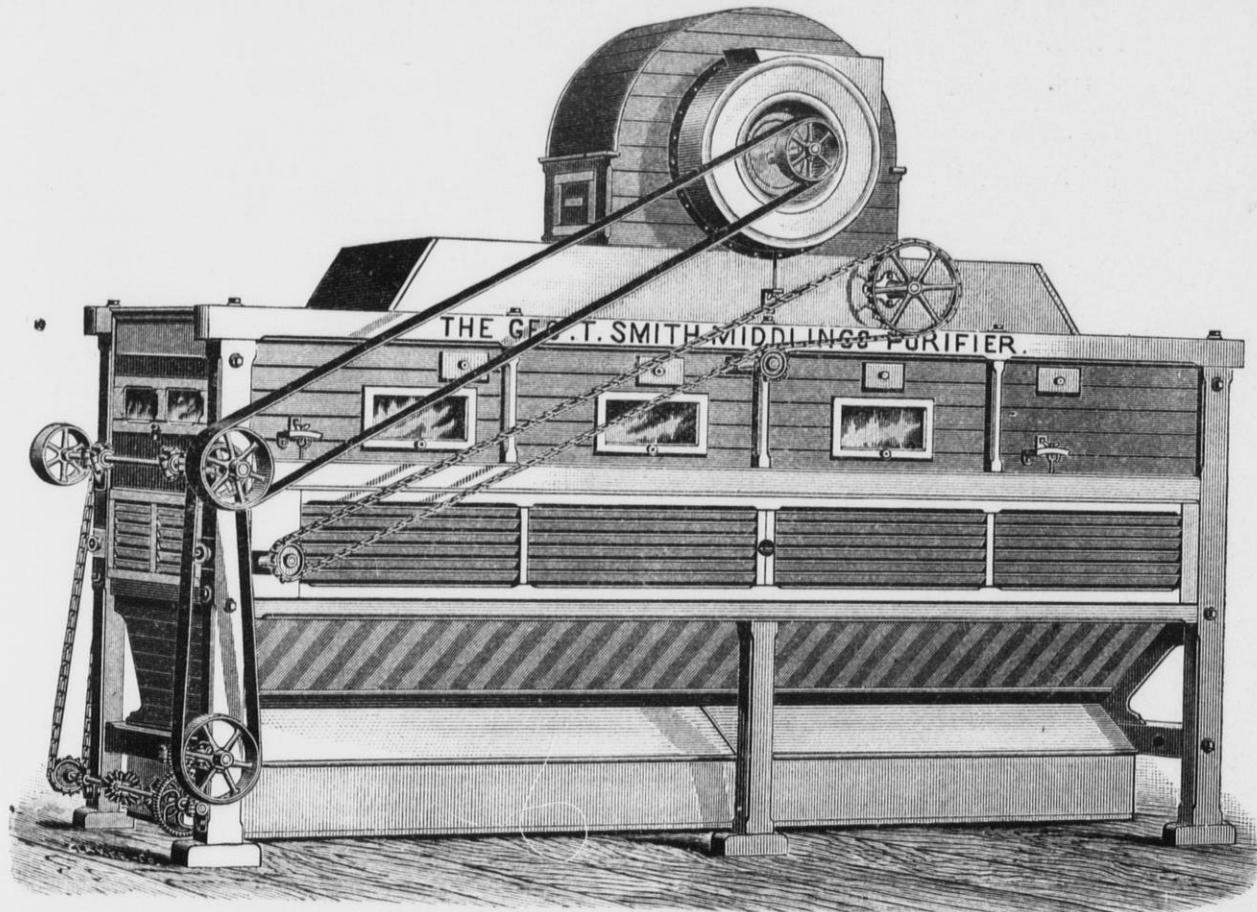
—THE

J. B. Dutton Mfg. Co.

22 and 24 WOODWARD AVENUE, — — — DETROIT, MICHIGAN, U. S. A.

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# \$80,000 Patent Decision.



*The United States Circuit Court, for the Eastern District of Wisconsin, Judges Gresham and Dyer, have rendered a decision in favor of The Geo T. Smith Middlings Purifier Company in the suit of that Company and others against the Milwaukee Dust Collector Manufacturing Company.*

*The decision awards the Complainants upwards of eighty-thousand dollars damages and enjoins the Milwaukee Company from the further manufacture or sale of the Dust Collectors.*

*We have the exclusive right of Manufacturing Dust Collectors under upwards of twenty patents (all the patents in question, including the patent of Faustin Prinz).*

*For further information in regard to our control of the manufacture of Dust Collectors, we refer to our Attorneys in the litigation, Messrs. Flanders & Bottum, of Milwaukee, Wis.*

*We have improved the Dust Collector and fitted it for attachment to our Purifiers; when sold in connection with Purifiers, no extra charge is made for attachment.*

**Geo. T. Smith Middlings Purifier Co ,  
JACKSON, MICHIGAN.**

FLOUR MILL AND GRAIN ELEVATOR OWNERS SHOULD REFER TO PAGE 29.

CHICAGO OFFICE,  
40 La Salle Street.

MILWAUKEE OFFICE,  
124 Grand Avenue.



Published by E. HARRISON CAWKER. { VOL. 24, NO. 2. MILWAUKEE AND CHICAGO, DEC., 1887.

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2 24-inch Middlings Mills, almost new.  
1 Millstone Dresser, almost new.  
8 Pair 48-inch Burr Millstones. New.  
1 Pair 9 x 18 Smooth Rolls. New.  
1000 Pieces French Burr Millstone Blocks, extra quality.

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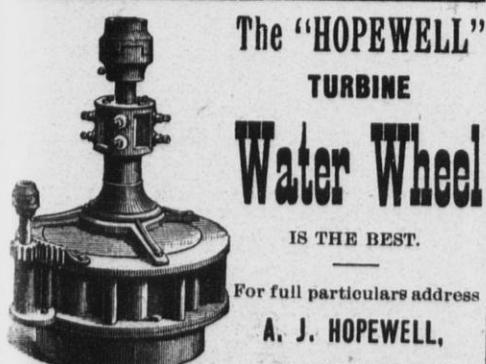
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We are the first introducers of the Chilled Iron Rollers for milling purposes, and hold Letters Patent for the United States of America. For full particulars address as above.

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The "HOPEWELL"  
TURBINE

Water Wheel

IS THE BEST.

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Improved + Walsh + Double + Turbine

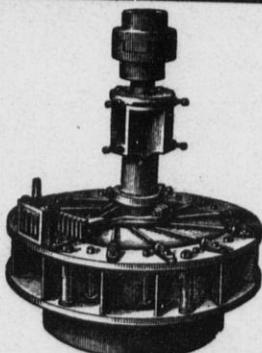
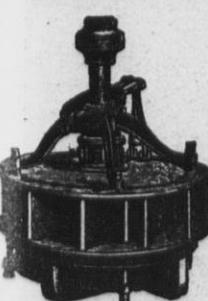
This wheel has a perfect fitting cylinder gate and draft tube combined, and allows no water to escape when closed.

POWER GUARANTEED

equal to any wheel on the market using equal amount of water. Address for particulars.

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Sheboygan Falls, Wis.



JAMES LEFFEL'S IMPROVED

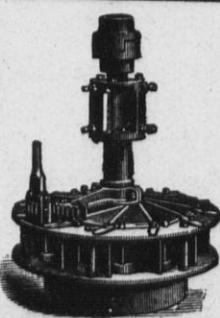
## WATER WHEEL,

Fine New Pamphlet for 1887.

The "OLD RELIABLE" with Improvements, making it the Most Perfect Turbine now in use, comprising the Largest and the Smallest Wheels, under both the Highest and Lowest Heads in this country. Our new Pocket Wheel Book sent free. Address,

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POOLE & HUNT'S  
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Rubber Co.'s RUBBER  
GOODS. THEY ARE THE BEST MADE.

"GOLD SEAL" RUBBER BELTING,

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MILWAUKEE.

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MINNEAPOLIS.

# THE UNITED STATES MILLER.

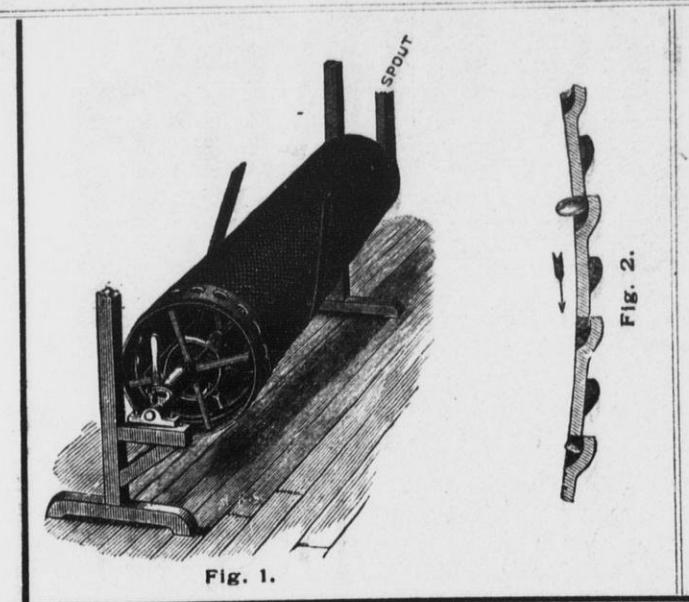


Fig. 1.

Fig. 2.

New Pat. Indentations. No More Zinc, but Iron and Steel Reels, Lasting Many Times as Long.

CUT herewith, FIG. 1, represents the PRINCE COCKLE MACHINE, single reel, without frame. FIG. 2, shows a section of the Indented Cylinder, and FIG. 3 is a large machine with grading reel. The inventor and manufacturer of this machine has had long and thorough experience in all departments of Grain Cleaning, and this Cockle Separator certainly has no superior. It is equally adapted to use in large or small mills, and the price is within the reach of all. The manufacturer has demonstrated that his machine removes more Cockle than other machines. It occupies but little space, and consequently any mill will have room enough in which to place it.

## CONSTRUCTION.

The machine consists of a cylinder about 70 in. long and 16 in. diameter, mounted on a stationary shaft 82 in. long, which has to be supported at both ends—(either as seen in the cut, or it can be hung up under the ceiling or in any other suitable position.) Inside of the cylinder is a trough suspended on springs and agitated by the revolution of the cylinder itself, to receive the cockle which is carried up by the indentations of the cylinder and properly discharged into this trough. By the agitating motion of this trough the cockle is discharged at the front end of the cylinder. The wheat is entered at the end of the reel, and is rolling at the lower side of the same in the direction of the discharge, and by this rolling the cockle finds its way into the indentations and gets raised up and discharged into the trough. There is nothing complicated in the machine, consequently nothing can get out of order to make trouble and annoyance. It has only two bearings to oil, and if oiled once a day is all it needs, as it is running only at a speed of 18 revolutions.

The machine is entirely controlled by the operator, by a single lever seen at the front of the cut (Fig. 1), and it can be set either to take out any quantity of cockle, or if there is none in the wheat, it can be set to take out nothing. There is no machine in the market that has this device. The indentations are of a new design and protected by U. S. Letters Patent granted to F. PRINZ. This enables the manufacturer to indent sheet iron or steel plates, which are far superior in ensuring the durability of the machine than zinc, of which material all other cockle machines are now made. The machine is driven by simply taking a two-inch belt around the reel at any point. The Single Reel Machine (Fig. 1), has a capacity up to 20 bushels per hour. Cockle Cylinders are ALL made of the SAME SIZE and where greater capacity is required it is secured by grading reel (patented by F. PRINZ), and guaranteed not to clog as other devices do, which separates the COARSE grains of wheat, from the SMALL wheat and cockle, and the latter (small wheat and cockle) will only go to the Cockle Cylinder for complete removal of the cockle. The Grading Reels are built of the proper size to furnish separated wheat and cockle for feeding one, two or more cylinders. All parts of this machine are very easily accessible, NOT ONE INSIDE ANOTHER and in a substantial frame, NO FAST MOTION, and very little power needed.

ALSO EXCLUSIVE MANUFACTURERS OF

**Prinz's Patent Improved Smutter, and Prinz's Patent Combined Dustless Oats and Screenings Separator.**



### READ THE FOLLOWING TESTIMONIALS.

"CENTENNIAL MILLS," EVANSVILLE, Ind., June 14, 1877.  
FAUSTIN PRINZ & CO., MILWAUKEE, Wis.  
GENTLEMEN:—Inclosed please find check in payment of Cockle Machine sent us May 26, 1887. The Machine does its duty.

Yours truly, J. W. LAUBSCHER & BRO.

Office of "PHOENIX FLOURING MILLS," Waukesha, Wis., March 17, 1887.

F. PRINZ, Esq.:—  
DEAR SIR:—Yours of the 16th inst. at hand. In reply to inquiries as to how we like your combined separator and Cockle Machine, which we have now had running nearly a year, I can only say it is the boss." It displaced a well-known combined machine, and although yours was only guaranteed to do as much work as the one it displaced, I am glad to say it does THREE TIMES AS MUCH, and does it in first-class style. The old machine blew almost one-third of the scourings into the dust-room, while from yours we cannot find a kernel. The Oat Separator is as perfect as I have seen; the cockle it removes without wasting whole kernels of wheat; the suction is in perfect control of the miller; and last, though not least, it uses only half as much power as the machine it displaced. You are at liberty to use this recommendation, and if any brother millers wish to see the machine in operation, we shall be pleased to show them. Wishing you all possible success, I remain,  
Yours respectfully, CHARLES G. DEISSNER.

Office of GALESBURG ROLLER MILLS, GALESBURG, MICH., Nov. 17, 1887.  
FAUSTIN PRINZ & CO., 659, 661 and 663 East Water St., Milwaukee, Wis.

DEAR SIRS:—The Cockle Machine arrived in good condition. I could not procure a millwright, but the connections of your machine are so complete. I went to it myself and put it in and had it running in less than four hours. I have no hesitation in saying that your Cockle Machine is the best that I ever handled, being entirely under control of the miller; it does all you claimed and more; it not only removes all the cockle, but scours the wheat and removes the dust to my utmost satisfaction. I consider it a mite for space and a monster for the work it accomplishes. I displaced a rolling screen for your machine and assure you it is a profitable change.

Yours respectfully, M. W. MORTON.

Office of GEM MILLING COMPANY, Milwaukee, Wis.

Mr. F. PRINZ:—  
We have used your No. 3 Combined Grader and Cockle Machine two months and are much pleased with its work. The objectionable features of our former machine, which required constant attention, owing to Grader sieve becoming clogged and allowing cockle, seed, etc., to pass over with the wheat, are ENTIRELY OBLIVIATED in your machine, the work being always uniform, owing to Grader reel keeping perfectly clean, consequently all seeds, cockle, etc. must enter Cockle cylinders which removes them in a thorough manner, taking out very little broken wheat. We can use one or two cylinders as condition of wheat requires, and with cut-off arrangement on Grader reel almost perfect separations can be made. Requires very little power and space, and we think a much more durable machine than we formerly used.  
Yours truly,  
GEM MILLING CO. J. ZAHN, Supt.

RELIANCE MILLS, Milwaukee, Dec. 19th, 1887.

MESSRS. F. PRINZ & CO., City.  
GENTS:—The Grader and Cockle Machine you put in our mill three months ago in place of the Kurth Cockle Machine, has given the best of satisfaction, as our wheat is unusually full of cockle wild buckwheat and seed this year, is entirely cleaned from same by your machine without any loss of wheat. Respectfully yours, C. MANEGOLD & SON.

Unequalled in Capacity and Simplicity. One Reel will Handle 16 to 20 Bushels per Hour.

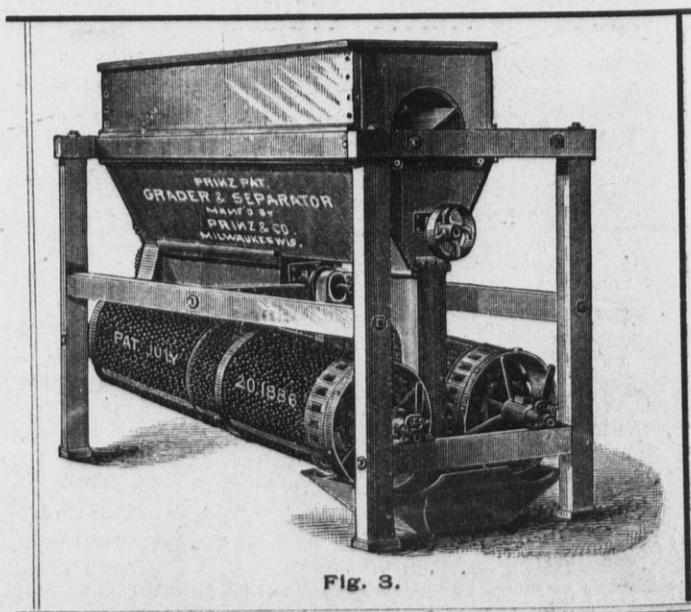


Fig. 3.

# The United States Miller.

Published by E. HARRISON CAWKER, VOL. 24, No. 2. MILWAUKEE AND CHICAGO, DEC., 1887.

TERMS: \$1.00 a Year in Advance.  
Single Copies, 10 Cents.

## THE 1888 INTERNATIONAL EXHIBITION AT BRUSSELS, BELGIUM.

The above named exhibition will be opened to the public May 3d, 1888, and will be closed Nov. 3, 1888. All the principal nations of the Earth will send industrial, scientific and commercial property for exhibition. The Belgian Government will spare no pains to make this Exhibition a grand success. All applications for space must be made by Jan. 15, 1888, and all goods must be in place by April 25, 1888. Messrs. Armstrong, Knauer & Co., 822 and 824 Broadway, New York, N. Y., are the

named Fred. Wilson, Edw. A. Webster, Abraham Rogers and John Lee. The number of persons injured is over twenty. The cause of the explosion was that the sewers in the vicinity of the mill were filled with naptha. During the day 14,000 gallons of naptha were pumped from the Vacuum Oil Works through the pipe line in the bed of the old canal. It was intended for the Municipal Gas Co., but one or more breaks in the line allowed the naptha to escape into the sewer, when the sewer became surcharged with the gas it escaped into the mills and exploded there as

DIED, Nov. 15, 1887, at Trautmannsdorf, near Vienna, Mr. Ignaz Seidl, one of the foremost millers of Europe, at the age of 62 years. He organized the Association of Austrian millers, was its first president and a member of its Council until time of his death.

A BREAD ASSIZE.—France is not the only country in which this old-world custom still flourishes. We read of a little German town in which the bakers have to lay before the chief commissioner of police a statement of their price and weight for the coming month, presumably after they have arrived at an



EXHIBITION BUILDING AND GROUNDS, BRUSSELS, BELGIUM.

authorized Agents of the Exhibition for the United States. It is to be hoped that American Manufacturers and Inventors will be well represented. The accompanying illustration shows a good view of the buildings and grounds.

## GREAT LOSS OF LIFE AND MILLING PROPERTY.

About 4 P. M., Dec. 21, a number of naptha explosions occurred in Rochester, N. Y., destroying J. G. Davis & Sons' Jefferson Roller Mills, 150 barrels capacity, (loss \$60,000, insurance \$25,000); The Washington Mill (J. A. Hinds, proprietor), loss \$80,000, insurance \$30,000; The Clinton Mills, loss \$75,000, insurance \$30,000, and J. Poole's mill, loss not stated. Four persons are reported dead,

elsewhere, and fire completed the work of destruction.

## FOREIGN ITEMS.

THE Protection policy is steadily gaining ground in England. The question is being thoroughly discussed by all classes of people in all parts of the U. K.

THE MILLER, (London) in its December number says: "It has been remarked that there is a distinct tendency on the part of the millers of Great Britain towards adding the trade of baker to their own calling."

The scheme, though not new by any means, has always appeared to us to be a good one, and we do not know why it should not work well, to a limited extent in this country.

agreement among themselves. A copy of this price and weight table is then affixed on each bread shop, and any baker who sells contrary to its provisions that month is liable to a penalty.

## OYSTER SHELL FLOUR.

We have received a specimen of Oyster Shell Flour from the mill of Messrs. C. Orem & Co., Cambridge, Md. It is simply finely pulverized oyster shells, and is sold for fertilizing purposes. The firm report a good demand at fair prices for all they can make. It is a little darker in color than what is known as "red-dog" flour. If it were generally known that oyster shell flour was a valuable fertilizer, the demand would be much greater than the supply.

**BELLAS, PATTON & CO.,**  
**Commission Merchants**  
 3 INSURANCE EXCHANGE BLOCK,  
 218 La Salle St., CHICAGO.  
**GRAIN AND PROVISIONS**

Bought or sold for shipment, or carried on margins.  
 Market Reports furnished to correspondents.

N. S. CLARK.

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 Liberal Advances on Consignments.

REFER TO Western National Bank, Baltimore; Citizens' National Bank, Baltimore; Wm. Ryan & Sons, Dubuque, Iowa; Whitmore Bros., Quincy, Ill.; Bloomington Pork Packing Co., Bloomington, Ill.

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 MINNEAPOLIS AND DULUTH, MINN.

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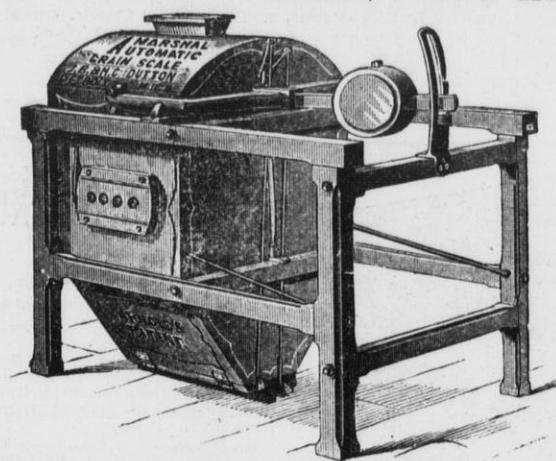
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Refers by permission to A. K. Walker, Esq., cashier First Nat'l Bank, Hall & Pearsall, Adrian & Voller, Merchants, Wilmington; Robt. Carey & Co., New Orleans, La.; Geo. P. Plant & Co., St. Louis, Mo.; Martin & Bennett, Chicago, Ill.

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## **J. B. DUTTON IMPROVED AUTOMATIC GRAIN, FLOUR AND FEED**



## **SCALE**

Weighs and Registers Absolutely  
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MACHINES SENT ON THIRTY DAYS TRIAL

Our Automatic Register is the most perfect  
 and simple Register in use. It is especially  
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Send for Circulars and Prices.

— THE

**J. B. Dutton Mfg. Co.**

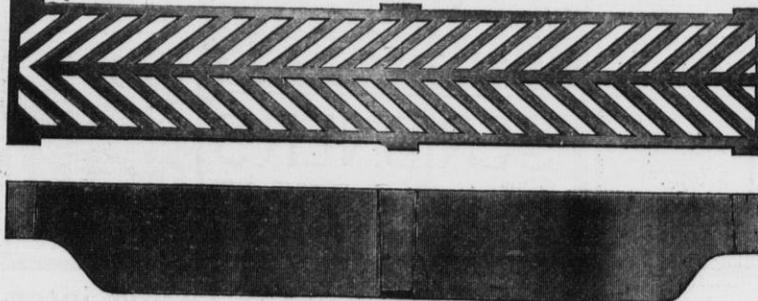
22 and 24 WOODWARD AVENUE, — — — DETROIT, MICHIGAN, U. S. A.

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## **\*Campbell's Patent Grate Bar\***

PATENTED AUGUST 1st, 1882. No. 261,830.

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## **A LONG FELT WANT SUPPLIED AND THE USERS OF GRATE BARS MADE HAPPY.**

FOR PRICES AND INFORMATION ADDRESS,

**GARDINER CAMPBELL & SONS**, Manufacturers, 242 to 246 Oregon Street, Milwaukee, Wis., U. S. A.

— THE ONLY MANUFACTURERS OF RAWHIDE BELTING IN THE COUNTRY. —

## **THE CHICAGO RAWHIDE MFG. CO.,**

MANUFACTURERS OF

## **Rawhide Belting, Lace Leather, Rope, LARIATS, FLY NETS,**

Picker Leather, Stock and Farm Whips, Washers, Home Straps, Hame Strings, Halters and other Rawhide Goods of all kinds.

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**GODEY'S LADY'S BOOK**  
 FOR 1888.  
 Sample Copy Fifteen Cents.

**\$2 a Year ALWAYS IN ADVANCE.**

A handsome Engraving to every Subscriber.

In Club with this paper, GODEY'S and the UNITED STATES MILLER, price \$2.50, which should be sent to the office of the United States Miller, Milwaukee, Wis.

## **MILL FOR SALE.**

For Sale: One-half interest in a first-class 125-barrel Roller Mill. Has the latest improvements and doing a class of work that cannot be excelled in the State. Mill is situated in Southern Illinois, on Wabash Railroad, and in a good wheat country. Party desiring to sell his interest is obliged to go to Europe. The complete mill will be sold if desired. Address for full particulars, H. P., care Garden City Mill Furnishing Co., Chicago, Ill.

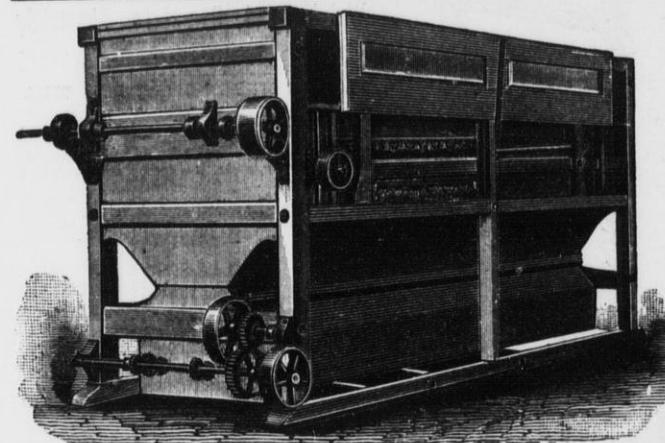
## Mineral Wool Sectional Coverings!

FOR STEAM PIPES AND BOILERS, GAS AND WATER PIPES.

Made in sections three feet long, to fit every size pipe. Also in suitable sheets to fit any Boiler Dome, Drum or Tank. The best non-conductor, absolutely Fire-Proof, will not Char, Crack, Burn or Powder. The cheapest and best. Easily applied or removed by any one. Also, Mineral Wool in bulk, for deafening and packing, constantly on hand. Send for Circulars and Price List.

MANUFACTURED BY THE

**WESTERN MINERAL WOOL CO., CLEVELAND, O.**



PARKER, BLOOD & TOWER,

LAINGSBURG, MICHIGAN.

### —THE— Advance Shake FLOUR BOLT.

Better than the Centrifugal or Old-Fashioned Bolt in every part of the mill.

No forced bolting in this Machine, but a sliding action of the chop which tails the impurities over instead of driving them through the cloth.

No Machine built can begin to equal the work of the ADVANCE.

This is no clap-trap or hoax, and if any miller is about to build or remodel, it would pay him to go a thousand miles to see this machine and its work.

Be sure and write for particulars and circu'ars.

## COLUMBUS

### BUGGY & COMPANY,

COLUMBUS, OHIO,

Manufacturers of FIRST-CLASS

## Buggies, Surreys

PHAETONS,

### Park Wagons, Light Carriages.

Our work is fully Guaranteed and absolutely reliable.

**BEST** FOR LIVERY SERVICE!  
FOR FAMILY SERVICE!  
For PLEASURE DRIVING

### POINTS OF SUPERIORITY:

Superior Material and Workmanship, Fine in Finish, Easy in Riding Qualities, Light in Draft,

Unsurpassed in Durability,

Cheapest for Quality of Goods in the World.

## Private Line Telephones!



These new instruments (see cut) are emphatically superior to all others for all lines within a mile. They embody all the latest improvements, work splendidly in all kinds of weather, and are great favorites with business men. PRICE PER SET, \$7.50 Send for illustrated circular and testimonials. Address,

EDWARD E. HARBERT & CO.,

Dealers in Telephone and Electric Supplies of every description.

159 La Salle Street, - CHICAGO.

### UNITED STATES MILLER,

At the low combination rate \$3.40 for both. Send your order now. Subscriptions may begin at any time.

E. HARRISON CAWKER,

Publisher UNITED STATES MILLER, Milwaukee, Wis.

## THE "SALEM"



is the original round cornered Elevator Bucket and its shape is broadly covered by a foudation patent.

All buckets of the same shape, though produced by a different process, trespass upon our rights, and render dealers and users as well as manufacturers liable for damages.

### AVOID INFRINGEMENTS.

All legitimate "Salem" Buckets are plainly marked with the word SALEM.



**W. J. CLARK & CO., Sole Manufacturers, SALEM, OHIO.**

THORNBURGH & GLESSNER, Gen'l Agents, CHICAGO.

## UNITED STATES MILLER.

E. HARRISON CAWKER, EDITOR.

PUBLISHED MONTHLY.

OFFICE, NO. 124 GRAND AVENUE, MILWAUKEE.

SUBSCRIPTION PRICE—PER YEAR, IN ADVANCE.

To American subscribers, postage prepaid..... \$1.00  
To Canadian subscribers, postage prepaid..... 1.00  
Foreign subscriptions..... 1.25

All Drafts and Post-Office Money Orders must be made payable to E. Harrison Cawker.

Bills for advertising will be sent monthly, unless otherwise agreed upon.

For estimates for advertising, address the UNITED STATES MILLER.

[Entered at the Post Office at Milwaukee, Wis., as mail matter of the second-class.]

MILWAUKEE &amp; CHICAGO, DEC., 1887.

We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

MINNEAPOLIS is not only noted for its flour and saw mills, but also of late for its pugilistic "mills."

KANSAS MILLS have made nearly three millions barrels of flour during the present year.

ST. PAUL, Minn., has added improvements to the value of \$11,543,314, during the year 1887, according to the figures of the *Pioneer Press*.

MILLERS in the United States generally have reason to feel thankful that the year closes with better present business, and brighter future prospects than it began.

MILLFURNISHERS have done a fairly good business during the year 1887, and some report an increase of fifty per cent. over 1886.

MANITOBA farmers, it appears, will never tire of telling stories about their big wheat yields this year. Some claim to have raised as high as seventy-five bushels to the acre. Really, this must be taken "*cum grano salis*."

A NEAT match box consisting of a tiny steel seamless elevator bucket attached to a strip of belting, is one of the trade souvenirs we have recently received from the Avery Bucket Co., Cleveland, O.

THE Pope Mfg. Co., Boston, Mass., manufacturers of bicycles and tricycles, etc., have sent us an unique 1888 calendar. Write for one.

IN these days the path of the bucket-shop keeper is strewn with thorns and it will not be long before the streets and alleys "that have known them will know them no more." So mote it be.

At the recent meeting of the Illinois Millers Association, Mr. Seybt of Highland, though loudly protesting against it, was unanimously elected a member of the Executive Committee of the Millers' National Association, to represent Illinois in that organization.

IMMIGRATION.—The total number of immigrants arrived in the United States from for-

ign countries other than the Dominion of Canada and Mexico, during the year ending June 30, 1887, was 490,106 against 334,200 during the preceding year, being an increase of 155,906, or 46.6 per cent. Of the total number of immigrants arrived more than 98 per cent. came from the countries of Europe.

upon government beneficence rather than upon personal and individual independence in fighting the battle of life. Until mankind rid themselves of such statesmanship, they will never get rid of what is called paternal government, and until they get rid of paternal government, they will seek for freedom and independence in their highest and truest sense in vain.

HON. ALBAN CLARK, County Clerk of Green Lake County, Wis., in a pleasant letter to us not long since, wrote the following pithy sentence:

"My mother told me more than fifty years ago, that an honest miller was a perfect marvel, and that when one was found the dust from his coat was a perfect antidote for sore eyes."

## NEWS.

DISSOLVED PARTNERSHIP, Waltman, Bros. & Co., millers at Rockford, W. T.

THE flour and feed store and warehouse of O. A. Ainsworth & Co., at Ypsilanti, Mich., burned Dec. 4. The safe had been blown open and there are other evidences that the fire was of incendiary origin. Loss \$10,000; partly insured.

BURNED, Dec. 7, the Buckeye Flour Mills, at Portsmouth, O., owned by Yaeger & Anderson. M. A. Anderson and Wm. Simpson were killed and four other parties badly injured.

BURNED, Clark, Heaton & Co's elevator at Clarks, Neb.

BURNED, Thos. Ault & Son's flour mill at Bellaire, O. Loss \$12,000; ins. \$6,500.

NOT BURNED, J. A. Yinglings mill at Seven Mile, O., was not burned as reported recently.

DEAD, Geo. Immethun, miller, at Breee, Ill.

SOLD OUT—L. K. Brooks' mill at Sweet Home, Oregon.

DISSOLVED PARTNERSHIP, Carroll & Morrison, millers at De Smet, Dak.

EDWARD THOMAS succeeds Charles C. Lee in the flour mill business at Palmyra, Mo.

A SUIT for the dissolution of partnership has been instituted by the members of the firm of Kratz, Washburne & Co., owners of mills at Portland and Rickreall, Oreg.

BURNED, Montgomery Mill Co.'s flour mill at Montgomery, Ala. Loss over insurance reported to be \$30,000.

DISSOLVED, Oliphant & Co., millers at Medford, N. J.

BURNED, Dec. 8, Bemis Bro's. mill at North East, Pa. Loss \$8,000; insurance \$3,000.

BURNED, Dec. 8, D. H. McMillan & Bro.'s mill at Winnipeg, Man. Loss \$50,000; insurance \$12,000.

BURNED, Dec. 9, The City Milling Co.'s mill at McKeesport, Pa. Loss \$50,000; insurance \$35,000.

BURNED, Lay Bros.' mill at Quitman, Ark.

SOLD OUT, G. H. Thorp, Syracuse, Neb.

CLOSED UP, H. V. Line & Son's mill at East Springfield, Pa.

BURNED, Dec. 8, Guano & Raggio's macaroni factory in Philadelphia, Pa. Well insured.

BURNED, Dec. 13, John Ochsner's mill in Waumaudee, Wis.. Loss \$12,000; insurance \$4,000. Fire supposed to be the work of an incendiary.

BURNED, Dec. 11, Dunnewald & Hoopman's mill at Cedar Grove, Wis. Loss \$4,000; no insurance.

TELEGRAMS from Duluth, Minn., report that E. L. Sawyer, secretary of the Duluth Roller Mill Co., lately visiting Washington Territory, got away with \$50,000 of the Company's money. Sawyer was engaged to the daughter of a wealthy St. Paul citizen.

SOLD OUT, J. I. Reed, miller at Half Way, Missouri.

CHANGED, Hinton Bros., millers at Falls City, Neb., is now Hinton & Son.

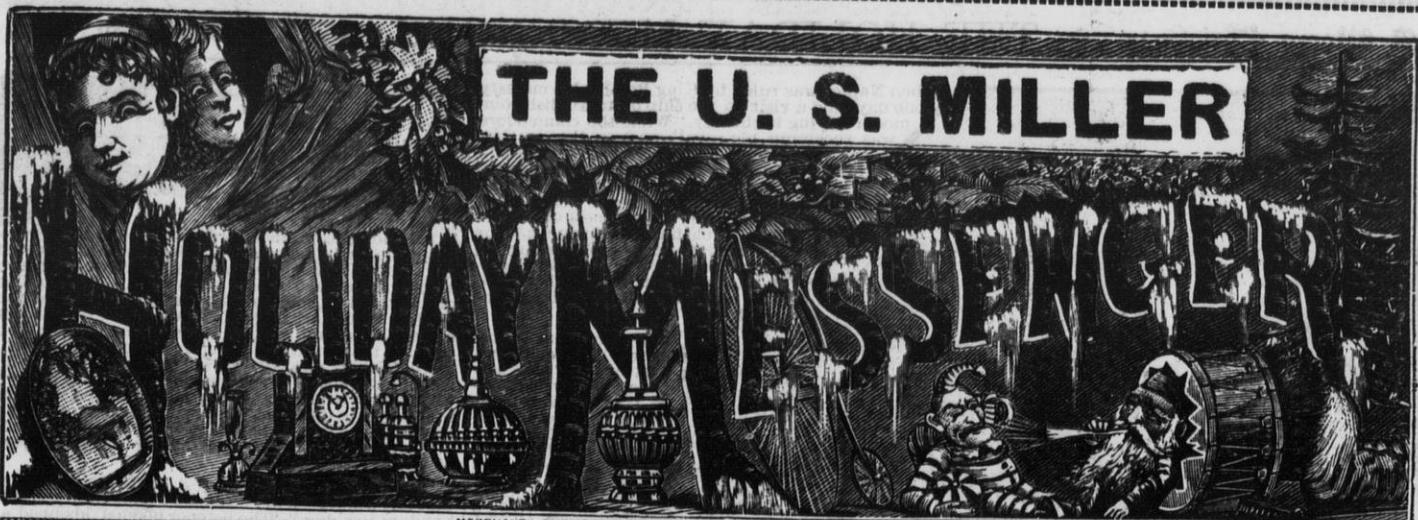
	Recpts. at Cleveland.		Shipments at Cleveland	
	RAIL.	LAKE.	RAIL.	LAKE
Brls. Flour 1885.	213,711	2,928	277,811	3,288
do. 1886.	224,497	41,212	344,334	5,650
Bus. Wheat 1885	1,330,818	423,185	190,311	78,354
“ Corn do.	782,006	.....	455,166	.....
“ Oats do.	1,120,619	.....	86,575	.....
“ Rye do.	9,000	.....	1,550	23,000
“ Barley do.	264,131	44,079	.....	.....
“ Wheat 1886	2,219,956	336,567	373,684	52,325
“ Corn do.	1,094,731	3,000	696,281	.....
“ Oats do.	1,651,115	13,000	135,518	.....
“ Rye do.	10,500	.....	3,500	.....
“ Barley do.	250,372	.....	7,415	.....

The figures for 1887 will not be available before Feb. 1, 1888.

NEVER was a truer paragraph penned than the following from a leader in the *N.Y. Commercial Bulletin* of Dec. 15, and the more you think about it, the more you will see in it to commend:

It is an unwise and short-sighted statesmanship which at this stage of the world aims to teach the industrial classes to rely

THE U. S. MILLER

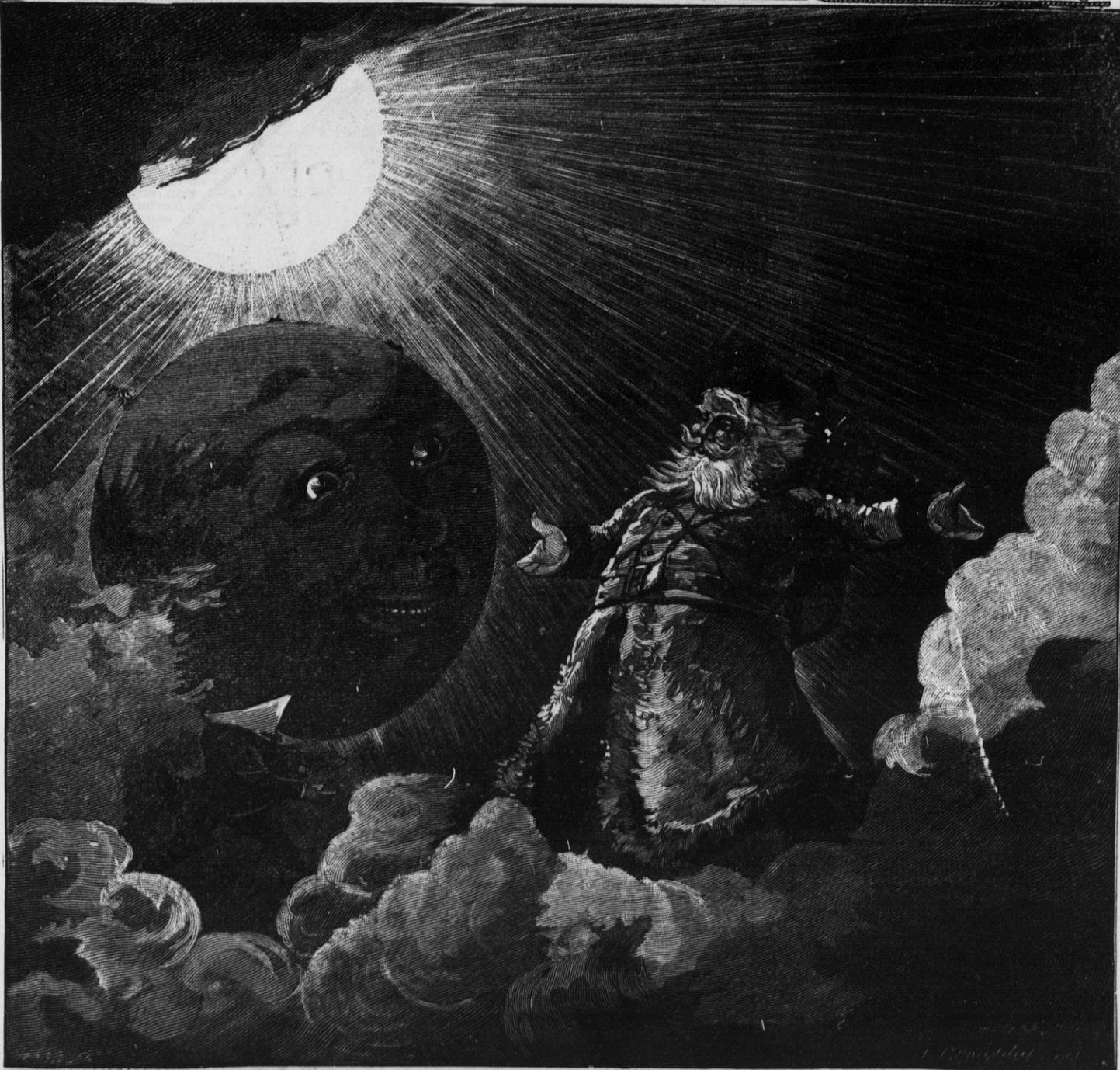


MERCHANTS PUBLISHING CO. 308 TO 316 DEARBORN STREET CHICAGO.

• 1887 MERRY CHRISTMAS. •

Published by E. HARRISON CAWKER.

• HAPPY NEW YEAR 1888. •



SANTA CLAUS' WELCOME TO THE WORLD, WITH COMPLIMENTS OF

THE UNITED STATES MILLER

124 Grand Avenue, MILWAUKEE, WISCONSIN

A Merry Christmas. + THE HOLIDAY MESSENGER. + A Happy New Year.



The parental love of the spider is very strong. The female carries, suspended on her legs, a small bag, containing the eggs, which resemble white glass beads. If the bag is pushed away with a straw or stick, the creature will make the most desperate efforts to recover it. A spider was once found whose back appeared to have a granulated surface, but closer examination showed that she was entirely covered with her young. On trying to shake them off, they attached themselves to their mother by a thread, and, on throwing her to the ground, she remained perfectly quiet until they had all pulled themselves back by means of their extemporized cable, and spread themselves over her body as before.

+ A Christmas Jingle. +

Merry Christmas! come again;  
Peace on earth, good will to men!  
Round the world the chorus ring,  
Let all hearts rejoice and sing.

Merry Christmas! bells will ring,  
Merry Christmas! all may sing  
Merry Christmas! millions say,  
Merry Christmas! happy day!

Merry Christmas! kindly day,  
May all ill be cast away!  
Hearts receive that matchless love  
Christmas brought from Heaven above.

Merry Christmas! blessing give!  
Granting us each day we live,  
Other lives to aid and blese,  
Bringing all true happiness.

Listen all to Christmas bells!  
What a joy their music tells!  
Gladdest day for every one;  
All good deeds by all be done.

Whatever else you may do between now and Christmas be sure and see our beautiful novelties before buying any gifts for your friends or relations. Mind you, we do not say buy of us, we merely say see our attractions before you buy, and then do as you choose about the place you purchase.

Of course we have our own ideas about what the result will be after you have carefully inspected our varied line of appropriate and pleasing gifts; but that need not in any way influence your choice. We are showing our attractions to all, with the understanding that we wish no one to purchase unless we make it to their best interests to do so.

When Naples was ruled by King Bomba, his majesty one day paid a visit to the ship of an English commodore, lying in the bay. While the commodore was receiving his royal guest on the quarter-deck, a member of the Neapolitan suite, in brilliant uniform, cruising about amidships, mistook a windsail for a pillar, and, leaning against it, suddenly went below head foremost. The only witness of the accident, an old tar, thereupon made for the quarter-deck, and, having saluted, said: "I beg pardon, commodore, but one of them ere kings has fallen down the hatchway."

A letter carrier at Montgomery, Ala., delivered a letter a few days ago that was written in 1850. The woman who wrote it is still alive, but her husband, who forgot to mail it, is dead, lucky for him

Our selections of Holiday goods this year were made under especially favorable circumstances and there is no doubt in our minds that we have an assortment that will please you in every way.

It only remains for you to call and see them in order to secure some very desirable Christmas goods at fair prices. If we could say something in a brief manner which would insure a visit from each reader without fail, it would be quickly spoken, and then no further mention of the subject would be made in this paper. We wish it remembered that we are not publishing a paper with the idea that anything said in favor of our goods will increase their value in the buyers eyes, neither do we like to speak boastfully of our stock, but we want every reader to see it, and to that end we mention FACTS in its favor, for the sole purpose of calling in visitors. Once at the store, we will let our goods and prices do the necessary talking to make buyers of you.

"Smart! He's the smartest drummer you ever met anywhere. Why, he's smart enough to sell suspenders to a dog." The listener nodded his head at this assertion, and the conversation was ended, when presently a lonesome-looking individual on the opposite side of the car remarked: "It don't take a very smart man to sell suspenders to a dog." Even the sleepy passengers were aroused at this startling remark, and the first speaker asked in some surprise "Why not?" "Because it don't."

"What would a dog want of suspenders?" "To keep up his pants," softly replied the stranger. And the brakeman sighed so loud as to crack the lamp chimneys.

The exact state of affairs brought about by arsenic eating is a diminution of the strength of the blood; the capillary blood vessels are stopped from working; the ends of the blood vessels are killed; no blood is supplied to the skin, and the real reason for the white transparent nature of the skin is that it is practically dead. The result of arsenic eating is the highly transparent state of the skin, caused from the killing of blood vessels

The gold held by the Treasury in its vaults at Washington weighs 519 tons. If packed into ordinary carts, one ton to each cart, it would make a procession two miles long, allowing twenty feet of space for the movement of each horse and cart. The silver in the same vaults weighs 7,396 tons. Measuring it in carts, as in the case of the gold, it would require the services of 7,396 horses and carts to transport it and would make a procession twenty-one miles in length.

THEY TOOK IN BOARDERS.—Some years ago a missionary who was visiting in one of the noble old houses in East Broadway, now given up to the poorest of the poor, found four families living in one big room; a chalk line marked the division, each family having one corner. He asked one of the women how they managed to exist in such close quarters.

"Sure, sir, we would get along all right if the family at that corner didn't take in boarders."

WHAT THE AMERICAN HEIRESS WANTS IS QUALITY, AND WHAT THE ENGLISH NOBLEMAN WANTS IS QUANTITY.

ACCORDING to the latest fashion intelligence, the dressmaker calls loudly for her "moire."

One of our belles who is wised and will soon be won embroidered a motto for a present to the family parlor. It was a scriptural text, and capable of wide application, but when it was done in worsted, its meaning was materially changed. Either from a natural confusion of ideas or a lack of proper punctuation. Miss —'s motto read as follows: "Walk in Love."

It is a fact, one that should be remembered that in buying this large and popular stock of Holiday goods we did not select such things as alone suited our taste, or would alone appeal to your ideas of the best. We bought on a broader basis, and made it a point to please everybody. Come in and see the great variety we offer, and you will be convinced that this is the popular stock.

A Merry Christmas. + THE HOLIDAY MESSENGER. + A Happy New Year.

Parents and relatives are earnestly requested to bring in the children to see our beautiful display of Christmas gifts. We hope every little child in this vicinity may be allowed a peep at the hundreds of pretty and curious novelties which are especially chosen to please childish tastes. You can give no greater enjoyment to any little boy or girl than to allow them the privilege of seeing and enjoying our beautiful display. Older people will be fully paid for their trouble by witnessing the delight of the little folks, but aside from that an inspection of our stock will afford them much pleasure as we are showing a large assortment of beautiful gifts for older people. Come everybody, all are welcome and none are obliged to buy.

+ Words of Wisdom. +

No one loves the man whom he fears. Mildness of address and manner is by no means an unimportant seasoning to friendship.

If you are terrible to many, then beware of many. Not by years, but by disposition, is wisdom acquired.

Wish to be what you are, and consider nothing preferable.

The art of exalting lowliness and giving greatness to little things is one of the noblest functions of genius.

Let us help the fallen still though they never pay us, and let us lend, without expecting the usury of gratitude.

One of the original tendencies of the human mind, fundamental and universal, is the love of other people's private affairs.

The man to whom virtue is but the ornament of character, something over and above, not essential to it, is not yet a man.

Promise not twice to any man the service you may be able to render him; and be not loquacious if you wish to be esteemed for your kindness.

The bitterest tears shed over graves are for words left unsaid and deeds left undone. "She never knew how I loved her." "He never knew what he was to me." "I always meant to make more of our friendship." Such words are the poisoned arrows which cruel death shoots backward at us from the door of the sepulchre.

If you are troubled in the selection of presents give us a chance to assist you. Many find great difficulty in securing something which will be appropriate and truly desirable for certain of their friends; others are bothered because a limited purse seems to make it necessary to neglect some that certainly should be remembered. If either of these difficulties are staring you in the face come and see us. Our assortment contains something nice and desirable for everybody, while our prices are on a scale to put these nice goods within reach of all.

**A NOVEL INVENTION FOR SAILORS.**—To sail against the wind without much tacking about has hitherto been impossible, but an invention by Baron von Schleben, of Berlin, Prussia, pretends to render it not only possible but very easy. He has applied for patents from all maritime powers for his "wind-wheel to propel vessels of any kind by wind of any direction." There are two vertical wheels attached to a horizontal shaft fastened to the deck, fore or aft as the mariner may desire. The two wheels are self-adjustable in a manner to always receive the full power of the wind. The horizontal shaft moves a vertical one which turns the propelling screw. The stronger the wind the quicker the vessel will go either with or against the wind in any direction maintained by the rudder. The wind-wheel can be used to produce electricity for lighting or other purposes. Vessels supplied with such a propeller will require neither sail nor masts. The management of the ship will be very little work, as the wind-wheel can be turned off by a lever movable with one hand.



We ask for an examination of our excellent line of Holiday Goods on its merits alone. We believe we can offer to you the bargain stock of the season in quality, style and price. If such is the case you will be glad to purchase of us and if you think after examination of our line you can do better elsewhere we recognize your privilege to do so. It is our business to show goods and we are glad to offer them to all, leaving it to their own inclination as to whether they wish to buy or not.

**WHAT AILED THE NEGRO.**—The attention of the passengers in a Texas smoking car was riveted on a strangely acting negro. He rocked himself from side to side without ceasing.

"What's the matter with you?" asked Andy Faulkner who was in the car.

"Do you know Dan McGraw?"

"Of course I do."

"Well, sah, he sold me a silber watch for \$20," continued the negro, still swaying from side to side, "and ef I stops movin' dis heah way de watch don't go no moah."

**THE SENTRY'S CHOICE.**—General Skobeleff, according to the story, was working one evening in his tent near the Danube, or near a pond, when a Turkish bomb dropped at the threshold of his tent. The General had just time to see the sentry outside stoop down and throw the shell into the water. Skobeleff approached the soldier, and said: "Do you know you have saved my life?" "I have done my best, General," was the reply. "Very well. Which would you rather have, the St. George's Cross or one hundred rubles?" The sentinel hesitated a moment, and then said: "What is the value of St. George's Cross, my General?" "What do you mean? The cross itself is of no value; it may be worth five rubles, perhaps, but it is an honor to possess it." Well, my General," said the soldier, "If it's like that, give me ninety-five rubles and the Cross of St. George."

**NEXT THING TO IT.**—Guest (to landlord): "I say, landlord, have you got such a thing as an encyclopedia about the house?"

Landlord: "No, sir, we have not; but there is a gentleman from Boston in the reading room."

+ The Snow Storm. +

Blow, blow; snow, snow,  
Everything is white.  
Sift, sift; drift, drift,  
All the day and night.

Squealing pig, paths to dig,  
Hurry out of bed,  
Rub your nose, warm your toes,  
Fetch along the sled.



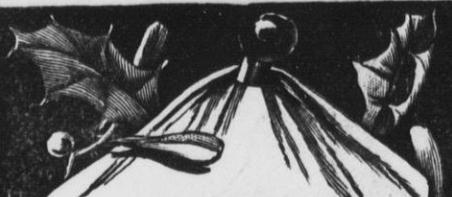
Red cheek girls, wavy curls,  
School house down the lane,  
Fingers tingle, sleigh bells jingle,  
Jack Frost come again.

Hurrah! hurrah! now for war;  
Build the white fort high.  
Steady aim wins the game,  
See the snow-balls fly.

Setting sun, day is done,  
Round the fire together,  
Apples rosy, this is cozy,  
Jolly winter weather.



What a little girl saw who staid up Christmas eve  
watching for Santa Claus.



\*ONCE AGAIN.\*

Another Christmas draws near, many stockings are soon to be suspended at the firesides of hundreds of homes in this immediate vicinity, and what shall they all be filled with? Which one of our readers has not already given more than a passing thought regarding what will be appropriate and desirable for those they wish to remember? While Christmas brings us many joys it generally foretells them with innumerable perplexities. When one gives a present the natural desire is to have it appreciated not only as a token of regard but also for its beauty or utility as well, and so the generous and judicious gift maker finds himself or herself in a sea of troubled doubts over other people's tastes and preferences and has a realizing sense that there is more depth to a loving heart than there is to the purses of ordinary mortals.

Knowing all these things we feel that this stocking now hanging before the reader will be welcomed by all because it is filled with information which will make your selections of holiday gifts not only an easy matter but a delightful recreation as well.

This paper is your invitation to call and see our beautiful array of Holiday Goods regarding which too much favorable comment can scarcely be made. It is our purpose however, to say only enough to make sure of a visit from every reader between now and Christmas, as we believe our large line of elegant new goods will appeal to the taste and admiration of every visitor better than any words that might be spoken in praise of the display.

Never before have we been able to show so many entirely new novelties in handsome and appropriate gifts. Each year great advances are made in manufacture of goods in our line, but this season the improvement is particularly marked and the new productions for the Holiday trade of 1887 are marvels of ingenuity, finish and beauty, which everybody should see.

Another fact worthy of note is that our new stock is made up entirely of careful and judicious selections and is in every sense of the word a POPULAR STOCK and exactly the class of goods that will please all buyers of truly desirable Christmas gifts.

We are making one uniform low grade of prices throughout the entire assortment, and every customer will be sure to find not only true value for every dollar spent

but a pleasant surprise to see how much a limited amount of money will accomplish in gift making if selection is made from our line of popular goods at popular prices. And now as our stocking is nearly filled we wish to utilize the little space that we have reserved for that purpose right down here in the toe and thank you for your kind attention, wish you all a Merry Christmas, and cordially invite you all to come and see us soon.

Truly Yours,

+ A FABLE. +

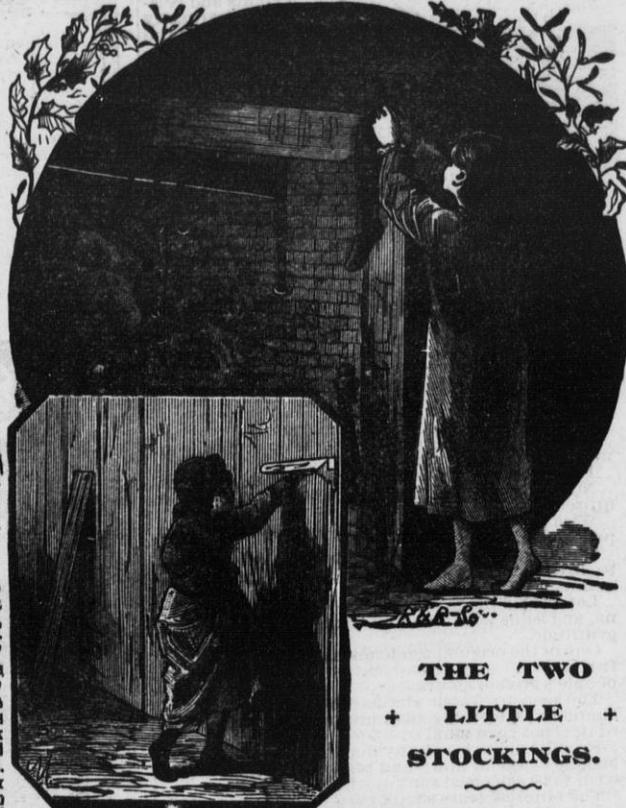
"It's very cold," said a little Christmas Tree out in the forest, one windy December day; though I'm fir from head to foot I'm all in a shiver." "You will be warm enough before long," said the Old Oak, "I've seen the woodman looking at you a good many times lately."

"I know I've branched out a good deal for myself the past year," said the little tree proudly, "and I should not wonder if Santa Claus were very well satisfied with me when I come to be all dressed up for a Christmas party."

"Ho, Ho, Ho!" laughed the Old Oak, "you and your family are too green, you should have put on brown, dingy jackets like the rest of us. Then you might live to a good old age as I shall."

Just then the woodman appeared and the sound of an ax rang out on the frosty air. "Well," cried the little Christmas Tree, as it was borne away, "It's a great honor to be chosen so I will be bright and pretty while I can, for Christmas comes not once a year but once in a life-time for me."

"SUSAN," said a fond husband to his wife, "what were the current expenses last month?" "Oh, hubby, dear," replied Susan, "only twenty-eight cents." "Why, how's that?" "Well, you see I only baked cake twice, and therefore used but very few currants." Perhaps it was Susan, as the story goes, who was given little memorandum book and instructed to keep a detailed account of the household expenses. At the end of the first month her husband asked to see the book. On one page was written: "Received of George \$40.00, and on the other, "Spent it all."



THE TWO  
+ LITTLE +  
STOCKINGS.

Two little stockings hung side by side, Close to the fireplace bread and wide. "Two?" said Saint Nick, as down he came Loaded with toys and many a game, "Ho, ho!" said he, with a laugh of fun, "I'll have no cheating, my pretty one, I know who dwells in this house, my dear, There's only one little girl lives here." So he crept up close to the chimney place, And measured a sock with a sober face. Just then a little note fell out And fluttered low like a bird about, "Aha! what's this?" said he, in surprise, As he pushed his specs up close to his eyes, And read the address in a child's rough plan. "Dear Saint Nicholas," so it began; "The other stocking you see on the wall I have hung for a poor girl named Clara Hall. She's a poor little girl, but very good, So I thought, perhaps, you kindly would Fill up her stocking, too, to-night, And help to make her Christmas bright. If you've not enough for both stockings there, Please put all in Clara's, I shall not care." Saint Nicholas brushed a tear from his eye, And, "God bless you, darling," he said with a sigh, Then, softly he blew through the chimney high, A note like a bird's, as it soars on high, When down came two of the funniest mortals. That ever were seen this side earth's portals. "Hurry up," said Saint Nick, "and nicely prepare All a little girl wants where money is rare." Then, oh, what a scene there was in that room, Away went the elves, but down from the gloom, Of the sooty old chimney came tumbling low, A child's whole wardrobe, from head to toe. How Santa Claus laughed, as he gathered them in And fastened each one to the sock with a pin, Right to the toe he hung a blue dress, "She'll think it came from the sky, I guess," Said Saint Nicholas, smoothing the folds of blue And tying the hood to the stocking too.



"When Christmas cheer makes bright the loneliest cot."

TENDER PASSAGES.—He (tenderly): Yes; when it's done again you must really see the Blondin Donkey!" She (sincere): "I will. I'll look out for it, and when I do see it, I will think of you."

MISUNDERSTOOD.—Cont. Editor: "Here is a manuscript I wish to submit." Editor (waving his hand): "I am sorry. We are full just now." Contributor (blandidly): "Very well; I'll call again when some of you are sober."

LIKED A COCKADE.—Barber: "Bay Rum?" Granger (whose shave has been supplemented by an application of the powder puff-ball): "No, I'm temp'rance; but, friend, if you'd jest 's lieve pass that air cookade over my face agin you'd oblige me.

+ OUR DUTY. +

We wish to say a word to all grown people about the observance of Christmas. Do not let it pass without some act of generosity and kindly remembrance on your part. The little folks need no urging to make the most of the occasion as it is the brightest spot in the sunshiny places of happy childhood, but older people are apt to grow indifferent and cold hearted, and if they do anything at all about Christmas it is accomplished with so much apparent effort and such a lack of true interest and enjoyment that they chill and dispirit every one they come in contact with. Throw off the lethargy of age this Christmas and be children again all of you. Take part in a tree, festival or entertainment of some sort and enter into preparations for the affair cordially and heartily. Make just as many presents to both children and old people as you can possibly afford and our word for it you will feel better hearted, brighter and happier than you have for months. There is no tonic for low spirits like "Merry Christmas" and you can enjoy it if you will.



When all the warm clothes were fastened on, And both little socks were filled and done, Then Santa Claus tucked a toy here and there, And hurried away to the frosty air, Saying, "God pity the poor and bless the dear child Who pities them too, on this night so wild." The wind caught the words and bore them on high Till they died out in the midnight sky, While Saint Nicholas flew through the icy air, Bringing "peace and good will" with him everywhere.

A Merry Christmas. + THE HOLIDAY MESSENGER. + A Happy New Year.



## Santa Claus and his Friends



THE QUEEN OF DREAMLAND.

A Merry Christmas. + THE HOLIDAY MESSENGER. + A Happy New Year.



HIS FIRST CHRISTMAS.

If you know the value of an opportunity to select Holiday Goods from an unbroken stock,—and we think you do,—come early and view our unparalleled display. Every conception which has taken shape in these goods is included in our stock. Everything is fresh from the cases and free from the soil of many handlings. Let us advise you to come and make your selections forthwith.

"Pretty as a picture" is a very common expression and undoubtedly it will be applied more than once this season to our elegant display of Christmas goods. We wish it understood by every reader,

however, that it must be a very beautiful picture that will be allowable as a degree of comparison for this brilliant array. In fact, we can not imagine anything that would make a more pleasing feast for the eye than a faithful illustration of our bright, new goods. But as no artist could do the subject justice, it will be necessary for our readers to make a visit in person to our store in order to enjoy the bright and harmonious reality which we have carefully arranged for the pleasure of all lovers of the beautiful who oblige us by calling.

A little girl was not feeling well, and her parents suggested that she might be about to have the chicken-pox, then prevalent. She went to bed laughing at the idea, but early the next morning went into her parents' room, looking very serious, and said:

"Yes, it is chicken-pox, papa; I found a feddar in the bed."

"Yes, my hands are soft," said a conceited young fellow the other night in a small company, as he admiringly looked at those useless appendages that had never done a day's work.

"Do you know how I do it?" he exclaimed proudly. "I wear gloves on my hands every night to sleep in."

"Do you sleep with your hat on also?" asked a pert young woman.

And the young fellow replied in the negative, and looked wonderingly because the company smiled.

A WORD ABOUT PRICES.—We are not running our business for charitable purposes but to make money. You all know that without being told, but perhaps you do not know that our idea of making money differs somewhat from the methods of a great many people. We prefer to make many sales with a small profit on each instead of only now and then one at an enormous profit; the reason for this is that we think that we make more money in the long run by selling close. Now we propose to sell a very large quantity of Holiday goods this season, we shall make the usual concession that is always necessary to move out an overlarge stock—the prices will be right—we are making it an object for people to buy of us and in saving money for them we are making money for ourselves. Come in and see how nice the plan works all around.

Two men in a street-car. A woman enters, and one of the men hastily gives her his seat. The other one looks on in astonishment, and when the woman gets off, says—

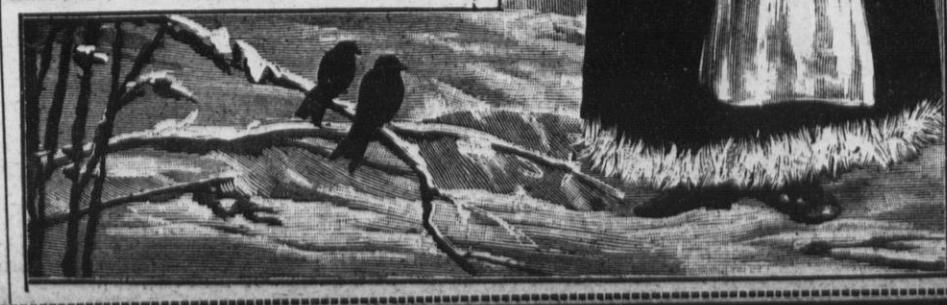
"You are growing strangely polite."

"How so?"

"Why, you gave that woman your seat just now. I never saw you do anything of the kind before. You must have been struck by her appearance."

"Oh, no. You see, I owe her husband a little bill, and she knows who I am."

THE prevailing style of architecture is growing so in popularity that druggists are now selling Queen Anne pills.



Just as a beautiful landscape looks the brightest and best in the early morning so it is with our Holiday stock. It must be seen early to be enjoyed at its best. We urge our friends and prospective customers not to put off their holiday shopping until the last mad rush when stocks are broken, stores overcrowded and salesmen too busy to give you proper attention. Drop in at once and view our beautiful Christmas gifts leisurely and at your ease. Have plenty of time to make a careful and satisfactory selection from a full line of bright new goods. Nothing can be gained by waiting, but everything favors the early buyer. While we shall make every effort to replenish our stock there will be of necessity many choice articles which will go to fill early demands and which it will be impossible for us to duplicate again this season. Come now while the extra nice goods are still at your disposal.

Smith and Jones were dining at the restaurant the other night. The lamb that they had jointly ordered was particularly tough. Jones called the waiter.

"What is this meat you have given us?"

"Lamb, sir."

"You are very sure it's lamb and not sheep?"

"H'm! Oh, yes, I see. A case of second childhood, probably!"

"Talk about your young Napoleons of finance," remarked Mr. Aptimeas Cauldback of Horseheads, New York. "You'd orter seen me when I was down to York."

"Make a stake on the street?" inquired a neighbor, of speculative tendencies.

"Biled if I didn't, Ezry, biled if I didn't. Got my shoes shined in front of the Equitable buildin', boy couldn't change a \$1 bill. I moseyed in to get it busted, walked right through th' house ter Nause street, and then run all th' ways ter th' Gran' Central Jest ketched my train. No flies on me, Ezry."

WE are born for a higher destiny than earth: there is a realm where the rainbow never fades, where the stars will be spread before us like islands that slumber on the ocean, and where the beings that pass before us like shadows will stay in our presence forever.

Our new Holiday stock recommends itself to those who are seeking for really practical and useful presents for their friends. We have made it a point to be well supplied in this particular and we do not believe there is any person young or old who would not find practical use for dozens of articles we offer for sale. Come to headquarters for useful or ornamental gifts at lowest prices.

Presenting a modest man with a gold-headed staff often appears like a case of shyness.



A Merry Christmas. + THE HOLIDAY MESSENGER. + A Happy New Year.



Please do not neglect to pay us a visit between now and Christmas time. We are a little proud of our selection of Holiday Goods and it is a genuine pleasure to have them seen and admired. Without wishing to boast at all we must say that in our opinion a better and more truly desirable showing of Christmas gifts will not be placed at your disposal anywhere. Our purchases were all carefully considered with the view of offering to our patrons this season a line of goods made up entirely of the newest and best and we believe this fact together with our uniform scale of extremely reasonable prices will recommend our goods to every intending purchaser who visits our store.

"Terrible storm that last evening, George?" "Didn't hear it, old man." "Didn't hear it? Man alive, it thundered fit to wake the dead!" "Ha! I thought I saw lightning, but didn't hear any thunder. An old schoolmate of my wife's is visiting her, and they havn't seen each other for ten years."

It is due to us after making such a careful selection of suitable Holiday Goods that you should come early to inspect them. We have been eminently successful in procuring just such goods as are appropriate to the season and will meet your taste. If you call early we shall be able to devote the more time to showing you our immense stock and will take care that no part of it is overlooked.

A COLORED man about 60 years of age, blind in one eye and walking with a cane, hobbling up-stairs into the office of a Griswold street lawyer yesterday, and announced that he desired to make his will.

"Got much property to leave?" asked the lawyer.

"Well, sah, Ize persessed of a dog, a cook stove, a wheelbarrow, an' two flatirons dat my fust wife left me."

"And who are you going to leave them to?"

"My darter, Nancy, ober on Indiana street. Ize married again, you know, an' I wants to put dat property whar' my present wife can't git it. She doan' get nuffin' belongin' to me if I can help it."

"It will cost you \$5.00 to have a will drawn."

"Shoo! can't cost dat."

"Yes, it will."

"Den I reckon I'll administrate on my stuff afore I die. Would dat work?"

"Certainly."

"Den I'll run de dog off, lend de wheelbarrow, pocket de flatirons an' stan' by to rush de cook-stove outer de house de fust time de ole woman goes to de grocery. Kin I git a warrant heah?"

"What for?"

"Fur assault an' battery. When de ole woman finds out what Ize done she'll walk ail ober me, an' I might as well save time by gittin' out de warrant now."



+ Watching for Santa Claus. +

Now, Santa, look me in the eye,  
And tell me, is it right  
To disappoint a little girl  
Who watched for half the night,  
In a great parlor, all alone,  
And thought for certain you would come.

I told you 'bout it yesterday,  
Right here by this big store,  
And now, to-night, I'll watch again,  
And try you, sir, once more,  
If you don't come," she tossed her curls,  
"I'll know you're 'fraid of little girls."

So, once again, before the fire,  
When others were in bed,  
Upon a cozy, cushioned chair,  
She laid her shining head.  
When Santa came to take a peep,  
He found the darling fast asleep

"Oho," he said, "my little maid,  
Tis thus you watch for me!  
You need not grieve, for gifts I'll leave,  
And vanish silently.  
And finding Santa has been here,  
Keep better watch another year."

—PATTY CARYL.



MARRIAGE BY PROXY.—Marriage by proxy or as it is called, "marriage by the glove" is common in Holland, and is caused by the fact that many of the eligible young men after having finished their education in the schools of the fatherland, depart for Dutch India to engage in some lucrative commercial enterprise or to accept a position in the colonial service. The scarcity of marriageable white women in that country induces the would-be husband to write to a friend in Holland, enclosing his wish for a wife. The friend selects a willing young lady, generally with a substantial "dot," and otherwise conforming to the specifications of the letter. A photograph of the favored one is enclosed in the return epistle. After the lapse of a few months, a soiled left hand glove, with a power of attorney, is received from the far-away bachelor. The friend in Holland marries the selected bride in precisely the same manner as if he were the actual groom, and the young wife departs in the next India mail steamer to bring happiness to the lonely one in the far east. A marriage of this description is as binding as if the bridegroom were present, and is never repudiated. If either party to the glove marriage should die before meeting in India, the survivor would share the property of the deceased in accordance with the laws.

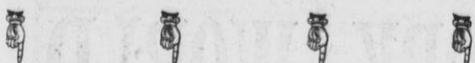
Mirth is the best physician for man's toil.



A Merry Christmas. + THE HOLIDAY MESSENGER. + A Happy New Year.



THE MILLER'S PRETTY DAUGHTER.



CAWKER'S AMERICAN FLOUR MILL AND GRAIN ELEVATOR DIRECTORY FOR 1888 is now in course of preparation and will be ready for delivery in February, 1888. The publisher (E. Harrison Cawker, No. 124 Grand avenue, Milwaukee, Wis.) desires all flour mill owners to send him their correct name and postoffice address, with the capacity in barrels of flour per day of 24 hours and to state whether they use steam or water power or both, or rolls or millstones or both. Elevator owners are desired to send elevator capacity and number of elevators owned by the firm. Full replies will be of benefit to the entire trade.

#### PUBLICATIONS RECEIVED.

HARPER'S MAGAZINE for the first month of the new year shows the determination of its Editor to keep the periodical up to the highest point of excellence in every respect. Among his contributors are William Black, William Dean Howells, Archdeacon Farrar, Henry Watterson, the Rev. Dr. Van Dyke, Theodore Child, Charles Dudley Warner, J. S. Farrar, Amélie Rives, M. E. M. Davis, Nora Perry, and I. W. Avery. Harper & Brothers' large corps of careful engravers and artists contribute excellent specimens of their handiwork for this Number.

The illustrations in HARPER'S (New Year's) MAGAZINE may properly be called high art, clearly cut, and carefully printed. Muller, G. E. Johnson, and Closson have engraved a number of pictures on sacred subjects in a noteworthy manner. Perhaps the best work in the Number is the series of process illustrations of "French Sculpture," in the article on the topic. As "black-and-whites" they are really remarkable. The cuts of tombs in Westminster Abbey will also attract attention.

IN the January number of THE AMERICAN MAGAZINE, Wm. H. Rideing will have the first paper of a series on Boston Artists and their studios reproducing some of their paintings, and showing their distinctive styles of art. Joaquin Miller contributes a remarkable poem "Twilight at Nazareth." Edgar Fawcett's "Olivia Delaplaine" is continued and deepens in interest. Cape Breton Island, a secluded region likely to become of interest in the near future, will be described in an illustrated article by F. M. Endlich. This Magazine is steadily growing in popular favor.

WE have received from the Secretary of the Chamber of Commerce, Pittsburgh, Pa., a copy of "PITTSBURGH'S PROGRESS, INDUSTRIES AND RESOURCES" by Geo. H. Thurston and pamphlets containing a lecture on "NATURAL GAS" by Kurt Sorge of Osnabrück, Germany, and Geo. A. Kelly's report on "American Shipping."

READERS of Mr. Robert Louis Stevenson's books will be glad to know that he will contribute to each number of SCRIBNER'S MAGAZINE during the year 1888. He will write of many topics, old and new, and in a familiar and personal way, which will form new bonds of friendship between the author and his thousands of readers. In the first of the series, entitled "A Chapter on Dreams," he tells some interesting facts concerning the origin of the famous story "Dr. Jekyll and Mr. Hyde." This paper will appear in the January number.

"THE ART AMATEUR" December and January numbers are just at hand and surpass all previous efforts in the way of fine illustrations and beautiful letter press. We have not space at our disposal at present to attempt to refer to any of the many good specialties in these numbers. It is published by Mr. Montague Marks, 23 Union Square, New York, and sold for 35 cents per copy.

WIDE AWAKE 1888. The readers of this wonderful magazine for young people are so

accustomed to good reading and pictures that they will wonder how it is going to be better than ever this coming year. But it is.

The new year has already begun with the holiday number just out — a truly great number, larger and richer, more varied, and therefore it must be better than ever before. And the publishers have a primer to send to those who want to know what WIDE AWAKE is going to have in it in 1888.

The wonder is that such a library and picture-gallery can be got together for \$2.40 a year—a thousand pages and everything fresh and new—stories, history, travels, biography, sketches, anecdote, adventure—and all instructive as well as entertaining. Two worlds are drawn from to make such provision for our children.

So high is the best of young people's literature nowadays that we are all of us glad to be young. Nine tenths of reading people prefer it to what is written for them; for it has the rare merit of being easy as well as good.

We know of no Christmas gift so sure of bringing a happy response in a reading family. Send \$2.40 to D. Lothrop Company, Boston.

"THE GEO. T. SMITH CENTRIFUGAL BOLTING SYSTEM, CENTRIFUGAL REELS AND PURIFIERS" is the title of a neat 96 page cloth bound book recently issued by the Geo. T. Smith M. P. Co. of Jackson, Mich. It explains minutely everything of interest indicated by the title of the book. It concludes with a department entitled "The World's Verdict" in which is given short extracts from users of the Company's machine in all parts of the civilized World. Miller's interested should send for a copy which they can obtain free of cost, but it would be courteous to enclose a ten cent stamp to pay postage.

THE Warren Mfg Co.'s elevator at Warren, Minn., with 30,000 bushels of wheat, burned Dec. 13. Partially insured.

DISSOLVED, Meissner & Whyners, millers, Ursa, Dak.

BURNED, Rogers & Bastian's mill at Carlisle, Ky.

BURNED, David Simpson's mill and gin, near Cochrane, Ga.

DIED, Dec. 4, Peter Borberger, miller, of Litchfield, Ill., at the age of 70.

W. B. WILLS is about to start up a new and large feed mill at Manahawkin, N. J.

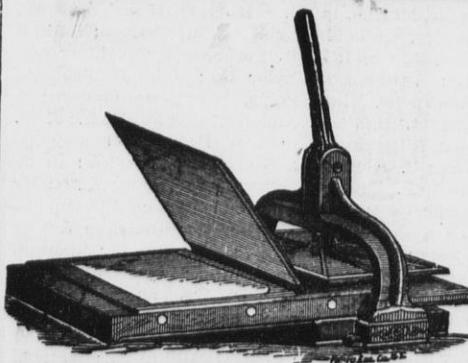
MESSRS. F. PRINZ & Co. of this city, have recently sold the Prinz Improved Cockle machine to the "Reliance," "Jupiter" and "Gem" mills in Milwaukee.

#### ITEMS OF INTEREST.

RICE VERSUS OATMEAL.—The *Boston Record* informs us that rice is taking the place of oatmeal in America, and that oatmeal is not approved by most thinking hygienists. We are also told that rice is a more easily digested, nutritious, and withal amiable food than oatmeal. This is newspaper chemistry, which generally is wrong. There may be objections to oatmeal; but to say that rice is more nutritious is simple nonsense. Oatmeal only lacks fat to make a perfect food, and this can be readily added by butter. Rice on the other hand, lacks not only fat but all albuminoids. See the analysis of the two. Oatmeal contains a higher percentage of albuminoids than any other grain, viz: 12.6, that of wheat being 10.8, and of rice none; and less of starch, 58.4 as against 66.3 in wheat and 86.9 in rice. It has rather more sugar, 5.4, wheat having only 4.2, and a good deal more fat, viz: 5.6 against 2.0 in flour, and in rice 0.8. Lastly salts amount to 3.0 in oats, but only 1.7 in wheat, and 0.9 in rice. As the value of a food depends entirely upon its albuminoids, it is clearly seen that oatmeal is infinitely superior to all other cereals.—*American Analyst*.

It is a fact not generally known, but a most important one for the making of tea that boiling water loses its virtue the longer it is kept on the fire. The proof of this may easily be seen. If fresh cold water be used, the first time it comes to the boil it will lift the lid off the kettle, and conduct itself in a most uproarious manner, boiling over and trying to put out the fire. It is when in this state that it is good for making tea. If you put it on the fire again, you will find you cannot get it to boil over a second time, still less a third; and if you make tea as servants often do, with water that has been simmering for hours, your tea will be wretched stuff, not fit to drink.

BLEACHING FLOUR.—It is known that flour that has been bleached by any means will make a whiter bread, will look whiter in the dust than fresh ground flour and that has not been artificially dried. The fact is clearly emphasized by the experience of many cooks who will set a pan of flour on the back end of a stove where it will merely get quite warm for some time before it is made into bread. The bread is perceptibly whiter, and by such cooks this performance is regarded as a great secret. Many efforts have been made to artificially dry, or bleach and age flour. No great success, however, has attended these efforts; the process is too slow, takes too much machinery and too much manipulation to make it profitable. At this time, however, experiments are being made with a view to drying flour in this way. In some instances this may grow to be a distinct business. Flour will be purchased from the country mills, and in some instances it will be rebolled, but in any case it may be bleached. Various means are being tried; one is to spread the flour over a wide belt, or band of cotton cloth, and pass it through a warm room; another method is to merely allow it to pass through a warm room, to blow it into that room and draw it out through a hopper. The temperature is to be accurately graded so that the vital qualities of the flour are not affected. As yet nothing has developed which looks like a business, though mechanically great results have been accomplished—that is, the flour has been made perceptibly whiter and of more value. The great thing to do is to have the process so complete that it will not require the great care and attention which now makes the work so expensive.



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We respectfully refer to the following well-known firms: S. H. Seaman (Empire Mills), Sec'y of the Millers' National Association; E. Sanderson & Co. (Phoenix Mills), Milwaukee, Wis.; Daisy Roller Mills, Milwaukee, Wis.; Nunnemacher & Co. (Star Mills), Milwaukee, Wis.; Roots & Co., (Millers), Cincinnati, O.; C. H. Seybt, (Miller), Highland, Ill.; Kosmack & Co., (Flour Brokers), Glasgow, Scotland; J. F. Imbs & Co. (Millers), St. Louis, Mo.; E. Schraudenbach, Okaweechee Roller Mills, Wis.; Winona Mill Co., Winona, Minn.; Herrick, Kirk & Co., New York; Acme Milling Co., Indianapolis, Ind.; W. H. Jones, New Brighton, Eng.; Chas. Kreutziger, Heidelberg; Wm. Paddock & Co., Terre Haute, Ind.; Mandom Roller Mill Co.; L. R. Finch's Sons, New York; Jupiter Mills, Milwaukee; Morse & Sammis, Minneapolis, Minn.; Feist, Krauss & Co., Milwaukee; American Starch Co., Columbus, Ind.; Rudolph & Herne, Liverpool, Eng.; Cleveland Milling Co., Cleveland, O.; Zinkeisen B. & Co.; Albion Milling Co., Indianapolis; Norton Milling Co., Chicago; Norris & Carruthers, Montreal; Nelson Milling Co., Evansville; Valier & Spies Milling Co., Marine, Ia.; J. S. Hillyer; Gilchrist & Bros., Glasgow, Scotland; David Wright, Chicago; Chain & Baird, Montreal; H. D. Porteous & Co., Liverpool, Eng.; Aultman & Taylor Co.; John H. Peacock, Minneapolis, Minn.; Eckhardt & Swan, Chicago; E. H. Seybt, Highland; Albion Milling Co., Mich.; F. W. Stock, Hillsdale, Mich.; A. W. Howard, Minneapolis, Minn.; C. Hoffman & Son, Enterprise, Ka.; Reiff-Huber Co., Chicago; Spink Bros., Toronto, Can.; Mr. Le Duc, City; Chas. Tiedeman, O'Fallon, Ill.; Hurins, Sons & Co., Cincinnati, O.; G. Montague & Co., Chicago; Phenix Mill Co., Davenport, Ia.; Blanton, Watson & Co., Indianapolis, Ind.; Porter Milling Co., Winona; T. & A. B. Snider, German Mills, Ont.; Jenks & Mering; Richardson & Evans; Sidle, Fletcher & Co.; Comstock & Co.; I. T. Bronson; Manegold & Son; Farquhar Bros.; Central Milling Co.; Wattson & Farr; Globe Milling Co.; Geo. Teleston & Co.; Hurd; Herrick, Kirk & Co.; N. W. Miller; Wright & Hardie; Jolleson Com. Co., Atlanta; Yaeger Flour Mill Co.; Thos. Todd & Son; Ripon Roller Mills; Schoellkopf & Mathew; W. Throw & Co.; and many others.

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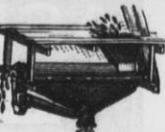
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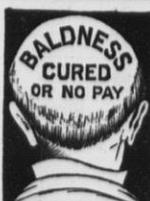
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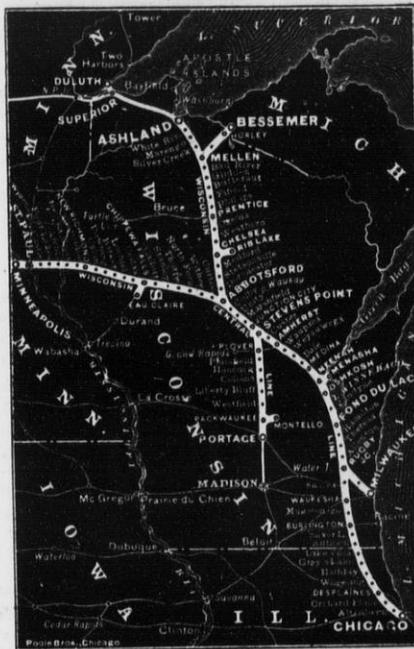
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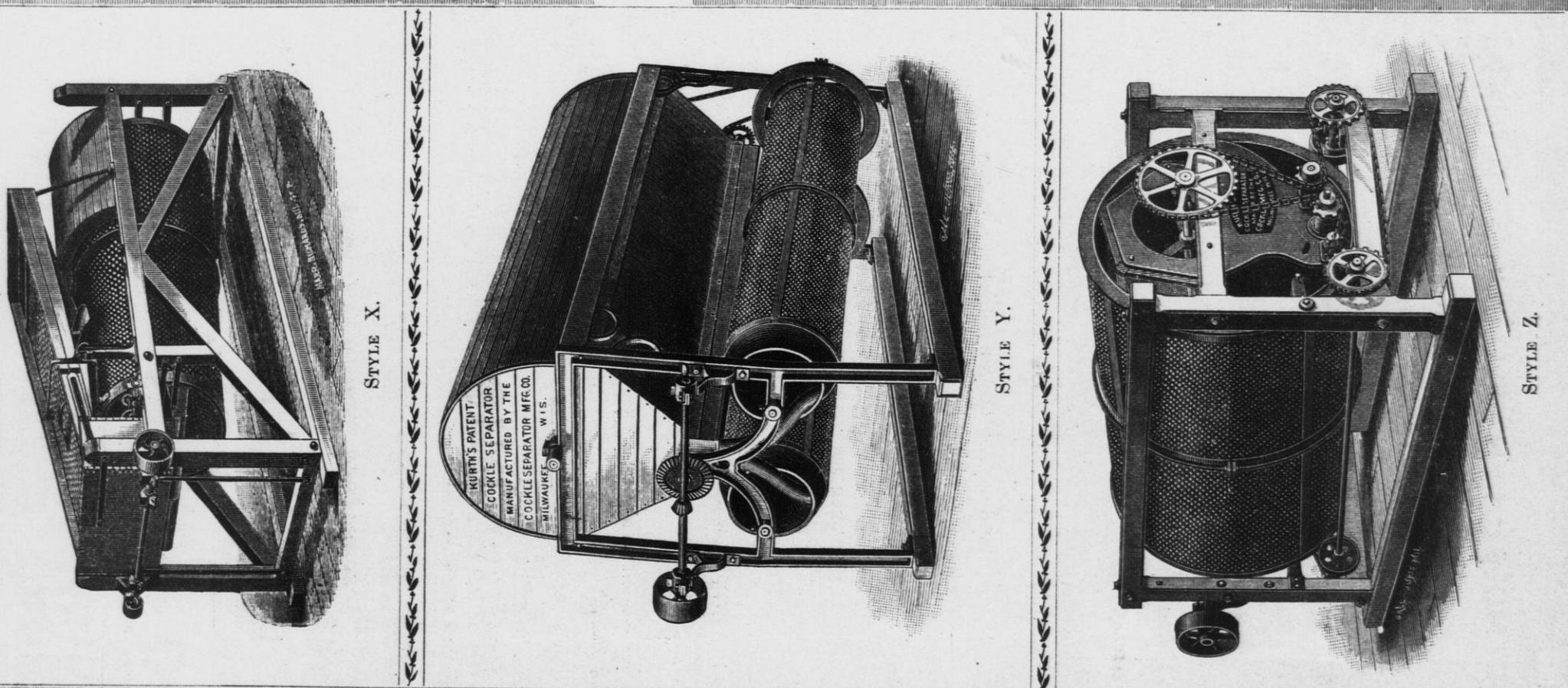
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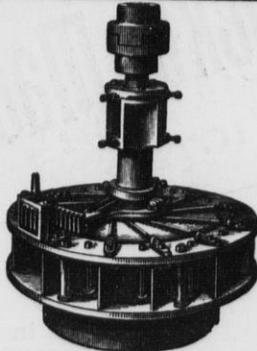
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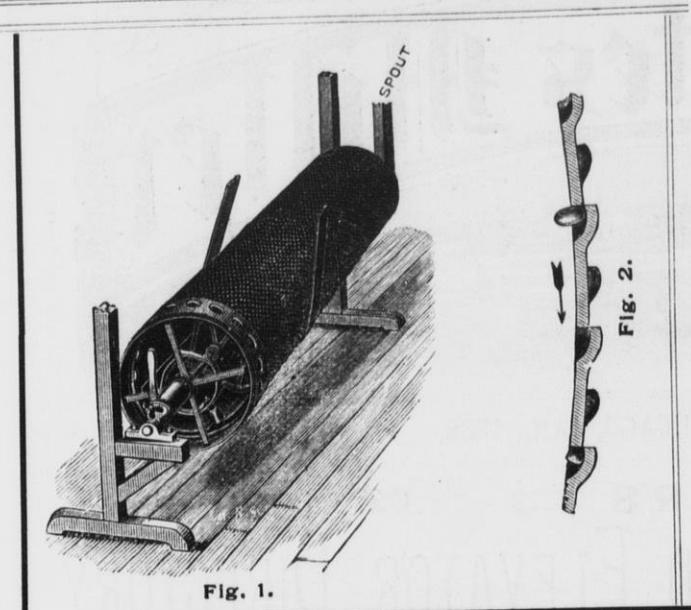


Fig. 1.

Fig. 2.

New Pat. Indentations. No More Zinc, but Iron and Steel Reels, Lasting Many Times as Long.

CUT herewith, FIG. 1, represents the PRINZ COCKLE MACHINE, single reel, without frame. FIG. 2, shows a section of the Indented Cylinder, and FIG. 3 is a large machine with grading reel. The inventor and manufacturer of this machine has had long and thorough experience in all departments of Grain Cleaning, and this Cockle Separator certainly has no superior. It is equally adapted to use in large or small mills, and the price is within the reach of all. The manufacturer has demonstrated that his machine removes more Cockle than other machines. It occupies but little space, and consequently any mill will have room enough in which to place it.

CONSTRUCTION.

The machine consists of a cylinder about 70 in. long and 16 in. diameter, mounted on a stationary shaft 82 in. long, which has to be supported at both ends—(either as seen in the cut, or it can be hung up under the ceiling or in any other suitable position.) Inside of the cylinder is a trough suspended on springs and agitated by the revolution of the cylinder itself, to receive the cockle which is carried up by the indentations of the cylinder and properly discharged into this trough. By the agitating motion of this trough the cockle is discharged at the front end of the cylinder. The wheat is entered at the end of the reel, and is rolling at the lower side of the same in the direction of the discharge, and by this rolling the cockle finds its way into the indentations and gets raised up and discharged into the trough. There is nothing complicated in the machine, consequently nothing can get out of order to make trouble and annoyance. It has only two bearings to oil, and if oiled once a day is all it needs, as it is running only at a speed of 18 revolutions.

The machine is entirely controlled by the operator, by a single lever seen at the front of the cut (Fig. 1), and it can be set either to take out any quantity of cockle, or if there is none in the wheat, it can be set to take out nothing. There is no machine in the market that has this device. The indentations are of a new design and protected by U. S. Letters Patent granted to F. PRINZ. This enables the manufacturer to indent sheet iron or steel plates, which are far superior in ensuring the durability of the machine than zinc, of which material all other cockle machines are now made. The machine is driven by simply taking a two-inch belt around the reel at any point. The Single Reel Machine (Fig. 1), has a capacity up to 20 bushels per hour. Cockle Cylinders are all made of the same size and where greater capacity is required it is secured by a grading reel (patented by F. PRINZ), and guaranteed not to clog as other devices do, which separates the COARSE grains of wheat, from the SMALL wheat and cockle, and the latter (small wheat and cockle) will only go to the Cockle Cylinder for complete removal of the cockle. The Grading Reels are built of the proper size to furnish separated wheat and cockle for feeding one, two or more cylinders. All parts of this machine are very easily accessible, NOT ONE INSIDE ANOTHER and in a substantial frame, NO FAST MOTION, and very little power needed.

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"CENTENNIAL MILLS," EVANSVILLE, Ind., June 14, 1877.

FAUSTIN PRINZ & CO., MILWAUKEE, Wis.  
GENTLEMEN:—Enclosed please find check in payment of Cockle Machine sent us May 26, 1887. The Machine does its duty.  
Yours truly, J. W. LAUBSCHER & BRO.

Office of "PHOENIX FLOURING MILLS," Waukesha, Wis., March 17, 1887.

F. PRINZ, Esq.:  
DEAR SIR:—Yours of the 16th inst. at hand. In reply to inquiries as to how we like your combined Separator and Cockle Machine, which we have now had running nearly a year, I can only say it is the boss." It displaced a well-known combined machine, and although yours was only guaranteed to do as much work as the one it displaced, I am glad to say it does THREE TIMES AS MUCH, and does it in first-class style. The old machine blew almost one-third of the scourings into the dust-room, while from yours we cannot find a kernel. The Oat Separator is as perfect as I have seen; the cockle it removes without wasting whole kernels of wheat; the suction is in perfect control of the miller; and last, though not least, it uses only half as much power as the machine it displaced. You are at liberty to use this recommendation, and if any brother millers wish to see the machine in operation, we shall be pleased to show them. Wishing you all possible success, I remain,  
Yours respectfully, CHARLES G. DEISSNER.

Office of GALESBURG ROLLER MILLS, GALESBURG, MICH., Nov. 17, 1887.  
FAUSTIN PRINZ & CO., 659, 661 and 663 East Water St., Milwaukee, Wis.  
DEAR SIRS:—The Cockle Machine arrived in good condition. I could not procure a millwright, but the connections of your machine are so complete, I went to it myself and put it in and had it running in less than four hours. I have no hesitation in saying that your Cockle Machine is the best that I ever handled, being entirely under control of the miller; it does all you claimed and more; it not only removes all the cockle, but scours the wheat and removes the dust to my utmost satisfaction. I consider it a mite for space and a monster for the work it accomplishes. I displaced a rolling screen for your machine and assure you it is a profitable change.

Yours respectfully, M. W. MORTON.

Office of GEM MILLING COMPANY, Milwaukee, Wis.

Mr. F. PRINZ:  
We have used your No. 3 Combined Grader and Cockle Machine two months and are much pleased with its work. The objectionable features of our former machine, which required constant attention, owing to Grader sieve becoming clogged and allowing cockle, seed, etc., to pass over with the wheat, are ENTIRELY OBLIVIATED in your machine, the work being always uniform, owing to Grader reel keeping perfectly clean, consequently all seeds, cockle, etc. must enter Cockle cylinders which removes them in a thorough manner, taking out very little broken wheat. We can use one or two cylinders as condition of wheat requires, and with cut-off arrangement on Grader reel almost perfect separations can be made. Requires very little power and space, and we think a much more durable machine than we formerly used.  
Yours truly, GEM MILLING CO. J. ZAHN, Supt.

RELIANCE MILLS, Milwaukee, Dec. 19th, 1887.

MESSRS. F. PRINZ & CO., City.  
GENTS:—The Grader and Cockle Machine you put in our mill three months ago in place of the Kurth Cockle Machine, has given the best of satisfaction, as our wheat is unusually full of cockle, wild buckwheat and seed this year, is entirely cleaned from same by your machine without any loss of wheat. Respectfully yours, C. MANEGOLD & SON.

Unequalled in Capacity and Simplicity. One Reel will Handle 16 to 20 Bushels per Hour.

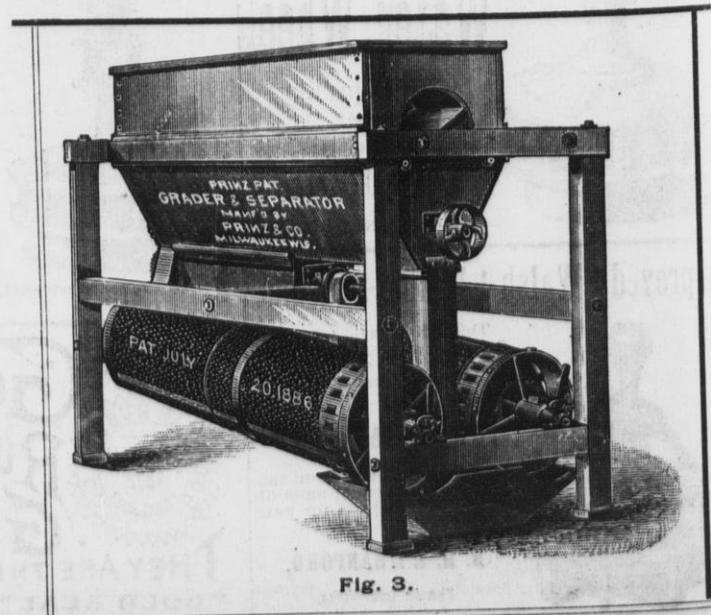


Fig. 3.

# The United States Miller



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TERMS: { \$1.00 a Year in Advance.  
Single Copies, 10 Cents.



KANSAS CITY BOARD OF TRADE BUILDING, 1887.

The illustration above gives a very good view of the new Board of Trade Building erected in Kansas City during the year past, at a cost of over \$700,000. It is one of the finest exchange buildings in the United States, and speaks volumes for the business push and energy of the commercial men of Kansas City, which evidently is to the Southwest what the twin cities, Minneapolis and St. Paul, are to the Northwest. In a letter received January 6, 1888, from Mr. W. H. Miller, Secretary of the Exchange, he gives the following grain receipts for 1887: wheat,

2,295,217 bushels; rye, 36,309 bushels; Barley, 279,100 bushels. Hon. E. H. Allen is President of the Exchange.

[From *The British Baker, Confectioner and Purveyor*, London, January 2, 1888.]

## A CASE OF AMERICAN FLOUR SHORTAGE.

BY W. A. THOMS.

To many readers the term "shortage" will not be quite clear, although it is, to a certain extent, self-explanatory. Here it means either a loss in count, say 95 or 98 sacks of flour received for 100 ordered and paid, or a deficiency in weight of flour in any or all of

the sacks. Deficient weight is the most common cause, loss in count can be easily traced back and adjusted. The light weight may be due to various causes: to thin, weak sacks that tear or burst when handled without affection, and part of the flour is lost, or from theft in transit, or from being weighed short at the mill. From whatever cause it arises, shortage is a sore subject between U. S. export millers and flour importers, and with the increase of export millers and the persistent use of thin cheese-clothsacks, shortage claims were never more numerous than now, and their tendency is to increase. As a rule,

such claims on honest and honorable millers are promptly and satisfactorily settled, but there is coming to the front of late a new order of U. S. flour importers—of the genus “tramp,” and family “Ah Sin”—from whom the suffering importer can obtain no satisfaction, not infrequently insult instead of settlement of a claim however well attested and just. I may be permitted to explain that “tramp” exporters are flour jobbers and millers of small reputation and no established agents for the sale of their flours on this side, who secure orders by offering flour below its market value, and recoup themselves by short weights, or lowering grades below samples; who will put any brand on the sacks asked by a buyer, but will not add their own names or the names of their mills. This shyness to advertise themselves on their sacks enables them to slide off from importer to importer, and repeat their game of intake. So far as I know, the importers keep no black list of such traders, and circulate it for mutual defense, but seem to prefer silence to publishing that they have been sold. But there is evidence to prove that some of them are not sold. The writer has been told by an export American miller of established reputation that he has been asked by British importers to weigh short, and to that extent cut the price. There is other evidence leading to the conclusion that there are such importers, who pass on the “tramp” short-weight flour to the baker, and “chance the ducks;” and the chance of the baker detecting the shortage is slight, as so very few of them weigh flour when received. It is the honest importers who are sold, who give credit notes to bakers for shortage along with the invoice of the flour, and then try, and fail, to recover from the American exporter. The following are facts of a case which, to all appearance, seems to be of a shady character, but I leave my readers to form their own opinions and content myself with simply stating the facts as they occurred. I have no wish to involve others in the remotest chance of proceedings for libel, and so refrain from making any imputations on anyone's character. For this reason, also, I do not give the correct name and address of the miller and firm of flour importers referred to:

In September last I bought from a well-known Scotch firm of flour importers, whose names, as I have said, are not essential to this narrative, but whom I will call Messrs. A. & Z., a quantity of flour branded, say, “Starlight,” for delivery on arrival. It was bought from sample at a very reasonable price, and I could learn no more about it than that it was a Milwaukee patent from spring wheat. The flour arrived at Glasgow in October, by the Allan Line, when a part of my purchase was sent on to Alyth. As the brand was a strange one, I examined it well on delivery. The quality was equal to sample, and the sacks, though weak and thin, were sound; but I could find no trace of the name of the miller or mill on them. This excited my suspicion, and a number of the sacks were weighed, and all were found short weight. Before I had time to inform Messrs. A. & Z. about this they sent me a credit note for an average shortage of fully three pounds to the sack of 280 lbs. As this allowance fully covered the shortage found, I did not write to them, but called at their offices shortly after to pay for the flour.

I found only Mr. A. present, and asked him in an innocent way, to explain his credit note for shortage. His explanation, in effect, was this: They had received, by the Allan Line, 1000 sacks (of 140 lbs.) of “Starlight,” which, on being weighted from the ship by the weigh-master there, were found 464 sacks under weight, the total shortage 1587 lbs. As these light sacks were not marked to distinguish them, Messrs. A. & Z. reckoned an average underweight of fully one and one-half pounds for each of the 1000 half-sacks, and issued credit notes to that amount to all who had received the flour. Mr. A. showed me a certified list of the shortage in each of the 464 sacks from the office of the Allan Shipping Co. I have it before me now while writing, and find 63 of these sacks weighed 138 lbs. each; 250 sacks weighed 137 lbs. each; 122 sacks weighed 136 lbs. each; 10 sacks weighed 135 lbs. each, and 19 sacks varied from 121 lbs. to 139 lbs. each. These figures and the condition of the sacks which I had examined, showing no loss of flour from being torn or opened, and flour stolen in transit, aroused suspicion that this was possibly a deliberate case of underweighting at the mill, and I said so to Mr. A., and asked him to give me the facts of the case for public allusion thereto. This he declined to do, remarking that he was convinced, although the case looked suspicious, the miller was an honest man, and would explain it satisfactorily, and settle the claim for shortage. My laugh must have been tinged with incredulity, for then he asked me, with an indignant gesture, “Do you mean to say that the miller is a scoundrel?”

“Well, if you put it that way, I simply say everyone is entitled to his own private opinion.” As Mr. A. told me he had written the miller, enclosing claim for shortage, and expecting an answer shortly, I said I would delay any public allusion to the case until the answer arrived, and I was informed of its tenor. About two weeks ago, Messrs. A. & Z. wrote to me: “We are inclined to reconsider the opinion our Mr. A. expressed to you regarding the miller of ‘Starlight patent.’ Although we have issued credit notes to every customer who had the flour without receiving any complaints—as to short weight—the miller declines to settle our claim. We do not mean to have any further correspondence with him.” The names of the miller and the mill not given. This seemed to me to settle the matter too easily, and I wrote Messrs. A. & Z. saying so, asking the miller's name, in order to protect honest importers and bakers. In answer they sent me full particulars of the case, and the appended letter from the miller declining to entertain their, what I call, most just and honest claim for shortage.

Copy of letter from “Ah Sin,” Meadow Mills, Milwaukee:

“Milwaukee, Novbr. 10th, 1887.

“Messrs. ——, “DEAR SIRS,—I received to-day your favour of 29th ult, enclosing specified weights of 464 bags, and bill for short weight. I return both, as I cannot entertain at all the claim. If I could not have felt quite certain that there could not have been any shortage from the mill, I would be convinced now by your report that there are packages of 19, 17, 14, 12, 8, 6, 4 lbs short. Where and how the shortage originated is beyond my means of knowing, but this is sure: if I should be made responsible for such claims, I would quit entirely exporting flour; fortunately, yours is gone through and the quantity easily

is only the second claim of this nature—both of Glasgow. My other correspondents in Glasgow are well pleased with our weight and flour. . . . —Your resp'y,

“AH SIN.”

The sacks weighing 19, 17, 14, 12, 8, and 6 lbs. short the Meadow miller refers to, as convincing him the shortage did not originate at his mill, number only 12 in all, out of 464 short weight, and were undoubtedly torn or burst sacks from which flour had escaped. The figures I give prove 10 sacks 5 lbs. short, 122 sacks 4 lbs. short, 250 sacks 3 lbs. short, and 63 sacks 2 lbs. short. It was not the 12 packages showing big shortages, but the other 452 packages, and their sound condition while short of weight that make the affair so suspicious. The total shortage I gave as 1587 lbs., that is by reckoning the weight of the half-sack as 140 lbs. in Glasgow, but if the sacks are weighted 140 lbs. at the mill in America they should weigh not less than 141 lbs. in Glasgow ex-ship. Here it is the exception for me to find half-sacks of U. S. flour weighing under 141½ lbs. So that the shortage on these bags would seem not to have been less than 2000 lbs. at the mill. A word, in conclusion, to “tramp” millers and flour jobbers. Gents, all, no thanks are due me for this effort to advertise you. To me it is a labor of love, and you can bet your boots or bottom dollars that I'll be delighted to repeat it as often as I find it necessary. Moral to my craft brothers: Avoid flour unbranded by the names of its miller and mill, or, if you will have it, look closely to the grade and weight of each sack. If you still get taken in, please don't blame this self-elected watch-dog for not barking.

[We hope to be able to publish the reply of the Milwaukee Miller in our February number.  
EDITOR U. S. MILLER.]

[Translated from the *Berliner Mueller-Zeitung* for the UNITED STATES MILLER.]

#### CHEMICAL EXAMINATION OF FLOUR.

This is really not the work of the miller, nor the merchant, but should be done by well-educated scientific chemists, as is commonly the case in France, where science and industry go hand in hand and mutually aid each other. By an examination so conducted, the limits of water, starch, gluten and ashes are determined.

The water contents of flour is easily ascertained by drying out, a small quantity in an air-bath at a temperature of 110° or 120° C. The dryest flour contains six per cent. of water, while in others it will be found to contain as much as 25 per cent.

The determination of starch and gluten are produced by the separation of the former from the latter, by tying the flour in a small linen bag and kneading it under water, until the gluten has formed itself into a mass. If the flour is of poor quality, it will not unite for a long period. In the water in which the flour is thus kneaded, the starch will be found, and it will, in a very little time, settle at the bottom. Cerealin and Casein, both nourishing, nitrogenous parts are lost entirely in the examination, as they quickly dissolve in the water. The secured gluten and the settled starch are weighed together, and so the quantity is ascertained. To determine the gluten, Bolin and Robins, both of Paris, have invented an ingenious instrument, called an “Aleurometer,” by which a baking process

ascertained. The ashes are determined by burning a certain quantity, which is afterwards weighed, and may reach from 1.5 to 2.2 per cent., but if more, adulteration by mineral substances may be suspected, and must be traced by chemical analysis. But there are also practical examinations, which are of equal importance to the miller and baker, especially chemicals for improving the general appearance and for adulteration. Experienced men are of course the most accurate judges of the feeling, the appearance and the color of flours but it not infrequently happens that even they are compelled to use a microscope.

A principal defect in flour, and one which is difficult to detect, is the flowing of the dough when it does not rise, but spreads itself on the sides. The cause of this may be attributable to the presence of too much wild garlic, or it may be the wheat was burned, or the land on which it grew was overspread with sheep manure. A famous expert, Mr. Oser, of Krems, in "Niederösterreich," suggests an original idea, viz: take 16 grammes of flour from every exhibitor and knead these singly in 8 grammes of water.

The stiffest dough will prove the best and the slackest, inferior. So far as baking flour is concerned, it ought not to be too fine, for fine flour will bake harder, being much less vaporous.

Good flour should be of a yellowish color, and it requires much practical experience to discriminate between the inferior and superior grades. To test the mixtures of flour with rye flour, potato flour, etc., the Pekar flour tester is the most reliable. It is patented, and can only be used in a mill on payment of a yearly royalty of 1 Kr. per 100 kg. Microscopical examinations also show adulterations, and for this test it requires 300 to 400 magnifying power. The particles of rye flour are larger than those of wheat or barley, but the difference in the size is not remarkable. This examination is therefore not reliable, more especially, as by it only the quality and not the quantity can be obtained. It is much easier to detect the addition of oats, millet, rice or maize, as the starch particles of these are much more apparent. The maize starch is the largest of all, and is therefore the more easily observed. The outer husk of millet flour is ground largely along with it. The rice flour is altogether clear of husks or shells, because these shell with the gluten husk, and therefore the contents of gluten is very small. The starch kernels are angular and the color of the flour is a beautiful white. Oat flour always contains bran, as the husks cannot altogether be removed. In many vicinities oats are seldom ground to flour. Adulterated wheat flour is mixed with rye, barley or rice flour, especially with the latter, as the price of it is in America at least very reasonable. Flour mixed with flour made from beans or peas is known by the elliptical shape of the starch particles. Adulterations of this by mineral stuffs is immediately detected by the microscope, as a grey formless mass will be seen among the starch particles.

## NEWS.

*The Tradesman* of January, 1888, published at Chattanooga, Tenn., published a list of new industries of all kinds established in the Southern states during the year 1887, from

which we have compiled the following concerning the flouring industry in the South for the benefit of our readers:

**ALABAMA**—Anniston City Land Co., Anniston, new mill; Birmingham Flour Mill Co., organized, Birmingham; Barrett, Denton & Co., Decatur, new mill; W. W. Fulgum, Decatur, new mill; T. W. Williams & Co., Huntsville, new mill; A. H. Moses & Co., Sheffield, new mill; F. H. Grace, Sheffield, new mill; S. M. Jemison, Talladega, new mill.

**ARKANSAS**—Webb & Brown, new mill, Eureka Springs; Jas. W. Hart, new mill, Eureka Springs; G. W. Davis & Co., new mill, Pine Bluff.

**FLORIDA**—S. W. Spier, grist mill, Orlando.

**GEORGIA**—Taylor Bros., enlarging, Athens; Clark Flour Mill Co., enlarging, Augusta; Kennesaw Mill Co., enlarging, Marietta; R. C. Humber, new mill, Milledgeville; J. H. Ranne, new mill, Savannah; J. M. Watson & Co., new mill, Tallapoosa.

**KENTUCKY**—J. G. Straub, new mill, Louisville; Davenport & Bransford, new mill, Owensboro.

**LOUISIANA**—Stewart & Rickert, rice mill, New Orleans, Southern Rice Mill Co., New Orleans.

**MISSISSIPPI**—C. R. Wood, new mill, Columbus.

**NORTH CAROLINA**—H. T. Collins, new mill, Asheville; D. A. Tompkins & Co., new mill, Charlotte; Carson Bros., enlarging, Charlotte; Piedmont Mill Co., organized, Charlotte; Styron Bros., new mill, Fayetteville; S. S. Brown & Co., new mill, Greensboro; R. W. Cowan, new mill, Salisbury.

**SOUTH CAROLINA**—R. Rhodes & Co., enlarging mill, Charleston; Huguenot Mill Co., enlarging, Greenville.

**TENNESSEE**—S. M. Elliott, new mill, Bristol; Bristol Land & Imp. Co., new mill, Bristol; D. S. Godsey, enlarging, Bristol; Twin City Mill Co., organized, Bristol; A. J. Berryhill, new mill, Cleveland; W. J. Mansfield, enlarging, Cleveland; John Ashton, enlarging, Cleveland; Allen & Kieth, new mill, Dayton; H. H. Clark, new mill, Johnson City; City Mill Co., new elevator, Knoxville; S. E. Williams, enlarging, Lebanon; Falcon Roller Mill Co., organized, McMinnville; M. City Mills Co., new mill, Maryville; W. T. Hackney, new mill, Maryville; L. D. Saunders, Maryville, Mossy Creek; Morristown Mill Co., Morristown; Merritt Mill Co., chartered, Morristown; S. P. City Co., new mill, South Pittsburg; Raft Bros., new mill, Tullahoma.

**TEXAS**—W. H. Huffman, new mill, Ft. Worth; G. M. McSpadding, new mill, Greenville; Farmers' Alliance Co., new mill, Sherman; Texas Alliance Mfg. Co., new mill, Denison; Farmers' Alliance Co., new mill, Dallas.

**VIRGINIA**—Mathews & Wright and Thomas, Patterson & Co., enlarging mills, Liberty; Gallego Flour Mill Co., enlarging mill, Richmond; Witz & Holt, enlarging mill, Staunton.

**THE CYCLONE** grain elevator, the invention of Lyman Smith, is at Buffalo, and is now ready for business. Mr. Smith claims that his elevator, as now improved, will easily handle from 300 to 400 bushels of grain per minute.

**THE MANITOBA** eastern wheat movement is seriously effected by a shortage, or rather blockade of freight cars on the C. P. R. R.

**SEC'Y MILLS**, of the Illinois State Board of Agriculture, thinks that the Illinois winter wheat crop for 1888 will be a small one.

**THE COCKLE SEPARATOR** Mfg. Co. of Milwaukee, Wis., last month shipped two car-loads of Gilbert Flour Dressers, Superlative Purifiers and spiral conveyor to Atlanta, Ga., to go into Zachary Bros.' mill, which Stout, Mills & Temple are building.

**THE COCKLE SEPARATOR** Mfg. Co. of Milwaukee, Wis., have just shipped several hundred feet of their spiral conveyor to Sullivan & Ehlers, Albany, N. Y.

**THE COCKLE SEPARATOR** Mfg. Co. of Milwaukee, Wis., have just shipped a lot of machinery, consisting of Gilbert Flour Dressers, Superlative Purifiers, Morgan Scourer, Kurth Cockle Separator and Spiral Conveyor, furnished by the Cockle Separator Mfg. Co. of Milwaukee, Wis.

**THE SUPERLATIVE PURIFIER** Mfg. Co. of Milwaukee, Wis., have lately shipped four of their Purifiers to C. T. Hanna, Pittsburgh, Pa.

**THE COCKLE SEPARATOR** Mfg. Co. of Milwaukee, Wis., have just shipped a lot of machinery, consisting of Superlative Purifiers, Gilbert Flour Dressers, Bran Dusters, iron work and belting, to Phillips & Bruce, Pleasant Hill, Neb.

**BURNED**, Dec. 22, Clem & Wegner's 200 bbl. roller mill at Harrisonburg, Va. Loss, \$35,000. No insurance.

**REMOVED**—F. C. Ireland & Son, from La Chute Mills to Toronto, Ont.

**CHANGED NAME**—Geo. H. Colton to Geo. H. Colton & Co., Lisbon, Dak.

**THE FOLLOWING** are the latest reported losses from the Rochester mill disaster: J. G. Davis & Son, loss above insurance, \$30,000; J. A. Hinds & Co., loss over insurance, \$30,000; Joseph H. Poole, loss over insurance, \$50,000.

**OMAHA** Milling Co.'s 400 bbl. mill at Omaha, Neb., will soon be ready to start up.

**BURNED**—Brady Bros.' mill at Gainesville, Tex.

**THE EAGLE MILLS** Co., Parkersburg, W. Va., has put its business in the hands of a receiver to be adjusted.

**DEAD**—Jacob Grossenbacher, Highland, Ill.

**ASSIGNED**—Henry Osborn, owner of a large flour mill near Ann Arbor, Mich., made an assignment Jan. 8. Assets above book accounts are placed at \$16,000, with \$10,000 liabilities.

**ASSIGNED**—H. Bromall, miller at Doe Run, Pa.

**MESSRS. RICHTER & HOLT**, Carthage, Ind., have just completely refitted and refurnished their water power flour mill, and it has now a capacity of 100 bbls. per day.

**BURNED**, Jan. 2, J. W. Howe's flour and saw mill, at St. Hilaire, Minn. Loss \$15,000. Insurance \$6,500.

**DULUTH** is now the happy possessor of ten banking institutions, with a combined capital of over \$2,000,000.

**BURNED**—F. M. Watt's flour mill at Cooperstown, Tenn.

**BURNED**, Dec. 30, Hoover's flour mill and warehouse at Pickering, Ont.

**EDWARD CORBETT** has taken in Mr. Arthur S. Norrish as a partner, and this firm of milling engineers will hereafter be known as Corbett & Norrish, No. 3346 M street, West Washington, D. C.

**ABOUT 400,000** barrels of flour were produced during 1887 by mills in Chicago.

**BURNED**, Jan. 5, the warehouse and stables of the Banner Milling Co., Buffalo, N. Y. Loss \$11,000. Insured. The mill will start up again in a week or two.

**THE COCKLE SEPARATOR** Mfg. Co. of Milwaukee, Wis., last month shipped four car-loads of their machinery, consisting of Cockle Separators, Morgan Scourer, Gilbert Flour Dressers, Superlative Purifiers, Centrifugal Aspirator, Spiral Conveyor, etc., to the Forest City Mill Co., Forest City, Dak.

**THE COCKLE SEPARATOR** Mfg. Co. of Milwaukee, Wis., have just shipped two of their largest size Gilbert Flour Dressers to Wm. Listman, La Crosse, Wis.

**THE COCKLE SEPARATOR** Mfg. Co. of Milwaukee, Wis., have just shipped a lot of spiral conveyor and pulleys to Plummer & Finch, of Augusta, Wis.

**WILKINSON & SMITH**, of Ida Grove, Ia., are receiving numerous letters testifying to the good qualities of their flour. Their mill is equipped with a full line of Gilbert Flour Dressers, Superlative Purifiers, Morgan Scourer, Kurth Cockle Separator and Spiral Conveyor, furnished by the Cockle Separator Mfg. Co. of Milwaukee, Wis.

**J. W. PARKS**, of Balsam Lake, Wis., has just put in two Gilbert Flour Dressers, furnished by the Cockle Separator Mfg. Co. of Milwaukee, Wis. Joe Van Buskirk, of Shandando, Ia., has also put in one of the same machines.

## UNITED STATES MILLER.

E. HARRISON CAWKER, EDITOR.

PUBLISHED MONTHLY.

OFFICE, NO. 124 GRAND AVENUE, MILWAUKEE.

SUBSCRIPTION PRICE—PER YEAR, IN ADVANCE.

To American subscribers, postage prepaid..... \$1.00  
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All Drafts and Post-Office Money Orders must be made payable to E. Harrison Cawker.

Bills for advertising will be sent monthly, unless otherwise agreed upon.

For estimates for advertising, address the UNITED STATES MILLER.

[Entered at the Post Office at Milwaukee, Wis., as mail matter of the second-class.]

MILWAUKEE &amp; CHICAGO, JAN., 1888.

We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

MINNEAPOLIS mills manufactured 6,553,000 barrels of flour during 1887, of which a little over one-third was exported.

THE Nebraska Millers' Association will meet at Lincoln, Neb., Jan. 19, at 4 P. M. D. H. Harris, of Bennet, Neb., is Secretary of the Association.

IN a letter just received from Charles N. Bell, Esq., secretary of the Winnipeg Board of Trade, he says: "Fully 12,000,000 bushels of wheat will be exported."

WE have received the initial number of the *Merchant, Miller and Manufacturer*, of St. Louis, Mo. It presents a good appearance and we hope will fill that "aching void" with which the millers have been so long afflicted.

THE production of flour by Milwaukee millers in 1887 was 1,251,145 barrels, against 952,802 in 1886—an increase of 298,343 barrels. The gain was due to the increased demand on European as well as on domestic account.

THE flour traffic over the new "Soo Line" from Minneapolis was opened Jan. 7, 1888, by the starting out of five flour trains, consisting of 103 car loads, 20,600 barrels of flour, destined for Boston, New York and Philadelphia.

MESSRS. F. PRINZ & CO., No. 659 East Water street, Milwaukee, manufacturers of Prinz Cockle Machines, Smutters, Separators, etc., report a lively business. During the past month they have sold several large machines and have had a big run on small machines for small mills.

ON New Years eve the Geo. T. Smith Middlings Purifier Co., Jackson, Mich., gave a banquet to the officers, salesmen and invited guests at the Hibbard House. It was a royal feast, and an occasion long to be remembered by all present. We trust that the year 1888 will prove to be a successful one for the Company.

SECRETARY FRANK LITTLE, of the Michigan Millers' Association, has issued the call

for the annual meeting of that body, to be held at the Morton House, Grand Rapids, Mich., Feb. 8, 1888. All Michigan millers are earnestly invited to come and join the Association, and if not able to come to send \$5.00 for annual membership fee. It would probably be interesting for the Association when it meets to discuss the manner in which the funds formerly on hand were appropriated, and to determine whether they had a right to dispose of them as they did. The subject has been one of open criticism by members of the National Association.

Hudson Bay and Strait—an outlet which would bring Manitoba as near to Liverpool as Ohio is; but thus far it has met with but little success. Parties of observation have been sent out and spent two seasons in that region, but they report that the Straits are not navigable for more than four months in the year at most, that they may be closed ten months out of the twelve, that at best the route is beset with such dangers as shifting ice-fields, and that vessels of special construction would be required for the service which would be unprofitable elsewhere when the route was closed. Nevertheless, we see it stated that the Dominion Government have been offered a suitable vessel for another expedition, the Government to pay the expenses, and that the offer will be accepted. At best it looks like "a wild goose chase;" still, there is nothing like perseverance.—*N. Y. Commercial Bulletin.*

THE milling men in the vicinity of Appleton, Wis., held a meeting at Appleton, Jan. 16, and organized the Fox River Valley Millers' Association. S. R. Wiley, of Appleton, was elected president, and E. J. Lackman, of Neenah, secretary. Representatives were present from Green Bay, Depere, Kaukauna and Neenah. Committees were appointed to report at an adjourned meeting to be held at Appleton, Jan. 23. The object of the association is to promote harmony among flouring interests in the Fox River Valley, and to make united effort toward securing freight rates to Northern and Southern markets proportionately as low as Minneapolis mills to allow of competition with Minneapolis in those districts.

CAWKER'S AMERICAN FLOUR MILL AND GRAIN ELEVATOR DIRECTORY FOR 1888 is now in course of preparation and will be ready for delivery in February, 1888. The publisher (E. Harrison Cawker, No. 124 Grand avenue, Milwaukee, Wis.) desires all flour mill owners to send him their correct name and postoffice address, with the capacity in barrels of flour per day of 24 hours and to state whether they use steam or water power or both, or rolls or millstones or both. Elevator owners are desired to send elevator capacity and number of elevators owned by the firm. Full replies will be of benefit to the entire trade.

## JOHN CROSBY DEAD.

John Crosby, president of the National Millers' Association, and active manager and senior member of the great milling firm of Washburn, Crosby & Co., died at 3 o'clock A. M., Dec. 29, 1887, from paralysis of the heart. Mr. Crosby was 59 years old. He came to Minneapolis in 1871 from Maine, in which state he had been engaged in the paper manufacturing business. He was a relation by marriage of W. D. Washburn, and through the latter entered into partnership with the late Gov. C. C. Washburn in the milling business. He had had no previous experience in the business, but applied himself to its details and gained a thorough knowledge of them. He was personally exceedingly popular, his bluff, hearty manner winning him many friends. He was always a power in the Millers' Association, being its president at the time of his death. He leaves a widow—his second wife—a sister of F. S. Gilson, owner of the Nicollet House, Minneapolis, two sons and a daughter.

THE Dominion Government, as is well known, have been for a long while endeavoring to determine whether it is possible to find an outlet from the vast wheat area of the Canadian Northwest to Liverpool by way of

*The Northwestern Miller* recently published "An Open Letter to the Millers' National Association," which, as its publisher evidently expected, would attract the attention and criticism or praise of the milling press in particular, and a certain portion of the trade in general. The *Northwestern Miller* has scored its point, and got a liberal dose of valuable advertising at a minimum of expense. *Minimum* we say advisedly for the reason that the "Open Letter" does not contain one single original or new idea that has not time and again been discussed by members of the Millers' National Association, both in and out of regular sessions, and within the hearing, we believe, of the publisher of the *Northwestern Miller*. The real reason why the Association has not accomplished more than it has of practical benefit to its members, we think, is because it is so extremely difficult to get committees of capable men to neglect their own business for the benefit of the whole trade without a very valuable consideration. For instance, it is entirely feasible to establish a bureau to look after the export trade, providing a fund is available to employ reliable men to watch the interests of the exporter from the time his flour is loaded into the cars at his mill door until laid down at its final destination abroad, and to prevent injury to his property at any time or place, if possible, and if not, be able to place the liability where it justly belongs. Every barrel of flour exported from this country is a benefit to every miller in this country, no matter where he is located or whether his mill is great or small. Our export trade in flour is one of the most important matters to be looked after, and if the Association fails to look after that interest they make a grievous mistake. This very subject has been discussed for years, but no thoroughly effective result has yet been reached. In too many cases has the American flour exporter been at the mercy of his foreign consignee. If the "Open Letter" of the *Northwestern Miller*, or the agitation of the subject by the milling press, or the work of individuals or all combined, succeed in actually carrying out any ideas of general interest and real benefit to the milling industry, a great point will have been gained. Great plans for this end cannot, we honestly believe, be successfully accomplished otherwise than through the Millers' National Association, for (let its most ardent critics say what

they will to the contrary) that body has gained a *prestige* which no other body of millers ever have or will obtain within certainly a decade of years. It is a recognized body, and as such has a great influence. Its usefulness has been aided more or less in the past by every milling paper in this country, and in our judgment it is silly for papers to try now to pull down what they have helped to build up. We think the Association culpable under the circumstances for selecting any one milling paper and dubbing it their "official organ," and we have not hesitated to say so in very blunt terms, but we do not see for all that why the whole business should be damned for one error.

THE Smith Feed Water Heater and Purifier Co. is the name of a new manufacturing company in Milwaukee.

THE elevator capacity of the Province of Manitoba, Oct. 1, 1887, was about 1,600,000 bushels.

E. R. BLAKE, grain dealer of Pt. Washington, Wis., has had judgment for \$15,000 entered against him. The Ozaukee County Bank of same place is closed and in the hands of a receiver.

ROLLS, reels, buhrs and purifiers of the best quality and run by the best millers cannot make white and speckless flour, unless the cleaning machines are in the proper proportion and used in the proper way. No matter how much effort may be expended, it is impossible to whiten flour that contains reduced fuzz and other impurities on the outside and in the crease of the wheat grain. Look out for the agent who offers to sell you machines to whiten flour and who says that the preliminary cleaning of the grain is of little or no consequence.

PROFESSOR BROWN, of the Ontario Agricultural College, at Guelph, Canada, recently summed up the usefulness of bran to farmers as follows, after having carefully considered its chemical composition: 1. Bran is a concentrated food which, though variable in composition, possesses high nutritive value. 2. Roller-process bran is on the average richer than old-process bran. 3. Its excess of ash or mineral matters fits it for bone-building in growing animals and for supplementing the lack of mineral matters in roots. 4. Its chemical composition points to the conclusion that it is somewhat better adapted to the formation of fat and production of heat than to the formation of muscle or milk. 5. Both its chemical composition and its physical form adapt it admirably as a supplementary food to be used in connection with poor and bulky fodder as straw and roots.

#### MILLING AGAIN "REVOLUTIONIZED."

Millers who detest change and "revolution" and who love peace and fixity will be agitated to learn that, once more, a sweeping "revolution" is to overtake their industry. This time the disturber is the well-known William F. Cochrane, whom millers have cause to remember as the chief in long and expensive litigation over milling machines. Mr. Cochrane, according to the *Canadian Manufacturer*, now has a cock-sure thing and is already a prospective millionaire. That journal sets forth his prospectus as follows: The W.F. Cochrane Roller Mills Supply Company, whose head offices are at Hamilton, Ont., are building a

large factory at Dundas, Ont., for the manufacture of the Cochrane Patent Roller Mill Machinery, the tools for the same being now in course of construction at the Canada Tool Works of Messrs. John Bertram & Sons, Dundas. Mr. W. F. Cochrane, the inventor of the process here alluded to, has a mill in operation in Peterboro', Ont., where the product of Manitoba spring wheat is about 93 per cent. clear bright flour. The mill is what is known as a 100-barrel mill, that is, its output with ordinary roller machinery was 100 barrels of flour per day, but with the Cochrane Process it is producing flour at a higher rate than 200 barrels per day. Among the greater advantages claimed for the process are that the mill can be driven with a third less power and can do twice as much work with the same number of rolls as by the ordinary process. In a 120-barrel mill it takes only one 6½-inch belt to drive it, whereas the present system requires fourteen 6½-inch belts, with all attendant pulleys, shafts, tighteners, bridging and gears. What it required 56 pulleys to do, 3 now accomplish. Three feet of shafting in this mill do the work of 58 feet in other mills. The second advantage is that, while it saves a large amount in motive power, it increases the capacity of the mill to nearly twice its former capacity, even with using the old rolls. The third advantage is its cheapness of construction. It can be built for one-half the cost that other roller process mills can be built for. The fourth advantage is that the belt tension, not being on alternate rolls, as in the old system, but on one pulley only, the rolls are kept in tram with perfect uniformity. This gives an evener granulation, a higher proportion of middlings, more patent flour and greater profit to the miller. There is one more advantage. In other roller mills the feed-rolls and the speed-rolls are not uniform. Thus if a belt slips and the speed-rolls slacken in speed, the feed rolls still continue pouring down the usual quantity. The consequence is that the speed-roll is over-burdened, the succeeding rolls are given too much work, and a large part of the flour goes to enrich the bran bin. In this mill the slightest variation, so much as one revolution, occurring in the speed-roll, is transmitted to the feed-roll instantly. Last week a delegation of the Toledo, Ohio, Business Men's Association visited Peterboro' for the purpose of inspecting the machinery in operation there and witnessing its working the result being that Mr. Cochrane has sold out his right of manufacturing in the United States to a Company composed chiefly of gentlemen in Toledo for \$200,000 of paid up stock, the capital stock being fixed at \$400,000. Mr. Cochrane states that a mill with seven double sets of rolls and all necessary driving machinery ready for operation can be built at a cost not exceeding \$1,100, while other mills cost about \$1,500. There are said to be some 18,000 or 20,000 flouring mills now in operation in the United States which will be compelled to adopt this system or be forced out of business. As we have before stated, a company has been formed to manufacture this machinery in Canada. Mr. Cochrane reserves to himself the patent right to the process in Great Britain, France, Germany and Russia, in which countries he is now applying for patents. He is a Scotchman by birth, a lawyer by profession, a mechanical genius by instinct, and a resident of Washington, D.C., United States.—*Milling World (Buffalo)*.

#### OFFICIAL REPORT OF THE PROCEEDINGS OF THE EXECUTIVE COMMITTEE OF THE MILLERS' NATIONAL ASSOCIATION, AT CHICAGO, JAN. 19-20, 1888.

CHICAGO, Jan. 20.—In accordance with a call issued by direction of the chairman, a meeting of the executive committee was held at the Grand Pacific Hotel, Chicago, Jan. 19th, 1888. The meeting was called for the purpose of arranging plans for the next annual convention, to be held in Buffalo, as decided at the meeting in St. Louis, May last, and further to consider any and all matters that might be presented for their action looking toward a correction of the abuses at present existing in and pertaining to the flour trade, both domestic and foreign, and any other business that might be considered to the interest and welfare of the milling industry generally. The first subject taken up was in relation to the next annual convention, but the correspondence thus far in relation thereto not having furnished sufficient information for the committee to take any final action, it was

*Resolved.* That the chairman and secretary be and are hereby instructed and empowered to enter into the necessary correspondence with interested parties to fix the date and mark out the details for holding the convention, and report such progress as they are able to make to the next meeting of the committee.

The convention being for the present disposed of, the next thing in order for consideration was

THE ABUSES NOW EXISTING IN THE DOMESTIC FLOUR ORDER TRADE, and if possible to suggest some method whereby they can be remedied; that abuses exist is patent to all. Their remedy must take time, united action and wisdom. Your committee believing that the necessary wisdom may be gleaned from a multitude of counsel, adopted the following as the more direct and speedy method for securing the necessary information required to carry out the plans of the committee as hereinafter noted:

*Resolved.* That the secretary is hereby instructed to correspond by circular letter, or otherwise, with the main milling points for the purpose of securing all the information possible on the subject, with the view of devising ways and means for overcoming the present abuses in the domestic flour order trade regarding packages, selling terms, etc., and to that end the committee suggest the following interrogatories to be sent out for replies:

1st, BARRELS.—In your opinion would flat-hooped barrels answer the requirements of your trade? Would the economy in their use warrant you in adopting them, and would you adopt them if your competitors or other milling centers did the same?

2d, SACKS.—Is it your opinion that sacks can be more generally used in place of barrels? If so, would you be willing to co-operate and aid in extending their adoption in place of barrels—by millers generally, if your competitors would do the same?

3d, PACKAGES.—Would you approve the proposition for general adoption not to put up flour for the trade in packages weighing less than 24 lbs.?

4th, PACKAGES.—Would you agree to adopt the custom of the Missouri millers (which is also the statute law of Missouri), regulating the fractional parts of a barrel of flour to weigh 24, 48 and 96 lbs.?

5th, PRICES.—Do you approve of a difference being made in the price of flour per barrel by the car load, and in lots of less than a car load? If yes, state your views as to what the difference should be.

## A SUCCESSFUL GRAIN SCOURER.

The illustration on this page represents the horizontal "Eureka" Close Scouring, Polishing and Separating Machine, built by the old established house of Howes & Ewell, Silver Creek, N. Y. This machine, like every other turned out by this firm, is remarkable for solidity of construction, excellence of material employed, and of workmanship displayed in fitting and finish, for the perfection of its operation upon the wheat submitted to it for treatment. The scouring case (built in sections and interchangeable without taking down the machine) is of cast iron, the inner surface, and the openings for exit of scourings and dirt, being hard chilled, thus assuring extreme durability. The beaters are adjustable, and approach the grain under treatment, at an angle. This construction possesses two features which the makers claim are of essential importance and advantage: 1st, liability of breaking grain is obviated; 2d, the grain is held, momentarily, in contact with the beaters, escapes therefrom by sliding and is thus scoured not only by contact with the scouring case but with the beaters. An improvement recently added renders it possible for millers to accurately gauge the degree of scouring action and adapts the machine for perfectly treating the softest as well as the hardest varieties of wheat. Eight regular sizes capable of handling from ten to two hundred bushels of wheat, per hour, are on the list of the makers who will take pleasure in answering the inquiries of our readers.

## THE ILLINOIS STATE ASSOCIATION.

Secretary Seybt, of the Illinois Millers' State Association, furnishes us the following report of the annual convention of that organization: The Illinois Millers' State Association held its thirteenth annual convention at Springfield, Dec. 7. President Kreider was in the chair, and secretary Seybt read the minutes of the last meeting, which were approved. Only fourteen members answered the roll-call out of a membership of eighty-five, but several telegrams and letters were received, making the usual excuses for absence. Those present represented the principal sections of the state. The secretary reported \$636.51 cash on hand and no liabilities. The report was approved. The following applications for membership were favorably received: John W. Kauffmann, of Bethalto; Mauntel, Borgess & Co., of Aviston, and Joseph Hanke, of Trenton.

C. B. Cole, of Chester, introduced the following resolutions: "Resolved, that while the millers of Illinois acknowledge the great service the Millers' National Association has been to the whole milling interest in the past, mainly through the protection which was afforded to us against patent litigation and exorbitant, fictitious patent claims; and while we duly feel that our only safety against these arch enemies of our business consists in the life and continuation of the Millers' National Association; we feel constrained to appeal to the Millers' National Association for a more vigorous policy in combatting other evils which the milling

business has to contend with. We need a check to the tendency of expanding credits to an unreasonable and unsafe extent, we need better protection for our shipments, especially in the export trade, and the Interstate Commerce law has made action by the Millers' National Association feasible. We need a bureau of general information regarding the character of flour dealers; there is no other large industry in the United States but what does furnish its members a list of correspondents to whom sales can only be made with safety for cash in advance. We need a systematic effort to call into life local millers' associations, whose business interests are identical, whose sources of supplies, whose markets and shipping facilities are the same. Such local associations, irrespective of state lines, will do more than any other agency to prevent any ruinous competition to build up a friendly, fraternal spirit among the millers of the country; without it the very foundation stone to a live, successful National Association is lacking."

After an exhaustive discussion the resolutions were adopted seriatim. In conformity with these resolutions a committee was appointed to subdivide the state into different

of the state north of the western and central districts. The secretary was empowered to change these boundary lines with the advice of those interested to suit the wants of the different localities.

C. H. Seybt was elected to represent the Illinois Millers' State Association as vice-president in the Millers' National Association for the coming year. A. R. McKinney, secretary of the Illinois Millers' Mutual Insurance Company, made a report of the workings of that company, saying that during the last year the business had almost doubled, and that it now has one million dollars at risk and the cash surplus has increased from \$14,500 to \$30,000. Col. W. L. Barnum, secretary of the Millers' National Insurance Company, also made his report, showing the company to be in a very flourishing condition. All the old officers were re-elected: E. C. Kreider, of Jacksonville, president; F. W. Brickey, of Prairie Du Rocher, vice-president; C. H. Seybt, of Highland, secretary and treasurer; Henry Schurmann, of Germantown, assistant secretary.

## STEAM ENGINE SERVICE.\*

Q. How should an engine be started; and why?

A. Slowly; first warming up the cylinder; the drip cocks being left open, to let out the water of condensation.

Q. What harm might result from starting with drip cocks shut, or shutting them too soon?

A. The cylinder head or the piston head might be smashed through the inelastic water of condensation filling up all the clearance space.

Q. What precaution is it well to adopt with regard to the main steam pipe?

A. To have a blow-off cock right back of the trottle valve, to drain the pipe of the water of condensation, which might otherwise get into the cylinder and cause trouble or accident.

Q. Should the governor speed of a Harris Corliss engine be increased or diminished to speed up an engine?

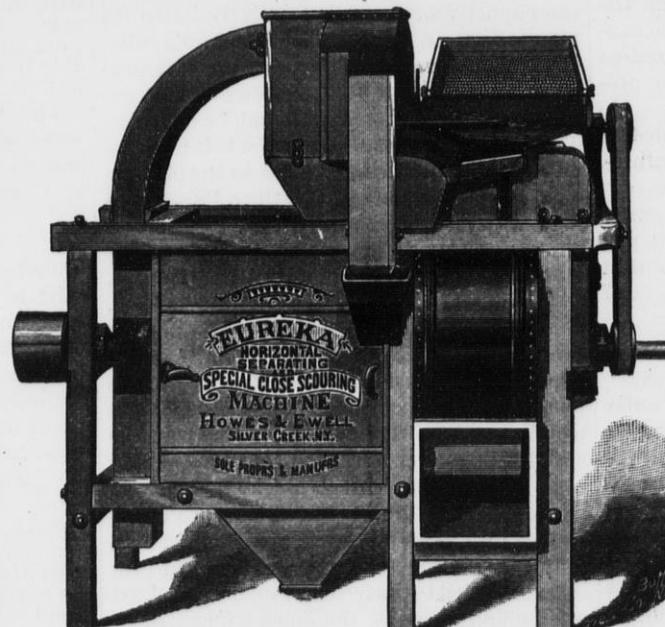
A. It should be decreased.

Q. "We have just got through having our back cylinder head knocked out by the connecting rod having got too long. How may this be prevented in the future?

A. You should have a gauge to measure the distance between wrist-pin and crank-pin. Have the brasses so that as one end of the rod is lengthened by being set up, the other will be shortened.

Q. Can a leaky piston make much difference in the steam consumption, or is this only a "bug-aboo"?

A. I have before me the record of a case where I found everything in good condition, except that the piston was leaky, and tested the coal consumption before and after setting out the rings. The coal saving in this instance (the engine was 18"x30", making 100 turns per minute, and cutting off about half-stroke before the piston was packed), was the differ-



sections, with the view of having local organizations created in these different sections where there are none now, and to consider these local organizations auxiliaries to the state association. The division of the state was reported as follows in the afternoon session: Southern District—All that part of the state lying south of the main line of the Ohio & Mississippi railroad. Central District—All that part of the state north of the Ohio & Mississippi railway, east of the main line of the Illinois Central and south of the Wabash line between Decatur and Danville. St. Louis District—That part of the state lying north of the Ohio & Mississippi, west of the main line of the Illinois Central and south of the south line of Scott, Morgan and Sangamon counties. Springfield District—All that part of the state north of the St. Louis district, west of the Illinois Central main line and east of the Illinois river. Western District—All that part of the state west of the Illinois river and south of the Rock Island railway line between Rock Island and Peru. Northern District—All that part

\*From Steam-Engine Catechism, by Robert Grimshaw, M. E. Price \$1.00. Can be ordered of THE UNITED STATES MILLER.

ence between 4 $\frac{1}{2}$  gross tons for ten hours engine-work, and 2 $\frac{1}{2}$  tons; or 2 $\frac{1}{2}$  tons per day, 12 $\frac{1}{2}$  tons per week, and about 650 tons per year. At \$3.50 per ton, that comes to \$2,275 a year.

Q. Should two or more engines exhaust into the same pipe?

A. When two or more engines exhaust into the same pipe, there is apt to be excessive back pressure in both, or, at least, the one which would naturally have the most back pressure will be apt to increase that in the other. It should be noted in indicating an engine, whether or not its back pressure is likely to be increased, without any fault of its own, by the exhaust from another engine.

Q. Why is it that better results are sometimes got with throttle only partly open than when with it full wide open?

A. Perhaps the steam is very wet and the throttle dries it. The question can not be properly answered without fuller particulars being given.

Q. What are the effects of high piston speed on the rod-packing?

A. High speed tends to cause rapid wear of the rod-packing, and leakage of the stuffing-box.

Q. What are the effects of high pressures upon the rod-packings?

A. High pressures increase the difficulty of keeping the valve-stem and piston-rod stuffing boxes tight.

Q. Is there any good way to prepare piston rod-packing before putting it in the stuffing-box?

A. Take some pieces of wrought-iron pipe somewhat larger in bore than the stuffing box, and cut packing to fit these; put them, with the packing in them, in the cylinder oil can, for two or three days; take them out and drain them.

Q. If an engine is balanced so that it will run smoothly, will it be safe to put upon the top floor of a building?

A. Not always. The engine may run smoothly, at one speed, and at another speed it may shake the whole building, even though that speed is slower than the one at which it runs smoothly.

Q. How is the best general balance of an engine got?

A. When the counter weight equals one-half the weight of reciprocating parts, increased by that portion of the connecting rod which may be considered as centrifugal in its effect.

Q. Has the steam pressure upon the piston of a steam engine any effect upon the balance of the engine?

A. No.

Q. What is friction?

A. The resistance which two contracting surfaces have to being moved, one over the other.

Q. What are caused by friction?

A. Heating and abrasion, or cutting.

Q. What reduce friction?

A. Lubrication; good fits; proper speed; lessening the pressure between the contacting surfaces.

Q. What is abrasion?

A. Wear, grinding, cutting.

Q. How many kinds of friction are there?

A. Three; sliding, rolling, and fluid.

Q. What kind is the friction of the cross-head on the guides?

A. Sliding.

Q. Then is not that of the journals in their bearings rolling friction?

A. No. The friction of a journal with its bearings is not rolling friction, nor anything like it; it is simply continuous sliding friction.

Q. Where does sliding friction occur?

A. Sliding friction occurs where any one point of either of the rubbing surfaces passes a number of other points upon the other surfaces.

Q. What distinguishes rolling friction?

A. In rolling friction, a number of successive points upon one of the surfaces is presented to a number of successive points on the other. Bearing this in mind, it will readily be seen that where the journal runs in a bearing, or upon it, or under it, (for journals run all three of these ways), each point upon each of the rubbing surfaces passes every other point upon the circle, of the other surfaces.

Q. Which is the greater, sliding or rolling friction?

A. There is much more resisting force where this continuous sliding friction takes place, than where one wheel runs upon another.

#### FOREIGN NOTES.

THE flour export from Bombay, India, since the establishment of the mills has increased from 24,343 sacks (280 lb.) in 1882-83 to 134,453 sacks in 1886-87. The markets have been Ceylon, Natal, the Mauritius and Persian seaboard. The rice milling industry is also rapidly increasing.

A \$60,000 roller flour mill has just been erected by an English builder at Kingwilliamstown, Cape of Good Hope, South Africa.

PURIFYING river water by electricity is an experiment made by a Frenchman, M. Stoffel. The gist of the process is that the ozone generated by the electrolytic decomposition of the water kills the minute organisms, and oxidizes all organic substances, at the same time precipitating the carbonates in course of dissolution, thus effectually purifying the water. The greatest drawback is the expense of the process, which amounts to one penny per one cubic meter of water, but M. Stoffel thinks that this could be materially reduced by the sale of the by-products obtained in the process.

ACCORDING to Kemp's *Mercantile Gazette*, the failures which took place in the United Kingdom during the year 1887 were 6,265, against 6,446 in 1886—a net decrease of nearly 3 per cent. The separate statistics for England give a striking decrease for the last quarter of 1887, while in Scotland this decrease appears continuous throughout the year, and in Ireland the totals for 1886 and 1887 are nearly alike.

MESSRS. CHAMBERLAIN, POLE & Co., flour merchants, of Bristol, writing to the *National Association of Master Bakers' and Confectioners' Quarterly Trade Review*, say that "Some reasons may now be given why the imports of flour from America may be expected to increase rather than diminish in the future. The rapid spread of mills and elevators throughout the States; the exceptional water power advantages and facilities for handling; the favorable results attending the treatment of one kind of wheat alone, instead of milling

together hard and soft kinds; again, the low through rates afforded by the carrying companies for flour in bags from the milling centers in the West, and the fact that such freight is only paid on the valuable portion of the grain. The time is probably not distant when no wheat will be shipped to us from the Atlantic seaboard, and the age given during transit to the manufactured article adds a sensible increment to its value. The larger English mills, which may be expected to survive, will be occupied with home-grown and Indian wheat, and irregular additions of grain from California, South America, Russia and Australia. There is very little private baking done in this district, and the consumption of whole-meal bread is quite small. The sale of Hungarian flour has not increased as might have been expected, owing probably to the success and relative cheapness of American patents, though the unique and mellow characteristics of Hungarian flour continue to find favor with confectioners."

#### BARBED WIRE PATENTS HELD INVALID.

*Bradstreet's* says: "Judge Shiras, of the United States District Court at Dubuque, Iowa, has rendered a decision against the validity of the Washburn & Moen Company's barbed wire patents in the case of The Washburn & Moen Company vs. The Beat 'Em All Barbed Wire Company, of Cedar Falls. The court found that one Alvin Morley invented the same style of barbs as those covered by the Glidden patents, and exhibited a sample of fence at the county fair in Delhi, Delaware county, Iowa, in 1859. The decision nullifies the Glidden patent and dismisses the plaintiff's bill."

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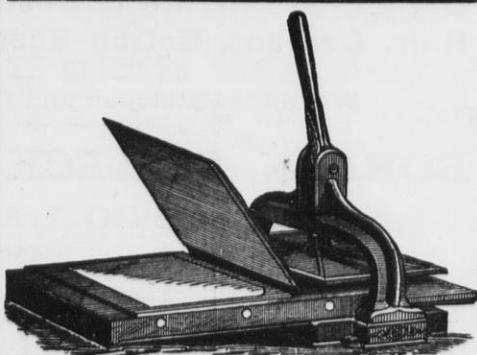
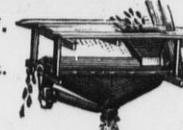
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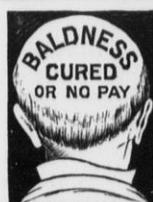
174 & 176 Pearl Street, NEW YORK, N. Y.

KEEP CLEAN.—Is it necessary, because a man is running a steam engine, and must lubricate it, and perhaps put coal on the grate bars, that he must permit his clothing to become so filthy that he is offensive to those who have the misfortune to come near him? We can call to mind engineers whose habiliments while at work would disgrace a scavenger, and when it is remembered that competent engineers, as a rule, are cleanly and have regard for their neat appearance, not only in their person and clothing, but insist upon cleanliness in the engine and boiler rooms, and can be pardoned if they protest against a suit of working clothes that are thoroughly saturated with oil, that has caused coal dust and other dirt to adhere, until the cloth has taken on a greasy, dirty shine that bids the visitor stand back! Cleanliness while in charge of an engine, as to person and clothing, is an index of the character of an engineer, and should not be neglected.—*Stationary Engineer.*

### MILL FOR SALE.

A good 75 bbl. Roller (and Stone) process Mill for sale, located at Paola, Kansas, with good switch privileges. Can be run with Natural Gas. Terms easy. Address

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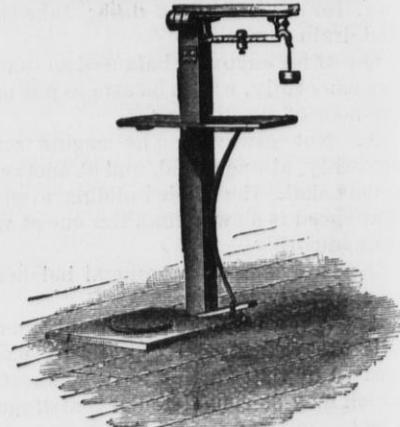
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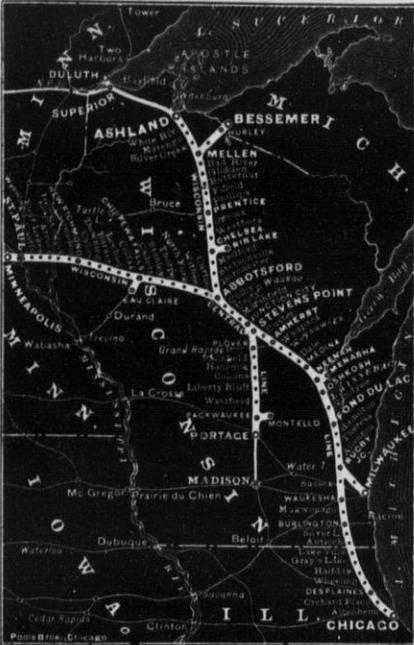
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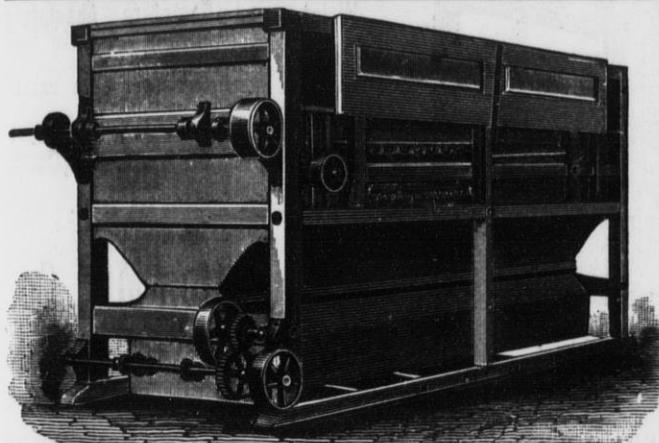
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7th, "F. O. B."—Are you in favor of doing away with delivered terms, thereby confining sales to f. o. b. only? If you consider delivered terms indispensable, would you favor the adoption of a general rule that seller shall only be responsible for the rate of freight named in bill of lading, and any excess paid by buyer is at his own risk, and he to look to the railroad company and not to the seller for such excess?

8th, MILL BRANDS—Do you consider it feasible for all flour to be sold under mill brands only? And in your opinion is it not only desirable but important that every mill owner should refuse to sell his flour either unbranded or under a *special* brand, which does not show where or by whom manufactured? And to what extent would you be willing to aid in bringing about such reform?

9th, REPORTING—Are you in favor of reporting to the secretary of the Association with full particulars authenticated cases of chicanery on the part of flour buyers, in making unreasonable and unwarranted claims for reductions from the invoice rendered?

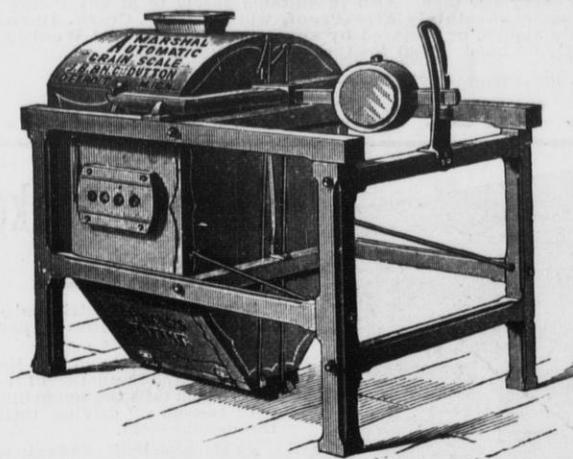
10th, FINALLY—A full and explicit report is requested on all the foregoing subjects, in addition to which any other subject or complaint not referred to in the interrogatories pertaining to the domestic flour trade that come under your observations, the committee desire it should be reported with the answers. The interrogatories, with the replies thereto, received from all parts of the country, will be submitted to a special committee, whose duty it will be to work out uniform rules for the trade, based upon the information furnished; this committee, representing a prominent mill owner from each milling state, to report to the convention for final action. After ratification by the convention, a united effort will be made to have the various boards of trade and other commercial bodies of the country adopt them. Please state in your reply if your firm and the millers in your vicinity will be willing not only to adopt such rules, but co-operate in carrying them into effect.

#### FOREIGN FLOUR TRADE.

The Millers' National Association through its executive committee are willing to undertake any reform for the general good of its members, looking toward the correction of abuses in the export trade, whenever the exporting millers of this country have come to an understanding what these abuses are and the best method to pursue in order to correct them. In the opinion of the executive committee, the larger portion of the evils complained of exist in the form of bill of lading now in general use, which makes the Transportation company liable only for the rate of freight, but exempts them from every other liability. To correct these evils will require the co-operation of the foreign receivers, the bill of lading being in most cases a creation of the foreign Steam Ship company, and so long as the receivers are content to accept the outrageous conditions, both the exporters and receivers must submit.

The committee therefore, desires to know from the exporters in what manner or form they will sustain the association in its effort to correct the abuses and bring about a reform. In order to secure an expression from the exporters and also from the foreign receivers, the following resolutions were adopted:

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*Resolved*, That the secretary be and is hereby instructed to correspond with the principal exporting centres, embodying the views of the committee, requesting the various localities to call a meeting of the exporting millers in their vicinity for a discussion of the subject, and to give expression to their views in regard to the entire question of abuses in the export trade and their remedy, and principally, to what extent they will sustain the association in carrying out their wishes.

*Resolved*, That the secretary be and is hereby instructed to enter into correspondence with representative bodies in the flour trade at London, Glasgow and Liverpool, with reference to sending delegates from each of these ports to attend the convention at Buffalo, with a view to concert of action in an undertaking to correct some of the abuses now existing in connection with the foreign flour trade.

#### JUTE BAGS.

The fact existing, that the larger portion of the jute cloth imported into this country, is again exported as a covering for our productions, such as flour, cotton, etc., and the further fact, that the expense attending collection of the duty, 90 per cent. of which must be refunded to the exporter on all this cloth exported in the manner above described, leaving it an open question if the government is not actually doing a losing business so far as collecting the duty on jute cloth is concerned (none of consequence being woven in this country), it is therefore

*Resolved*, That the secretary be and is hereby instructed to present to congress by correspondence with its members the facts as above set forth, requesting that an effort be made to have the duty on jute cloth abolished.

#### MEMBERSHIP.

WHEREAS, An erroneous impression seeming to prevail that the Millers' National Association is averse to receiving new members, therefore be it

*Resolved*, That on the contrary, the executive committee appreciating the fact that in "numbers there is strength," most cordially invites millers to join the association at the earliest moment. Where no state association exists in accord with the National association, application for membership be made direct to the secretary of the National Association. The committee desires that in view of what the association has accomplished in the past for the benefit and protection of all millers, and also in view of the value of concentrated action in the future to deal with and correct abuses which exist in the trade, every merchant miller in the country should become a member and help to shape its policy.

#### MILLING PRESS.

WHEREAS, Some members of the milling press being under the impression that the association favors one milling paper to the detriment of other journals of the trade, therefore be it

*Resolved*, That the secretary be and is hereby instructed to mail simultaneously to all such milling papers as desire it the full reports of the meetings of the Millers' National Association, and its committees intended for publication, and that all meetings open to one member of the milling press shall be open to all other members of the press.

#### BUFFALO CONVENTION.

The secretary was instructed to correspond with a number of gentlemen, and extend to them an invitation to address the convention upon topics of general interest to the trade, and report at the next meeting of the committee the result of such correspondence.

There being no further business the meeting adjourned.

Respectfully,

S. H. SEAMANS, Secy.

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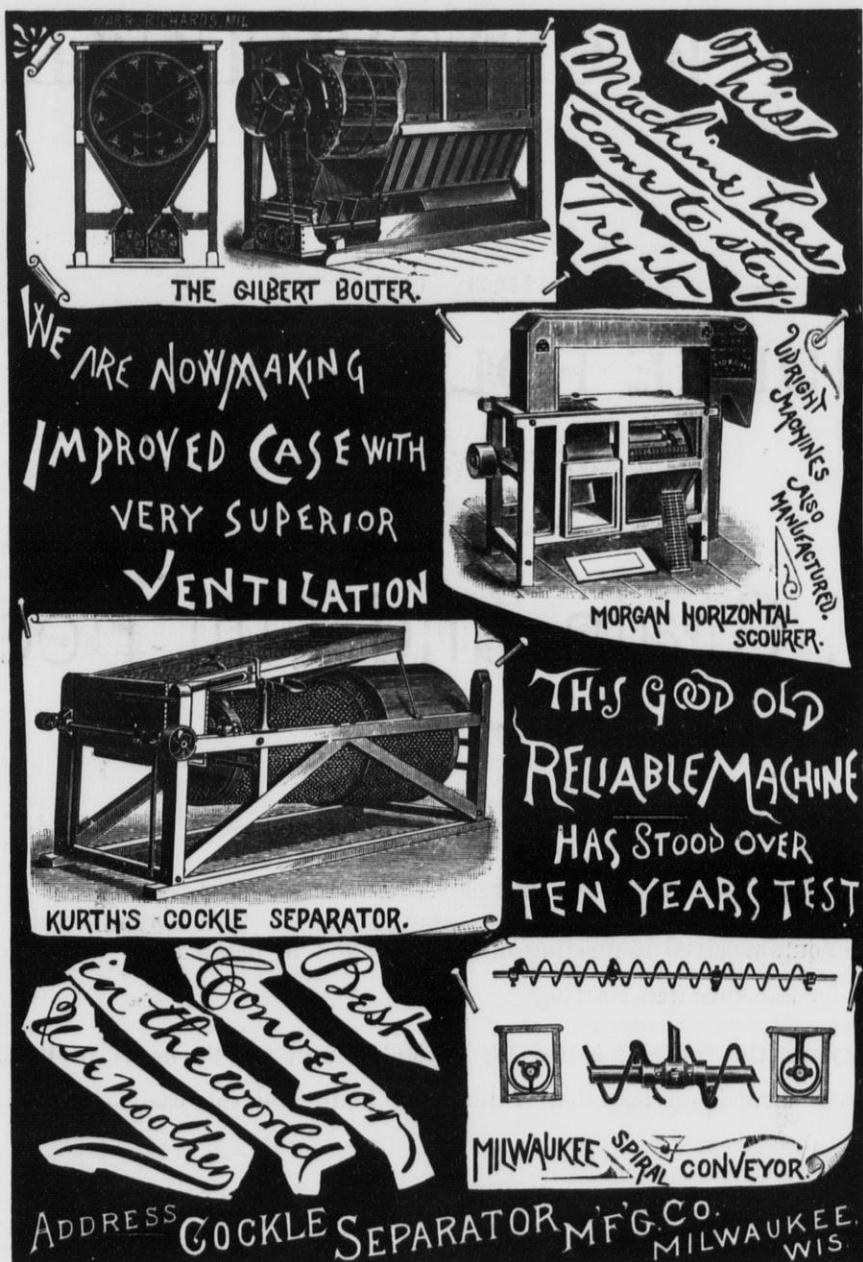
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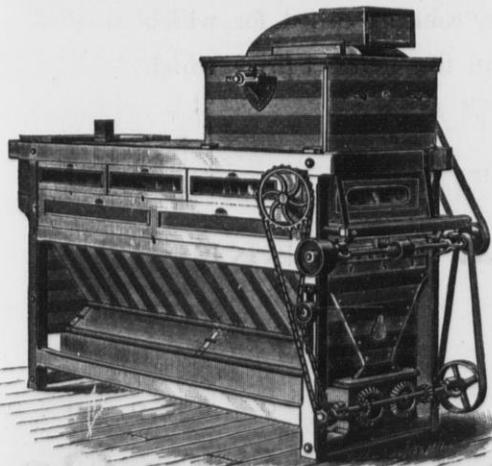
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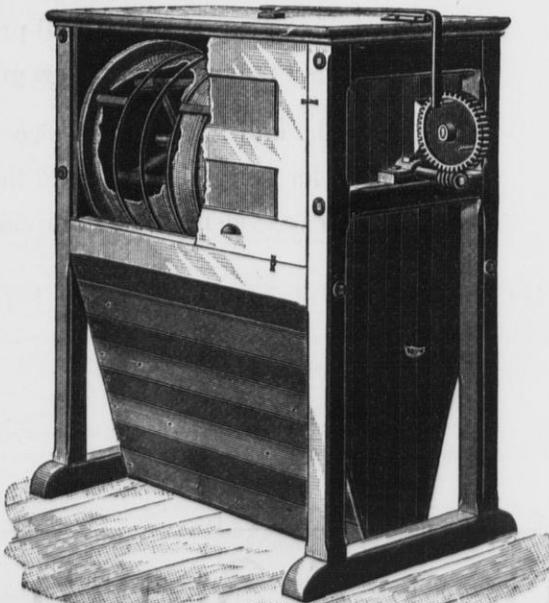
**SUPERLATIVE PURIFIER M'F'G CO.,**

Address for Prices, &c.

These Machines  
CANNOT BE EXCELLED  
For Perfect Work.

Careful Millers will do well  
to get our prices before  
purchasing elsewhere.

The Superlative Bran Duster and Disintegrator.



**MILWAUKEE, WIS.**

# Separator

Investigate this Machinery  
before purchasing elsewhere,  
and you will save money and  
be better satisfied.

# Company

# GEO. T. SMITH CENTRIFUGAL REEL

—OFFICE OF—

## LINDEKE ROLLER MILLS.

WM. LINDEKE, *Proprietor.*

—DEALER IN—

## Flour, Grain and Mill Feed.

St. Paul, Minn., November 25th, 1887.

*The Geo. T. Smith Middlings Purifier Co., Jackson, Mich.:*

GENTLEMEN—Yours received requesting me to write you in detail as to the working of my mill you built for me since first starting.

As you are aware, the contract called for a 150 bbl. mill per 24 hours, or 6 bbls. per hour. It has never turned out less than 7 bbls. per hour, and can easily be run to 200 per day.

The mill runs very light, requiring but little power. My straight flour with low grade out (being less than 5 per cent.) has in every case proved to be equal to the best patents made in this State. Yield is 4 bushels  $2\frac{1}{2}$  lbs. uncleaned wheat per barrel.

My straight flour has been tested a great number of times by different parties, as well as myself and expert bakers, and proves to be better than the average patents. We have never made but the two grades—low grade and straight.

The mill is a beautiful piece of workmanship, better than my contract called for, which called for everything we could think of, and I paid you more than the contract price, which should be evidence that I am more than pleased with the mill.

Very truly yours,

W.M. LINDEKE.

—  
Geo. T. Smith Middlings Purifier Co.

Canadian Shops, Stratford, Ont.

JACKSON, MICH.

CHICAGO OFFICE,  
40 La Salle Street.



MILWAUKEE OFFICE,  
124 Grand Avenue.

Published by E. HARRISON CAWKER. VOL. 24, NO. 4. MILWAUKEE AND CHICAGO, FEB., 1888.

TERMS: \$1.00 a Year in Advance  
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1888.

1888.

CAWKER'S

# • AMERICAN FLOUR MILL AND ELEVATOR DIRECTORY •

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Is now READY FOR DELIVERY. This Directory is far more complete than any of the five preceding ones. Our long experience has taught us the wants of the trade, and we have used our best endeavors to meet them. The principal features are as follows:

- 1.—List of Flour Mill owners of the United States and Dominion of Canada, with Post Office address, County and State, and when information is obtained, the capacity in barrels of flour per day of 24 hours, kind of power used (steam or water), roller or stone system.
- 2.—Lists of Corn, Oatmeal, Rice, Feed Mills, etc.
- 3.—List of Grain Elevators and Warehouses.
- 4.—List of Millwrights.
- 5.—List of prominent American Flour and Grain Brokers.
- 6.—List of Foreign Flour and Grain Importers.
- 7.—List of Mill Furnishers, etc.
- 8.—Statistics valuable to the Trade.
- 9.—Millers whom we believe to be worth Ten Thousand Dollars or more will be indicated.

This directory gives the address of 16,062 Flour Mills in the United States and 1,714 in the Dominion of Canada. The additional lists of Feed, Corn, Barley, Oatmeal and Rice Mills, Elevators and Warehouses, Millwrights, Flour and Grain Brokers, Importers, etc., adds to the number of addresses several thousand. The COUNTIES are included in the address, and in cities, the street and number in most instances. We have had valuable aid in compiling this work from Secretaries of Boards of Trade, of Bureaus of Labor Statistics and Manufactures, from Railroad and Steamship Companies, from the milling and commercial press generally, and from mill and grain elevator owners themselves. That the work is *perfect*, we do not claim, for in the nature of things that is an impossibility, but as it is, it is indispensable to all desiring to reach the flour and grain trade of this country, and is *well worth the price asked*.

**Price of Directory, \$10 per copy, post paid to any address.**

If desired Directory will be sent by express C. O. D. Remit by Express or by Exchange on New York, Chicago or Milwaukee, or Post Office Money Order. Address,

**E. HARRISON CAWKER, PUBLISHER,**  
**No. 124 Grand Avenue,** **MILWAUKEE, WIS.**

**GANZ & CO.**

Budapest, Austria-Hungary.

We are the first introducers of the Chilled Iron Rollers for milling purposes, and hold Letters Patent for the United States of America. For full particulars address as above.

[Mention this paper when you write to us.]

BUY: **Goodyear**  
**Rubber Co's**  
**RUBBER**  
**GOODS.**  
THEY ARE THE BEST MADE.  
"GOLD SEAL" RUBBER BELTING,  
OAK TANNED LEATHER BELTING.

372 and 374 EAST WATER STREET,  
MILWAUKEE.

131 EAST THIRD STREET,  
ST. PAUL.

201 NICOLLET AVENUE,  
MINNEAPOLIS.

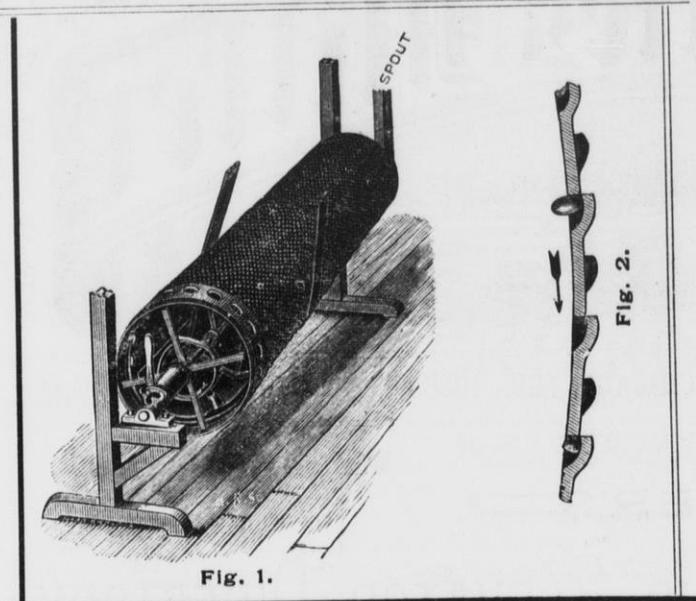


Fig. 1.

Fig. 2.

New Pat. Indentations. No More Zinc, but Iron and Steel Reels, Lasting Many Times as Long.

CUT herewith, FIG. 1, represents the PRINZ COCKLE MACHINE, single reel, without frame. FIG. 2, shows a section of the Indented Cylinder, and FIG. 3 is a large machine with grading reel. The inventor and manufacturer of this machine has had long and thorough experience in all departments of Grain Cleaning, and this Cockle Separator certainly has no superior. It is equally adapted to use in large or small mills, and the price is within the reach of all. The manufacturer has demonstrated that his machine removes more Cockle than other machines. It occupies but little space, and consequently any mill will have room enough in which to place it.

→→ CONSTRUCTION. ←←

The machine consists of a cylinder about 70 in. long and 16 in. diameter, mounted on a stationary shaft 82 in. long, which has to be supported at both ends—(either as seen in the cut, or it can be hung up under the ceiling or in any other suitable position.) Inside of the cylinder is a trough suspended on springs and agitated by the revolution of the cylinder itself, to receive the cockle which is carried up by the indentations of the cylinder and properly discharged into this trough. By the agitating motion of this trough the cockle is discharged at the front end of the cylinder. The wheat is entered at the end of the reel, and is rolling at the lower side of the same in the direction of the discharge, and by this rolling the cockle finds its way into the indentations and gets raised up and discharged into the trough. There is nothing complicated in the machine, consequently nothing can get out of order to make trouble and annoyance. It has only two bearings to oil, and if oiled once a day is all it needs, as it is running only at a speed of 18 revolutions.

The machine is entirely controlled by the operator, by a single lever seen at the front of the cut (Fig. 1), and it can be set either to take out any quantity of cockle, or if there is none in the wheat, it can be set to take out nothing. There is no machine in the market that has this device. The indentations are of a new design and protected by U. S. Letters Patent granted to F. PRINZ. This enables the manufacturer to indent sheet iron or steel plates, which are far superior in ensuring the durability of the machine than zinc, of which material all other cockle machines are now made. The machine is driven by simply taking a two-inch belt around the reel at any point. The Single Reel Machine (Fig. 1), has a capacity up to 20 bushels per hour. Cockle Cylinders are ALL made of the SAME SIZE and where greater capacity is required it is secured by a grading reel (patented by F. PRINZ), and guaranteed not to clog as other devices do, which separates the COARSE grains of wheat, from the SMALL wheat and cockle, and the latter (small wheat and cockle) will only go to the Cockle Cylinder for complete removal of the cockle. The Grading Reels are built of the proper size to furnish separated wheat and cockle for feeding one, two or more cylinders. All parts of this machine are very easily accessible, NOT ONE INSIDE ANOTHER and in a substantial frame, NO FAST MOTION, and very little power needed.

ALSO EXCLUSIVE MANUFACTURERS OF  
Prinz's Patent Improved Smutter, and Prinz's Patent Combined  
Dustless Oats and Screenings Separator.

FAUSTIN PRINZ,  
659 East Water St. Milwaukee, Wis.



READ THE FOLLOWING TESTIMONIALS.

"CENTENNIAL MILLS," EVANSVILLE, Ind., June 14, 1877.  
FAUSTIN PRINZ & CO., MILWAUKEE, WIS.  
GENTLEMEN:—Inclosed please find check in payment of Cockle Machine sent us May 26, 1887. The Machine does its duty.  
Yours truly, J. W. LAUBCHER & BRO.

Office of "PHOENIX FLOURING MILLS," Waukesha, Wis., March 17, 1887.  
F. PRINZ, Esq.:—  
DEAR SIR:—Yours of the 16th inst. at hand. In reply to inquiries as to how we like your combined Separator and Cockle Machine, which we have now had running nearly a year, I can only say it is the boss. It displaced a well-known combined machine, and although yours was only guaranteed to do as much work as the one it displaced, I am glad to say it does THREE TIMES AS MUCH, and does it in first-class style. The old machine blew almost one-third of the scourings into the dust-room, while from yours we cannot find a kernel. The Oat Separator is as perfect as I have seen; the cockle it removes without wasting whole kernels of wheat; the suction is in perfect control of the miller; and last, though not least, it uses only half as much power as the machine it displaced. You are at liberty to use this recommendation, and if any brother millers wish to see the machine in operation, we shall be pleased to show them. Wishing you all possible success, I remain,  
Yours respectfully, CHARLES G. DEISSNER.

Office of GALESBURG ROLLER MILLS, GALESBURG, MICH., Nov. 17, 1887.  
FAUSTIN PRINZ & CO., 659, 661 and 663 East Water St., Milwaukee, Wis.  
DEAR SIRS:—The Cockle Machine arrived in good condition. I could not procure a millwright, but the connections of your machine are so complete. I went to it myself and put it in and had it running in less than four hours. I have no hesitation in saying that your Cockle Machine is the best that I ever handled, being entirely under control of the miller; it does all you claimed and more; it not only removes all the cockle, but scours the wheat and removes the dust to my utmost satisfaction. I consider it a mite for space and a monster for the work it accomplishes. I displaced a rolling screen for your machine and assure you it is a profitable change.

Yours respectfully, M. W. MORTON.

Office of GEM MILLING COMPANY, Milwaukee, Wis.

Mr. F. PRINZ:—  
We have used your No. 3 Combined Grader and Cockle Machine two months and are much pleased with its work. The objectionable features of our former machine, which required constant attention, owing to Grader sieve becoming clogged and allowing cockle, seed, etc., to pass over with the wheat, are ENTIRELY OVIATED in your machine, the work being always uniform, owing to Grader reel keeping perfectly clean, consequently all seeds, cockle, etc., must enter Cockle cylinders which remove them in a thorough manner, taking out very little broken wheat. We can use one or two cylinders as condition of wheat requires, and with cut-off arrangement on Grader reel almost perfect separations can be made. Requires very little power and space, and we think a much more durable machine than we formerly used.  
Yours truly, GEM MILLING CO. J. ZAHN, Supt.

RELIANCE MILL, Milwaukee, Dec. 19th, 1887.

MESSRS. F. PRINZ & CO., City.  
GENTS:—The Grader and Cockle Machine you put in our mill three months ago in place of the Kurth Cockle Machine, has given the best of satisfaction, as our wheat is unusually full of cockle, wild buckwheat and seed this year, is entirely cleaned from same by your machine without any loss of wheat. Respectfully yours, C. MANEGOLD & CO.

UNEQUALLED IN CAPACITY AND SIMPLICITY. ONE REEL  
WILL HANDLE 16 TO 20 BUSHELS PER HOUR.

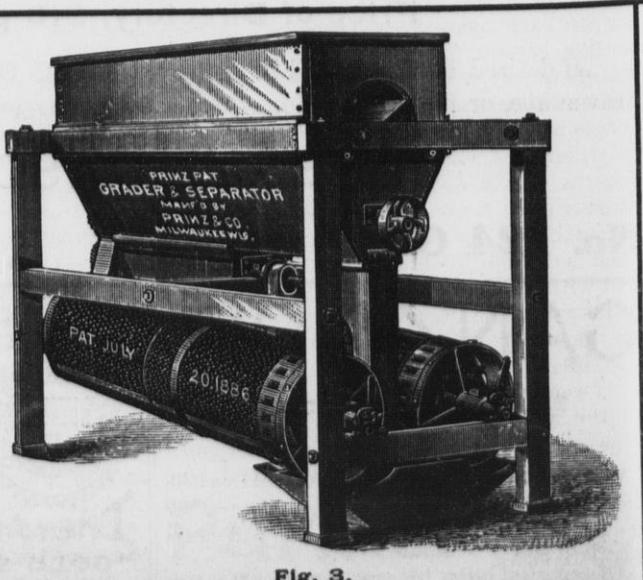


Fig. 3.



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#### MILLING IN KANSAS.

We have just received through the courtesy of Hon. Frank H. Betton, Commissioner of Labor for the State of Kansas, a copy of his third annual report. So far as it relates to the milling industry of the state, the commissioner has spared no pains to get a complete and satisfactory report. From 450 sets of inquiries sent out, partial or full returns were received from 307 mills. The commissioner is to be congratulated on receiving so large a percentage of returns for (we judge from experience) if there is anything in the world that the average miller likes to postpone "till to-morrow," which too frequently means forever, it is the filling out of a blank asking questions about his business.

Commissioner Betton says: "The revolution undergone by this industry during the last few years in the substitution of the roller system for the time-honored buhr, has been severe. The change necessitated large outlays, and the result is that in common with so many other industries the business is concentrating in larger mills and heavier capital. With the extension of railroads into almost every portion of our state and the superior grade of roller flour, the old-fashioned local mill is "losing its grip." Flour is shipped in and wheat is shipped out, and the result is that the buhr-mill has to shut down or limit itself to custom work with a diminished output."

Further on, the report says: "Three hundred and seven mills report an invested capital of \$7,923,890, making an average of \$25,809 each against 322 reporting last year with a capital of \$7,379,950 and averaging \$22,919.23. It will be seen that the average amount of capital to the individual establishments is gradually growing larger, which is in accordance with the theory that the business is slowly concentrating and that the pioneer mills run on the old system are being abandoned or converted to other uses. That such is the case, I think admits of no doubt; and with the depression that has marked this industry during the past year, probably many of the newer mills have done very little business."

"Twenty mills use rolls alone, numbering in the aggregate 271 sets, producing 3,885 bbls. per day of 24 hours. Forty-nine mills use buhrs alone—111 in number, producing 1,940 bbls. per 24 hours. One hundred and eighty use rolls and stones, with capacity of 13,296 bbls. per 24 hours."

Of reported mills 169 use steam, 109 water and 18 both.

The report entire gives a very valuable insight into the condition of labor and manufactures in all branches throughout the state. The state of Kansas may well feel proud of having so able and industrious an officer as Mr. Betton.

#### IMPROVED CONSTRUCTION OF GRAIN ELEVATORS.

A system of building and arranging the machinery for work in grain elevators which is designed to reduce the cost of erecting and equipping such establishments, and whereby the work may be systematized and facilitated and the running expenses reduced, has been patented by John A. McLennan, Chicago. The cupola, running longitudinally with the body of the building, is divided into four floors, in the following order, from the top down—machinery floor, garner floor, scale floor and spouting floor—the latter immediately above the bin floor in the body of the building. Near the longitudinal center of the structure are located a series of endless elevators, placed in pairs of one receiving and one shipping elevator, and extending below the basement floor, preferably through the same tanks, which are made of two depths, forming hoppers for the receiving and the shipping elevators and the boots thereof. The elevators extend to the machinery floor, and are all operated from the same shaft, a spout being attached to the head of each elevator to discharge the grain into either a receiving garner or its adjoining shipping garner, these garners each occupying a separate bent in the building. Below these garners, and on the scale floor, are located, respectively, the receiving hopper and the shipping hopper scales, likewise arranged in pairs, and in the same relation with the bents of the building and with the receiving and shipping elevators, there being an arrangement of spouts for directing the grain from the scales to the bins, or to any of the pipes for loading the cars. The lower ends of the bins may also be connected with the transfer or shipping elevators by the spouts leading therefrom to the lower portions of the receiving hoppers.

The distance between the pairs of elevators is governed by the length of the cars in use, as there must be the length of one car between the pairs, in such manner that all the cars in a line may be unloaded simultaneously, the construction being such that both receiving and shipping may be conducted at the same time, with no loss of time or labor in shifting gangs of men, as is unavoidable under the old system, where the receiving

elevators are placed in one line, leaving the distance between the elevators nearly the length of a car, and locating the shipping or transferring elevators in one or more lines parallel to the receiving elevators, but in different lines of bents. By this arrangement, also, both the receiving and shipping elevator boots may be put in the same tank, thus making a saving in the cost of construction, while (the transfer or shipping boot being on a lower level) the transfer spouts may be passed below the railway tracks and be stationary and yet out of the way, the loading of the two elevators together causing only one bent to be obstructed, and the work of both the weighers and the machinery men is greatly facilitated.

#### A GREAT CHICAGO ELEVATOR.

The strip of land in the north branch of the Chicago river, correctly called Ogden's Island, but commonly called Goose island, will henceforth enjoy a world-wide reputation as possessing the largest grain elevator in the world, says the *Times*.

The Armour elevator, which is now nearly completed, is a colossal structure. Its dimensions are 550 feet long, 160 feet wide, and 152 feet high. The largest lake vessels moored alongside of it look puny and insignificant. The Chicago, Milwaukee & St. Paul railroad track runs along the west side of the building, and a switch from the main line connects with a track running the entire length from north to south of the interior. An idea of the capacity of this leviathan warehouse may be conceived when it is stated that an ordinary freight train of cars can be shunted into it and the huge gates at either end shut. When completed, it is expected to furnish storage for 2,000,000 bushels of grain.

The architects of the building are J. T. Moulton & Son. The principal work in the construction of the building has been done by Armour & Co. themselves. About 10,000,000 feet of lumber has been used in fixing up the interior. The engine, built by the Pusey & Jones company, of Wilmington, Del., is of 1,000 h. p., compound vertical, and stands about 40 feet high. It is the largest engine ever made in Delaware, and is a beautiful piece of workmanship. The power to feed this huge monster is furnished from four steel boilers which are 6 feet high by 18 feet long.

BURNED—The flouring mill owned by E. B. Kellogg & Co., at Wrightstown.

BURNED—John A. Deeter's feed mill, at Dixon, Ill.

## MILLERS' NATIONAL ASSOCIATION MATTERS.

[Official Circular to the Milling Trade.]

SECRETARY'S OFFICE,  
MILWAUKEE, Jan. 28, '88.

The Executive Committee, at a meeting in Chicago, January 19th, '88, adopted the following resolution:

*Resolved.* That the secretary be and is hereby instructed to correspond with the principal exporting centres, embodying the views of the committee, requesting the various localities to call a meeting of the exporting millers in their vicinity for a discussion of the subject, and to give expression to their views in regard to the entire question of abuses in the export trade and their remedy, and principally, to state to what extent they will sustain the association in carrying out their wishes.

In the opinion of this committee, the export Bill of Lading now in general use, is responsible for a large part of the evils complained of, from the fact that under it the Transportation Company is bound only for the rate of freight, but exempt from every other liability; and in as much as the operation of the Bill of Lading extends from mill to market, the co-operation of the foreign receivers would seem to be a necessity; and to that end the secretary was instructed to correspond with representative bodies in the flour trade at London, Glasgow and Liverpool, and request that delegates be sent from these bodies to the convention at Buffalo.

The Association, through its Executive Committee, is willing and desirous of undertaking any reform of the abuses existing in the export trade, for the general good of its members. In undertaking the correction of these abuses, the *exporting millers themselves must come to an understanding with regard to their grievances; the necessary remedy; and last but not least, put themselves upon record to what extent they are willing to stand by the Association, and furnish the where-with-all to carry out the objects contemplated.*

To the end that the committee may have the fullest information, they would suggest that the millers in every locality, doing an export business, come together at an early date and discuss thoroughly every detail that has any bearing upon the subject; that they come to a definite understanding, and report to the Secretary their conclusion which will be submitted to the Executive Committee. A full expression from all sections of the country is desired in order that the committee may be fully informed on the following points:

*First,* what, if any, are the abuses pertaining to the export trade in each locality; and what changes have you to suggest in the existing custom?

*Second,* are your shipments handled with promptness and care from mill to seaboard? If not, over what portion of the route do you complain of neglect and delay?

*Third,* are you satisfied with the manner in which the transportation line or company by which you ship, handle your property while in transit from mill to seaboard? If more than one company, line or route, which do you find the most satisfactory, and which the most unsatisfactory?

*Fourth,* how about shipping and contracting freight by regular line, and on arrival at seaboard; the property so consigned being transferred to a different class of steamers known as "tramps"?

*Fifth,* what changes would you suggest in the existing form of Bill of Lading that will

form an equitable contract between the shipper, the transportation company, and the receiver?

These are but a part of the items requiring consideration. Others will suggest themselves during your deliberations. The committee desire all the information that can be furnished on this subject, in order that they may act understandingly.

I would say in this connection that since the report of the meeting of the committee was published, there has been received at this office a joint letter from the Boards of Trade of London, Liverpool and Glasgow, covering a pro-forma Bill of Lading, with the request that it be presented to the Executive Committee for such changes as they may have to suggest. From a *foreign receiver's* standpoint, this reform Bill of Lading may be acceptable, but is not entirely in harmony with the ideas entertained by the majority of the *exporting millers*. It will be submitted, to the committee with your suggestions, as the contribution of the foreign receivers, and as embodying their views.

Respectfully,  
S. H. SEAMANS, Sec'y.

[COPY.]

LONDON, 10th Jan., 1888.

DEAR SIR:

We are instructed by the committees of the London Flour Trade Association, of the Liverpool Corn Trade Association, and of the Glasgow Corn Trade Association, to submit to the consideration of your Executive Committee, the enclosed revised forms of through Bills of Lading, which have been drawn up, after careful consideration, with the view of remedying grievances, which have been long felt by those interested in the trade in this country, and which arise through the absence of responsibility (under the existing through bills of lading) on the part of the American transit Companies for the due forwarding and safety of the goods entrusted to them for transmission to this country. Our committees hope that your committees will approve of these revised bills of lading, and that they will use their influence in getting them adopted by the American transit companies, because their adoption generally by all interested in the trade between your country and ours, would, in the opinion of our committees, tend to facilitate business between the two countries. The uncertainties and risks consequent upon the through bills of lading at present in use, deter many buyers (on this side) from contracting for flour from your side.

Our committees would be glad to hear from your Association on the subject.

Communications thereon to be addressed to

MR. GEORGE R. BOWMAN,  
Hon. Secretary London Flour Trade Ass'n,  
38 Seething Lane, London, E. C.

Our committees desire that no alterations or additions be made to the enclosed bills of lading without their approval of said alterations or additions. There is a strong feeling in the trade (in this country) that business cannot be continued on the existing through bills of lading.

Respectfully,  
GEORGE R. BOWMAN,  
Hon. Secretary London Flour Trade Ass'n.  
JOHN HANNAY,  
Sec'y of the Liverpool Corn Trade Ass'n, Lmtd.  
JOHN McDougall,  
Sec'y of the Glasgow Corn Trade Ass'n.

To S. H. SEAMANS, Esq.,  
Secretary Miller's National Ass'n,  
Milwaukee, Wisconsin, U. S. A.

Secretary Seamans replied as follows:

MILWAUKEE, WIS., Jan 28, 1888.

MR. GEORGE R. BOWMAN, Hon. Secretary London Flour Trade Association, 30 Seething Lane, London, E. C.

DEAR SIR:—I have the honor to acknowledge the receipt of your communication of the 10th inst., signed also by the respective secretaries of the Liverpool and Glasgow Corn Trade Associations, endorsing a pro-forma Anglo-American bill of lading, which, as requested in your communication, will be submitted to the Executive Committee Millers' National Association at their next meeting. As there is no definite date fixed for the meeting, I am unable at this writing to inform you as to the time when this matter will be taken up for consideration. It will, however, be forwarded to the members of the committee individually, in order that they may be prepared to argue fully its merits and propose any changes they may deem necessary when our meeting convenes. I would state in this connection, that our committee held a meeting in Chicago on the 19th inst., when this subject was brought up, as you will see per enclosed printed slip. As a result of that meeting, a circular letter is now in preparation for general distribution among the members, calling for an expression of each exporter's views individually, in order that all may be prepared at our annual meeting to act intelligently upon the subject.

Various interests differing widely must be taken into consideration, as our experience in dealing with similar undertakings warrants the belief that a full discussion and interchange of opinions are necessary in order to harmonize these various interests, and to formulate a set of rules, regulations, etc., which will prove satisfactory to all concerned.

I have carefully compared your pro-forma bill of lading with the one now in general use (modeled by the various lines centering at New York in conjunction with the committee of the New York Produce Exchange), and am of the opinion that our shippers will require other and more radical changes than your bill of lading contemplates. I apprehend, however, that nothing definite can be decided until the convention meets at Buffalo, to which, by direction of the executive committee at their late meeting, I am instructed to extend an invitation to your Association to send delegates, and I shall be pleased to receive from them an acceptance of this invitation. I am, Sir,

Yours Very Respectfully,  
S. H. SEAMANS,  
Sect'y M. N. A.

[LATER.]

MILLERS' NATIONAL ASSOCIATION,  
SECRETARY'S OFFICE.

MILWAUKEE, Feb. 13, 1888.

Since the issue of my circular, dated Jan. 28th, pertaining to abuses in the export trade, I am in receipt of two letters from foreign receivers, extracts from which are as follows:

(No. 1) London, E. C., Jan. 21st 1888. "With regard to delays in transit the *Furness Line* has seriously disappointed us and our customers, and we must leave you to ship by those lines recording good time.

We understand that an agreement has been mooted by the several Steamship Co.'s to make a quay rate of 1s. 6 (one shilling and six pence) per ton on flour on the plausible plea of CONVENIENCE to CONSIGNEES, which is quite fallacious. Such a clause amounts to an import duty of 2d per 280 lbs. And the unfairness of such an imposition is manifest by THEIR NOT SUBJECTING WHEAT to the same base AS THE MILLERS HERE WOULD NOT STAND IT. We hope your Association will closely watch any such specious innovations, and at the same time purge THE PRESENT BILL OF LADING of many obnoxious clauses,

by which the Transport Co.'s contract themselves out of their proper liability, as in its present condition London bankers will not advance upon it; and upon appealing to the COURTS our JUDGES only laugh at our being so foolish as to be a party to so one-sided and indefinite a contract."

(No. 2.) LONDON, E. C. Jan. 24th, '88.

"You are probably aware that there is a move being made by a combination of the steamship owners of the regular lines, and the dock companies here, to force a bill of lading upon the trade generally, the great new feature of which is that a charge of 1-6 (one shilling and sixpence) per ton shall be made to the consignees of all flour landed in London. This charge of 1s 6d a ton will simply relieve ship-owners of a charge which they now pay for the use of the docks, throwing the burden upon the receiver and we wish you to clearly understand that if you find it impossible to obtain any other bill of lading than one including this clause you must please deduct same JUST AS IF IT WERE FREIGHT.

We may also remark that this scheme can only result (if successful) in the extra charge COMING OUT OF THE POCKET, ULTIMATELY, OF THE MILLER. We sincerely hope that you millers will be strong enough to resist altogether this attempt to throw upon you a charge which rightly belongs to them.

The London Flour Trade Association has taken this matter up and together with the Glasgow and Liverpool Associations has forwarded to your Association a proposed Bill of Lading drawn up in the interests of all classes; by which at any rate *some* of the difficulties may be obviated if we can only succeed in interesting millers on your side in this most necessary reform and impressing them with the IMPORTANCE OF SAME."

These facts are submitted through the courtesy of the milling press to all millers interested in exporting their product. The receiver is willing to cry "fire," but is evidently unable or unwilling to either carry water or "man the brakes." It is therefore left for our millers to take the prompt and efficient action necessary to put out the "fire."

The London Flour Trade Association might reasonably be expected to resist any imposition of this kind at their own threshhold, in the interest of their shippers, but like the receiver, they are perfectly willing to shift the burden from their own to other shoulders.

If the contemplated arrangement is carried out, the exporting miller is burdened with another expense amounting to about 2 1-5 cents per bag of 140 lbs., or \$30 per day to a mill turning out 1000 barrels. Are you willing to quietly submit and allow this tax to be loaded upon you in the interest of the steamship company?

I trust this effort to still further reduce the little margin left to the miller will cause an increased attendance to every meeting of millers for the general good, be it *local, state or national*, realizing the fact that every success which has been achieved in the line of reform or protection to the milling interest has been through united effort.

Respectfully,

S. H. SEAMANS, Sec'y.

P. S.—Since the foregoing was put into the hands of the printer, the following cablegram has been received from Glasgow:

"Tension continues between receivers and shipping companies, regarding landing charges, as President of the Millers' Association officially resist threatened reinsertion in the Bills of Lading the master portage clause.

#### ON BEHALF OF GLASGOW TRADE."

This is but another intimation to the Association that our foreign receivers have no idea they will be able to cope with any of the many innovations which are being "cooked up" to hamper the American miller in getting his product from "mill to market." In calling the attention of millers to these matters, I cannot too firmly impress upon them the necessity of united action. Do not leave the entire work and responsibility to the Executive Committee, as they must have the backing of local organizations to carry out successfully any reform.

S. H. SEAMANS, Sec'y.

#### COMPRESSED AIR POWER.

An engineering scheme of a novel character and one fraught with important consequences for power-users in all parts of the country is now, at length, after many hindrances and delays, in fair way of being realized by the approaching completion of the first part of the works of the Birmingham (Eng.) Compressed Air Power Company, limited. There is nothing absolutely new, of course, in the employment of compressed air for motive purposes. In Paris, Popp's system, covering an area nearly equal to that undertaken in Birmingham, has been in operation over five years, for the synchronic working of clocks. At Eastbourne, Warrington, Southampton, and other places, compressed air is used in connection with a pneumatic drainage system. In Liverpool blocks of warehouses are fitted up with hoisting apparatus, worked by the same convenient and docile power, and in many collieries and private works in various parts of the country it has been found advantageous to discard more modern motive agents in favor of this primitive propelling force. Birmingham, however, is the first place in which it has been adopted as a common motive-power, supplied from a central source for driving general machinery, and its application here, therefore, is distinctly a new departure involving important and far-reaching issues. It is about four years since the present project assumed shape, and more than twelve months have elapsed since the works' contracts were placed, but the company have had many unforeseen difficulties to contend with, not wholly of a financial or engineering kind. Parliamentary powers had to be obtained, the local authorities propitiated, the opposition of vested interests overcome or appeased at every step, and even the requirements of the municipality for safeguarding the network of gas and water pipes, sewers, and tram lines with which the streets of the town are intersected, have added not a little to the embarrassments of the promoters. Now, however, that the experimental works are at length, within a measurable distance of completion, it is evident that, however bold and novel the undertaking, there is nothing chimerical or impracticable about it, and that, whatever the ultimate commercial results, the mechanical and engineering problems involved are comparatively easy of solution.

There is clearly no reason why driving-power should not be supplied from a common centre, in the same way as gas, water and electricity, and compressed air seems to offer many advantages for this purpose over steam and other motive agents, which are subject to heavy waste in transmission, or require new and costly appliances. In the first place, air can be applied to existing engines without necessitating any change of plant or other expense beyond that incidental to connection with the air mains, and this cost is more than counter-balanced by the gain in getting rid of boilers and furnaces, with their necessary attendants. Then in place of smoke, exhaust steam, ashes and condensed water, the only waste of the pneumatic system is pure air, which can be used to assist the ventilation of workshops, as well as to expedite many manufacturing processes in which atmospheric currents are needed. With a stream of compressed air constantly laid on, and available at any moment by the simple turning of a tap, no time need be lost nor fuel expended in getting up steam. The wear and tear of boilers, firebars, etc., is entirely obviated; no cleansing of flues, removal of refuse, or insurance of boilers is needed; the risk of boiler explosions and of the bursting of steam pipes in frosty weather entirely disappears; the smoke nuisance is abolished; and last, but not least, the power is supplied on terms with which neither steam nor electricity can pretend to compete. How far the company are correct in their calculations experience only can determine; but if it be true that they can afford to supply compressed air at a rate equivalent to a little over £13 per indicated horse-power per annum, as against the general average here of £17 13s. 8½d. per indicated horse-power for all engines up to twenty-five nominal horse-power, the money-saving offered by the substitution of the new for the old motive agent, should be something like 20 per cent. That is to say, for every owner of an engine estimated for rating purposes at twenty nominal horse-power, or sixty indicated horse-power, the saving per annum should not be less than £200, to say nothing of the gain in space, comfort, cleanliness, etc. From the user's point of view, these are certainly potent arguments in favor of wind as compared with steam.

SHE TOOK THE HEN.—Young Mrs. Popinjay (at market for the first time)—"Are you sure this chicken isn't an old hen? It feels very tough."

Marketman—"I can assure you ma'am, that fowl is very young." (Opening the bill of the biped,) "See—it hasn't a single tooth yet."

Mrs. Popinjay takes the hen.—*Burlington Free Press.*

SOME years ago Phil. Armour, the Chicago millionaire, was figuring in a big real estate transaction. The sharers thought they had him, but were soon convinced that they were wrong. They had tried to get him to drink several times while the dicker was going on, but he was not drinking any. After the deal was over Phil. said to the chaps he had gotten the best of: "Now, gentlemen, you must have something with me, and taking them into a small room where there was a pitcher and several glasses, he opened a little tin box and said: "Help yourselves." The tin box contained seidlitz powders.

## UNITED STATES MILLER.

E. HARRISON CAWKER, EDITOR.

PUBLISHED MONTHLY.

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For estimates for advertising, address the UNITED STATES MILLER.

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MILWAUKEE &amp; CHICAGO, FEB., 1888.

We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

BURNHAM BROS., York, Pa., say orders for their Turbine wheel have doubled since selling direct to mill owners at net prices. Send for catalogue.

THE citizens of Windfall, Ind., want a good roller mill at that place, and among other inducements which they offer is that of free natural gas.

SEC'Y HALIDAY, of the Indianapolis Board of Trade, furnishes the U. S. MILLER with the following statement:

"The daily capacity of Indianapolis flouring mills is about 3,000 barrels. Manufactured during 1887 about 500,000 barrels. Storage capacity of grain elevators, 1,000,000 bushels."

A NEW and perfect Bill of Lading for the Export trade appears now to be of paramount importance. It will necessarily take some considerable time to get a form that will be satisfactory to the exporter, the transportation companies and the importer, but no doubt it can be done, and the interest in the matter now seems to be so thoroughly aroused that it will be done. The circular of Sec'y Seamans, of the Millers' National Association, on this subject in another column will be read with interest.

THE Michigan railroads are considering the advisability of selling 5,000-mile tickets at two cents per mile. Why should a move of this kind be limited to Michigan railroads? Why would not a 5,000 mile ticket good on any road in the country fill a want long felt? The railroads may have valid objections to a move of this kind, but we think the commercial traveling public or the tourist would take to it like a duck to water.

THE report of the governor of Utah Territory to the U. S. secretary of the interior for 1887 says in relation to flouring mills: There are in Utah 120 flouring mills, 10 of which are roller, or new process. The product of the best of these is not excelled in quality by any in America. The aggregate capital invested in this industry is \$1,375,000; the annual product is 109,840,000 pounds of mill

stuffs, valued at \$2,288,000. Such is the extent of our flouring mill interests that nearly all of these mill are in operation the year round. In addition to these there are mills for the manufacture of oatmeal, rolled oats, cracked wheat, hominy, pearl barley, and other farinaceous goods.

CAWKER'S AMERICAN FLOUR MILL AND GRAIN ELEVATOR DIRECTORY FOR 1888, just issued (published by E. Harrison Cawker, Milwaukee, Wis.), shows the number of flouring mills in the United States and Canada by States and Provinces as follows:

## FLOUR MILLS IN THE UNITED STATES.

Alabama .....	192	Mississippi .....	189
Arizona .....	9	Missouri .....	815
Arkansas .....	215	Montana .....	14
California .....	158	Nebraska .....	270
Colorado .....	48	Nevada .....	11
Connecticut .....	177	New Hampshire .....	142
Dakota .....	121	New Jersey .....	343
Delaware .....	68	New Mexico .....	18
District of Columbia .....	3	New York .....	1521
Florida .....	29	North Carolina .....	431
Georgia .....	324	Ohio .....	1068
Idaho .....	15	Oregon .....	128
Illinois .....	742	Pennsylvania .....	2180
Indiana .....	745	Rhode Island .....	34
Indian Territory .....	3	South Carolina .....	193
Iowa .....	529	Tennessee .....	498
Kansas .....	439	Texas .....	451
Kentucky .....	496	Utah .....	88
Louisiana .....	19	Vermont .....	168
Maine .....	194	Virginia .....	471
Maryland .....	221	Washington Territory .....	54
Massachusetts .....	244	West Virginia .....	313
Michigan .....	6-8	Wisconsin .....	634
Minnesota .....	349	Wyoming Territory .....	2
Total .....	16,062		

## DOMINION OF CANADA.

British Columbia .....	7	Ontario .....	918
Manitoba .....	44	Prince Edward Island .....	16
New Brunswick .....	104	Quebec .....	479
Nova Scotia .....	66		1,634

The total number of mills in the United States reported in the 1886 milling directory was 16,950 and in Canada 1,634. The number of mills in operation has slightly decreased, but we believe the total capacity for the manufacture of flour to have increased. A number of large mills have been built and many have increased their capacity. The oatmeal, corn mills, etc., which were heretofore included in the regular list of flouring mills, are in the present list eliminated and are noted in lists by themselves. As it is, the milling capacity of the country as a whole is greater than there is a demand for.

IN the January number of the UNITED STATES MILLER we republished an article contributed by W. A. Thoms, of Scotland, to *The British Baker, Confectioner and Purveyor* (London), entitled, "A Case of American Flour Shortage." We publish the reply in this issue. The article implied serious charges against a Milwaukee miller, facetiously called "Ah Sin," i. e. a shortage on 457 out of a shipment of 1,000 bags. The article, as republished, has attracted much attention among American flour exporters, many of whom have suffered outrageously by the exactions of *tricky* importers on the other side. While the world stands, there will no doubt be dishonest men in all lines of trade, but we believe the milling and grain trade generally to be as free of dishonest or questionable practices as any branch of business under the sun.

If a shipment of flour by an American miller falls into the hands of a dishonest importer, it is an easy matter for him to make unwarrantable charges and demands for damages, and such has been the case. For instance, we know of a case in this city where the weight of every sack was carefully

registered and samples reserved for comparison in case of any claims being made for damages, and claims were made for shortage in weight and variation from samples. In this case the exporter was prepared and refused to allow a cent for damages claimed, and DEMANDED an investigation by the British arbitrators, who failed to find the claims sustainable. In regard to the shipment made by "Ah Sin," we do not by foregoing remarks desire in the least to imply that the importer was dishonest, but if the statement made by Mr. Thoms is correct, as we say in this country, "there certainly is a screw loose somewhere." The shortage must have occurred at one end or the other of the line or in transit. The difficulty is to ascertain, where.

For this and other purposes equally valuable to the American flour exporter the Millers' National Association have long contemplated and we hope may soon put in operation a bureau which cannot but prove of inestimable value to both exporter and importer. The members of the Association have had these abuses brought to their attention so often that OVER THREE YEARS AGO THEY HAD SPECIAL WORDS ADDED TO THE CABLE CODE BOOK most frequently used by flour exporters and importers to meet their wishes for expression in cases such as had occurred or were liable to occur.

There is one thing that should be thoroughly understood, and that is that every dishonest exporter hurts every honest exporter and every dishonest importer hurts every honest importer. Black list them, say we.

## A CASE OF AMERICAN FLOUR SHORTAGE.

REPLY OF "AH SIN."

Editor United States Miller:

Dear Sir—In the January number of the UNITED STATES MILLER you republished an article with the above caption. Will you kindly oblige me by inserting my answer here-with enclosed in your widely circulated and valuable journal, and oblige AH SIN.

February 14th.

MY DEAR MR. W. A. THOMS:

You were introduced to me by an article in the *British Baker, Confectioner and Purveyor* as an amateur writer, whose specialty is the humane work of controlling the morals of the people in the flour business. Such an humane undertaking is quite commendable, and if properly done, cannot fail of good effects. The story of the flour dealer who ordered light weight for a corresponding reduction in price, so that he could beat all his neighbors, was quite interesting. That fellow must have died soon, else we would have heard more of him. Through the kindness of our mutual friends, Messrs. A. & L., you read one of my letters to them, which fact initiated our acquaintance; I wish that you could have read all our correspondence, so that our acquaintance would have been more complete. I call your attention specially to my letter of August 23d, and their answer Sept. 10th. I will quote a part of the letter in case they did not take a copy of it. It says: "Many thanks for your liberal treatment." The rest of the letter would not interest you.

Allow me, dear Mr. Thoms, to express my opinion that you could devote your valuable time and efforts more usefully than by turning your attention to the doings of the American millers. They can afford to be honest, because they are excellent mechanics and fearfully hard workers, and they do as much work in one hour as others in four. Now consider that they work 24 hours every day and if you learned some figuring you will get at the result. This is the reason why you get the flour so cheap from them. Of course they are also apt to make mistakes, and if proved

to them, they are willing to pay for the damage. I would also not hesitate a moment to pay that little bill of *Five Pounds* for the shortage on the *1000 bags "Starlight,"* if I was to blame for it, but I know that it is not my fault and so, Mr. Thoms, it would be wrong on my part to pay it under such circumstances, because it would mislead you in your humane undertaking. Let me tell you why I am so positive that I am not to blame for this shortage: The weighing in my mill is done in the same way as probably in most of the merchant mills of this country. The packages are weighed on a small Fairbanks platform scale of 400 lbs. capacity with a very sensitive balance beam. The weight is screwed down firmly for 140-lbs. packages on the 40-lbs. notch in the beam. Any difference between  $\frac{1}{2}$  lb. and lighter would let the balance go down, and overweight with in  $\frac{1}{2}$  lb. would likewise raise it up. If the weight on the notch were not fastened firmly to the beam, it could not fail to be noticed by the packer, because it would shift every time the flour package is placed on the platform and the balance beam would rise. The packing at my mill is done by a day crew and night crew changing off every twelve hours. The foreman of the packing department weighs every morning some bags of the night packing; during the day time the weighing is done under his eyes. My head-miller weighed at irregular times about once a week some of the packages and did not report any great differences. Sometimes a few bags  $\frac{1}{2}$  to  $\frac{1}{2}$  lb. under; but also as much over-weight—too slight differences to find fault with the work of the packers. I do not think that a better set of employes could be found than in my mill. They are sober, cheerful and reliable. They are well paid and therefore contented. Only three changes happened in the last four years. One of them on account of old age, another changing from laborer in my mill to teaming for my mill, but not now in my employ. The *1000 bags "Starlight"* were made during two days and two nights run of the mill; therefore both the day and night men must have done wrong weighing, and at different times; and if they had been careless in weighing, it is not to be presumed that the difference would show only in one way—that is only *underweight*. Do you not think, dear Mr. Thoms, that some bags would show overweights? Please think it over and you will find that mistakes alone could not have caused so much shortage. Dismissing the idea of carelessness, only one more point has to be looked into and that is, stealing or dishonesty. This could be done by the employes for their own benefit alone or in collusion with the employer. Now Mr. Thoms, does it not occur to you as improbable, that the employes, if bound to steal, would take the unnecessary trouble of taking out of each bag a few pounds and put the small stealings in one bag, if they could do it so much easier, stealing whole packages? The chances for detection are less in the latter way than in the former. This would not work long and profitably, and does not help you in your investigation.

The theory of collusion, speaking the detectives' language, does not seem to be tenable. It is not likely that a manufacturer would go to his employes and tell them: "you weigh the packages short 3 to 5 lbs." All the discipline and authority so essential for the successful management of any factory would be surrendered at once, and no establishment could exist under such mismanagement.

Now comes the bag question. I inclose here-with a certificate from the manufacturer of the bags which I used for the *1000 bags of "Starlight,"* by which certificates you will find, Mr. Thoms, that I used the best quality bags, known as the *1st Grade* weighing from 14 to 15 ounces, Gilroy's make. Of over one hundred thousand bags sent out by me during 1887 I had two complaints reported on each 1000 bags for shortage, both complaints from Glasgow, but I do not believe that the shortage happened through poor quality of the bags. These are the circumstances under which the *1000 bags "Starlight"* have been shipped out. Now, my dear Mr. Thoms, let us examine how the flour arrived in Glasgow, and the conclusion drawn by you therefrom.

It excited the writer's suspicions right-away, because the name of the miller was no

on the bags. My dearest Mr. Thoms, *don't you know better?* The importers would not allow us to put on our own names, because if we did, they could not buy the flour any more from Tom, Dick and Harry. There is a line of work for you, Mr. Thoms! teach the importers to have miller's name on the bag, so that he gets some of the credit due him for doing good work. Now it hardly pays, because we cannot retain the trade, if you do not always make the lowest price.

You stated the short-weights as follows:

12 bags from 19, 17 to 6 lbs.
10 " 5 lbs.
122 " 4 "
250 " 3 "
65 " 2 "

457 bags falling short; balance to be presumed to have held out weight. You think, Mr. Thoms, that the big shortages do not make the case suspicious. You believe that these big shortages happened undoubtedly because the bags were torn or burst. You did not say that anybody ascertained, whether 12 or more or any bags had been torn or did burst and why this happened. It seems to me. Mr. Thoms, that you did not have a very good basis for your presumption, that only and just 12 bags with big shortages were torn and burst. I think you should not have drawn such a distinct line without any information of facts. Might not some of the other bags have been misused during transportation? There is another field for your humane disposition. Whenever you hear of another big shortage you could investigate, in what condition the flour arrived, through whose hands the flour passed after arrival and so on. You will soon find out yourself how to proceed and if there is any expense to it you will find almost every American miller will pay his share; *I promise you to pay my share.*

And now, my dearest Mr. Thoms, I cannot possibly chat any longer with you and pray do not ask any more such letters from me. You may believe me, my regular work does not allow me sufficient time for it.

Good bye.  
Yours faithfully,  
AH SIN.

The following is the certificate above referred to, and original can be seen in my office at any time.

Jan'y 30th.

To Whom it may concern:

We hereby certify that we have sold to \_\_\_\_\_, proprietor of the \_\_\_\_\_ Mills, 140 lbs. Export Sacks for a number of years, and we always supplied him with our best quality, such as is known in the trade as F Grade, weighing from 14 to 15 ounces each, and made from Gilroy's best mangled goods, which are understood by all users of Burlaps to be the best article in the market for making Jute export sacks.

JOHN F. BAILEY & CO.,  
22 South-sixth st.,  
Philadelphia, Pa.

[Compiled from official records, for the UNITED STATES MILLER.]

FLOUR MANUFACTURED IN ST. LOUIS IN 1887.

	NAME OF MILL.	BBLS.
Geo. P. Plant Milling Co.	Plant's Roller. (3)	260,338
Regina Flour Mill Co.	Regina	220,993
Kauffman Milling Co.	Anchor. (1)	184,442
Kehlor Bros.	Kehlor	181,982
Camp Spring Mills Co.	Camp Spring	172,729
Kel'r Bros.	Laclede	130,626
Victoria Flour Mill Co.	Victoria	127,002
Heizel Milling Co.	East St. Louis	112,613
E. O. Standard Milling Co.	Park. (5)	110,649
Sessinghaus Milling Co.	Jefferson	99,150
E. O. Standard Milling Co.	Eagle. (4)	89,086
E. Goddard & Sons Flour Mill Co.	United States	77,250
Kauffman Milling Co.	Park. (2)	69,569
Saxony Mill Co.	Saxony	54,006
H. B. Eggers & Co.	Meramec	48,003
Lallemand Milling Co.	Carondelet	27,287
Hy Kalbfleisch & Co.	St. Georges	20,000

Total 1887 1,985,717  
" 1886 1,807,956  
" 1885 1,841,529

(1) From July 1st.  
(2) From Jan'y 1st to June 16.  
(3) For 10 months.  
(4) To June 6, mill burned.  
(5) From July 1st.

WHEN the Keely motor successfully motes, when a man serenely in atmosphere floats, when Yankees are brought to the eating of oats, when motion perpetual shall be achieved, when cyclone pulverizing is proved and believed and when grinding pneumatic is else than conceived, we shall look to see some inventor successfully utilizing the power of Niagara River at its exit from Lake Erie. Meanwhile said inventors are writhing their collars in struggling to acquire the Buffalo prize of \$100,000!—*The Milling World* (Buffalo, N. Y.)

#### PUBLICATIONS RECEIVED.

*The Art Amateur* for February gives a delightful colored portrait study of a little girl, by Ellen Welby; decorations for a plate (La France roses), a lamp (sun-flowers), and a fish plate; a striking study of orchids, by Victor Dangon; numerous models for wood-carving, etc. An article on beds is profusely illustrated, as is one on dogs. The Moran and Buhot etching exhibitions are reviewed, and all departments of the magazine are ably sustained. Price, 35 cents. Montague Marks, 23 Union Square, N. Y.

WITHOUT doubt the most valuable contribution in *Harper's Magazine* for March, from the point of view of the greatest number of people, is Charles Dudley Warner's opening study of "The Great West—A Far and Fair Country." In his graceful, easy style Mr. Warner sweeps across the great Northwest from Minneapolis to Great Falls, and carries his reader along so pleasantly that one is never weary despite the distance. The facts and statistics presented are none the less instructive for being given in an entertaining way. Every intelligent man and woman will be interested in Mr. Warner's study—those in the East because it will teach them something, and those in the West because they will see themselves faithfully photographed therein. It follows, of course, that Mr. Warner's article is not free from criticisms; but fair, generous, intelligent criticism is agreeable to Western people. The value of the contribution is further enhanced by a particularly good map, based upon a map in *The Railway Age*.

#### GODEY'S LADY'S BOOK FOR 1888.

Sample Copy Fifteen Cents.

\$2 a Year ALWAYS IN ADVANCE.

A handsome Engraving to every Subscriber.

In Club with this paper, GODEY'S and the UNITED STATES MILLER, price \$2.50, which should be sent to the office of the United States Miller, Milwaukee, Wis.

#### MILL FOR SALE.

For Sale: One-half interest in a first-class 125-barrel Roller Mill. Has the latest improvements and doing a class of work that cannot be excelled in the State. Mill is situated in Southern Illinois, on Wabash Railroad, and in a good wheat country. Party desiring to sell his interest is obliged to go to Europe. The complete mill will be sold if desired. Address for full particulars, H. P., care Garden City Mill Furnishing Co., Chicago, Ill.

#### MILL FOR SALE.

A good 75 bbl. Roller (and Stone) process Mill for sale, located at Paola, Kansas, with good switch privileges. Can be run with Natural Gas. Terms easy. Address

GRIFFITH & PRICE, Kansas City, Mo.

## TESTS ON SPRING AND WINTER WHEATS.

Prof. V. Strebl, of Hohenheim, Germany, has been making some tests on winter, spring and spelz wheats with a view to determining their relative gluten contents. The wheats are stated to be those most in demand in trade; but no mention is made of American wheats and it is doubtful whether these were tested. The experiments were made on parcels of 110 lbs. wheat submitted to the milling process. Owing to the milling plant employed the results had to be limited to three grades of flour. In per centage of output the various grains tested yielded as below:

Variety.	Grade 1	Grade 2	Grade 3	Bran.	Loss.	Average	Variation.
Winter	45.20	22.73	11.79	18.15	2.13	79.92	76.41-84.02
Spring	46.06	20.74	12.00	19.83	1.87	78.80	76.83-81.33
Spelz	42.01	18.91	15.48	20.85	2.75	76.40	72.90-79.62

To determine the gluten contents and baking qualities of each variety, flour No. 1 was subjected to tests in the aleurometer invented by Kunis. Great variations were evident between the flour even while the dough was being prepared, in respect to the amount of water required to make an equally stiff mixture. Also in washing out the gluten, for while from most samples this was easily obtained, in others the result was a more or less fluid mass, from which very little gluten could be separated. When secured, the properties of the gluten also varied much as to toughness, extensibility and color—differences which must be attributed to their varying composition. In the flours rich in gluten, the dry contents were considerably smaller than in others. The amount contained by the winter wheat samples varied between 17.8 and 36.6 per cent. Flour whose gluten contents marked less than 25 degs. by the aleurometer was too weak to be baked advantageously by itself. Among the spring wheat flours the gluten contents were highest in the Russian Saxonska wheat, varying between 20.1 and 41.9 per cent. The results were almost the same with spring and winter Shiriff wheat, though the baking tests showed the former to possess considerably better baking qualities. In deciding what wheat is most worthy of cultivation, Prof. Strebl remarks that it is necessary to take into account the quantity and quality of the yield, also the hardihood of the variety. But a combination of very high yield and quantity and quality of gluten contents is not as yet to be found in any variety of wheat. The wheat which is richest in gluten may not be the most valuable in baking, the latter depending on the proportion in which its proteine elements are present.—*Millers' Gazette* (London.)

## INDIAN BREAD.

A friend of the UNITED STATES MILLER has sent us the following, from the diary of Mrs. Ellen Goodnough, wife of a missionary to Oneida Indians, dated June 5, 1886:

"This morning I called a few girls into my kitchen to teach them the art of making yeast and bread. Many of the Indian families now use wheat flour. Ten years ago they only used it on great occasions, and at their feasts. Their own common bread is very hard to make, and indigestible for those who are not accustomed to it. It is made of white maize. The corn is shelled; boiled for a few minutes in strong lye; then washed thoroughly in cold water until the hulls come off. They have a mortar in each house made by burning a hollow in a

hard-wood log about three feet long; the maize, freed from its hulls, is then pounded into flour by a wooden or stone pestle; it is afterwards sifted through a sieve made of very fine strands of bark; it is then mixed with boiling water and kneaded into round flat cakes, which are baked in the ashes of the fire-place, or boiled like dumplings for an hour or more. Whole beans or dried berries are considered an improvement. The Indians declare that this bread of theirs will sustain life longer than any other article of food."

## NONSENSE.

"Ah, those autumn leaves, Farmer Robinson," sighed his city guest. "What lovely tints of color, and what an addition they are to the charming scenery you must so enjoy." "Yes, miss. The leaves are gettin' a good deal of yaller and red onto 'em, that's a fact. It's about time to gather—." "Then you really find time to gather autumn leaves?" "Oh, yes, indeed. We rake up a few cart-loads every year for beddin' for the horses." Another aesthetic dream smashed.

A PARISIAN relates that he had cut a slice of excellent Roquefort cheese, densely populated, and was about to swallow a mouthful, when a gentleman who had been sitting opposite rose suddenly from his seat, snatched the plate away, and exclaimed, most indignantly:

"You shall not eat this in my presence, sir!"

"Indeed! Why not, pray?" asked the astonished feuilletonist.

"Sir, I am a member of the Society for the Prevention of Cruelty to Animals!"

A SAFE INVESTMENT.—Omaha Youth—Yes, I am thinking of opening a notion and fancy goods store!

St. Louis Savant—Don't do it. Take the advice of an older man than yourself and keep out of lines in which values fluctuate. Fashions change, my boy, and prices change with them.

"I know, but I shall keep only standard articles."

"Won't do. There is no telling how soon the whims of the public may leave the so-called standard articles on your shelves. If you want to succeed don't deal in luxuries; deal in necessities, things people can't live without and which can't be affected by every breeze from Paris."

"You mean that I should sell groceries?"

"Groceries! No. Whiskies."—*Omaha World.*

MISS SAWYER, who is poor, was introduced at a lunch party to Miss Taylor, who is rich, and was coldly received. Miss Sawyer is bright and knows her own antecedents and Miss Taylor's also. She was unabashed and spoke cheerily: "I am so glad to meet you. I have often wanted to. It's so funny—my name is Sawyer and my grandfather was a tailor, and your name is Taylor and your grandfather was a sawyer. Mine used to make clothes for yours, and yours used to saw wood for mine."

THE ARTLESS CHILD.—Mamie (six years old to lady caller)—Mamma said to ask you to sit down a few minutes and she would be right in. It isn't raining, is it?

Lady Caller—Why, no, Mamie. Why did you think it was?

Mamie—Because, when mamma saw you coming, she said, "it never rains but it pours."—*Texas Siftings.*

AN UNJUST CRITICISM.—Countryman (in a Bowery picture gallery)—The cows is all right, an' the trees look kinder nateral, but the river there behind 'em is painted mighty poor.

Dealer—If you are up in art at all, my friend, you will know it is impossible to make water and oil mix well.—*New York Sun.*

A NATURAL RESULT.—Doctor (feeling patient's pulse)—You are suffering, sir, from nervous prostration in a very aggravated form. Have you been drinking deeply of late?

Patient (feeble)—No, sir: I've been Christmas shopping with my wife.—*Epoch.*

SHE WAS FROM BOSTON.—Cadet (vainly)—I'm afraid we fighting men are too susceptible, Miss Brenton.

Miss Brenton—Yes; how awfully susceptible Mr. Smith was to Mr. Kilrain, wasn't he?

A GIRL EASY TO SUIT.—A picture of a handsome young man is stowed away in a neglected corner of a portrait painter's studio up-town. The artist was asked whom it belonged to, and he replied:

"Just before starting on a trip across the water I received an order for that picture from the young lady to whom the original was betrothed. As there was apparently no hurry about the work, I suggested that it should be done at my leisure while abroad. This being agreed upon, I had no further communication with the party until my return a year and a half later. When I called upon the lady and informed her that the picture was ready, she seemed slightly embarrassed, but promised to call at the studio and see it. A few days later she came, and, after gazing steadily at the canvas for some time, she sighed and said:

"Poor Phil! he's dead and gone!"

"Then with a sudden look of relief and inspiration, she added:

"But if you could change the expression slightly and alter the mouth, it would be a good likeness of Mr. C——, the gentleman I am now engaged to!"

"I kept the picture as you see. To have allowed that cold-blooded heartless woman to take possession of it would have seemed an insult to the dead man's memory. So there it always hangs, a sort of illustration of poor, old Rip's words: 'How soon we are forgot'!"—*New York World.*

WAS RELIEVED.—An Ohio editor was interrupted by a boy who entered his room.

"What do you want?" the editor darkly frowning, demanded.

"I have come to tell you, sir, that your wife run away with a shoemaker."

"Oh, is that it? I thought that the foreman had sent for more copy."—*Arkansaw Traveler.*

STICKING TO THE FACTS.—Attorney (defending a prisoner)—Your honor, I would call the attention of the court to that noble utterance of the Master, "Let him who is without sin cast the first stone" and—

Judge (interrupting)—You will confine your argument, sir, to the testimony. It wasn't a stone the prisoner threw at the witness, but a brick.—*Washington Critic.*

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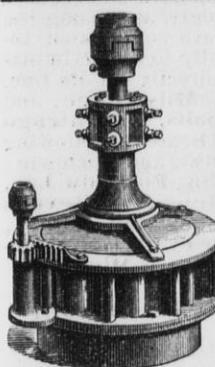
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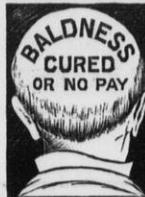
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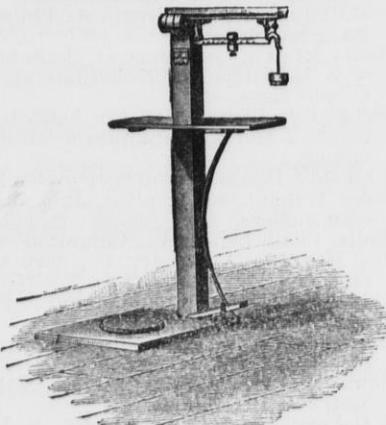
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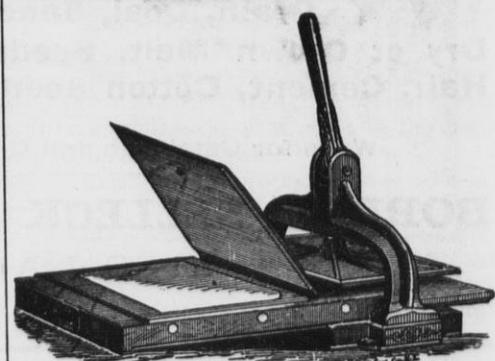
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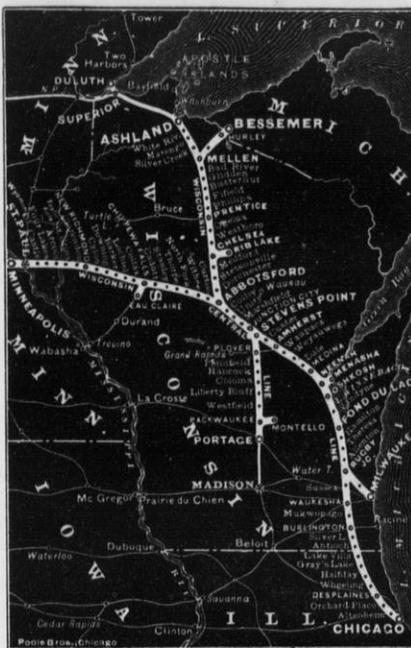
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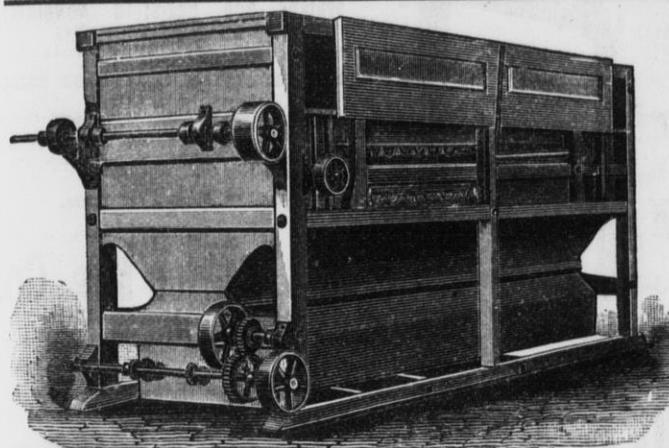
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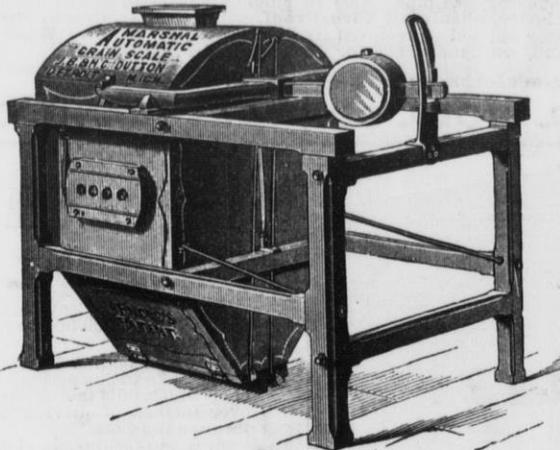
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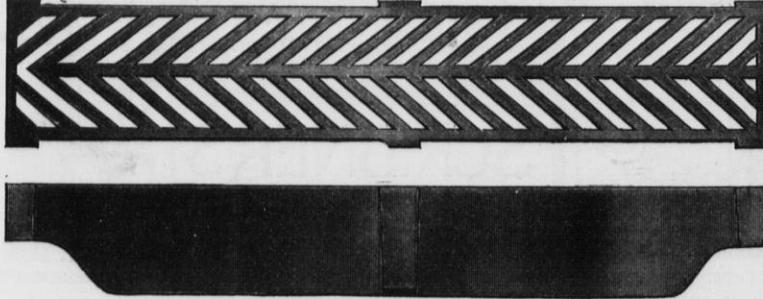
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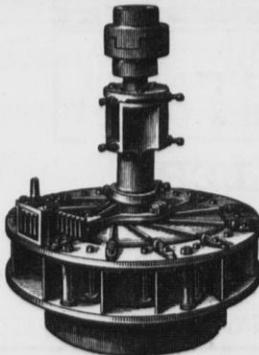
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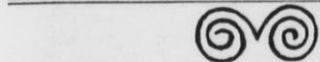
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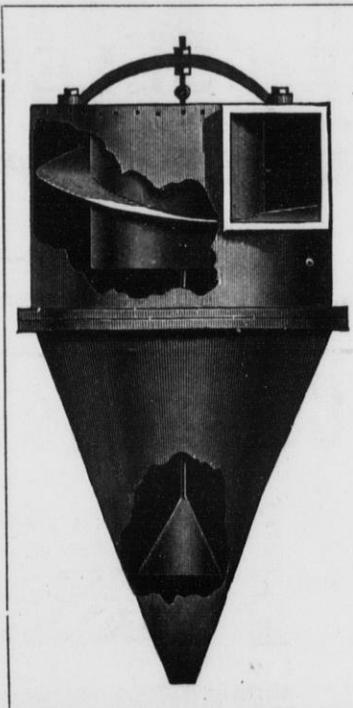
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The Geo. T. Smith Middlings Purifier Co., Jackson, Mich.:

GENTLEMEN—Yours received requesting me to write you in detail as to the working of my mill you built for me since first starting.

As you are aware, the contract called for a 150 bbl. mill per 24 hours, or 6 bbls. per hour. It has never turned out less than 7 bbls. per hour, and can easily be run to 200 per day.

The mill runs very light, requiring but little power. My straight flour with low grade out (being less than 5 per cent.) has in every case proved to be equal to the best patents made in this State. Yield is 4 bushels 24½ lbs. uncleaned wheat per barrel.

My straight flour has been tested a great number of times by different parties, as well as myself and expert bakers, and proves to be better than the average patents. We have never made but the two grades—low grade and straight.

The mill is a beautiful piece of workmanship, better than my contract called for, which called for everything we could think of, and I paid you more than the contract price, which should be evidence that I am more than pleased with the mill.

Very truly yours,

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MILL AND ELEVATOR OWNERS AND FLOUR BROKERS SEE PAGE 75.

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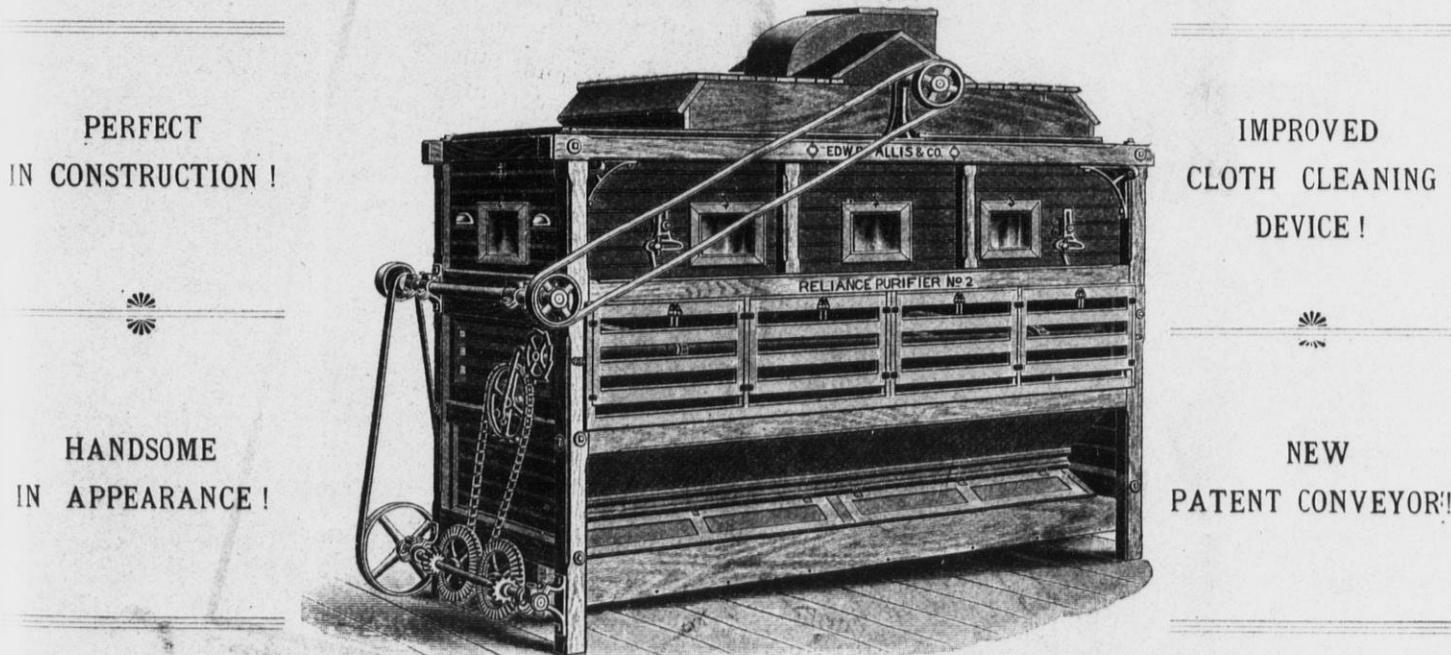
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# The United States Miller

Published by E. HARRISON CAWKER. VOL. 24, No. 5. MILWAUKEE AND CHICAGO, MARCH, 1888.

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## OUR WHEAT CLEANING SYSTEM.

At the request of many millers I hereby outline what comprises a wheat cleaning system that cannot be surpassed.

It should have, besides the machines here shown, a wheat heater, to keep the temperature of the wheat even throughout the year. A cockle machine and oat extractor are often necessary.

### SEPARATOR.

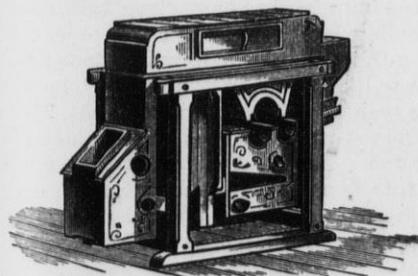


Fig. I.

Fig. I. requires no explanation. The great majority of Separators offered are good, and millers have their prejudices in favor of some particular one.

### ROLLING SCREEN.



Fig. II.

The next machine that I would recommend is a large Rolling Screen, Fig. II. This is one of the best of cleaners, and I will say right here that it is a better cleaner than most of the Smutters that do their work with beaters or on scouring surfaces of iron.

### SMUTTER AND SCOURER.

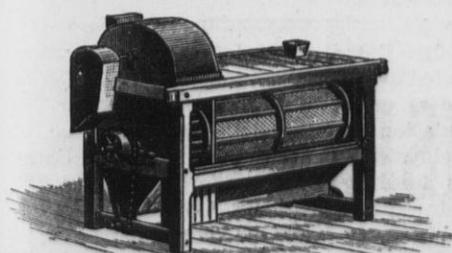


Fig. III.

Fig. III represents the Garden City Smutter and Scourer, the principles of which are

totally different from any other. The scouring parts of this machine consist of sapphire (which is a high grade specie of corundum) and an outer case of perforated steel. The work is done by the revolving action of the sapphire cylinder on the wheat, and is wholly by friction.

The work accomplished by the machine is such that the beards or fuzz on the grains are thoroughly removed, as well as the thin skin of bran on the germ end, thereby leaving that detrimental portion so exposed as to be easily removed.

### BRUSH MACHINE.

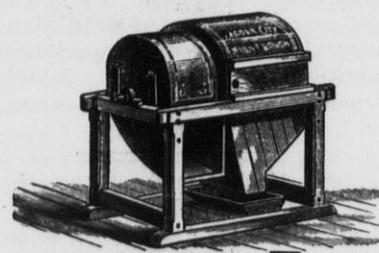


Fig. IV.

A wheat Brush Finisher, Fig. IV, while not always a necessity, unless where the very best results are desired, is nevertheless a great advantage, and pays for itself.

### 1ST BREAK.

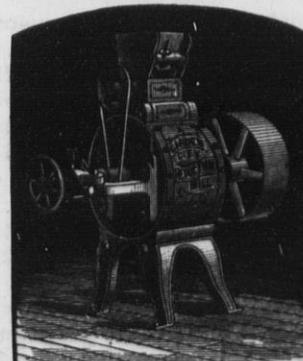


Fig. V.

We next come to the 1st Break, or Wheat Splitting Machine, Fig. V., and can say for even and thorough work the Garden City is so far ahead of all other machines for the purpose, and is so well and favorably known that comment is unnecessary.

### WIRE SCALPER.



Fig. VI.

Fig. VI is an ordinary scalper to follow the first break. A good size machine will be preferable, so as to make a good clean separation, and remove the loose material, and also doing considerable cleaning on that part of the bran that was concealed before the splitting operation took place.

### BRUSH SCALPER.

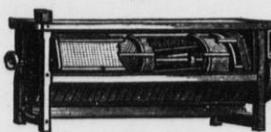


Fig. VII.

Fig. VII is the Garden City Brush Scalper. By this machine the split wheat receives another scouring and brushing, as well as aspirating, and at the same time a perfect separation is made.

If millers comply with this outline of cleaning their wheat, I can truthfully say they have started on the right path, no matter what system they choose to operate on. Even burr millers will be astonished at the change it will make in their output.

I would call particular attention to the Brush Scalper, as I consider this machine and the process the *king of all*. Experts claim that the minute amount of crease dirt in each grain is so small that not much damage can be done to the flour by leaving it in. But when it is considered that it takes upwards of 4,000,000 grains of wheat to make a barrel of flour, it must certainly exercise considerable influence on the color. I would also state that the product of this Brush Scalper, even after the wheat has been thoroughly treated on the ordinary scalper, is much darker than the first break flour. Will experts please explain this? Another question, why do millers who do not use this process of cleaning split wheat, make so much low grade flour?

LOUIS GATHMANN.

Chicago, Ill.

## UNITED STATES MILLER.

E. HARRISON CAWKER, EDITOR.

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We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

S. H. SEAMANS, Esq., Secretary of the Miller's National Association, makes the following announcement:

The date for the Annual Convention Miller's National Association at Buffalo is fixed for Tuesday, Wednesday and Thursday, June 12th, 13th and 14th, German Music Hall. Head-quarters, Genesee Hotel.

THE Jonathan Mills Manufacturing Co., with a capital of \$50,000, has been incorporated at Cleveland, O., for the purpose of manufacturing and selling machines invented by Jonathan Mills, the well-known milling engineer, and others.

MEMBERS of the Philadelphia Commercial Exchange have laid before the Inter-State Commerce Commission, charges that several railroad lines were making discrimination in favor of some shippers by under-billing freight.

A THROUGH RATE where part of the railroads are in the United States and part in Canada as well as a through export rate to Europe are matters which the Inter-State Commerce Commission find difficult to adjust. As it is now, a through rate can be made if railroads and steamship lines agree to carry wheat or flour to Liverpool for the same price as charged to carry it to New York, Philadelphia, Baltimore or Boston.

J. R. SIMPSON, Huntingdon, Pa., Sec'y of the Pennsylvania Millers' Insurance Co., reports for the first year, business policies to the amount of \$357,850 at a cost to the insured of only \$2,332.15. Fortunately there were no losses during the year.

THE president of a large cement manufacturer has recently asked the U. S. MILLER if any cement factory, was successfully using rolls for reducing, instead of stones. We do not know, in fact we know little concerning that branch of the grinding trade. Perhaps some of our readers can give us some information on the subject.

PUBLIC opinion seems to be growing constantly more and more unfavorable to the use of lightning rods. Few people now-a-

days have confidence in them. Perhaps the over-loquacious lightning-rod peddler has done more to hasten the conclusion than anything else. The time for thunder and lightning storms is fast approaching and lightning has a way of its own for striking and has been known to pass harmlessly over an unpretentious dramshop and "knock to smithereens" the lightning-rod protected and costly steeple of the fashionable sanctuary.

A FEW persons are yet trying to invent a bran-packer that will be practical. The last heard from was in Gloucester, England. A great number of models and drawings of bran-packers have been filed in the office of the Secretary of the Millers' National Association in Milwaukee, but none have so far been considered really worth putting on the market. The trouble seems to be not in packing in the required space but in keeping it packed.

## NOTICE TO MILLERS AND ELEVATOR OWNERS.

SAMPLE COPIES of this number of THE UNITED STATES MILLER are sent to a large number of flour mill and elevator owners, etc., throughout the United States and Canada from the list as given in Cawker's American *Flour Mill and Elevator Directory*. If there is any mistake in the address, such as style of firm, spelling of name or anything else, please write us stating the correct address. It is worth a good deal to any miller, big or little, to be correctly represented. It would be best to send your business card and also to state capacity, kind of power used, whether stones or rollers or both are used, etc. Address all communications to E. Harrison Cawker, Publisher, Milwaukee, Wis.

THE subscription price of the UNITED STATES MILLER is only ONE DOLLAR per year. Now is your time to *get on the list*. During the year there are going to be lots of "ups and downs" and "ins and outs" and "things wise and otherwise" that will be first chronicled in the columns of this paper, even if it don't come out but once a month.

## OFFICIAL ANNOUNCEMENT.

THE annual convention of the Millers' National Association will be held in the German Music Hall at Buffalo, Tuesday, Wednesday and Thursday, June 12, 13 and 14, 1888. This will be a mass convention. All merchant millers, regardless of membership, are invited. The reforms contemplated will be presented to the convention by prominent committees, in shape to be discussed understandingly. All matters of general interest pertaining to the milling industry, will come before the convention for discussion. Invitations have been extended to representative bodies interested in the flour trade in Europe to send delegates, and assurances have been received that a liberal number will accept. This is intended to be a business convention of business men, for the purpose of reforming abuses, and improving the methods now existing for doing the business, and adopting such regulations as may be advantages and for the general good. Our Buffalo friends assure us a hearty welcome, and the arrangements they contemplate for the pleasure and comfort of visitors will be appreciated by all. Milwaukee, March 1888.

S. H. SEAMANS, Sec'y.

We are pained to learn that the old veteran Judge Loomis, so well known in the trade as the agent of leading millbuilding and furnishing houses, has after months of illness been transferred to the St. Vincent Hospital for the Insane, in St. Louis, and is now pronounced to be in a dying condition. For two generations he has served in his useful capacity and it may truly be said of him "there might be better men, but there are not."

THE demand for barrels for flour is constantly decreasing. Sacks take the place of barrels quite satisfactorily. It seems to be only a question of time when the barrel will have "to go" almost entirely. An empty flour barrel generally finds its way into the cook stove, but the empty sack is always handy to have about.

Now that some of the Philadelphia bakers have been sent to prison for giving a nice rich color to their cakes, rolls, buns, etc., with that delightful lead-poison yclept chrome yellow, perhaps the critical portion of the public will cease talking about adulterations of flour with talc and alum by millers. Few and far between have been adulterations of the latter sort which, if practiced, might be considered harmless in comparison with the death dealing lead poison. We like to see a critical public and when it really finds an abuse, we like to see it "down it" in a vigorous manner. If the canned goods, jellies, preserves, pickles, spices and dozens of other things that might be mentioned are kept as free from injurious and fraudulent adulterations as American flour then ought we all to be happy, contented and long-lived.

BRADSTREET's says that "The consumption of wheat in the United Kingdom for the last two years, according to English authorities, has not been at the normal average of 5 bushels per capita. The population of Europe increased from 289,000,000 in 1860 to 347,000,000 in 1886, or rather more than 20 per cent. in 26 years, or less than 1 per cent. annually. When consumption is normal and industries are prosperous the consumption of wheat should be augmented at least 1 per cent. annually."

THE directors of the Peoria (Ill.) Board of Trade recently adopted the following resolution, and request all other Boards of Trade and U. S. Senators and Members of Congress to aid in securing the passage of a bill containing the desired relief:

*Resolved*, That it is the opinion of this Board that the Interstate Commerce law should be so amended as to require all railroads engaged in Interstate Commerce to issue all bills of lading for exact amount of grain loaded in cars, and to deliver the same amount at destination.

OUR "E. C." *Millstone*, has for some time printed a department for the edification of readers, under the caption of "The Liar," in emulation of the example set by another, in the days when chestnuts were green. Under this heading in the March number the saddest prevarication strikes us as the following: "I have found your journal to be of great interest and am much pleased with it.—Levi Cox"—Wonder how Cox (if there be such person) feels in the face of the accusation—whether he attributes it to editorial modesty or misplaced confidence?

THE annual meeting of the Indiana Millers' Association will be held in the Capitol building, Indianapolis, Ind., May 8, 1888. The programme is laid out for a three days' session, and it is thought that there will be a rousing meeting. Several valuable papers will be read for the edification of visitors.

SCRIBNER'S MAGAZINE will at once commence the publication of a series of illustrated articles on RAILROADS.

THE *Milling World* advises millers suffering from what it calls the "miller's cold in the head" to syringe out the nasal passages once or twice a day with warm weak brine. Did the editor of the *Milling World* ever try the remedy? We know he is not a miller, but then did—he—ever—try—it? We did once, just once, no more—some years ago, after reading the advice in some infernal agricultural paper and when we finished the delectable performance and recovered our senses we were sincerely thankful that our nose was still left. It may possibly do for a common, tough-skinned, double dyed-in-the-wool, oak-tanned every-day miller, but we know it will never do for editors with noses of the Grecian cut. Go, my brother, and put thine own nose in brine before advertising it for others use.

THE Millers of St. Louis and the Missouri Millers' Association are vigorously trying to bring the Southern Railway and Steamship Association to make as reasonable concessions as eastern rivals have done, *i. e.*—to grant equal rates on wheat, and flour in barrels or sacks. They present strong and unanswerable arguments in favor of their demands, which we have no doubt will be granted in the near future. The millers present the following interesting example of discrimination:

ST. LOUIS GRAIN. BBL. FLOUR. SACK FLOUR.  
to 32c. 68c. 38c.  
ATLANTA.

Against Bbl. Flour as compared with Wheat.... 4c.  
" Sack " " " Bbls.... 8c.  
" Sack " " " Wheat... 12c.  
per bbl.

It is needless to say, that such discriminations are unjust and unreasonable.

ONCE in a while the newspaper man finds an expression that consoles him in a measure for the great amount of labor which he has to perform, much of which is unappreciated by the public. For instance, the eminent Robert Collyer said, "I believe that a good newspaper is as sacred in its own way as the Bible. It has something in it of the very present word of God to man, and the very present word of man to God."

THE Canadian Pacific Railroad has proved to be totally unable to carry Manitoba wheat and flour to market in reasonable time. Perhaps they are too busy carrying Minneapolis flour. Ogilvie's mill in Winnipeg, and others in different parts of the province, are reported shut down for this reason and the trade is brought to a standstill for the time being. The farmers, warehouse men and millers speak in terms anything but complimentary to the road. It has been called the most outrageous railroad monopoly on this continent. If half the charges are true the managers of the road must be kept pretty busy in listening to the complaints of the suffering public or

damning their "bloody" impudence for daring to complain. The provincial residents have this consolation, however, when they can bear their burden no longer, they are welcome to come down from their hyperborean regions and earn and enjoy an honest living in Uncle Sam's domains, where people have rights which railroads are glad to respect.

#### MILWAUKEE ITEMS.

A HUGE traveling, hoisting crane, weighing about twenty tons, in the shop of E. P. Allis & Co., suddenly gave away and fell, killing the crane operator and badly injuring another employee. The crane itself, valued at about \$10,000, is almost a total loss.

MILWAUKEE mills are all doing a good fair business. Some of them have orders on hand now sufficient to keep them running constantly to June 1. Margins are close, but on the whole, little grumbling is heard.

MILWAUKEE boss bakers have recently held a meeting and decided to establish the following retail prices, May 1:

A doz. rolls (3 lbs. of dough).....	10c
The same to the trade.....	8c
A loaf of wheat bread (2½ lbs. of dough).....	10c
A loaf of rye bread (2½ lbs. of dough).....	8c
A loaf of rye bread (3½ lbs. of dough).....	10c

These prices represent a raise of 2 cents all around, the weight remaining nominally the same. However, the light weights said they had been using 2½ pounds of dough right along for a dozen of rolls, and they wouldn't use any more hereafter. One of the heavy weights replied that their rolls must be about the size of doughnuts. Other speakers said that each baker must use his own discretion as to weight; while the west siders were getting a 4½ pound loaf of rye bread for 10 cents, the south siders got a loaf that weighed a pound less. The west siders, too, were partial to big rolls, and of course they must be satisfied. It was said that there were bakers in the city who did not hesitate to sell a dozen rolls for 6 and 6½ cents. These very same men, it was predicted, would cut under rates by giving fifteen or sixteen rolls for a dozen.

WE have been favored with calls during the past month from the following gentlemen, well known to the trade:

Simeon Howes, Esq., of Silver Creek, N. Y.

Mr. Louis E. Barbeau, London, Eng., Manager of British and Colonial business of Howes & Elwell of Silver Creek, N. Y.

M. Geo. J. Teitjen, representing Wilford & Northway, Minneapolis, Minn.

S. H. Seamans, Esq., Secretary of the Millers' National Association, Milwaukee.

Mr. W. J. Turner, of *The Northwestern Miller*, Minneapolis, Minn.

Col. T. P. Rundlett, Chicago, Ill.

THE *Master Steam Fitter* gives the following rule for finding the superficial feet of steam-pipe required to heat any building with steam: One superficial foot of steam-pipe to six superficial feet of glass in the windows, or one superficial foot of steam pipe for every hundred square feet of wall, roof or ceiling, or one square foot of steam pipe to eighty cubic feet of space. One cubic foot of boiler is required for every fifteen hundred cubic feet of space to be warmed. One horse power boiler is sufficient for forty thousand cubic feet of space. Five cubic feet of steam, at seventy-five pounds pressure to the square inch, weighs one pound avoirdupois.

CAWKER'S AMERICAN FLOUR MILL AND ELEVATOR DIRECTORY FOR 1888, issued March 3, is meeting with much praise from all departments of the trade. While not claimed by the publisher to be perfect, it answers FULLY the requirements of the trade. It is the only list published. The demand is limited and the price (Ten Dollars per copy) is cheap, considering the labor required in compiling, printing and selling. It contains lists of flour mill and grain elevator owners, miscellaneous kinds of mills such as corn, rye, oatmeal, rice and feed mills, millwrights, flour brokers and dealers in various sections of the United States and Canada, and a good list of European flour and grain importers. Kind of power used, rolls or stones, capacity and millers supposed to be worth \$10,000 or more are indicated in thousands of cases.

#### THE CONVENTION OF 1888.

The official announcement of the Millers' Convention for 1888 at Buffalo, is made elsewhere and we have not the slightest doubt but it will have a greater attendance than any half dozen of the previous conventions together. We are sure that Buffalo citizens will do all in their power to make the visit to their city on that occasion, pleasant and long to be remembered. It will be worth all it will cost any miller to attend, in the sights he will see and the things he will learn by inspecting the mills, elevators, manufactures, transportation facilities and methods of Buffalo business men. The best posted men in the country will learn *something*, and the miller from the rural districts by keeping his eyes open and listening and asking a pertinent question now and then will learn "*a heap*." We have private information which we are not at liberty yet to divulge that something will be presented to the inspection of visiting millers that will create as much wonder, surprise and enthusiasm as the letting loose of a 10-pound skyrocket would among a tribe of savages.

There is a great deal to be done of the utmost importance to the trade in cereals and cereal products in this country and Europe. A delegation, and quite probably a large one, representing European flour and grain factors will be present and all matters that can be adjusted, will be. We say to the millers of this country, big and little, turn out and go to the Buffalo convention in June. We advise the small millers especially to be on hand for the big ones will certainly be there and where the big miller can pick up a *square meal*, it will be a cold day indeed if the little miller can't get a *mighty good lunch*.

HOWES & EWELL, of Silver Creek, N. Y., manufacturers of the well known Eureka grain cleaning machinery, have again captured a notable prize, viz.: gold medal diploma, at the Toulouse exposition, recently held at Toulouse, France. The regularity with which the machinery of this firm carries off prizes at foreign expositions, speaks well for the skill of American workmen as well as for the high degree of excellence possessed by the manufacturers of this old established firm.

**THE STANDARD OF EXCELLENCE EVERYWHERE**  
**EUREKA.**  
**GRAIN CLEANING MACHINERY.**  
 OVER 24,000 IN USE.  
 BUILT ONLY BY  
**HOWES & EWELL** SILVER CREEK N.Y.

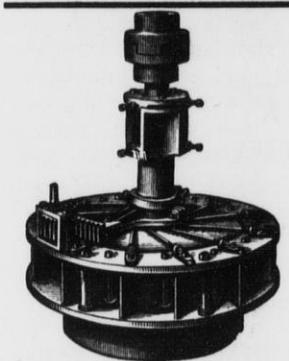

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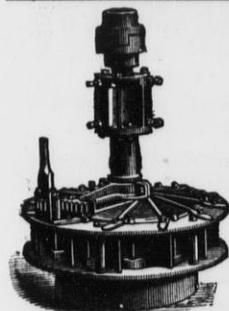
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Fine New Pamphlet for 1887.

The "OLD RELIABLE" with Improvements, making it the **Most Perfect** Turbine now in use, comprising the **Largest** and the **Smallest** Wheels, under both the **Highest** and **Lowest** Heads in this country. Our new Pocket Book sent free. Address,

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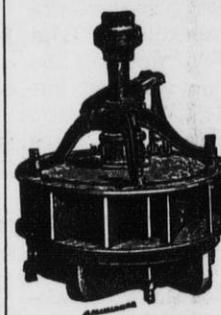
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**Improved + Walsh + Double + Turbine**

This wheel has a perfect fitting cylinder gate and draft tube combined, and allows no water to escape when closed.

**POWER GUARANTEED**

equal to any wheel on the market using equal amount of water. Address for particulars,

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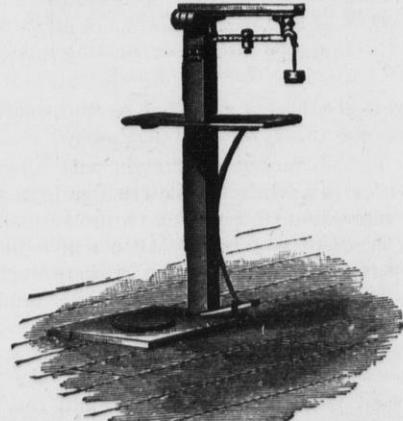
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**ALL KINDS OF MILL AND ELEVATOR SCALES.**

**THE HARRISON CONVEYOR.**

*Clean Work. No Mixing of Grain.*

FOR HANDLING

**Grain, Coal, Sand, Clay, Tan-Bark, Ores, Wet, Dry or Crown Malt, Seeds, Shavings, Sawdust, Lime, Hair, Cement, Cotton Seed, etc., etc.**

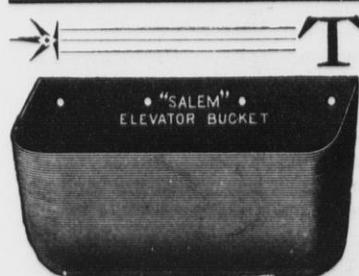
Write for Catalogue and Grain Dealers' Ready Reckoner.

**BORDEN, SELLECK & CO., General Agents,**

48-50 LAKE STREET,

**CHICAGO. ILL.**

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is the original round cornered Elevator Bucket and its shape is broadly covered by a foundation patent.

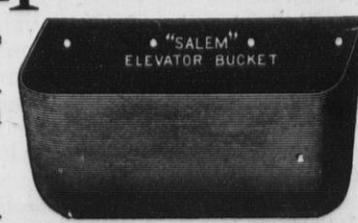
All buckets of the same shape, though produced by a different process, trespass upon our rights, and render dealers and users as well as manufacturers liable for damages.

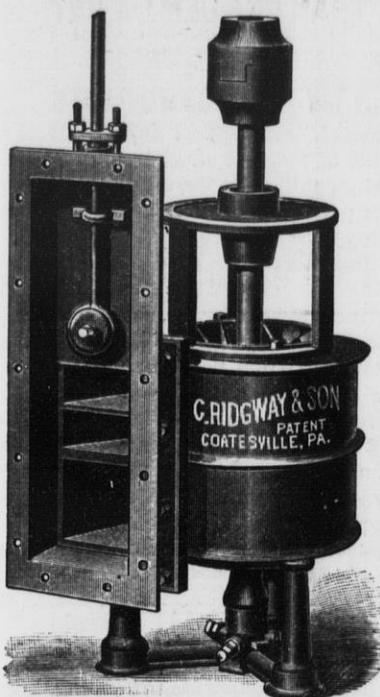
**AVOID INFRINGEMENTS.**

All legitimate "Salem" Buckets are plainly marked with the word SALEM.

**W. J. CLARK & CO., Sole Manufacturers, SALEM, OHIO.**

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# THE "PERFECTION" IS KING!

85 Per Cent. at **HALF GATE,**  
**THREE QUARTER GATE,** } We Guarantee 80 Per Cent.  
**FULL GATE,**

## SAVES ALL COST OF PENSTOCK.

**Light Gate!** **Extreme Simplicity!** **No Clogging!** **Dozen Other Virtues!**

## TO GOOD TO BE TRUE, EH!

Well, you don't pay for it till it does all we say in your own mill before your own eyes.  
 Remember that!

## BEATS ANY OVERSHOT EVER BUILT.

Because it gives same high percentage at part as at full gate, and is the only Water Wheel in the world that does so. Besides its Perfectly Tight Gate, Absolutely Tight.

## DON'T BUY AN ENGINE AND BOILER To help out your failing water power in dry times until you properly improve the water power with this magnificent Water Wheel which gives you a high percentage when water is low. SAVES THE NECESSITY OF STEAM POWER.

### INVESTIGATE THIS WHEEL.

It costs nothing to write us and get our Circulars and learn our terms of sale. We save you money and IMPROVE your power.

### IF WE DON'T, YOU DON'T PAY US, THAT'S ALL.

Besides, Besides, Besides, Besides, we will also agree to set the "Perfection" beside or in place of your present wheel, and if we don't beat it (not EQUAL, mark you, but BEAT it) will give you the Perfection for nothing. Isn't that fair?

## CRAIG RIDGWAY & SON, COATESVILLE, PA.

### FLOUR EXPORT RULES.

The following are the general regulations governing Export Sales of Flour, adopted by members of the MILLERS' NATIONAL ASSOCIATION of the U. S. A., and are made a part of the Code Conditions upon which basis *all sales must hereafter be conducted.*\*

**LIABILITY FOR DELAYS IN TRANSIT.**—In case of c. i. f. sales, the MILLER OR SHIPPER having contracted the freight with a regular line, having regular advertised sailings, and having delivered the flour to the forwarding agent within the contract time, *shall be free from all liability arising from delay in transit.*

**INSURANCE.**—Insurance on flour sold on c. i. f. terms to be not less than 10 per cent. above the net invoice value. Any marine loss on c. i. f. sales will act as a release to the seller on that contract or so much of it as is included in the shipment to which the loss occurs, and the seller shall not be obliged to replace any of said shipment by reason of the sale being made on c. i. f. terms.

**INSURANCE ON CONSIGNMENTS** shall not be less than 10 per cent. in excess of draft or bill of exchange against the same.

Insurance money collected from marine loss on consignment shall pay:

1. The draft against consignment.
2. A reasonable commission, not to exceed 1½ per cent. for the consignee.
3. The balance shall belong and revert to the consignor.

**CLAIMS ARISING FROM INFERIOR QUALITY.**—If a flour shipment is not up in quality to

the type sample, but comes near enough to be considered a "fair tender," the purchaser is obliged to accept the shipment at purchase price less the actual difference in quality.

Flour consigned for sale when once sold by the consignee and delivered to the buyer, must release the shipper from further liability as to quality, condition or price. The custom now prevailing in some European ports of allowing purchasers to return flour on various pretexts, more or less time after delivery, is unjust to the shipper, and contrary to sound business principles.

**SALES** of consigned flour, made in regular form and so reported to the consignor, shall be final. We shall not recognize the arbitrary right exercised in some ports by the purchaser releasing himself at his own convenience of a bargain on "next market day," or at any other time.

**BILLS OF LADING** to ports which have no regular steamship connection with the United States, shall be considered *through bills* if made to principal ports with the reshipment clause inserted.

\*The Telegraphic Cipher Code referred to is published by the Riverside Printing Company, Milwaukee, Wis.

*Communication from J. A. McAnulty of the Hazelton Mill Furnishing Co., Minneapolis, Minn.  
 Manufacturers of the Celebrated  
 Roller Mill Feeders.*

In the management of Flour Mills much is saved in carefully looking after the machinery, and always having the proper kind to carry out the different

reductions, separations, &c. Many well equipped mills are weak in some particular branch which does not seem to cut a very great figure, but which does in fact amount to a great loss in a year's run. These weaknesses are not always the fault of the miller, as he as a rule knows all the weak points in his plant, and as a rule would provide remedies at once if the proprietors were satisfied with the expense necessary to provide the necessary machine or thing. Millers soon learn to know the kind of men they work for. Some proprietors have more liking for a miller who never asks for new machinery; their millers naturally do not ask for any they can in any way get along without. Other proprietors wish their millers to be trying all the new machines offered that have any plausible showing of bettering their condition. This class of mill proprietors are the ones that you will find at the front. You will find them selling flour when there is any selling. Why? Because their flour is up to the standard. Their mills are supplied with the very best machinery, tested in their own mill, on their own wheat, this is the proper method of buying machinery. Try it first, then buy if the machinery suits your requirements, do not buy on the recommendation of a friend who is milling in another state, on different wheat and for a different market, but buy what you have found to be the best suited to your own particular work. If mill furnishers will not let you try their machinery before buying, give them the go-by and find others that will. Mill proprietors do not always know the actual wants of their millers. Not because the miller does not know what he wants, but because he dislikes to ask for the thing needed. This is particularly the case when milling is dull. The miller hesitates to ask for needed machinery, knowing the proprietor is not feeling well able to buy. I think it would be for the best interests of both miller and proprietor to speak freely. The miller to have less reserve in speaking of things needed. The proprietor should encourage the miller to be frank in stating what could be used to benefit the mill. Oft times this procedure would bring about changes and improvements that would make a losing mill a paying one.

## FOREIGN NOTES.

THE increase in custom duties on cereals imported into Germany is as follows for 220.5 pounds: Wheat from 71 to \$1 19; rye from 71 to \$1 19; oats from 35 $\frac{1}{2}$  to 95 cents; Buckwheat from 23 $\frac{1}{2}$  to 47.6 cents; pulse from 23 $\frac{1}{2}$  to 47.6 cents; barley from 35 $\frac{1}{2}$  to 53 $\frac{1}{2}$  cents; Indian corn from 23 $\frac{1}{2}$  to 47.6; toilet powders, starch, gluten, arrowroot and sago substitutes and tapioca from \$2 14 to \$2 97; vermicelli and macaroni from \$2 28 to \$3 21; mill products of grain and pulse from \$1 78 $\frac{1}{2}$  to \$1 49.

THERE are, according to the latest official report, in New Zealand, 121 flouring mills, 47 using steam power; 6 steam and water; 66 water, and 1 wind mill. These mills employ 448 persons. The total value of mill property is placed at about \$1,500,000.

IN England distress is growing almost intolerable among the working classes. There are 14,500,000 persons whose wages are less than \$2 50 per week, and there are 7,000,000 people who are classed as paupers—that is, supported wholly or in part at public expense. It is proposed to encourage emigration by paying the whole or part of the passage money to English colonies out of the public treasury.

A great many of the best flouring mills in Great Britain are reported shut down or running only on short time. Too much American flour and too little American wheat seems to be at the bottom of their troubles.

Mackenzie & Sons mill at Montrose, Scotland, burned Feb. 14. Loss, £10,000; well insured.

AUSTRALIAN millers are paying 82 cents per bushel for their new wheat crop.

WE clip the three following items from *The Millers' Gazette* (London):

Uruguay with its 450,000 inhabitants, has adopted a sliding scale for its grain import duties. When wheat is worth 35s. per 480lbs., the duty is 11s. per qr.; when 35s. to 43s. 9d. it is 8s. 9d.; 43s. 9d. to 52s. 6d., 6s. 6d.; 52s. 6d. to 61s. 3d., 1s. per qr. Above 61s. 3d. wheat is admitted free. On flour the duty varies from 27 $\frac{1}{2}$  per cent. *ad valorem* when the price is 16s. 6d. to 20s. per sack, down to 7 $\frac{1}{2}$  per cent. when the price is 42s. per sack.

The export trade in flour from South Australia during 1887, although it only embraced 156 tons to Europe, underwent a large increase compared with 1886, the total exports being 66,482 tons, against 43,000. New South Wales, which took 20,901 tons, and Queensland with 24,826 tons, were the best customers. With a surplus of wheat this year of 400,000 to 500,000 tons, it is to be expected that Australian millers will have a busy season—although unless they can reduce their prices considerably, they cannot hope to compete with America in the English markets.

IRISH PORT DUES ON IMPORTED FLOUR.—The Limerick Harbor Commissioners, at a special meeting held on Thursday last, decided by a majority of three to two—two members not voting—to impose a tax of 2s. per ton (3d. per sack) on foreign flour shipped direct to the port, which is the amount stated in the bill being promoted in parliament for the revision of the Limerick harbor dues. In Dublin and Waterford there is no charge on imported foreign flour, while in Cork and Galway it is 1s. per ton.

## CUTTING BELT HOLES.

Experienced millwrights should have a rule or system for cutting the belt-holes through floors without ripping up the floors, or literally "cutting and trying." In no mechanical job is there more temptation to use "cut and try" method than in cutting belt-holes, but this tendency is only because of a lack of knowledge. The laying out and cutting of belt-holes is one of the simplest processes, whether the belt is to run on pulleys of the same diameter or of varying diameters, whether the belt runs vertically through the floor or at an angle, and whether the belt runs on parallel shafts or on those placed at right angles. This last is known as the "quarter-turn" belt, and cutting the holes for it without mangling the floor, is generally considered a difficult job. It is not so, but is quite as simple as cutting for belts to run on parallel shafts.

When the two shafts to be connected are on a vertical line, and the two pulleys are of the same diameter, it is, of course only necessary to drop a plumb-line from the faces of the upper pulley to the floor. When, however, the pulleys are of differing diameters, or when the two shafts are of differing distances from the wall or any common upright, measurements must be taken as to the actual distance of each pulley from one common upright, as the wall of the building. Then the height of the pulley on the upper floor from the floor; then the thickness of the floor; and lastly the distance of the pulley in the room below from the ceiling.

These data had best be put upon paper, on a scale, for convenience of reference, and then reproduced to size on the door; or if the doors are encumbered, the measurements may be laid out on the floor itself. To illustrate, suppose the upper shaft to carry a fourteen-inch pulley, and is thirty inches from the wall and nine feet above the floor. The lines of position of pulley can be made on the floor, ascertained by a plumb-line. The other (lower) shaft is twenty-four inches from the ceiling, six feet from the wall, and the pulley is twenty-four inches diameter. Allow for the additional thickness of the floor, and lay out the lines on the upper floor.

It will be seen that lines drawn from two points fourteen inches apart to two points twenty-four inches apart represent the two pulleys and their belt. Now, across these lines at the angle formed by the distance of the upper pulley from the wall and the distance of the lower pulley from the wall, draw a line representing the floor—or two lines representing the ceiling and floor. The distances of nine feet (the pulley above the floor) and twenty-four inches (the pulley under the floor), with the thickness of the floor, will give the space that separates the two shafts, if one is directly over the other. This distance must be preserved on the angle or incline represented by the difference of distances from the wall (thirty inches from seventy-two inches), forty-two inches.

If this verbal explanation is not clear let the reader follow it with pencil and paper to scale. It is plain that where the inclined lines touch the top of the lines made for the floor, and where they intersect the lower side of the lines made for the ceiling, are the points where the boring must be made.

The same plumbing for quarter-turn belts is necessary to ascertain the positions of the pulleys relatively to floor and ceiling. It may

be noted that the driving side of these quarter-turn belts is perpendicular; the faces of the pulleys coincide in a vertical line. In the case of this class of belts, the holes through the floor must be wider than the thickness of the belt, as it is turned at an angle. For the driving side of the belt, drop a plumb line. For the other side, take the measurement of distance of pulleys from floor, and the outside of the pulley faces. Lay these faces out on the floor (the diameters of the pulleys, one a circle and the other line, as they are at right angles) and draw lines between (two lines to represent the width of the belt). These lines must be at the distances from point to point represented by the distances of the pulleys from floor and ceiling. Then cross these lines with those for the floor, and the points for boring are shown as above. These measurements ought always to be put on paper, making a diagram to scale; the work is then palpably or demonstratively before the workman.—*The Engineer (London)*.

## WOULD IT NOT BE WELL FOR MILLERS,

To pay particular attention to keeping their entire mill and machinery *always* clean and in perfect order?

To have smooth, hardwood floors especially on the grinding floor?

To insure their mills in their own mutual insurance companies?

To join their State Association and if they have no State Association to join the National Association first and then get a few other wide-awake millers in the state to get together and organize a State Association?

To study carefully all the merits and demerits of the long and short systems of milling with rolls and stones?

To put in a steam-engine of the very best pattern made if you are troubled with a lack of water-power four or five months a year?

To make up your mind if you have a little old-fashioned mill that has not paid expenses and a reasonable profit for four or five years, to quit the business and turn the mill into some other kind of factory which *will* pay in your neighborhood?

To consider well, if you have got the money to remodel with, whether your location is as desirable a one as can be found for a mill?

To think about 1759 times, if by any means you get out of the milling business, before concluding to jump into it again?

To study up the subject of bolting in a thorough manner and determine whether your old-fashioned bolting chests can profitably compete with modern bolting machines?

To learn to distinguish the qualities of bolting cloth so as not to be imposed upon by irresponsible dealers?

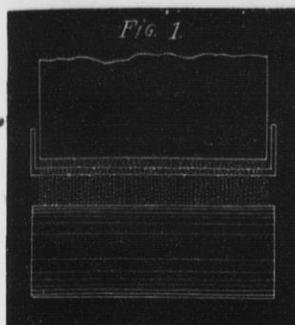
To learn to distinguish between good lubricating oil and "poor to middlin"?

To invest the value of two barrels of your best flour every year in milling, mechanical and commercial newspapers?

To convince yourself that you *need* a machine before you buy it, and to be sure you will have the money to pay for it when the bill comes around?

To learn to clean grain enough and not too much?

To study the science of profitably disposing of your mill products, which is the real object of running a mill anyhow?



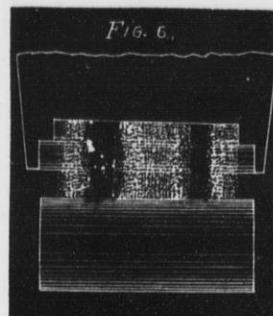
Uniform Sheet as fed by our  
McAnulty Automatic Force Feeders

CAPACITY INCREASED 10 TO 20 PER CENT.—See Sidle, Fletcher, Holmes & Co.'s Letter  
PATENTS INCREASED 4 PER CENT.—See Galaxy Mill Co.'s Letter.

**HASELTINE · MILL · FURNISHING · CO.,**  
MINNEAPOLIS, MINN.,

MANUFACTURERS OF

**McANULTY'S**



Irregular Sheet as fed by the  
Feed Roll with Automatic Gate

# Automatic Force Feeders!

McANULTY'S 1ST BREAK REGULATING FEEDERS AND DISTRIBUTORS.

## OUR GUARANTEE

Is to increase capacity of full Roller Mills 10 to 20 per cent. To save from 3 to 8 lbs. of wheat per barrel of flour manufactured. To increase patents 2 to 5 per cent. without requiring additional power.

### Fills Your Guarantee of 20 Per Cent. Increased Capacity

From SIDLE, FLETCHER, HOLMES & CO.,  
Minneapolis.

Your Force Feeders fill your guarantee to increase the capacity 20 per cent. as your system enables us to treat our sixth Brake stock better with four double Allis mills than we formerly could with five double Allis mills.

Please arrange your system on our "Red Dog" Stock.

### TEN MORE.

### Fills a Guarantee to Increase Patents 4 Per Cent.

From GALAXY MILL CO.,

A. C. LORING, Manager.

They have enabled us to increase our patents 4 per cent. Our grades are improved, our clean-up and yields materially bettered. Please deliver us ten more.

### NEWS.

CLOSED UP.—Duluth Roller Mills, Duluth, Minn.

BURNED.—La Crosse Milling Co.'s feed mill at La Crosse, Wis.

ANOTHER large elevator is to be built in Duluth this year.

BURNED.—Feb. 29, Hawley Bros'. Phoenix Mill at South Bend, Ind.

T. M. NEAL is building a mill at Prescott, Ark. W. Henk at Middlebrook, Va.

APPLEMANN BROS., Chatham, Ky., are rebuilding their mill burned some time ago.

BURNED.—Duelle & Williams mill at Sandusky, O., burned recently. Loss, \$35,000.

F. S. HEATH, Corry, Pa., succeeds Lippold & Heath, dealers in engines, shellers, etc.

THE Tecumseh (Neb.) water power roller mill will be ready to run in about 60 days.

VARIOUS points in Dakota are working like beavers to secure the erection of roller mills.

GEO. RALL & CO., a small milling concern at Fond du Lac, Wis., have made an assignment.

E. P. ALLIS & CO. have the order for Cameron & Tatum's 500-bbl. roller mill at Ft. Worth, Tex.

LAKE grain and ore carriers look for a fair business this year, but not for any very great profits.

BURNED.—J. H. Johnson's mill at Belle Plaine, Minn., is burned. Loss, \$16,000; insurance, \$6,500.

THE Seyk Mill Co., Kewaunee, Wis., will soon have a 150-bbl. roller mill, steam power. E. P. Allis & Co. have the contract.

BURNED.—The Union Flour Mills, Detwitt, Mich., were recently damaged \$31,000 by fire. Fully insured. Will be refitted at once.

BURNED.—J. C. Williams' mill at Davisville, N. Y.; loss \$16,000; insurance very light. Lempke & Van Doren's mill at Millard, Neb.

AT Larimore, Dak., March 16, the 200-barrel roller mill was burned, with the warehouse, elevator and

MARISSA ROLLER MILLS, Marissa, Ill., March 7th, 1888

Enclosed please find draft for \$100.00, to cover bill of January 28th, 1888. We have never put anything in the mill which has given as much satisfaction in operating as these Feeders, bought from your Mr Clark. I hope you will have good success in future with them.

MEEK, FINGER & CO., Props.

Sedalia, Mo., February 27, 1888.

I am now using McAnulty's Automatic Force Feeders, and I can say that it is the finest feeder ever manufactured, and I have used a number of different automatic feeders. I am now taking out the Craig and putting in the above feeders. *The McAnulty's have no superior, nor can they be any more perfect.*

B. S. REMBAUGH.

Millersburg, O., Feb. 18, 1888.

We have your system of Feeders on our Rolls throughout our mill, and can safely say there is no

Feeder made to equal the McAnulty on any and all kinds of Stock, from first brake to the softest low grade. We also have one of your Feeders on our Corn and Feed Roll, which surprised us when we got it to work. It increased the capacity and gives us an even feed the whole length of the roll. We are more than pleased with them.

MAXWELL, HECKER & POMERINE.

Office of THE TERRELL MILLING CO.,

Terrell, Texas, July 14th, 1887.

Hazeltine Mill Furnishing Co., Minneapolis, Minn.

Gentlemen:—The McAnulty Force Feeder shipped us has arrived all right, and we are well pleased with it. You can ship us the following order: Five (5) Feeders, to be used on 9x18 Double Stevens Roller Mills, speed 400, diameter of shafts 2 $\frac{1}{2}$ . One (1) Feeder same as above, with roll shaft 2 $\frac{1}{2}$ . Fit First Brake with your Weighting Regulator. Please ship at once, and greatly oblige.

TERRELL MILLING CO.

A. J. Childers, Pres.; T. M. Kell, Sec'y;

E. J. Lockheed, Supt.

35,000 bushels of wheat. Loss \$65,000; insured for \$42,000.

GEO. T. SMITH ESQ., of the Geo. T. Smith Middlings Purifier Co., will sail for Europe soon to look after extensive business interests there.

GREEN BAY, Wis., will soon give a most excellent modern roller mill. Straubel & Ebeling are preparing to entirely remodel and increase capacity.

THE headquarters of the Farmers' Alliance of Dakota are at Aberdeen, Dak. The company will soon build a number of elevators and warehouses.

NEW coal and flour docks of great magnitude are to be erected at Gladstone, Mich., to accommodate the increased traffic caused by the "Soo Line" of Railroad.

THE Farmers' Alliance of Dakota and Minnesota propose to build a line of elevators of their own. H. L. Loucks, St. Paul, Minn., is president of the organization.

J. A. HINDS & CO. and Davis & Son will soon rebuild their mills at Rochester, N. Y. The Stilwell & Bierce Mfg. Co. have the Davis contract for the Granite mill.

THE Geo. T. Smith Middlings Purifier Co. have taken the contract for building a 150-bbl. roller mill at Dennison, Tex., also a 200-bbl. roller mill at Gainesville, Tex.

THE Mount Vernon Milling Co.'s mill at Mount Vernon, Ill., was damaged to the amount of \$10,000 by the cyclone in February. It is being rebuilt and will soon be in operation again.

NIAGARA Falls Hydraulic Motor and Power Company, of Chicago and New York, has been incorporated. Capital stock, \$15,000,000: to build a plant on Niagara Falls to convert the falling water into power. Incorporators, Dr. K. Morgner and others.

ENGINEERS are building an immense dam at San Francisco, which will be of concrete, 700 feet long, built between two rocky bluffs. It will be 170 feet high, and built on a curve, having a radius of 637 feet. It will be larger than the Quaker Bridge dam at New York.

THE FOX River Valley Millers' Association has its headquarters at Appleton, Wis. S. R. Willy, of Appleton, is president; B. F. Smith, Depere, vice-president; F. J. Lachman, secretary, Neenah, and E. N. Holbrook, treasurer, Menasha. The association is making quiet, but vigorous, movements to improve the traffic rates given to millers in the Fox River valley.

GEO. V. HECKER, the great New York City miller, is dead. His name was known in almost every household in the land. He built up a great business and left an untarnished reputation. He was 70 years of age at the time of his death. He leaves a family consisting of a widow, three daughters and a son, Geo. V. Hecker, who has long been associated with his father in business.

THE flour output of the St. Louis mills during the year 1887 was 1,985,717 barrels, against 1,807,956 in the preceding year, and 1,841,529 barrels in 1885. The amount manufactured by mills outside the city owned by citizens of St. Louis was 910,327 barrels in 1887 and 787,412 in 1886. City mills produced 497,991 barrels of corn meal, 64,987 barrels of hominy and grits, and 3,736 barrels of rye flour.

A FEW figures will serve to show the value to Minneapolis flour shippers of the new C. P. R. route through Canada, and also the value of this carrying trade to the C. P. R. Company. Minneapolis last year turned out 9,375,250 barrels of flour, of which 2,522,030 barrels were exported. A very large portion of the balance was shipped to Boston and the New England States. The distance from Minneapolis to Boston via Sault Ste. Marie is 1,400 miles; via Chicago and Albany 1,559. The distance from Minneapolis to Liverpool via Montreal is 3,947 miles, and via New York 4,463 miles. If the United States authorities do not adopt the example set them by the Dominion Government and refuse bonding privileges to shippers over the Canadian route, the Minneapolis people and those of the C. P. R. will have cause for congratulation in such a mutually profitable arrangement.—*Dominion Mechanical and Milling News.*

## NO OTHER RAILWAY IN THE NORTHWEST

has in so short a period gained the reputation and popularity enjoyed by the **WISCONSIN CENTRAL LINE**. From a comparatively unknown factor in the commercial world, it has been transformed to an independent, influential, grand **Through Route**, with magnificent depots, superb equipment and unsurpassed terminal facilities. Through careful catering to details, it has won for itself a reputation for solidity, safety, convenience and attention to its patrons, second to no railroad in the country. **Pullman** sleepers, models of palatial comfort, dining cars in which the cuisine and general appointments are up to the highest standard, and coaches especially built for this route, are among the chief elements which have contributed towards catering successfully to a discriminating public. Located directly on its line, between **Chicago** and **Milwaukee**, and **St. Paul** and **Minneapolis**, and **Chicago** and **Ashland** and **Duluth**, are the following thriving cities of Wisconsin and Michigan: **Burlington**, **Waukesha**, **Fond du Lac**, **Oshkosh**, **Neenah**, **Menasha**, **Stevens Point**, **Chippewa Falls**, **Eau Claire**, **New Richmond**, **Hurley**, **Wis.**, **Ironwood**, **Mich.**, and **Bessemer**, **Mich.**.

For details, information, lowest current rates, berths, etc., via this route, to any point in the **Northwest**, apply to nearest Ticket Agent, or address

**WM. S. MELLEN, JAMES BARKER,**  
General Manager. Genl. Passr. & Ticket Agt.  
MILWAUKEE.

**COLUMBUS**  
**BUGGY & COMPANY,**  
COLUMBUS, OHIO,  
Manufacturers of FIRST-CLASS -  
**Buggies, Surrays**  
PHAETONS,  
Park Wagons, Light Carriages.

*Our work is fully Guaranteed and absolutely reliable.*

**BEST FOR LIVERY SERVICE!**  
**FOR FAMILY SERVICE!**  
For PLEASURE DRIVING

### POINTS OF SUPERIORITY :

Superior Material and Workmanship, Fine in Finish, Easy in Riding Qualities, Light in Draft,

Unsurpassed in Durability,

Cheapest for Quality of Goods in the World.



Owes and operates nearly 5,650 miles of thoroughly equipped road in Illinois, Wisconsin, Iowa, Missouri, Minnesota and Dakota.

It is the Best Direct Route between all principal points in the Northwest, Southwest and Far West.

For maps, time tables, rates of passage and freight, etc., apply to the nearest station agent of the **CHICAGO, MILWAUKEE & ST. PAUL RAILWAY**, or to any Railroad Agent anywhere in the World.

**R. MILLER.** A. V. H. CARPENTER,  
General Manager. Genl' Pass. and Tkt. Agt.  
**J. F. TUCKER.** GEO. H. HEAFFORD,  
Ass't Gen'l Manager. Ass't Gen'l Pass. and Tkt. Agt.  
MILWAUKEE, WISCONSIN.

For information in reference to Lands and Towns owned by the **CHICAGO, MILWAUKEE & ST. PAUL RAILWAY COMPANY**, write to H. G. HAUGAN, Land Commissioner, Milwaukee, Wisconsin.

## THE CHICAGO AND NORTH-WESTERN RAILWAY.

Penetrates the Centres of Population in  
**ILLINOIS, IOWA,**  
**WISCONSIN,**  
**MICHIGAN,**  
**MINNNSOTA,**  
**DAKOTA,**  
**NEBRASKA AND WYOMING.**

Its TRAIN SERVICE is carefully arranged to meet requirements of local travel, as well as to furnish the most attractive routes for through travel between important

### TRADE CENTRES.

Its EQUIPMENT of Day and Parlor Cars, Dining and Palace Sleeping Cars is without rival.

Its ROAD-BED is perfection, of stone-ballasted Steel.

The North-Western is the favorite route for the Commercial Traveler, the Tourist and the Seekers after New Homes in the Golden Northwest.

Detailed information cheerfully furnished by

**JNO. S. GEORGE,**  
Commercial Agent, Milwaukee, Wis.

**MARVIN HUGHITT,** H. C. WICKER,  
Vice-Pres't and Gen'l Manager. Traffic Manager.

**E. P. WILSON,**  
Gen'l Passenger Agent.

## "TRIUMPH" CORN SHELLER

CAPACITY  
2000 BUSHELS PER DAY.

Shells wet or dry corn.  
CHEAPEST AND BEST SHELLER.

PAIGE MANUF'G CO.,

No. 12 Fourth St., Painesville,

[Please mention this paper when you write to us.]

## ASHLAND M.L.S.&W.R.Y. ROUTE

The Milwaukee, Lake Shore & Western Railway has been well named the Fishing and Hunting Line of Wisconsin, passing, as it does, through thousands of acres of but partially explored woods and within easy reaching distance of lakes and streams that have never been fished by white men, all well stocked with the game fish for which Northern Wisconsin waters are noted. The woods abound with game; deer, bear, wolf, mink, beaver, pheasant, and other deer are quite plentiful.

### THE ONLY LINE

From Milwaukee to the new Iron Mining District in Wisconsin and Michigan that reaches ALL of the developed Mining towns: GOGEVIC, WAKEFIELD, BESSEMER, IRONWOOD and HURLEY.

Direct line to **ASHLAND** and **CHICAGO**.

Sleeping cars between **ASHLAND** and **CHICAGO**. The **GUIDE BOOK**, and other descriptive matter, containing full information, maps and engravings of the country traversed by the line, will be sent to any address on application to the General Passenger Agent.

**CHAS. L. RYDER**, Gen. Agent, 105 Washington St., Chicago.

City ticket office, 62 Clark St., Chicago.

Chicago Depot, Cor. Wells and Kinzie Streets, (C. & N. W. R.Y.)

City ticket office, 102 Wisconsin St., Milwaukee.

**F. WHITCOMB**, **CHAS. V. MCKINLAY**, Gen'l Manager.

MILWAUKEE WIS.

## Milwaukee & Northern R.R.

## SHORT LINE

BETWEEN

### CHICAGO, MILWAUKEE, Menasha, Neenah, Appleton, Depere, Green Bay, Ft. Howard, Marinette, Menominee, IRON MOUNTAIN.

**3 EXPRESS TRAINS DAILY**  
BETWEEN  
Chicago, Milwaukee,  
Appleton and Green Bay.

**2 EXPRESS TRAINS DAILY**  
BETWEEN  
CHICAGO, MILWAUKEE,  
Menominee and Iron Mountain.

Elegant Pullman Palace Sleeping Cars on all Night Trains.

### CONNECTIONS.

At Milwaukee, in New Passenger Station with C. M. & St. Paul R.Y. and Wisconsin Central Line. At Plymouth, with C. & N. W. R.Y. for Sheboygan, etc.

At Menasha, with W. C. Line.

At Neenah, with W. C. Line.

At Appleton, with M. L. S. & W. R.Y. and C. & N. W. R.Y.

At Forest Junction, with M. L. S. & W. R.Y.

At Green Bay and Ft. Howard, with G. B. W. & St. P. R. R. and Stage and Boat for Sturgeon Bay.

At Oconto Junction, with M. L. S. & W. R.Y. for Oconto.

At Menominee, with C. & N. W. R.Y.

At Iron Mountain, with C. & N. W. R.Y.

**C. F. DUTTON**, **W. B. SHEARDOWN**, General Supt. Gen'l Ticket Agent.

1888.

1888.

CAWKER'S

## • AMERICAN FLOUR MILL AND ELEVATOR DIRECTORY •

\* FOR 1888 (COPYRIGHTED) \*

IS NOW READY FOR DELIVERY. This Directory is far more complete than any of the five preceding ones. Our long experience has taught us the wants of the trade, and we have used our best endeavors to meet them. The principal features are as follows:

- 1.—List of *Flour Mill owners of the United States and Dominion of Canada, with Post Office address, County and State, and when information is obtained, the capacity in barrels of flour per day of 24 hours, kind of power used (steam or water), roller or stone system.*
- 2.—Lists of *Corn, Oatmeal, Rice, Feed Mills, etc.*
- 3.—List of *Grain Elevators and Warehouses.*
- 4.—List of *Millwrights.*
- 5.—List of *prominent American Flour and Grain Brokers.*
- 6.—List of *Foreign Flour and Grain Importers.*
- 7.—List of *Mill Furnishers, etc.*
- 8.—Statistics valuable to the Trade.
- 9.—Millers whom we believe to be worth Ten Thousand Dollars or more will be indicated.

This directory gives the address of 16,062 Flour Mills in the United States and 1,634 in the Dominion of Canada. The additional lists of Feed, Corn, Barley, Oatmeal and Rice Mills, Elevators and Warehouses, Millwrights, Flour and Grain Brokers, Importers, etc., adds to the number of addresses several thousand. The COUNTIES are included in the address, and in cities, the street and number in most instances. We have had valuable aid in compiling this work from Secretaries of Boards of Trade, of Bureaus of Labor Statistics and Manufactures, from Railroad and Steamship Companies, from the milling and commercial press generally, and from mill and grain elevator owners themselves. That the work is *perfect*, we do not claim, for in the nature of things that is an impossibility, but as it is, it is indispensable to all desiring to reach the flour and grain trade of this country, and is *well worth the price asked*. The total number of addresses contained in this volume is 22,827.

**Price of Directory, \$10 per copy, post paid to any address.**

If desired Directory will be sent by express C. O. D. Remit by Express or by Exchange on New York, Chicago or Milwaukee, or Post Office or Express Money Order. Address,

**E. HARRISON CAWKER, PUBLISHER,**  
**No. 124 Grand Avenue, MILWAUKEE, WIS.**

1888 Edition, just out, March 1, 1888, revised, amended and added to, to meet all the requirements suggested by the members of the Millers' National Association, who use more copies of this Code, than of all others combined.

## PRIVATE TELEGRAPHIC CIPHER

## CODE

COMPILED EXPRESSLY FOR THE USE OF

## MILLERS, FLOUR AND GRAIN BROKERS,

For Private Telegraphic Correspondence, either  
for Land or Cable Lines.

This CODE has been approved and is used by the best firms in America and Europe. It contains Flour Tables, Bran Tables, Middlings Tables, Flour Grades and Brands, Time of Shipment, Dates, Names of Places and American Currency, Sterling Quotations, Table on Limits, etc., Drawing, Credits, etc., and Shipments on Joint Account, Miscellaneous, Market Upwards, Market Downwards, Insurance, Shipping and Freight, Shipping by Regular Lines of Steamers, Finance, Bankers' Names, Standing of Firms, Telegraphing, Advices, Commission, Stocks and Crops, Weather, Samples and Quality, Equivalent in Sacks in Barrel Quantities, Commission Tables, Interest Tables, Equivalent Flour Prices in Currency, Sterling, Francs, Guilders, and Marks, Comparative Tables, Sack and Barrel Flour, Ocean Freight Rates (Comparative Table), Sailings from Sea Board (Table), Key to Sailings from Seaboard Table, Foreign Weights and Measures, etc. We respectfully refer to the following well-known firms: S. H. Seaman's (Empire Mills), Sec'y of the Millers' National Association; E. Sanderson & Co. (Phoenix Mills), Milwaukee, Wis.; Daisy Roller Mills, Milwaukee, Wis.; Nunnemacher & Co. (Star Mills), Milwaukee, Wis.; Roots & Co., (Millers), Cincinnati, O.; C. H. Seybt, (Miller), Highland, Ill.; Kosmack & Co., (Flour Brokers), Glasgow, Scotland; J. F. Imbs & Co. (Millers), St. Louis, Mo.; E. Schraudenbach, Ossauchee Roller Mills, Wis.; Winona Mill Co., Winona, Minn.; Herrick, Kirk & Co., New York; Acme Milling Co., Indianapolis, Ind.; W. H. Jones, New Brighton, Eng.; Chas. Kreutziger, Heidelberg; Wm. and many others.

ADDRESS

THE RIVERSIDE PRINTING CO.,  
124 GRAND AVENUE,  
MILWAUKEE, WIS., U. S. A.

## A NEW USE FOR ROLLERS.

Rollers have revolutionized the milling industry throughout the greater portion of the civilized world and now they are commencing to revolutionize the manufacture of plate glass. The labor of the cylinder blower and glass grinder is to be dispensed with entirely. The new system is now in operation successfully in Belgium and will no doubt soon be introduced here if it is as successful and economical as it is claimed to be. A foreign contemporary thus describes it:

At the Besson glass works (Belgium) a series of rollers have been placed between the tank furnace and the annealing ovens and leers. Through these rolls, similar to sheet mill rolls in iron mills, the molten glass is conducted on to a cooling table by means of a sluice or canal from the tank furnace, the mouth of which is opened and closed at the will of the operator, much the same as the flow of liquid steel is controlled in the ladle used to fill the ingot molds in Bessemer steel manufacture. From this table the glass passes through the sheet rolls, and, after being rolled to the desired thickness (which can be regulated by powerful screws, same as in iron mills) the sheet is conveyed on rollers between two large cylinders, where it is divided into required lengths by means of an ingenious shearing apparatus. All this is done before the sheet cools sufficiently to lose plasticity, and it is thence conveyed by means of rollers (much the same as those now used to convey steel rails from their rolls to the stretchers) to the annealing leers. No human hand touches the glass, and labor compared with the machines used is but a vanishing quantity.

A WEEKLY journal styled "Invention," published at 54 Fleet st., London, E. C., is worthy of the patronage of prominent American inventors. A copy of it should be seen to be fully appreciated and we presume the publishers would forward a sample copy free upon application. We might say by the way that *Invention* gives much attention to American patents.

## PUBLICATIONS RECEIVED.

THE March *Wide Awake* gives a delightful chapter of Sidney Luska's serial story "My Uncle Florimond"—the good humor and good heart of the two noble Jews, Mr. Finkelstein and Mr. Marks, have seldom been surpassed. Mrs. John Sherwood's etiquette-serial "Those Cousins of Mabel's," is very successful in depicting the character and career of a willful young country beauty who thinks her well-bred relatives very "fussy" about her behavior, and learns the wisdom of etiquette by various hard lessons. There are many other articles, pictures, and poems—with the rest an entertaining department called The "Contributors and the Children."

*Wide Awake* is but \$2.40 a year; 20 cents a number at your news stand. In this number is announced a series of ninety-four prizes for contributions suitable for publication in *Wide Awake*. The contribution may be an essay, story, anecdote, poem or humorous trifle. In total these prizes foot up \$2,000. D. Lothrop Company, Publishers, Boston.

Two of the little known religious communities in Pennsylvania—the Harmonites and the Moravians—will have their quaint customs and peaceful abodes described in illustrated articles in the next number of *The American Magazine*. As the Harmonites already light their village with natural gas, and the Moravians have deposited their antiquities in a museum, it would seem that the hand of Progress must ere long sweep away their distinctive features.

MR. KENNAN'S Siberian papers, illustrated by Mr. G. A. Frost, who accompanied Mr. Kennan on his trip through Asiatic Russia, will begin in the May *Century*. Their appearance has been deferred on account of the author's desire to group in preliminary papers—the last of which will be in the April *Century*—an account of the conditions and events in Russia directly related to the exile system. This system is now to be minutely described and elaborately pictured; and by way of preface to the first illustrated paper Mr. Kennan will, in a brief state-

ment, answer the question as to how he came to enter upon his arduous and somewhat perilous investigations, and why he and his companion were accorded such extraordinary facilities by the Russian Government itself. In the April *Century* Mr. Kennan will write of "The Russian Penal Code."

SOME idea of the excellence of *Harper's Magazine* for April may be gained by running one's eye down the column of names on the right-hand side of the table of contents, thus: F. A. Bridgman, William Black, Andrew Lang, Elizabeth Stoddard, Richard E. Burton, C. Coquelin, Joel Chandler Harris, Harriet Prescott Spofford, F. Anstey, Lafcadio Hearn, Charles Dudley Warner, George William Curtis, Charles King, U. S. A., and William Dean Howells. So much for the contributors. Another glance at the titles on the left will show the breadth of the field covered by the articles. The Great West has a liberal portion of space. Dramatic art is discussed by C. Coquelin in "Acting and Authors." The pictorial matter includes the work of Alfred Parsons, F. A. Bridgman, Frederick Barnard, Du Maurier, R. F. Zogbaum, Paul Renouard, C. S. Reinhart, and E. A. Abbey.

BRADSTREET'S of March 17, says: On June 30, 1887, in Dakota, there were 241 licensed grain elevators, having a storage capacity for 8,600,000 bushels of grain, besides which there are 265 grain elevators that have applied for licenses but had not completed their bonds, and 308 elevators that claim to do a private grain-storage business. The Port Arthur elevators and sheds had in the middle of February 414,000 bushels of wheat on storage, and the Fort William elevators and sheds 1,492,000 bushels of grain. The total storage capacity at the latter point is now 1,800,000 bushels. The Canadian Pacific road is to build another elevator of 750,000 bushels capacity, making an aggregate storage capacity of 2,550,000 bushels.

## SCIENTIFIC METHODS.

Scientific methods bear the same relation to intellectual progress that tools, instruments, machines, mechanical contrivances—of all sorts, bear to material progress. They are intellectual contrivances—indirect ways of accomplishing results far too hard for bare-handed, unaided intellectual strength.

As the civilized man has little or no advantage over the savage in bare-handed strength of muscle, and the enormous superiority in accomplishing material results is due wholly to the use of mechanical contrivances or machines, even so in the higher sphere of intellect, the scientist makes no pretension to the possession of greater unaided intellectual strength than belongs to the uncultured man, or even perhaps to the savage.

The amazing intellectual results achieved by science are due wholly to the use of intellectual contrivances or scientific methods. As in the lower sphere of material progress the greatest benefactors of the race are the inventors or perfectors of new mechanical contrivances or machines, so also in the higher sphere of intellectual progress the greatest benefactors of the race are the inventors or perfectors of new intellectual contrivances or methods of research.

To illustrate the power of methods, and the necessity of their use, take the case of the method of notation, so characteristic of mathematics, and take it even in its simplest and most familiar form: Nine numeral figures, having each a value of its own, and another depended upon its position; a few letters, a and b, and x and y, connected by symbols,  $\times$  and — and =; that is all.

And yet, by the use of this simple contrivance, the dullest schoolboy accomplishes intellectual results which would defy the utmost efforts of the unaided strength of the greatest genius. And this is only the simplest

tool form of this method. Think of the results accomplished by the use of the more complex machinery of the higher mathematics!

Take next the method of experiment so characteristic, of physics and chemistry. The phenomena of the external world are far too complex and far too much affected by disturbing forces and modifying conditions to be understood at once by bare, unaided intellectual insight.

They must first be simplified. The physicist therefore, contrives artificial phenomena under ideal conditions. He removes one complicating condition after another, one disturbing cause and then another, watching meanwhile the result, until finally the necessary condition and the true cause are discovered. On this method rests the whole fabric of the physical and chemical sciences.—*Popular Science Monthly*.

## GEO. H. CORLISS.

Geo. H. Corliss, the eminent mechanical engineer and manufacturer, died at his home Providence, R. I., Feb. 21, aged seventy-two years. It is said he never saw the interior of a machine shop until after he was twenty-five years old. He began the development of his famous steam engine at Providence in 1846, and two years later he gave to the world the essential features of the world-famed Corliss Engine. Mr. Corliss lived a quiet and retired life, devoting himself entirely to his invention, which has brought him medals of honor from various parts of the globe. He received the highest competitive prizes in the Paris exhibition of 1867, and in 1870 the late Dr. Asa Gray, as President of the Academy, presented him with the Rumford medals. Foreign builders exhibited engines of the Corliss type in the Vienna exhibition of 1873, which won for him the Grand Diploma of Honor, although he exhibited nothing and was not represented. The Institute of France awarded him the Montyon prize in 1878—the highest honor for mechanical achievement known to the world. Aside from these, medals from foreign potentates and societies have been sent the distinguished minister from time to time. His most notable exhibition was at the Centennial in 1876, when Mr. Corliss was the Commissioner for Rhode Island and one of the committee of seven in charge of the preliminary work. He finished the immense Centennial engine, and devised the system of power which set the whole of machinery hall in motion. It cost him \$100,000, but it was freely given, and stands as the most generous gift of an individual to an international exhibition.

A MERRY TIME.—The plumbers and steam fitters of Kansas City had a dance recently, and, from all accounts, enjoyed themselves hugely. Their programme of dances was elegantly printed, and the selection of music was appropriate. We give some of the numbers to show that the two trades or professions were able to select the music that suited them: "Kid, start your blower;" "Test your job;" "Is your solder hot;" "Put on the pump and gauge!" "Show your diamonds;" "Only a million \$;" "Wash your overalls;" "Where's the tongs?" "Make that joint tight!" "Make out the bill;" "Sixty cents an hour all around;" "We cannot reduce the bill;" "Who cut that pipe?" "Time to quit;" "Measure up the job,"—and others equally fit.—*The Master Steam Fitter*.

**A NOVEL ELEVATOR ENTERPRISE.**

The Scandinavian Elevator Company, recently organized by C. C. Wolcott & Co. and the Farmers' Alliances of Minnesota and Dakota, promises to cut an important figure in the wheat trade of the Northwest during the present season. The main object of the association, as set forth by those principally interested, is to prevent adulteration of the spring wheat of the Northwest, and in that way secure better prices in the Liverpool markets. It is claimed that under the present system of operations at Buffalo elevators, especially, the hard wheat of the Northwest and the soft grains of Kansas are mixed and then exported as Minnesota and Dakota No. 1 hard. As a result, the grades are reduced at the English warehouses, with a corresponding reduction in prices at the expense of the producers of the Northwest. The new elevator combination intends to send the hard wheat through to the Eastern or European markets without adulteration, and thus maintain the high standard of the grain. It is claimed that the farmers are backing the new scheme to the extent of their ability, and branch companies are now being formed in Dakota. A new line of thirty-one elevators will be in operation during the present season, and large transfer elevators will be built in this city and Duluth. With the backing and influence of the Farmers' Alliance this novel competitor for the grain trade of the Northwest threatens to create a lively interest in more than one quarter before the next crop begins to move.—*Pioneer Press* (St. Paul.)

**WATER POWER AT NIAGARA.**

The idea of using water the second time to produce additional power is not a new one, as set forth in the *Niagara Falls Gazette*. The practical advantage of it has been shown by the Niagara Wood Paper Company, and the scheme can be seen in operation at any time of the day or night. The plan was conceived by Stephen M. Allen, one of the builders of the Hydraulic canal, and was put in operation by Walter Jones, of the Niagara Wood Paper Company, who have used successfully for a long time the water drawn through their flume after it has passed through a turbine wheel in their pulp mill. The pulp mill wheel receives the water at a distance of 50 feet from the top of the bank. By means of a tunnel, which extends in a semi-circular form to the same level, the water is secured and saved from being wasted over the bank; it is then directed into a penstock south of the pulp mill where, 50 feet deeper, stands another turbine belonging to the paper mill. The same water is by this means used twice over and secures nearly double power, which is a gain of about \$30,000 to the company. The scheme has been in operation about two years, and is practically the idea as shown in the *Gazette*, with the exception that the water is free from ice troubles. Contractors say it is more practicable than an outside flume which might be injured by gathering ice. A prominent contractor states that he will build a tunnel from the Oneida Community to the Central mill for less money than he will build a flume exposed. The credit therefore of using water a second time from the canal basin belongs to the Niagara Wood Paper

**MILL AND ELEVATOR BUILDERS, MILL FURNISHERS, MANUFACTURERS OF AND DEALERS IN MILL AND ELEVATOR MACHINERY AND SUPPLIES. AN AUTHENTIC BUYERS' GUIDE.**

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**Edw. P. Allis & Co.**, Milwaukee, Wis., builders of complete Flour Mills, manufacturers of Flour Mill Machinery, and dealers in Supplies of every description. [Mr.89.]

**Garden City Mill Furnishing Co.**, Chicago, Ills., Mill Builders, manufacturers full line of Flour Mill Machinery, dealers in Mill Supplies, Bolting Cloth, etc., etc.

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**John C. Higgins & Son**, 165 West Kinzie Street, Chicago, Ills., mfrs. of and dressers of Mill Picks. [Mr.89.]

**Faustin Prinz & Co.**, 659 East Water st., Milwaukee, Wis., manufacturers of Cockle Separators, Cylinders and Grain Cleaning Machinery.

**Howes & Ewell** Silver Creek, N. Y., manufacturers full line of Grain Cleaning Machinery.

**James Lefel & Co.**, Springfield, O., manufacturers of Water Wheels, Engines, etc.

**Pool & Hunt**, Baltimore, Md., manufacturers of Steam Engines, Water Wheels, Flour, Corn, Paper, Saw and Cotton Mill Machinery.

**W. J. Clark & Co.**, Salem, O., manufacturers of "SALEM" Elevator Buckets, etc.

**Thornburgh & Glessner**, 18-22 N. Clinton St., Chicago, Ills., manufacturers of Mill and Elevator Supplies.

**R. C. McCulley**, (P. O. Box 214) Lancaster, Pa., manufacturers Cob Crushers, Cooper's Stoves, Castings, Patterns, etc. [Mr.89.]

**B. H. & J. Sanford**, Phoenix Iron Works, Sheboygan, Wis., manufacturers of the "IMPROVED WALSH DOUBLE TURBINE WATER WHEEL." [Mr.89.]

**John C. Kilner**, York Foundry and Engine Works, York, Neb.: Mill and Elevator machinery of all kinds, Engines, Boilers, Pulleys, Shafting, etc. [Marlyr.]

**The Gutta Percha and Rubber Mfg. Co.**, 159-161 Lake st., Chicago, Ill., Belting and Rubber Goods. [Mr.89.]

**The Avery Elevator Bucket Co.**, sole owners and manufacturers of Seamless Steel Elevator Buckets, cor. Wason, Lake and Dart sts., Cleveland, Ohio. [Mr.89.]

**Richmond Mfg. Co.**, Lockport, N. Y., manufacturers of Grain Cleaning Machinery, Bran Dusters etc. [Mr.89.]

Company, who have it in operation at the present time.

The writer has heard various plans discussed for this purpose, among which as the one now announced as a great discovery, but which was discarded by the Niagara Wood Paper Company several years ago as being inferior to the one adopted by them. There is no doubt but that an immense power that is now going to waste could be utilized by securing the overflows of the different mills and concentrating them in a sub-canal; the proof has been shown by a practical illustration, but parties who have demonstrated the practicability object to giving the credit to other persons and having it called a new plan for utilizing the water power of the canal basin.—*Buffalo Commercial Advertiser*.

**A LARGE FLOUR MILL MANUFACTORY TO BE BUILT AT ONCE.**

A dispatch from Escanaba, Mich., dated March 19, says: The establishment of the Cochrane Flour Mill Manufactory at this place

**Prominent Flour, Grain and Provision Brokers, desiring correspondence with Millers of Wheat, Rye and Buckwheat Flours, and Cornmeal and Corn Products, with a view to Trade.**

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**S. P. Thompson & Co.**, 218 Patterson st., Baltimore, Md. Flour and Grain Commission.

**Magor Bros. & Co.**, Produce Exchange, New York, Shipping and Commission, Flour, Grain and Provisions.

**MILLERS AND MANUFACTURERS OF WHEAT, RYE AND BUCKWHEAT FLOURS, AND CORN MEAL AND CORN PRODUCTS. (WITH NAMES OF SPECIAL "BRANDS" MADE) DESIRING CORRESPONDENCE WITH SOLID HOUSES WITH A VIEW TO TRADE.**

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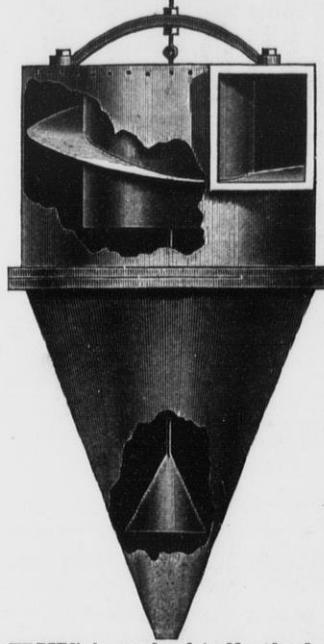
**John Smith & Co.**, Banner Roller Mills. (steam power) Milwaukee, Wis. Daily capacity 150 barrels. Brands: "Seaside," "Beau Ideal," "Chestnut," "Red Cross."

is a settled fact, and work on a \$50,000 building will be commenced as soon as practicable. The mills will be in operation by August 1. At a mass meeting a forty-acres tract of land was donated, and citizens subscribed \$30,000 in stock, while Lieut.-Gov. J. H. McDonald, of this city, and Wm. Cochrane of Washington, D. C., the patentee, took, equally divided, \$370,000, making the capital stock \$400,000. The establishment is for the manufacture of new flour mill machinery which increases the production fully one-third with less power and same mill capacity, while the wheat yields 10 to 15 per cent. more bran, making a higher grade of flour. But one mill is now operating, and that in Canada. From 500 to 600 employees will be given employment.

**Guaranteed Circulation for March and April, 10,000 copies each month.**

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Guaranteed not to Infringe ON ANY OTHER Dust Collector Patent

## NOTICE !

**TO WHOM IT MAY CONCERN :** We, the undersigned, give notice that we have transferred to the Vortex Dust Collector Co., of Milwaukee, Wis., all our right, title, interest and good will in and to our Dust Collector business, heretofore carried on in Indianapolis, and they will hereafter be the sole manufacturers of the "Vortex." Mr. Eugene Bretney, our President and Manager, will superintend the manufacture of said machine in the future.

THE BRETNAY DUST COLLECTOR CO.

THIS is undoubtedly the best machine on the market for Purifiers, Grain Cleaners and Elevators, or in connection with any dust producing machinery, and we respectfully solicit from our milling friends and the trade generally a share of the Dust Collector trade.

### TESTIMONIAL.

INDIANAPOLIS, IND., Feb. 16, 1888.  
To whom it may concern: This is to certify that we have in our two mills twenty Vortex Dust Collectors, manufactured by the Bretney Dust Collector Co. We are very much pleased with the working of them in our mills. We have tried them thoroughly. At first we put in a few, until we now have twenty on our purifiers and wheat cleaning machinery. Too much cannot be said in their praise.

ACME MILLING CO.  
By S. F. ROBINSON, Pres.

SPECIAL SIZES built for ELEVATORS and WOOD-WORKING MACHINERY  
Apply for Prices before Purchasing elsewhere.

No Power! No Attention! No Clogging!  
Perfect Ventilation! Low Prices!

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As required, and solicit orders for  
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machines.

Please favor us with a share of your patronage.

• READ •

Pillsbury A Mill, Minneapolis, Feb. 13, 88.  
To Cockle Separator Mfg. Co., Milwaukee, Wis.

Gents: In regard to your latest improved rolling screen Cockle Machine, we would say we like them very much. The eight we have put in are doing first-class work and we consider them the best cleaning machines we have.

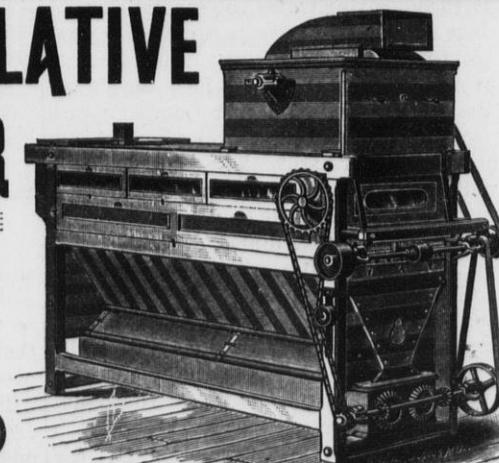
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THIS Machine has built for itself a National Reputation solely through its Superior Merits, and stands to-day a Peer to everything in the bolting line, not alone in **Flour Milling** but for **Buckwheat, Corn Meal, Electric Carbon, Dry Lead for Paints, Salt, Sugar, Foundry Facings, Ground Bone and Soapstone.**

We carry a full line of **Heidegger & Co.'s** Celebrated **Crown Silk Anchor Bolting Cloths and Grit Gauzes.** These Cloths are famous the world over for their great strength and evenness of count.

We have the most experienced cloth makers, and can insure you as good making up of your cloth as can be made anywhere. **GIVE US A TRIAL ORDER.**

The Empire Manufacturing Company furnish us with White Special Webbing that is very strong, pliable and much less elastic than colored webbing or ticking. By favoring us with your cloth orders for any style of Reel or Purifier, you can rely on getting Superior work at satisfactory prices.

We also furnish the very best **Wire Scalping Cloths** made up to fit any kind of Reel.

We shall at once issue a forty or fifty page pamphlet that will interest every one in the Milling business.

WE EARNESTLY SOLICIT YOUR CORRESPONDENCE AND TRADE. ADDRESS

# The Jonathan Mills M'f'g Co., Cleveland, Ohio.

## THE NEW POSTAL RULES.

Congress has given relief to the recent interpretation of the postal law in regard to third and fourth class matter, as rendered by ex-Postmaster General Vilas, and has so amended the law that the construction cannot be perverted so as to give such annoyance, inconvenience and loss as has been occasioned in the recent past. Postmaster General Dickinson has issued a circular, based on the new law, which went into effect on the 20th inst., in which the following appears, covering matters of interest to the general public:

Third-class matter.—On matter of this class, or on a tag, or label attached, the sender may either write or print his own name, occupation, and residence or business address, preceded by the word "from," and may make marks (other than by written or printed words) to call attention to any word or passage in the text, and may correct any typographical errors. There may also be placed upon the blank leaves or cover of any book or other matter of this class a simple manuscript dedication or inscription not in the nature of personal correspondence. There may also be placed upon the envelope, wrapper, tag, or label of matter of this class any printing that is not in its character unmailable as third-class matter, provided there be kept sufficient space for a legible superscription and the necessary postage stamps.

Fourth-class matter.—With matter of this class, properly prepaid as such, the sender may inclose third-class matter; and he may write or print upon the cover, wrapper, or label thereof his name, occupation, residence or business address, preceded by the word "from," and any marks, numbers, names, or letters for the purpose of description. He may also print upon the same anything that is not unmailable as printed matter, and that is not in the nature of personal correspondence, provided there be left sufficient space for a legible superscription and the necessary postage stamps.

From the above it will be seen that the restrictions as to *writing* upon matter of the third and fourth classes are substantially the same as under the old law; but that in general all restrictions as to *printing* on these two classes are removed, except as to the reservation of space necessary for addressing the matter and the placing thereon of postage stamps.

In all cases directions for transit, delivery, forwarding, or return shall be deemed part of the address.

## EDUCATION AND WORK.

Many persons believe that under the present system of education young people are acquiring a distaste for manual labor, and that there is, consequently, danger that the trade and agricultural occupations will be deserted by all but the most inefficient classes of workmen. Much of the experience of the English and American society is in favor of this view, and the tendencies in France appear to be in the same direction. As an offset to what may be said in favor of it, *The London Spectator* directs attention to the fact that no dislike of work, even of the roughest character, has appeared among two of the best educated races. The Scotch, who have been taught for two hundred years, and are now more thoroughly trained than English national schoolboys, show no disposition to avoid labor, but are remarkable for persistent and fairly contented industry. The Prussian peasants, "who are as educated as the English will be twenty years hence, work exceed-

ingly hard, and in the country where their holdings are their own, show none of the resentment at their fate which is manifested in the towns in the form of socialist aspirations." Gardeners who all over Great Britain are the best instructed of manual laborers, work, more especially when working for themselves, with unusual diligence; and it is a matter of constant observation that a laborer who happens by any accident to be a "bit of a scholar," can be depended upon when work presses and every man is required. The people of Rome who can read and write, are far more diligent than the Neapolitans, who can not; and the best workmen in Italy are those who have passed through the army, and so obtained what is practically an education. There seems to be no *a priori* reason why it should be otherwise.

## GLASS MILLSTONES.

Glass millstones consist usually of eight sections of glass fastened together by the use of strips of wood, nine millimetres wide to which the glass is cemented. After cementing the parts together a piece of wood three centimetres broad and one thick is cemented about the outer circumference of the stone reaching to its entire height. This increases the cohesion of the stones and makes the attachment of the outer iron hoop more easy. This iron hoop is fastened by means of fifty wooden screws to the wooden hoop, about five millimetres below the grinding surface, and in such a manner as to admit of easy removal without breaking. The eye of the stone, as well as the indirect grinding surface, consists of pure cement. A ring in the aperture at the centre insures durability and strength at that point. The glass grinding surface has a mild grip of roughness which it never entirely loses. A dress is employed similar to that used on sweetwater quartz stones, and the glass stones must be dressed as carefully and often as French stones though the work is easier. Those who think the surface will hold ten to fifteen years without dressing are laboring under a great mistake.—*Berliner Mueller Zeitung*.

## HOW SOME FRENCH BREAD IS MADE.

One summer's day we stopped to call at the stone farm-house of Monsieur Duval. Ernestine, the eldest daughter, was house-keeper in her dead mother's place, and she it was who brought out the amber-colored cider, the goat's cheese, and the heavy, hard, country bread. It is an essential of French peasant hospitality to offer these things to visitors.

The loaf she took from the shelf was one of half a dozen leaning against the black wall. These loaves resembled cart wheels, and had been baked in six-quart milk pans. Ernestine cut the loaf with a small saw made for the purpose! Nothing less than such a saw, or a pirate's cutlass, could sever that homely but wholesome *pain rassis*.

These loaves, we knew, were baked only once a month. Bread day in a Norman peasant family is like washing day on an American farm, in the respect that it comes at regular periods. We judged that bread day in this cottage was approaching, from the fact that only six loaves remained of the original thirty or thereabout.

After our luncheon Ernestine took us through the orchard to a picturesque stone

building, where the bread was wont to be made. This building had once been part of an ancient abbey, and amid its ivy-covered ruins we could still trace fine sculpture and bits of armorial designs, but inside there was no trace of art or architecture. It was really a Norman hen-house. We saw several pairs of *sabots* or wooden shoes hanging from the wall and looking as if they had been whitewashed.

In one corner of the place was a large space inclosed with boards. This was empty, but like the *sabots*, it suggested whitewash or mortar making.

Ernestine told us that this was the family dough trough. Hither, once a month, came her father and the hired man to "set" the yeast a-rising. Flour and water were stirred together with the huge wooden spades shaped like our snow-shovels, which hung with the *sabots* upon the wall. When the mass, thoroughly beaten together, had risen and assumed a dark color and leathery consistency, then came the tug of war. The two men put on the *sabots* over their ordinary shoes, jumped in upon the dough, and began the kneading. Their way was to hop and prance and flourish like opera dancers, to stamp and kick like horses, exerting themselves till the perspiration streamed off them and they had no strength left. After this process the dough was put into the pans, and then baked in the huge oven at the rear of the abbatial hen house.

In all Norman towns half-clad men may often be seen lounging about bake-house doors. Their legs and feet are bare and floury, and as they tread the streets we know that they have just come from or are returning to their usual occupation of kneading bread.

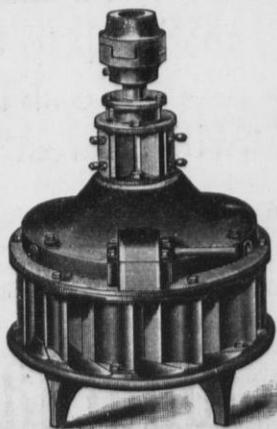
"*Mon Dieu!*" exclaimed Ernestine when we told her that in America bread making was woman's work. "*Mon Dieu!* how cruel your men are! I would rather shoe horses!"

—*Epoch.*

## ABIG YEAR'S READING FOR A BIG FAMILY.

SEND US \$2.00 and we will send, postpaid, to any address in the United States or Canada, THE UNITED STATES MILLER for one year, and FIFTY FIRST-CLASS NOVELS by prominent, entertaining and amusing novelists, such for instance as Charles Reade, Hugh Conway, Wilkie Collins, Marion Harland, R. L. Stevenson, Mrs. Henry Wood, Mary Cecil Hay, M. E. Bradon, Margaret Blount, Thomas Hardy, etc., etc. If desired the paper will be sent to one address and the books to another. This offer is open until June 1, 1884. Address: E. HARRISON CAWKE, Publisher, 124 Grand Avenue, Milwaukee, Wis.

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## THE PRODIGAL SON.

[The following soul stirring (?) poem was recently sent to the UNITED STATES MILLER, with the suggestion that we print it for the amusement of our readers and especially to place it before the celebrated LODGE OF ELKS in Milwaukee at a SOCIAL SESSION. The lines are to be sung to the air of "When Johnny comes Marching Home." If you don't think there is some fun in it, get a dozen or two of "the boys" together and sing it.]

## I.

There was an old man, the story runs,  
There was, there was;

The father of two goodly sons,  
He was, he was.

He lived on a ranch, so said the Psalm,  
Somewhere near the old Jerusalem,  
The vicinity does not matter a—hem,  
It don't, it don't.

## II.

Now, one of the sons was a nice young man,  
He was, he was;

Got up on the slickest and toniest plan,  
He was, he was.

He was kind to his mother and sweet on his dad,  
Was always good-natured and never got mad;  
In fact, was a darling, a dude of a lad,  
He was, he was.

## III.

The other young man was a son-of-a-gun,  
He was, he was;

He went with a gang of which he was one,  
He did, he did.

He wore a loud necktie and a high standing collar,  
Played keno and faro, got drunk and did holler;  
In fact, was a youth of the kind tra-la-la,  
He was, he was.

## IV.

The old man's purse was big and fat,  
It was, it was;

And the prodigal son got his eye on that,  
He did, he did.

And the good young man, with his simpering smile,  
Also had his eyes on the old man's pile,  
And hoped to come in for his share after awhile,  
He did, he did.

## V.

On the square divide the old man did his best,  
He did, he did;

And the "prod" took his share and lit out West,  
He did, he did.

He got drunk with the boys and had a high old time,  
Awoke next morning with nary a dime,

Sick and from home, in a foreign clime,

Alas! Alas!

## VI.

The telegraph man in his office sat,

He did, he did;

When in dropped a tramp, without any hat,

There did, there did.

Said he, "Just wire along the track,

To the old folks at home,

The 'prod's' coming back, and order a calf for one on  
the rack,"

He did, he did.

## VII.

So he turned up, with his lawyer, one day,  
He did, he did;

Sued his dad and his brother for time while away,

He did, he did.

He got judgment and kicked the old folks out.

That's the kind of a "prod" I sing about,

That's the kind of a "prod" for whom we shout;  
It is; hurrah!

## ITEMS OF INTEREST.

P. D. Armour & Co. are reported to have done \$60,000,000 worth of business during '87.

American mining properties produced \$103,000,000 during 1887, about 30 per cent. of which is estimated to be clear profit.

The Ways and Means Committee estimate that the Mills bill now under consideration in Congress will make a total reduction on import duties of about \$53,000,000.

Carroll D. Wright, chief of the laborbureau, Washington, reports that in the last six years there have been 3,903 strikes, less than half of which were successful, with a loss to the strikers in wages of \$51,819,165.

Any mechanic can do his work quicker and better if he thoroughly understands it, and other things being equal, the man who understands it the best will be the one who also understands draughting. It is by education that we must endeavor to raise the standard of our draughtsmen and mechanics, and make them both more practical.

In regard to the people carrying checks in their pockets for some time before depositing them in banks, Judge Biddle, of Philadelphia, says: The rule is that where the parties all reside in the same place the holder should present the check on the day it is received, or the following day, and when payable at a different place from that in which it is negotiated, the check should be forwarded by mail on the same or next day for presentation. If this is not done, the risk of the solvency of the drawee is upon the payee.

Henry C. Spalding, the inventor of "Spalding's glue," and who was at one time worth \$80,000, died in Blockley almhouse, Philadelphia, a few weeks ago, at the age of 63 years. He came from Boston many years ago and invented a special kind of coach varnish, a waterproof fluid for lining casks and barrels, and several other things of considerable commercial value. He met with financial successes with his inventions, but soon took to drinking, which finally resulted in his ruin. He was admitted to the Philadelphia Hospital on January 20 last suffering from typhoid pneumonia. An only daughter in Boston survives him.

A striking instance, which illustrates the reign of necessity in the adjustments of physical elements, occurred some years ago at Revere, Mass. Rev. Thomas E. Barr, in his philosophical work for young students, entitled "The Gist of It," tells the story:

The Beverly express ran into the Bangor accommodation as it stood at the station, passing half way through one car before it stopped. The engineer was arrested and tried for manslaughter. He affirmed that he was running on schedule time, fifteen miles an hour; the prosecution charged that he was running thirty miles an hour. The weight of the express was furnished to one of the professors in the Massachusetts Institute of Technology, who calculated the momentum of the train and the inertia of the car, and found that the momentum at fifteen miles an hour would be just enough to carry the express half way through the car. At thirty miles an hour the momentum would have carried it four times as far. The engineer was of course at once released.

A reliable cement, one that will resist the action of water and acids, especially acetic acid, is: Finely powdered litharge, fine, dry white sand and plaster of Paris—each three quarts by measure—finely pulverized resin one part. Mix and make into a paste with boiled linseed oil, to which a little dryer has been added, and let it stand for four or five hours before using. After fifteen hours' standing it loses strength. The cement is said to have been successfully used in the Zoological Gardens, London.

A well known steam engine builder says that a large share of the fault found with engines running unsteadily comes from permitting the governor to get dry from lack of oil, or gummed up in some of its essential parts.

He instances sending a man 150 miles upon repeated complaints of an engine sold two years previous. A half day spent in putting the governor in condition was all the man did when he got there. Another frequent trouble with the governor run by a belt is from belt slippage, or the edge of the belt may pull hard against one of the flanges of the pulley. In either case there need be no expectation of regular speed. If close regulation is expected a steam engine governor should be kept in as good condition as a watch.—*American Machinist*.

I have been asked the question, "Does friction increase with speed, or decrease?" Both. Where the speed is slow, increasing it may decrease the friction per turn; but where the speed is fast, it may be found that increasing speed increases the friction per turn also. There are two sides to almost every question, and particularly so in this case. The more viscous the lubricant, the greater pressure can be carried upon the bearing.—*Grimshaw*.

Drop oil is collected in many mills and factories to be cleaned and used again. A little apparatus has been constructed for this purpose, which, it is reasonable to suppose, is patented. It may be described as follows: The apparatus is a box-like concern, of several "stories," the interior either lined with, or else consisting entirely of, lead. Above it has a shoulder like a funnel, into which is poured the oil to be cleaned. The purified oil passes off through an escape pipe in the bottom. The different shelves or "stories" are perforated, and covered to a height of about two inches with raw, loose cotton, through which the oil must percolate. The cotton serves as a filter, and retains all kinds of contaminations. After the oil has in this manner passed through the several shelves, it is nice and clean and drops into a vessel underneath. The dirty cotton is occasionally replaced by clean. This is about the most inexpensive way of effecting it that I know of. It is also necessary to add that the apparatus must stand in a warm place. The cleaning of the oil with chemicals is both a tedious and a doubtful process, because even after thorough washing it may still retain traces of acids, rendering it unfit for lubricating purposes.

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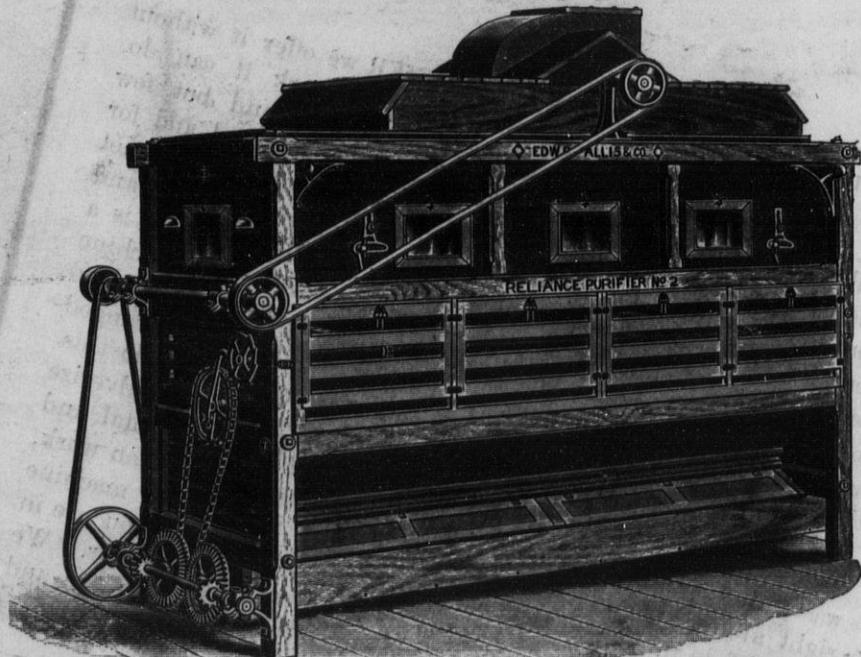
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## OUR WHEAT CLEANING SYSTEM.

At the request of many millers I hereby outline what comprises a wheat cleaning system that cannot be surpassed.

It should have, besides the machines here shown, a wheat heater, to keep the temperature of the wheat even throughout the year. A cockle machine and oat extractor are often necessary.

## SEPARATOR.

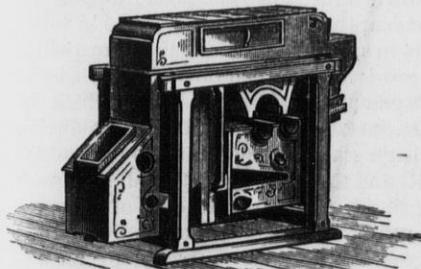


Fig. I.

Fig. I. requires no explanation. The great majority of Separators offered are good, and millers have their prejudices in favor of some particular one.

## ROLLING SCREEN.



Fig. II.

The next machine that I would recommend is a large Rolling Screen, Fig. II. This is one of the best of cleaners, and I will say right here that it is a better cleaner than most of the Smutters that do their work with beaters or on scouring surfaces of iron.

## SMUTTER AND SCOURER.

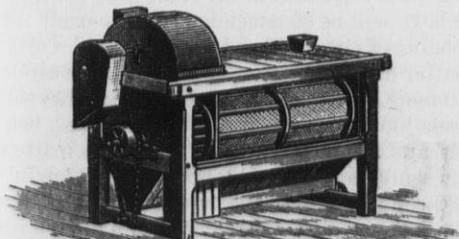


Fig. III.

Fig. III represents the Garden City Smutter and Scourer, the principles of which are

totally different from any other. The scouring parts of this machine consist of sapphire (which is a high grade specie of corundum) and an outer case of perforated steel. The work is done by the revolving action of the sapphire cylinder on the wheat, and is wholly by friction.

The work accomplished by the machine is such that the beards or fuzz on the grains are thoroughly removed, as well as the thin skin of bran on the germ end, thereby leaving that detrimental portion so exposed as to be easily removed.

## BRUSH MACHINE.

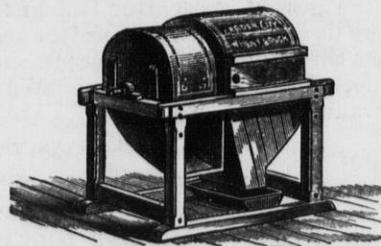


Fig. IV.

A wheat Brush Finisher, Fig. IV, while not always a necessity, unless where the very best results are desired, is nevertheless a great advantage, and pays for itself.

## 1ST BREAK.

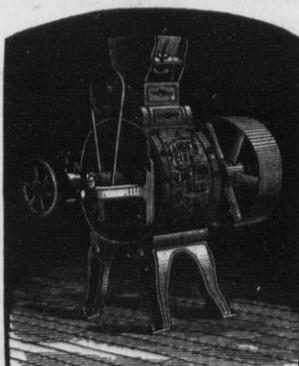


Fig. V.

We next come to the 1st Break, or Wheat Splitting Machine, Fig. V., and can say for even and thorough work the Garden City is so far ahead of all other machines for the purpose, and is so well and favorably known that comment is unnecessary.

## WIRE SCALPER.

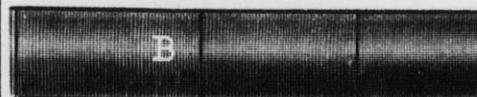


Fig. VI.

Fig. VI is an ordinary scalper to follow the first break. A good size machine will be preferable, so as to make a good clean separation, and remove the loose material, and also doing considerable cleaning on that part of the bran that was concealed before the splitting operation took place.

## BRUSH SCALPER.

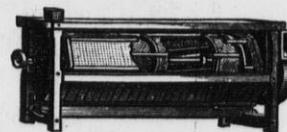


Fig. VII.

Fig. VII is the Garden City Brush Scalper. By this machine the split wheat receives another scouring and brushing, as well as aspirating, and at the same time a perfect separation is made.

If millers comply with this outline of cleaning their wheat, I can truthfully say they have started on the right path, no matter what system they choose to operate on. Even burr millers will be astonished at the change it will make in their output.

I would call particular attention to the Brush Scalper, as I consider this machine and the process the *king of all*. Experts claim that the minute amount of crease dirt in each grain is so small that not much damage can be done to the flour by leaving it in. But when it is considered that it takes upwards of 4,000,000 grains of wheat to make a barrel of flour, it must certainly exercise considerable influence on the color. I would also state that the product of this Brush Scalper, even after the wheat has been thoroughly treated on the ordinary scalper, is much darker than the first break flour. Will experts please explain this? Another question, why do millers who do not use this process of cleaning split wheat, make so much low grade flour?

LOUIS GATHMANN.

Chicago, Ill.

## UNITED STATES MILLER.

E. HARRISON CAWKER, EDITOR.

PUBLISHED MONTHLY.

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MILWAUKEE &amp; CHICAGO, APRIL, 1888.

We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

THE MILLER, London, is publishing some prize essays of considerable value, more especially to British millers.

DURING the year 1887 there arrived at New York 405,000 immigrants. Over 28,000 immigrants arrived last month, and Liverpool steamship agents report that they are unable to meet the demands for passage.

HENRY W. AVERY, President of the Avery Elevator Bucket Co., of Cleveland, Ohio, gives further evidence of his level-headedness by leading to the altar on April 25th, Miss Mary A. Hamilton of New York.

If Mr. Avery has obtained as good an article in the way of a wife as he has in the Avery bucket, and we doubt it not, he is indeed a very fortunate man, and we heartily congratulate him.

IF the editor of the *Milling World* had postponed writing his criticism of Mathew Arnold for a day or two he would never have printed it. If Mathew Arnold was alive now and should read the M. W.'s observations, he might in truth point to it as "confirmation doubly strong" of his most severe criticisms of Americans. It is sometimes very unpleasant to be obliged to swallow a bitter pill, but it is frequently beneficial to the physical system. If Arnold's criticisms should be the cause of improving the tastes and rounding off the rough edges of American manners, he hath not lived in vain.

A DECREE in favor of the plaintiff was entered March 26 in the cause entitled: *The Consolidated Roller Mill Co. vs. The Miller Manufacturing Co.*, in the U. S. District Court for the Northern Dist. of Ohio. The plaintiff waived its right to inquiry for damages, and the defendants pay the costs. By this decree the defendant is enjoined from making, using or selling any roller mills like or similar to those described in Patents No. 222,895 and 230,677.

APRIL 19th.—A meeting of the Board of Directors of the Milwaukee Chamber of Commerce, and legal representatives of the Chicago, Milwaukee & St. Paul R. R. and the Chicago & North-western R. R., was

held in this city for the purpose of considering charges of discrimination in tariff rates against Milwaukee and in favor of Chicago. Commissioner Peterson took the matter under advisement and will determine whether the charges are or are not sustained within a few days. "All that we care for" said a prominent receiver and shipper, "is to establish a case of discrimination, and exact a promise from the companies that such practice shall be discontinued."

## OFFICIAL ANNOUNCEMENT.

THE annual convention of the Millers' National Association will be held in the German Music Hall at Buffalo, Tuesday, Wednesday and Thursday, June 12, 13 and 14, 1888. This will be a mass convention. All merchant millers, regardless of membership, are invited. The reforms contemplated will be presented to the convention by prominent committees, in shape to be discussed understandingly. All matters of general interest pertaining to the milling industry, will come before the convention for discussion. Invitations have been extended to representative bodies interested in the flour trade in Europe to send delegates, and assurances have been received that a liberal number will accept. This is intended to be a business convention of business men, for the purpose of reforming abuses, and improving the methods now existing for doing the business, and adopting such regulations as may be advantageous and for the general good. Our Buffalo friends assure us a hearty welcome, and the arrangements they contemplate for the pleasure and comfort of visitors will be appreciated by all. Milwaukee, March 1888.

S. H. SEAMANS, Sec'y.

THE subscription price of the UNITED STATES MILLER is only ONE DOLLAR per year. Now is your time to get on the list. During the year there are going to be lots of "ups and downs" and "ins and outs" and "things wise and otherwise" that will be first chronicled in the columns of this paper, even if it don't come out but once a month.

## MILWAUKEE ITEMS.

THE main shaft in the Gem Mills was broken during the night of April 23. It will be several days before the mill can start up again.

E. P. ALLIS & Co., have been awarded the contract for the pumping engines for the Chicago water works. The pumps are five in number and the amount of the contract is \$369,785.

MR. FREDERICK LAYTON, a wealthy Milwaukeean has presented this city with a free art gallery, a fine collection of valuable paintings and a fund to maintain the institution for the benefit of the public. The gift amounts to \$250,000. May he live long to enjoy the good which he has done for the benefit of his fellow-men in general, and Milwaukee in particular.

MR. B. H. SANFORD, of Messrs. B. H. & J. Sanford, manufacturers of water wheels at Sheboygan Falls, Wis., made us a pleasant call recently. He reports business very good for the present season of the year.

CHICAGO elevator owners have gone practically to work and demand reduced insurance rates. It appears to be only a question of time when with either good or bad grace, the insurance companies have got to "come down." Chicago grain men have noted the "hand-writing on the wall" and are waking up to the fact that the city's grain trade has been falling off, and they are taking active steps to build it up again. Chicago business men know how to "hustle for business," and now they have commenced will keep it up and will certainly get the usual lion's share of it, opposition the contrary notwithstanding.

THE Parisian milling papers treat not only milling subjects, but extend their serious attention to the baking and brewing industries. The March number of the *Journal de la Meunerie* contains also an illustrated description of the Construction of the Panama Canal and a poem about "My Grandfather's Mill," which like our song of "Grandfather's Clock," carries one back in memory to those good old times, or as the French poet Ed Plouvier puts it: "Ah! quel bon temps, quel temps c'était!"

AN interesting piece of news reaches us from Budapest, Austria-Hungary. The shares of the renowned mills at this place, during the last five years have steadily decreased in value, and this in spite of the remarkable fine quality of *first grade* flour turned out. To us it looks as if the complicated systems under which the mills are operated, has the effect of producing a very high grade of flour, but the percentage is small, and the large quantity of *low grade* overbalances. The great amount of extremely low grade flour made, flour that could not possibly be used in this country, or in fact given away so far as family use is concerned, is the cause of the depression. The financial results, the poor yields &c., as a natural consequence, have determined the managers to change their ways, and now, the celebrated Budapest mills—mills that have been taken by so many as models, are to be overhauled and everything simplified—or as we might say, the American methods are to be adopted. Wheat cleaning formerly so despised, in a certain sense has come to the front, and the fact is realized that it is better to remove impurities at the start than to trust to after purification and bolting to get clear of them.

The lesson is one that many millers in this country can take to heart, and consider if they are doing the fair thing so far as cleaning the wheat is concerned.

THE New York *Journal of Commerce*, *Scientific American* and other Eastern papers, are strongly advocating the reduction of letter postage to one cent. If this should ever be done, we trust that at the same time the postal laws will be so amended as to permit the sending of circulars, and in short all *third class* matter at *pound rates*, so that private establishments which are publishing what they call trade journals, principally for their own benefit, and should be rated as *third class* matter, can send them squarely, honestly and lawfully through the mails without being obliged to strain their consciences and pile up mental reservations in order to answer satisfactorily the troublesome series of questions, considered necessary by an acutely inquisitive post-office department (?) in order to become duly authorized to enter their publications as "second

class mail matter" and get them through the mails for a cent a pound, when lawfully they should pay at the rate of "one cent for each two ounces or fractional part thereof." We refer to no special trade as fostering these private organs, sailing under well-sounding titles, for we have noticed them in a dozen different callings and there are, doubtless, scores upon scores of them that we have never seen and never want to. Let them all in or keep them all out according to law in such cases made and provided.

#### NOTICE TO MILLERS AND ELEVATOR OWNERS.

SAMPLE COPIES of this number of THE UNITED STATES MILLER are sent to a large number of flour mill and elevator owners, etc., throughout the United States and Canada from the list as given in *Cawker's American Flour Mill and Elevator Directory*. If there is any mistake in the address, such as style of firm, spelling of name or anything else, please write us stating the correct address. It is worth a good deal to any miller, big or little, to be correctly represented. It would be best to send your business card and also to state capacity, kind of power used, whether stones or rollers or both are used, etc. Address all communications to E. Harrison Cawker, Publisher, Milwaukee, Wis.

#### AN IDEA AND HOW HE WORKED IT.

A prominent Wisconsin miller said to the editor of the UNITED STATES MILLER, at the recent meeting of the Wisconsin Millers' Association: "Mill owners frequently are not practical millers, and they expect their head miller to remain steadily at his post year in and year out and turn out as good flour as anybody else does. I tell you, sir, *this-can't-be-done*; and I know it. This is a progressive age in all branches of manufacture, and there are new kinks here and new kinks there that a man who stays always in his own mill never dreams of. Even if he read about some of them, ten to one he would not think particularly of putting them into practice and actually trying them, especially if it cost a little money and some work. He gets into a sort of rut, so to speak, and stays there, because neither his employer nor any one else actually pushes him out. I got this notion into my head a couple of years ago, and to tell the truth, I knew that some men who had mills not as costly as mine were making more money. So, although not overburdened with cash, I concluded that I would try an experiment. It was not a new one for I had heard of other men trying it before, but now I determined to try it myself and see if there was anything in it. I had been to Milwaukee and Chicago on business for a few days, and soon after my return I called my head miller into my office and said: 'John, you've been working pretty steady for the last two years.' 'Right you are,' says he; 'I lost a day when my wife had twins, and two more the time I hurt my foot, and that's all, I believe, in two years and a half.' 'Well,' says I, 'I have concluded to give you a vacation.' 'You are not going to discharge —' he commenced. 'No, no,' I hastened to reply, at the same time handing him a roll of bills. 'Here' said I, 'is \$250; I want you to pack up your grip and go on a trip and inspect the best mills, big and little, in the country. Get acquainted with your brother head-millers, and learn all you can.'

Don't come back until your money is gone. In the mean time your wages will go right on here, and your second, who has been with you a good while, and I, will get along pretty well, I guess. I am sorry I can't give you a little more money, but make it go as far as you can and learn all you can. It will, I hope, prove a valuable experiment for both of us.' He went, and sir, I tell you, it was the best money I ever invested. He was a perfectly level-headed fellow, and could size up a thing pretty quick when he saw it work. I shall in the future make a practice of sending my head-miller off on a trip of investigation a month in each year. You just write something of this in your next paper, Mr. Editor, and many a man will thank you for it before you are a year older."

Here, mill-owners, is food for reflection.

#### THREE RED-LETTER DAYS

In the history of the Flour and Grain Trade will be the twelfth, thirteenth and fourteenth of June, 1888, at the meeting of the Millers' National Association in Buffalo, N. Y.

Then is the time and there is the place to present, discuss and act upon all matters of interest to the trade. There the members of the trade from the North, South, East and West will meet and explain to each other their wants, manufacturing and business methods and personally become acquainted with one another. There also will be present, duly authorized delegates from the great European marts of the world to settle matters of prodigious interest to the trade on both sides of the Atlantic. We trust that all mill-owners whether at present members of the Association or not, will make due arrangements to be there. The notice is ample, the expense will be moderate. Business demands your presence and there will undoubtedly be a reasonable amount of pleasure on this occasion. Encouraged by a large attendance, the committees that may be appointed will act with promptitude and vigor. The milling business in this country has in the past been run on in a sort of "happy-go-lucky" manner, more or less satisfactory, but in these days of narrow margins, close competition and sharp figuring, it has got to be thoroughly systematized in its business methods. Especially is this true of the Export trade in which all are interested, for, as has been said, every barrel of flour exported is a gain to every miller in the country, big or little.

#### PRECEPT AND PRACTICE.

"Give us this day our daily bread,"  
He prayed at early morn;  
And then went out on the Exchange  
To raise the price of corn.—*Boston Courier*.

The market slumped, it would not go  
The way he wished it to;  
He then went broke at a Faro-bank  
And cursed things black and blue.

#### UNDER-BILLED CARS.

Commissioner Walker, of the Inter-State Commerce Commission, in his report made April 13, says:

It is found that while special contracts, rebates and drawbacks are comparatively unknown, under-billing has become quite prevalent. The shipper in such cases pays freight on a less quantity than is actually carried. This has been practiced in grain shipments from points in the west to the east. It is also found that serious under-billing has been going on from various packing establishments and in refrigerator cars. It appears that where the shipments are by the carloads and the

cars are loaded by the shippers, the carriers accept the shippers' billing without question. The Commission censures the carriers for their failure to insist upon actual knowledge of the weights in all cases. A thorough inspection of cars is now being enforced at important points, and all cars found to be under-billed are detained for correction. The Commission think that an amendment of the law imposing a penalty upon shippers who by false billing, false classification, false weighing or false reports of weight, or other devices, knowingly and wilfully obtain transportation for their property at less than regular rates, would remedy the evil and compel a compliance with the law.

From the above it will be observed that the Commission is awake, and evidently it will not be long before some new way of "whipping the devil around the stump" will have to be devised by the ever-scheming rate-cutters. Of all classes of business men there are none sharper and shrewder than railroad men, who have been bred to the business, and the members of the Commission, none of whom, we believe, are practical railroad men, will have to look sharp indeed.

AMONG the modern contrivances for preventing disastrous fires there is probably no one thing that has yet been introduced of more value than the automatic sprinkler—an apparatus by which a valve is held in place on the water-pipe by a metallic compound which will melt at a certain degree of heat—that is a dangerous heat, and being melted the valve opens and water under pressure flows out rapidly, and by a peculiar contrivance is sprinkled in all directions for a considerable distance from the device. The great drawback to the general introduction of these automatic sprinklers (there are about twenty kinds of them in the market,) is that, with one exception we believe, which is patented, they are liable to go off from various causes when they hadn't ought to, thereby doing considerable damage. The owner of this valuable patent evidently appreciates its worth and probably charges for it accordingly. This doubtless explains why there are not more of these useful appliances in flour mills.

#### A NIGHT IN CHICAGO —AND A— NIGHT TRAIN —TO— INDIANAPOLIS.

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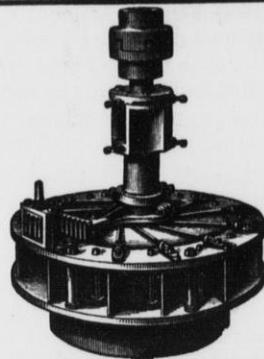
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We are the first introducers of the Chilled Iron Rollers for milling purposes, and hold Letters Patent for the United States of America. For full particulars address as above.

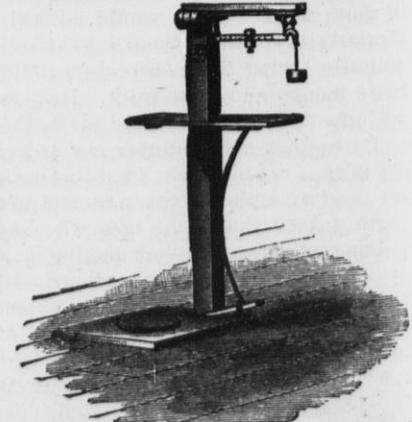
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 Remember that!

### BEATS ANY OVERSHOT EVER BUILT.

Because it gives same high percentage at part as at full gate, and is the only Water Wheel in the world that does so. Besides its Perfectly Tight Gate, Absolutely Tight.

**DON'T BUY AN ENGINE AND BOILER** To help out your failing water power in dry times until you properly improve the water power with this magnificent Water Wheel which gives you a high percentage when water is low. The "PERFECTION" often **SAVES THE NECESSITY OF STEAM POWER.**

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It costs nothing to write us and get our Circulars and learn our terms of sale. We save you money and IMPROVE your power.  
**IF WE DON'T, YOU DON'T PAY US, THAT'S ALL.**

Besides, Besides, Besides, Besides, we will also agree to set the "Perfection" beside or in place of your present wheel, and if we don't beat it (not EQUAL, mark you, but BEAT it) will give you the Perfection for nothing. Isn't that fair?

**CRAIG RIDGWAY & SON, 16 GREEN STREET,  
 COATESVILLE, PA.**

#### FLOUR EXPORT RULES.

The following are the general regulations governing Export Sales of Flour, adopted by members of the MILLERS' NATIONAL ASSOCIATION of the U. S. A., and are made a part of the Code Conditions upon which basis *all sales must hereafter be conducted.*\*

**LIABILITY FOR DELAYS IN TRANSIT.**—In case of c. i. f. sales, the MILLER OR SHIPPER having contracted the freight with a regular line, having regular advertised sailings, and having delivered the flour to the forwarding agent within the contract time, shall be free from all liability arising from delay in transit.

**INSURANCE.**—Insurance on flour sold on c. i. f. terms to be not less than 10 per cent. above the net invoice value. Any marine loss on c. i. f. sales will act as a release to the seller on that contract or so much of it as is included in the shipment to which the loss occurs, and the seller shall not be obliged to replace any of said shipment by reason of the sale being made on c. i. f. terms.

**INSURANCE ON CONSIGNMENTS** shall not be less than 10 per cent. in excess of draft or bill of exchange against the same.

Insurance money collected from marine loss on consignment shall pay:

1. The draft against consignment.
2. A reasonable commission, not to exceed 1½ per cent. for the consignee.
3. The balance shall belong and revert to the consignor.

**CLAIMS ARISING FROM INFERIOR QUALITY.**  
 —If a flour shipment is not up in quality to

the type sample, but comes near enough to be considered a "fair tender," the purchaser is obliged to accept the shipment at purchase price less the actual difference in quality.

Flour consigned for sale when once sold by the consignee and delivered to the buyer, must release the shipper from further liability as to quality, condition or price. The custom now prevailing in some European ports of allowing purchasers to return flour on various pretexts, more or less time after delivery, is unjust to the shipper, and contrary to sound business principles.

**SALES** of consigned flour, made in regular form and so reported to the consignor, shall be final. We shall not recognize the arbitrary right exercised in some ports by the purchaser releasing himself at his own convenience of a bargain on "next market day," or at any other time.

**BILLS OF LADING** to ports which have no regular steamship connection with the United States, shall be considered *through bills* if made to principal ports with the reshipment clause inserted.

\*The Telegraphic Cipher Code referred to is published by the Riverside Printing Company, Milwaukee, Wis.

**Communication from J. A. McAnulty of the Hazelton Mill Furnishing Co., Minneapolis, Minn.**  
**Manufacturers of the Celebrated**  
**Roller Mill Feeders.**

In the management of Flour Mills much is saved in carefully looking after the machinery, and always having the proper kind to carry out the different

reductions, separations, &c. Many well equipped mills are weak in some particular branch which does not seem to cut a very great figure, but which does in fact amount to a great loss in a year's run. These weaknesses are not always the fault of the miller, as he as a rule knows all the weak points in his plant, and as a rule would provide remedies at once if the proprietors were satisfied with the expense necessary to provide the necessary machine or thing. Millers soon learn to know the kind of men they work for. Some proprietors have more liking for a miller who never asks for new machinery; their millers naturally do not ask for any they can in any way get along without. Other proprietors wish their millers to be trying all the new machines offered that have any plausible showing of bettering their condition. This class of mill proprietors are the ones that you will find at the front. You will find them selling flour when there is any selling. Why? Because their flour is up to the standard. Their mills are supplied with the very best machinery, tested in their own mill, on their own wheat, this is the proper method of buying machinery. Try it first, then buy if the machinery suits your requirements, do not buy on the recommendation of a friend who is milling in another state, on different wheat and for a different market, but buy what you have found to be the best suited to your own particular work. If mill furnishers will not let you try their machinery before buying, give them the go-by and find others that will. Mill proprietors do not always know the actual wants of their millers. Not because the miller does not know what he wants, but because he dislikes to ask for the thing needed. This is particularly the case when milling is dull. The miller hesitates to ask for needed machinery, knowing the proprietor is not feeling well able to buy. I think it would be for the best interests of both miller and proprietor to speak freely. The miller to have less reserve in speaking of things needed. The proprietor should encourage the miller to be frank in stating what could be used to benefit the mill. Oft-times this procedure would bring about changes and improvements that would make a losing mill a paying one.

CAWKER'S AMERICAN FLOUR MILL AND ELEVATOR DIRECTORY FOR 1888, issued March 3, is meeting with much praise from all departments of the trade. While not claimed by the publisher to be perfect, it answers FULLY the requirements of the trade. It is the only list published. The demand is limited and the price (Ten Dollars per copy) is cheap, considering the labor required in compiling, printing and selling. It contains lists of flour mill and grain elevator owners, miscellaneous kinds of mills such as corn, rye, oatmeal, rice and feed mills, millwrights, flour brokers and dealers in various sections of the United States and Canada, and a good list of European flour and grain importers. Kind of power used, rolls or stones, capacity and millers supposed to be worth \$10,000 or more are indicated in thousands of cases.

#### TO CONSUMERS.

In drawing up your specifications for machinery and supplies that you need, be sure to specify only reliable goods and call them by their correct trade names and then see that they are furnished by the contractor or dealer to whom you give your order. It is important to you to see that only reliable goods and machines are supplied, and if you do not take the trouble to specify the particular makes of machines and goods that you want, you have only yourself to blame if you find that other makes are being furnished on the contract. If you are careless in drawing up your specifications, and fail to mention the particular machines and goods that you want, the contractor will have the option of furnishing such goods as he sees fit; and contractors are only human and will furnish the lowest priced machines that will do the work irrespective of economy of power and durability. Furthermore, if you will specify exactly what you want, all parties bidding on your work will stand on an equal footing and the competition will be much fairer. When plans and specifications are loosely drawn up the honest bidder is at a disadvantage, as he will figure on a higher quality of machinery and work than the dishonest bidder, and consequently he loses the contract, when perhaps on an equal footing he would have taken it. Again if consumers insist on having certain standard machines and goods, the makers will be encouraged to excel their previous efforts, and makers of cheap goods will either retire from the field or be compelled to change their tactics and make reliable goods. It is perhaps not generally known that good goods are almost always sold on smaller margins of profit than inferior goods, and there is not the inducement to manufacture the better class of machinery and goods that there is to make the cheaper grades.

Millers often make the mistake of giving too much time to the selection of the larger machines and too little time to the comparatively inexpensive machinery and supplies. In this way they often lump the smaller things in their outfit and are badly swindled. The rolls and motive power certainly require time and care in their selection, but the same is true of the elevating and conveying machinery and belting and other things. Millers will show their wisdom by making careful

inquiry into the merits of the various machines and goods in the market before going to any contractor for a complete outfit, and then he will be in no danger of having sand thrown in his eyes. The UNITED STATES MILLER publishes a list of reliable houses making mill machinery and supplies, and all of these houses will be glad to furnish catalogues and descriptions of their wares.

#### ANNOUNCEMENT.

We are pleased to announce to our readers that we have now secured thoroughly competent and reliable regular correspondents at Baltimore, St. Louis and Buffalo, and are negotiating for other points which we expect to have arranged for by next month. We have further secured some able technical writers, the first contributions to appear next month. The May number will also contain reviews of the trade in Minneapolis, Duluth and Milwaukee, also many other valuable features. We further announce that our circulation is now over 10,000 copies per month, proof of which is ready at any time for the inspection of advertisers.

#### FOREIGN NOTES.

THE surplus of wheat available for export from Australia and Victoria is now placed at about 22,000,000 bushels, about double the surplus in 1887. Holders do not like present low prices and will not ship freely.

THE wheat harvest in New Zealand was complete March 1, and the total crop is estimated at a little over five million bushels.

THE tax on flour imported into Ireland imposed by the Limerick Harbor Commissioners a short time since, has been reduced to one shilling per ton, which is not altogether unreasonable.

ANOTHER dust collector has been placed before the British millers quite prominently. It is the invention of one Ince, and is manufactured by J. H. Trevithick & Sons, at Hoyle, Cornwall, Eng. It makes two separations of the dust, one fine, the other coarser.

THE People's Bread Company, Limited, with a capital stock of \$500,000 has been organized in London. This company is formed for the purchasing and taking over 43 old-established businesses, carried on in various thickly populated parts of London for many years past and also to purchase an extensive and valuable flour mill situated on the Thames, within one mile of London Bridge, capable of producing about 1,600 sacks of flour per week. The system and machinery for bread making, patented by M. Mounié of Paris, France, is to be used.

DURING the first two months of 1888 France imported 1,958,000 cwt. of wheat, and 50,000 cwt. of flour. During the same time England has imported about 1 sack of flour to 1 qr. of wheat.

SOUR BREAD.—Thomas Fletcher, an authority on baking, in a recent paper read before the British Baker's Association, says: "It is not too much to say that bakers need never be troubled with sour bread if reasonable precautions are observed. There is a distinct cause for its production. It is either the result of carelessness, uncleanliness, impure yeast, or ignorance of the laws of fermentation."

COUNT ZANG, the baker, is dead. He has just died at Vienna, and it may be safely averred that he has not left behind him, anywhere on earth, one who has turned the staff of life to greater advantage. The Count has given away his loaves to such good purpose that he has been obliged to leave on this side the grave 40 to 50 millions francs, besides landed property. He was the first to start a Vienna bakery in Paris. That was in 1842, and his well-known establishment is still in the Rue Richelieu.—*British Confectioner*.

#### THE JONATHAN MILLS MANUFACTURING COMPANY.

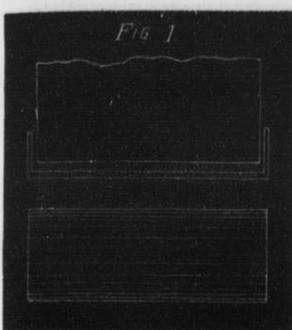
Jonathan Mills, general manager of the Jonathan Mills Mfg. Co., Cleveland, O., addresses his old friends as follows:

GENTLEMEN:—In calling your especial attention to the Jonathan Mills Mfg. Co., a new company organized for the purpose of manufacturing and dealing in special flour-mill machinery, we do so with the view of securing your trade for our line of goods. Our leading specialty is the Jonathan Mills celebrated and popular "Universal Flour Dresser," formerly manufactured by the Cummer Engine Co., and later by their successors, the Prospect Machine & Engine Co. We have bought out the interests of that company in the reel and bolting-cloth business. Our shops are thoroughly equipped and we are all prepared to meet the trade. There have been 1,500 of these machines placed in all classes and sizes of merchant and custom flour mills throughout the United States and Territories, Canada and other countries. They are also in use for bolting buckwheat, cornmeal, electric-light carbon, foundry facing, soapstone, salt, sugar, dry paints, emery, etc. The fundamental principles for perfect separations embodied in this machine are so obvious to every intelligent miller that Mr. Mills has been enabled to place them in such great numbers with such wonderful and universal satisfaction to the millers, that the combined efforts of the centrifugal manufacturers, and their legion of traveling so-called expert agents, have resorted to every falsifying subterfuge they could invent to convince the millers that their centrifugals were superior to our machine, and have met with such disastrous failures in giving satisfaction, that a number of them have been compelled to abandon their pet centrifugals, and some of the largest makers have repeatedly changed and revamped their machines, and all the time claiming that each particular machine was perfection personified. Now, about every centrifugal manufacturer has admitted the worthlessness of their centrifugals by attempting to put some kind of a slow-motioned round reel onto the market, and are loud in their claims that their particular round slow reels are as good as our Universal Flour-Dresser. They even have the presumption to place various kinds of cylinders or hog-back devices inside the cloth or lifters, swinging buckets or ribs with carriers of some form or other for the purpose of (as they claim) carrying a large portion of the stock up and pitching it over on the down-traveling slide of the cloth, thinking by so doing to convince the millers that large capacity and superior work is gained by these jimmicks. We shall announce by circular and through the milling journals such new special machinery as we may from time to time conclude to manufacture, and we shall not offer you any new machine that we do not positively know to be superior to its class. Soliciting your correspondence, we are, yours truly

THE JONATHAN MILLS MFG. CO.

ONE of the largest transactions in real estate during the past week that has come to our knowledge, was the exchange of the fine large flouring mill property of Messrs. Bliss & Wood, Winfield, Kan., for 10,900 acres of land in southern Texas, and \$7,145 worth of stock and other personal property, amounting in all to \$105,145 on either side. Messrs. Bliss & Wood were represented in the transaction by the well-known flouring-mill agents, H. C. Corwin & Co., and the Texas party by Judge S. A. Hackworth, both of this city.—*Topeka, (Ks.) Capital, April 22.*

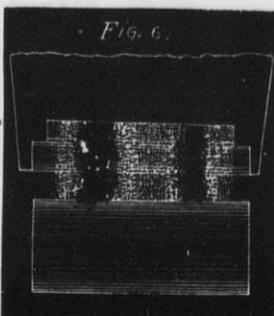
FIG. 1



Uniform Sheet as fed by our McAnulty Automatic Force Feeders

CAPACITY INCREASED 10 TO 20 PER CENT.—See Sidle, Fletcher, Holmes & Co.'s Letter  
PATENTS INCREASED 4 PER CENT.—See Galaxy Mill Co.'s Letter.

FIG. 6



Irregular Sheet as fed by the Feed Roll with Automatic Gate.

## HASELTINE · MILL · FURNISHING · CO.,

MINNEAPOLIS, MINN.,

MANUFACTURERS OF

## McANULTY'S

# Automatic Force Feeders!

MCANULTY'S 1ST BREAK REGULATING FEEDERS AND DISTRIBUTORS.

## OUR GUARANTEE

Is to increase capacity of full Roller Mills 10 to 20 per cent. To save from 3 to 8 lbs. of wheat per barrel of flour manufactured. To increase patents 2 to 5 per cent. without requiring additional power.

### Fills Your Guarantee of 20 Per Cent. Increased Capacity

FROM SIDLE, FLETCHER, HOLMES & CO.,  
Minneapolis.

Your Force Feeders fill your guarantee to increase the capacity 20 per cent. as your system enables us to treat our sixth Brake stock better with four double Allis mills than we formerly could with five double Allis mills.

Please arrange your system on our "Red Dog" Stock.

### TEN MORE.

### Fills a Guarantee to Increase Patents 4 Per Cent.

FROM GALAXY MILL CO.,

A. C. LORING, Manager.

They have enabled us to increase our patents 4 per cent. Our grades are improved, our clean-up and yields materially bettered. Please deliver us ten more.

### NEWS.

The Milwaukee, Lake Shore and Western Railway, popularly known as the "Ashland Route," has just issued several new and attractive publications, of interest to all classes of travelers, tourists and sportsmen. Among them are a handsomely illuminated folder entitled, "The New North," and a guide book to the fishing and hunting resorts of Wisconsin and Michigan, describing also the summer resorts of Wisconsin and the Lake Superior region, with the various routes thereto and cost of excursion tickets. These routes also include tours to the Yellowstone National Park, Portland, Oregon, California and Alaska. Manuals containing a complete compilation from the best authorities of the rules of whist and other games are also issued by the same company, and with others mentioned, will be mailed free by addressing Geo. S. Marsh, Gen'l Pass. and Ticket Agent, Milwaukee, Wis.

SOLD OUT.—S. R. Wales, Milan, Mo.

BURNED OUT.—Jos. Hill, Tecumseh, Mo.

ASSIGNED.—John Keagy, Woodbury, Pa.

DISSOLVED.—Scott & Crouch, Blair, Neb.

SOLD OUT.—H. A. Stevens, Lake City, Minn.

SOLD MILL.—H. S. Peddicord, Cooksville, Md.

BURNED OUT.—H. C. Baetz & Co., Burton, Mo.

SOLD OUT.—H. H. Cook & Son, Darlington, Wis.

BURNED OUT.—Salem Mill Co.'s mill, Salem, Dak.

SOLD OUT.—Lovejoy & Sutton, Osceola Mills, Wis.

BURNED OUT.—A. N. Hart, North Lansing, Mich.

The firm now is Edwards & Pierson, Hersey, Mich.

DISSOLVED.—Kirkpatrick & Stevenson, Walnut Tex.

BURNED.—Loss \$10,000. D. W. Pennywitt & Co.'s mill.

BURNED.—M. A. Skinner's mill at Roxbury, Pa., April 10.

A. L. MANSFIELD, Dunlap, Tenn., will improve his corn mill.

DISSOLVED PARTNERSHIP.—J. R. Blevins & Co., Manchester, Ill.

DISSOLVED PARTNERSHIP.—Lyons Bros. & Co., Shushan, N. Y.

O. T. DOLSON, Chatham, Ont., has retired from the flour-business.

THE Alma Milling Co., Alma, Wis., is building a 125-bbl. roller mill.

GONE OUT OF BUSINESS.—Brown & Baker, flour dealers, Madison, Wis.

BURNED.—C. O. Newcomb's mill at Cedarville, N. J.; insurance \$12,000.

It is reported that Valentine Stoskopf, Freeport, Ill., has sold his mill.

REMOVED.—A. R. Bradley, from St. Libory, Neb., to Grand Island, Neb.

QUONCE & LIEB's mill, Oswego, N. Y., burned; loss \$20,000; insurance \$14,700.

THE Farmers' Alliance, Dallas, Tex., are remodeling the Todd Flour Mill to rolls.

THE Latshaw Mill & Elevator Co., Argentine, Kan., will build a \$40,000 flour-mill.

IRVINE & SCOTT, Dresden, Tenn., will spend \$6,000 in remodeling their mill to rolls.

DISSOLVED PARTNERSHIP.—Willits & Clothier, Midletown, Del. F. H. Clothier continues.

THE Western Grain Co., Birmingham, Ala., will build a 100,000-bush. elevator this year.

S. G. HAVERMALE, Oat-meal miller at Spokane Falls, W. T., is succeeded by Oliney & Wadham.

BURNED OUT.—Edgar Harper's Mill at South Montrose, Pa.; S. Griggs, Sen., East Aurora, N. Y.

BURNED.—Isaac Tucker's elevator, Iowa Falls, Ia.; Jas. Wellman's mill, partially, at Milford, Mich.

BURNED.—April 19, Farmers elevator at Grandin, Dak., with 5,000 bushels of wheat. Fully insured.

THE John S. Smith dust collector, manufactured at Jackson, Mich., will be placed on sale at Howes & Ewell's London House, No. 64 Mark Lane, London, E. C.

MARISSA ROLLER MILLS, Marissa, Ill., March 7th, 1888  
Enclosed please find draft for \$100.00, to cover bill of January 28th, 1888. We have never put anything in the mill which has given as much satisfaction in operating as these Feeders, bought from your Mr. Clark. I hope you will have good success in future with them.

MEEK, FINGER & CO., Props.

Sedalia, Mo., February 27, 1888.

I am now using McAnulty's Automatic Force Feeders, and I can say that it is the finest feeder ever manufactured, and I have used a number of different automatic feeders. I am now taking out the Craig and putting in the above feeders. *The McAnulty's have no superior, nor can they be any more perfect.*

B. S. REMBAUGH.

Millersburg, O., Feb. 18, 1888.

We have your system of Feeders on our Rolls throughout our mill, and can safely say there is no

Feeder made to equal the McAnulty on any and all kinds of Stock, from first brake to the softest low grade. We also have one of your Feeders on our Corn and Feed Roll, which surprised us when we got it to work. It increased the capacity and gives us an even feed the whole length of the roll. We are more than pleased with them.

MAXWELL, HECKER & POMERINE.

Office of THE TERRELL MILLING CO., Terrell, Texas, July 14th, 1887.

Hazeltine Mill Furnishing Co., Minneapolis, Minn.

Gentlemen:—The McAnulty Force Feeder shipped us has arrived all right, and we are well pleased with it. You can ship us the following order: Five (5) Feeders, to be used on 9x18 Double Stevens Roller Mills, speed 400, diameter of shafts 2 1/2. One (1) Feeder same as above, with roll shaft 2 1/2. Fit First Brake with your Weighing Regulator. Please ship at once, and greatly oblige,

TERRELL MILLING CO.

A. J. Childers, Pres.; T. M. Kell, Sec'y;

E. J. Lockhead, Supt.

THE Noel mill, Nashville, Tenn., will increase its capacity to 1,000 bbls. flour per day, and 2,000 bushels corn-meal.

BURNED.—April 14, The Crowder Milling Co.'s mill and elevator at Edwardsville, Ill. Loss \$30,000. Insurance \$10,000.

SOLD OUT.—F. M. George & Co., Sulphur Springs, Tex.; Smith & Sons, Elm Grove, W. Va.; Geo. Kidd, Brownstown, Wis.

THE Carondolet Mill, near St. Louis, after being considerably remodeled has started up with a capacity of 300 bbls. per day.

MESSRS. Sheehan & Shotwell have leased the Fargo Roller Mills, Fargo, Dak., for two years and will operate same to full capacity.

SOLD OUT.—Gale & Co., Harvard, Mass., to A. S. Bigelow; Hinman & Ward, Battle Creek, Mich., are succeeded by Frank H. Ward.

CHAS H. JONES' grist-mill, Dexterville, near Jamestown, N. Y., burned April 10, with other property; total loss \$75,000; insurance \$50,000.

E. A. WEIGLER, a grain buyer at Sun Prairie, Wis., made a voluntary assignment April 13; Liabilities placed at \$17,000; nominal assets \$8,000.

PALMER, LITTLETON & Co., Baker City, Oreg., are succeeded by Littleton & Moomaw; G. Altman & Co., Alexandria, Pa., are succeeded by Phillips & Altman.

THE Hunt Co. Co-operative Milling Association, Greenville, Tex., will build a flour mill with 200 barrels capacity. They will add corn, oats and hominy mill.

LEATHERWOOD & WESTMORELAND, millers at Cashville, S. C., write us that they have a valuable water-power to sell, and consider it a good place for a good mill or cotton factory.

BEN E. THORNBURGH having bought the interest of Lou A. Small, deceased, in the firm of Thornburgh & Small, at Martinsville, Ind., the business will hereafter be conducted by the surviving partner, Amos Thornburgh, and Ben E. Thornburgh. The style of the new firm will be Thornburgh Milling Co.

## NO OTHER RAILWAY IN THE NORTHWEST

has in so short a period gained the reputation and popularity enjoyed by the **WISCONSIN CENTRAL LINE**. From a comparatively unknown factor in the commercial world, it has been transformed to an independent, influential, grand **Through Route**, with magnificent depots, superb equipment and unsurpassed terminal facilities. Through careful catering to details, it has won for itself a reputation for solidity, safety, convenience and attention to its patrons, second to no railroad in the country. **Pullman** sleepers, models of palatial comfort, dining cars in which the cuisine and general appointments are up to the highest standard, and coaches especially built for this route, are among the chief elements which have contributed towards catering successfully to a discriminating public. Located directly on its line, between **Chicago** and **Milwaukee**, and **St. Paul** and **Minneapolis**, and **Chicago** and **Ashland** and **Duluth**, are the following thriving cities of Wisconsin and Michigan: **Burlington**, **Waukesha**, **Fond du Lac**, **Oshkosh**, **Neenah**, **Menasha**, **Stevens Point**, **Chippewa Falls**, **Eau Claire**, **New Richmond**, **Hurley**, **Wis.**, **Ironwood**, **Mich.**, and **Bessemer**, **Mich.**

For details, information, lowest current rates, berths, etc., via this route, to any point in the **Northwest**, apply to nearest Ticket Agent, or address

**WM. S. MELLEN, JAMES BARKER,**  
General Manager. Genl. Passr. & Ticket Agt.  
MILWAUKEE.

**COLUMBUS**  
**BUGGY & COMPANY,**  
COLUMBUS, OHIO,  
Manufacturers of FIRST-CLASS

**Buggies, Suiteys**  
PHAETONS,  
Park Wagons, Light Carriages.

Our work is fully Guaranteed and absolutely reliable.

**BEST** FOR LIVERY SERVICE!  
FOR FAMILY SERVICE!  
For PLEASURE DRIVING

POINTS OF SUPERIORITY:

Superior Material and Workmanship, Fine in Finish, Easy in Riding Qualities, Light in Draft,

Unsurpassed in Durability,

Cheapest for Quality of Goods in the World.



Owes and operates nearly 5,650 miles of thoroughly equipped road in Illinois, Wisconsin, Iowa, Missouri, Minnesota and Dakota.

It is the Best Direct Route between all principal points in the Northwest, Southwest and Far West.

For maps, time tables, rates of passage and freight, etc., apply to the nearest station agent of the **CHICAGO, MILWAUKEE & ST. PAUL RAILWAY**, or to any Railroad Agent anywhere in the World.

**R. MILLER**, **A. V. H. CARPENTER**,  
General Manager. Genl Pass. and Tkt. Agt.

**J. F. TUCKER**, **GEO. H. HEAFFORD**,  
Ass't Gen'l Manager. Ass't Gen'l Pass. and Tkt. Agt.

MILWAUKEE, WISCONSIN.

For information in reference to Lands and Towns owned by the **CHICAGO, MILWAUKEE & ST. PAUL RAILWAY COMPANY**, write to **H. G. HAUGAN**, Land Commissioner, Milwaukee, Wisconsin.

## THE CHICAGO AND NORTH-WESTERN RAILWAY.

Penetrates the Centres of Population in  
**ILLINOIS, IOWA,**  
**WISCONSIN,**  
**MICHIGAN,**  
**MINNNSOTA,**  
**DAKOTA,**  
**NEBRASKA AND WYOMING.**

Its TRAIN SERVICE is carefully arranged to meet requirements of local travel, as well as to furnish the most attractive routes for through travel between important

### TRADE CENTRES.

Its EQUIPMENT of Day and Parlor Cars, Dining and Palace Sleeping Cars is without rival.

Its ROAD-BED is perfection, of stone-ballasted Steel.

The North-Western is the favorite route for the Commercial Traveler, the Tourist and the Seekers after New Homes in the Golden Northwest.

Detailed information cheerfully furnished by

**JNO. S. GEORGE**,  
Commercial Agent, Milwaukee, Wis.

**MARVIN HUGHITT**, **H. C. WICKER**,  
Vice-Pres't and Gen'l Manager. Traffic Manager.

**E. P. WILSON**,  
Gen'l Passenger Agent.

## "TRIUMPH" CORN SHELLER

CAPACITY  
2000 BUSHELS PER DAY.

Shells wet or dry corn.

CHEAPEST AND BEST SHELLER.

**PAIGE MANUF'G CO.**

No. 12 Fourth St., Painesville.

[Please mention this paper when you write to us.]

## ASHLAND M.L. & W.R.Y. ROUTE

The Milwaukee, Lake Shore & Western Railway has been well named the Fishing and Hunting Line of Wisconsin, passing, as it does, through thousands of acres of but partially explored woods and within easy reaching distance of lakes and streams that have never been fished by white men, all well stocked with the game fish for which Northern Wisconsin waters are noted. The woods abound with game; deer, bear, wolf, mink, beaver, pheasant, and other game are quite plentiful.

### THE ONLY LINE

From Milwaukee to the new Iron Mining District in Wisconsin and Michigan that reaches ALL of the developed Mining towns: **GOGEVIC**, **WAKEFIELD**, **BESSEMER**, **IRONWOOD** and **HURLEY**.

Direct line to **ASHLAND** and **DULUTH**. Sleeping cars between **ASHLAND** and **CHICAGO**. The **GUIDE BOOK**, and other descriptive matter, containing full information, maps and engravings of the country traversed by the line, will be sent to any address on application to the General Passenger Agent.

**CHAS. L. RYDER**, Gen. Agent, 105 Washington St., Chicago.

City ticket office, 62 Clark St., Chicago. Chicago Depot, Cor. Wells and Kinzie Streets, (C. & N. W. R'y.)

City ticket office, 102 Wisconsin St., Milwaukee.

**F. WHITCOMB**, **CHAS. V. MCKINLAY**, Gen'l Manager. Gen'l Pass. Agent.

MILWAUKEE WIS.

## Milwaukee & Northern R.R.

**SHORT LINE**  
BETWEEN  
**CHICAGO, MILWAUKEE,**  
**Menasha, Neenah, Appleton,**  
**Depere, Green Bay, Ft. Howard,**  
**Marinette, Menominee,**  
**IRON MOUNTAIN.**

**3 EXPRESS TRAINS DAILY**  
BETWEEN  
**Chicago, Milwaukee,**  
**Appleton and Green Bay.**

**2 EXPRESS TRAINS DAILY**  
BETWEEN  
**CHICAGO, MILWAUKEE,**  
**Menominee and Iron Mountain.**

Elegant Pullman Palace Sleeping Cars on all Night Trains.

### CONNECTIONS.

At Milwaukee, in New Passenger Station with C. M. & St. Paul R'y and Wisconsin Central Line. At Plymouth, with C. & N. W. R'y for Sheboygan, etc.

At Menasha, with W. C. Line.

At Neenah, with W. C. Line.

At Appleton, with M., L. S. & W. R'y and C. & N. W. R'y.

At Forest Junction, with M., L. S. & W. R'y.

At Green Bay and Ft. Howard, with G. B., W. & St. P. R. R. and Stage and Boat for Sturgeon Bay.

At Oconto Junction, with M., L. S. & W. R'y for Oconto.

At Menominee, with C. & N. W. R'y.

At Iron Mountain, with C. & N. W. R'y.

**G. F. DUTTON**, **W. B. SHEARDOWN**, General Supt. Gen'l Ticket Agent.

1888.

1888.

CAWKER'S

## • AMERICAN FLOUR MILL AND ELEVATOR DIRECTORY •

\* FOR 1888 (COPYRIGHTED) \*

IS now READY FOR DELIVERY. This Directory is far more complete than any of the five preceding ones. Our long experience has taught us the wants of the trade, and we have used our best endeavors to meet them. The principal features are as follows:

1.—List of *Flour Mill owners of the United States and Dominion of Canada, with Post Office address, County and State, and when information is obtained, the capacity in barrels of flour per day of 24 hours, kind of power used (steam or water), roller or stone system.*

2.—Lists of *Corn, Oatmeal, Rice, Feed Mills, etc.*

9.—*Millers whom we believe to be worth Ten Thousand Dollars or more will be indicated.*

3.—List of *Grain Elevators and Warehouses.*

4.—List of *Millwrights.*

5.—List of *prominent American Flour and Grain Brokers.*

6.—List of *Foreign Flour and Grain Importers.*

7.—List of *Mill Furnishers, etc.*

8.—*Statistics valuable to the Trade.*

This directory gives the address of 16,062 Flour Mills in the United States and 1,634 in the Dominion of Canada. The additional lists of Feed, Corn, Barley, Oatmeal and Rice Mills, Elevators and Warehouses, Millwrights, Flour and Grain Brokers, Importers, etc., adds to the number of addresses several thousand. The COUNTIES are included in the address, and in cities, the street and number in most instances. We have had valuable aid in compiling this work from Secretaries of Boards of Trade, of Bureaus of Labor Statistics and Manufactures, from Railroad and Steamship Companies, from the milling and commercial press generally, and from mill and grain elevator owners themselves. That the work is *perfect*, we do not claim, for in the nature of things that is an impossibility, but as it is, it is indispensable to all desiring to reach the flour and grain trade of this country, and is *well worth the price asked*. The total number of addresses contained in this volume is 22,827.

**Price of Directory, \$10 per copy, post paid to any address.**

If desired Directory will be sent by express C. O. D. Remit by Express or by Exchange on New York, Chicago or Milwaukee, or Post Office or Express Money Order. Address,

**E. HARRISON CAWKER, PUBLISHER,**

**No. 124 Grand Avenue,**

**MILWAUKEE, WIS.**

1888 Edition, just out, March 1, 1888, revised, amended, and added to, to meet all the requirements suggested by the members of the Millers' National Association, who use more copies of this Code, than of all others combined.

•CODE•

COMPILED EXPRESSLY FOR THE USE OF

**MILLERS, FLOUR AND GRAIN BROKERS,**

For Private Telegraphic Correspondence, either  
for Land or Cable Lines.

This CODE has been approved and is used by the best firms in America and Europe. It contains Flour Tables, Bran Tables, Middlings Tables, Flour Grades and Brands, Time of Shipment, Dates, Names of Places, American Currency, Sterling Quotations, Tables on Limits, etc., Drawing, Credits, etc., and Shipments on Joint Account, Miscellaneous, Market Upwards, Market Downwards, Insurances, Shipping and Freight, Shipping by Regular Lines of Steamers, Finance, Bankers' Names, Standing of Firms, Telegraphing, Advices, Commission, Stocks and Crops, Weather, Samples and Quality, Equivalent of Sacks in Barrel Quantities, Commission Tables, Interest Tables, Equivalent Flour Prices in Currency, Sterling, Francs, Guilders, and Marks, Comparative Tables, Sack and Barrel Flour, Ocean Freight Rates (Comparative Table), Sailings from Sea Board (Table), Key to Sailings from Seaboard Table, Foreign Weights and Measures, etc. We respectfully refer to the following well-known firms: S. H. Seamans (Empire Mills), Secy of the Millers' National Association; E. Sanderson & Co. (Phoenix Mills), Milwaukee, Wis.; Daisy Roller Mills, Milwaukee, Wis.; Nunnemacher & Co. (Star Mills), Milwaukee, Wis.; Roots & Co. (Mills), Cincinnati, O.; C. H. Seyb, (Miller), Highland, Ill.; Kosmack & Co. (Flour Brokers), Glasgow, Scotland; J. F. Imbs & Co. (Millers), St. Louis, Mo.; E. Schraudenbach, Okawee Roller Mills, Wis.; Winona Mill Co., Winona, Minn.; Herrick, Kirk & Co., New York; Acme Milling Co., Indianapolis, Ind.; W. H. Jones, New Brighton, Eng.; Chas. Kreutziger, Heidelberg; Wm. and many others.

**ADDRESS**  
**THE RIVERSIDE PRINTING CO.,**  
**124 GRAND AVENUE,**  
**MILWAUKEE, WIS., U. S. A.**

THE St. Paul elevator at Northfield, Minn., with a large amount of grain, burned April 21.

MESSRS. J. G. EITEL & CO., of the Valley Flouring Mills, Chaska, Minn., write us that they are remodeling to a full roller mill of 100 bbls. daily capacity, and will soon be ready for merchant work.

AT Watertown, Ont., March 23, at 6 A. M., fire broke out in the storehouse of Robson Brothers' flour mills. Between 3,000 and 4,000 bushels of grain, which was stored in the building, was also destroyed. Loss, \$8,000; insured for \$4,000.

BURNED.—April 8, A. E. Henry's Mill at Sheboygan Falls, Wis., operated by H. Reysen & Son. It was the largest mill in the county. A considerable quantity of flour and grain were also destroyed; fire supposed to be of incendiary origin.

OSHKOSH, WIS., people are again troubled by the backing up of the water for which they blame the Neenah and Menasha waterpower owners. The Business Men's Association of Oshkosh censure Capt. Fuller, the U. S. Engineer in charge of Government interests in that vicinity, for not opening the gates and letting the water off. He replies that Oshkosh men have themselves to blame for blocking their river with numerous bridges and allowing sawmill owners to run their saw-dust into the river. Considerable bad feeling exists between manufacturers in Oshkosh, Neenah and Menasha.

#### PUBLICATIONS RECEIVED.

IT is a good deal to say, but it seems indeed possible that Chicago people will blush with modest pleasure when they read Mr. Charles Dudley Warner's estimate of them and their city, published in HARPER'S MAGAZINE for May. Mr. Warner's admiration is unreserved, not only for Chicago's possibilities but for its actualities, and his comparisons will not be found to be odious—at least not to the Chicagoans. As a centre of the universe, Paris, Pekin, and Berlin (not to mention New York) must ere long, he thinks, admit the position of this great city. So much for business. From a social point of view Mr. Warner believes that Chicago has not yet attained its ultimate excellence; still he holds that the best people out there have a truer love for books and literature than the corresponding class in New York, and that they are less critical, and occasionally admire things more than true Bostonians. The plain inference from all this is that the people of Chicago have at last got a firm grip on culture and true elegance, and simply mean to make them hum. The effect of such articles as this Western series now running through HARPER's will be incalculably good. They will help to overcome the natural timidity of the Western people, and cause the effete population of the East to know their own humble place.

AN attractive feature of Scribner's Magazine for May is a literary article by Austin Dobson on Alexander Pope, the two hundredth anniversary of whose birth occurs on the 21st of May next. The frontispiece of the number is an engraving of one of Kneller's portraits of the poet. Mr. Dobson's article also contains engravings of several others of Pope's portraits, of his house at Twickenham, portraits of Martha and Teresa Blount, etc. Following is a poem by Mr. Dobson, in Pope's manner, giving a critical estimate of his character and writings. The other illustrated articles of the number are: "In the Steamer's Track," by W. P. Northrup, an account of the cruise of the New York pilot-boat, David Carll; "The Decoration of Vases," by W. P. P. Longfellow; "Salmon Angling on the Restigouche," and "Modern Explosives," by C. E. Monroe. Among the other attractive features of the number are Robert Louis Stevenson's essay on "Gentlemen," and a poem by Edith M. Thomas.

#### SEVEN POINTS OF DANGER FOR GRAIN AND FLOUR CARGOES BOUND FOR GREAT BRITAIN.

"In time of peace, prepare for war" has wisely been said and our esteemed British contemporary, *The Miller*, London, for April, contains an editorial pertinent to the subject which we think is worth reproducing entire for our readers:

"In connection with so important a question it may be useful to point out that there are seven

places on the high seas by which these different fleets of peace must pass, and whereat accordingly they would require to be safe-guarded from an enemy's fleets of war. The principal grain fleet on passage to the United Kingdom is that of California, which has to round Cape Horn. Round this extremity of South America runs a strong current, and grain supplies to the extent of two million quarters having been at one time on passage to the United Kingdom (over a million now), it will easily be seen what immense damage might be inflicted by very few hostile vessels off this famous Cape. The second point of danger is the Cape of Good Hope. By this route large quantities of Indian wheat still reach us, and in case of the Suez Canal being strictly neutralized or blockaded the Cape of Good Hope route would return to its ancient character as the only seaway between England and her Indian empire. The third point is the Suez Canal itself, with Aden and the entrance to the Red Sea. The situation here is very easy for the assailant, very awkward for the defense. Once in the Red Sea and pursued by fast cruisers of the enemy, homeward bound grain ships would have no chance of being missed. Both ends of the Suez Canal would require to be guarded by naval forces, for if the Red Sea were passed in safety it is obvious that hostile vessels could remain off the North Egyptian coast waiting for the emergence of the ships. The fourth point is the Dardanelles, and the fifth the Straits of Gibraltar. The three points of Alexandria and the mouth of the Canal, of the narrow straits between Europe and Asia, and of the entrance to the Mediterranean are all within a few days' fast steaming of one another. A fast fleet of hostile vessels might pounce upon our trading ships at each of these points, and the direction of our Mediterranean squadron to any one of them would necessarily leave the other two unprotected. The entrance to the Baltic is a sixth and very important point of danger, the passages being both narrow and intricate, and the chance of escape to unguarded vessels a minimum. The seventh point is on the more open sea, but is not the less a well-defined locality. The trade winds which bring vessels from South America towards Europe, and the Southern Atlantic current which sweeps around the Cape of Good Hope, first in a westerly and then in a north-north-westerly direction, meet some distance from the West Coast of Africa, and not far distant from the Cape Verde Islands. Here in former wars privateers and cruisers have done much execution, and here again our merchant fleets would require protection. How much damage can be done by a single hostile vessel may be read in the tale of the Alabama for the malfeasance of which the British Government was glad to pay a commuted sum (indirect damages excluded) of three millions sterling."

[From our own Correspondent.]

#### OUR BALTIMORE LETTER.

The Baltimore flour market during the first half of April was characterized by a state of steadiness and inactivity, but the latter half opened with considerable animation, and at this writing the "era of prosperity" seems to have dawned, and values are apparently tending upward.

The appalling specter of our ever increasing stocks, and the consequent apathy on the part of dealers generally, has entirely disappeared, and in its place a revival of the trade formerly enjoyed by our merchants is now noticeable, and the prevalent opinion anticipates permanent results from the improvement so auspiciously begun.

Although exceedingly conservative, those engaged in the flour business here are yet, nevertheless, fully aware of the golden opportunities within their reach, and are accordingly grasping them with a vim, by absorbing all offerings at current rates. Our city mills are turning out their full quota of flour, and are meeting with a brisk demand, and, in instances, at a slight advance over quotations of a recent date.

Minnesota brands and spring wheat flours generally are coming in for a large share of

attention, and while they are relatively abundant, in comparison with winter wheats, they are at the same time commanding the views of the manufacturer. Immense through shipments of flour from the northwest for European markets find an outlet in Baltimore, and while we regret that the times have so changed that it is impossible for the man on the seaboard to derive any benefit therefrom, we accept the situation as gracefully as the exigency will permit, and in turn console ourselves with the fact that the City of the Chesapeake is selected in preference to all her rivals from which to forward these vast accumulations.

Our wheat market has been an enigma to many of Baltimore's shrewdest traders. In the face of some of the most startling statistics, which ordinarily, in former years, would have sent prices bounding, have had just the reverse effect, until within the last few days.

The large decrease in the visible supply, in comparison with the corresponding period of a year ago; the great scarcity of desirable winter wheat; the discouraging Government crop report; and the unprecedented backward season, have apparently gone for naught, and the bold manipulators of cereals have instead chosen to bear the markets of the world, without regard to those influences which should rightfully gauge and determine the value of these products.

Happily for all concerned, however, the "turn has now come," and it gives us pleasure to chronicle the fact that with the budding and blossoming of the trees an advance has been inaugurated which will doubtless continue until that point is reached commensurate with the intrinsic merits of this much abused and long depreciated commodity.

Exporters, millers and speculators all alike exhibit an eagerness to purchase, and the only drawback at present, to a large volume of business, is the lack of stock, there being less than 300,000 bushels of contract wheat in the Baltimore elevators. A higher range, however, will probably bring out the surplus in farmers' hands, provided it holds until they are through with their spring planting.

The very atmosphere here is buoyant, and everybody is now ready and anxious to put his shoulder to the wheel and help on that improvement which will inevitably bring happiness and prosperity to our homes, and to those of our fellow countrymen as well.

#### STOCK OF GRAIN IN THE ELEVATORS THIS DAY, AS COMPARED WITH CORRESPONDING DATE LAST YEAR.

	CORN.	This day.	Same time last year.
Description.	bus.	bus.	bus.
No. 1 White . . . . .	9,372	6,744	
" 2 " . . . . .	5,702	1,505	
Yellow . . . . .	9,382	24,052	
Mixed . . . . .	17,296	535,560	
Steamer White . . . . .	1,597	3,108	
" Yellow . . . . .	1,024	5,345	
" Mixed . . . . .	3,503	16,516	
Special Bin . . . . .	11,242	1,442	
No. 3 . . . . .		2,705	
Total . . . . .	59,118	596,977	

#### WHEAT.

No. 1 Red Winter . . . . .	2,168
" 1 Maryland . . . . .	27,127
" 2 Southern . . . . .	1,468
" 2 Red Winter . . . . .	262,664
" 3 " " . . . . .	6,403
Mixed Winter . . . . .	564
Steamer No. 2 Red Winter . . . . .	39,017
Special Bin . . . . .	126,449
Spring . . . . .	18,628
Total . . . . .	455,193
	447,995

We quote the range of the Flour Market as follows:

Ohio, Indiana and Illinois Super	\$2.37 @ 2.85
" " " Extra	3.00 @ 3.75
" " " Family	4.00 @ 4.50
Winter Wheat Patent	4.50 @ 4.85
Minnesota	4.75 @ 4.90
Baltimore Winter Wheat Patent	5.50
" High Grade Family	5.15
" First Extra	5.05
" Choice "	4.75
Maryland, Virginia and Penna. Super	2.37 @ 2.75
" " " Extra	3.00 @ 3.60
" " " Family	4.00 @ 4.35
City Mills Super	2.37 @ 2.60
" Extra	3.00 @ 3.75
" (Rio Brands Extra)	4.50 @ 4.75
Fine Flour	2.15 @ 2.35
Rye Flour	3.45 @ 3.75
Hominy	3.40 @ 3.50
" Grits	3.60 @ 3.70
Corn Meal, per 100 lbs.	1.30 @ 1.40

RECEIPTS AND EXPORTS OF BREADSTUFFS AT SEABOARD PORTS FROM JAN. 1 TO APRIL 13, 1888.	
SHIPPMENTS.	At
From	
Montreal	Flour. Bris. Wheat. Bus. Corn. Bus. Oats Bus. Rye. Bus. Barley & Malt Bus.
Boston	80,116 671,435 355,027 1,202,226 1,527,658 14,015 480,712 1,384,132 274,500 1,907,905 373,195 41,573 167,910
New York	1,741,628 223,735 628,524 700,946 1,041,285 50,745 1,384,132 1,384,132 274,500 1,907,905 373,195 41,573 167,910
Philad.	272,503 256,620 628,524 628,524 1,041,285 50,745 1,384,132 1,384,132 274,500 1,907,905 373,195 41,573 167,910
Baltimore	982,294 483,182 628,524 628,524 1,041,285 50,745 1,384,132 1,384,132 274,500 1,907,905 373,195 41,573 167,910
Total	3,697,974 2,311,985 6,054,962 7,100,321 106,194 2,382,221 172,276 2,594,898 8,726,294 172,276 2,594,898
Total	1887,13,188,588 20,062,860 11,645,478 14,166,783 20,062,860 11,645,478 8,726,294 172,276 2,594,898

The official Government Report of the exports of Flour, Wheat and Corn from the United States, with destination, were as under, from July 1 to February 28 and 29:

CORN TO	1887-88.	1886-7.
Great Britain and Ireland	9,727,209	15,254,799
Germany	726,218	1,521,104
France	810,880	812,740
Other countries in Europe	2,193,157	3,651,161
British North America	2,408,313	3,137,117
Mexico	211,982	616,881
Cen. Amer. States and Br. Honduras	67,296	15,192
West Indies	322,800	457,077
South America	42,607	37,332
Other countries	59,787	26,825
Total bushels	16,570,258	25,530,228

#### WHEAT TO

Great Britain and Ireland	33,384,457	38,758,070
Germany	736,770	377,926
France	8,029,948	11,411,689
Other countries in Europe	11,742,090	13,263,479
British North America	4,266,170	2,296,717
Cent. Amer. States and Br. Honduras	39,056	26,817
Other countries	217,675	377,052
Total bushels	53,396,168	66,514,750

#### WHEAT FLOUR TO

Great Britain and Ireland	5,676,332	5,084,870
Germany	40,672	24,388
Other countries in Europe	351,959	371,940
British North America	436,300	417,098
Mexico	15,733	16,230
Cent. Amer. States and Br. Honduras	110,000	8,371
West Indies	774,317	610,726
Brazil	376,258	520,754
United States of Columbia	50,614	46,523
Other countries in South America	190,863	175,849
Asia and Oceanica	319,488	342,754
Africa	10,021	8,174
Other countries	16,610	21,743
Total bushels	8,389,167	7,751,420

#### CHESAPEAKE.

Baltimore, April 21, '88.

### MILL AND ELEVATOR BUILDERS, MILL FURNISHERS, MANUFACTURERS OF AND DEALERS IN MILL AND ELEVATOR MACHINERY AND SUPPLIES. AN AUTHENTIC BUYERS' GUIDE.

Cards will be inserted under this heading in the "U. S. Miller," not exceeding three lines, copy of paper included, for FIVE DOLLARS per year, cash with order. Additional lines, \$1.00 each, per year.

**Edw. P. Allis & Co.**, Milwaukee, Wis., builders of complete Flour Mills, manufacturers of Flour Mill Machinery, and dealers in Supplies of every description. [Mr. 89.]

**Garden City Mill Furnishing Co.**, Chicago, Ills., Mill Builders, manufacturers full line of Flour Mill Machinery, dealers in Mill Supplies, Bolting Cloth, etc., etc. [Mr. 89.]

**Jonathan Mills Mfg. Co.**, Cleveland, O., manufacturers of Milling Machinery, dealers in Mill Supplies, Bolting Cloth, etc. [Mr. 89.]

**Borden, Selleck & Co.**, 48 & 50 Lake st., Chicago, Ills., manufacturers of "HARRISON CONVEYOR," for Grain, Malt, etc., etc. [Mr. 89.]

**Hassetine Mill Furnishing Co.**, Minneapolis, Minn., manufacturers of "MCANULTY FEEDERS" for Rolls, etc., etc. [Mr. 89.]

**John C. Higgins & Son**, 165 West Kinzie Street, Chicago, Ills., mfrs. of and dressers of Mill Picks. [Mr. 89.]

**H. P. Yale & Co.**, Milwaukee, Wis., Manufacturers' Agents of Engines and Boilers, New York Leather Belting Co.'s Leather Belting, Dodge Wood Pulley. [Mr. 89.]

**Poole & Hunt**, Baltimore, Md., manufacturers of Steam Engines, Water Wheels, Flour, Corn, Paper, Saw and Cotton Mill Machinery. [Mr. 89.]

**W. J. Clark & Co.**, Salem, O., manufacturers of "SALEM" Elevator Buckets, etc. [Mr. 89.]

**Thornburgh & Glessner**, 18-22 N. Clinton St., Chicago, Ills., manufacturers of Mill and Elevator Supplies. [Mr. 89.]

**R. C. McCulley**, (P. O. Box 214) Lancaster, Pa., manufacturers Cob Crushers, Cooper's Stoves, Castings, Patterns, etc. [Mr. 89.]

**B. H. & J. Sanford**, Phoenix Iron Works, Sheboygan, Wis., manufacturers of the "IMPROVED WALSH DOUBLE TURBINE WATER WHEEL." [Mr. 89.]

**John C. Kilner**, York Foundry and Engine Works, York, Neb., Mill and Elevator machinery of all kinds, Engines, Boilers, Pulleys, Shafting, etc. [Mr. 89.]

**The Gutta Percha and Rubber Mfg. Co.**, 159-161 Lake st., Chicago, Ills., Belting and Rubber Goods. [Mr. 89.]

**The Avery Elevator Bucket Co.**, sole owners and manufacturers of Seamless Steel Elevator Buckets, Wason, Lake and Dart sts., Cleveland, O. [Mr. 89.]

**Richmond Mfg. Co.**, Lockport, N. Y., manufacturers of Grain Cleaning Machinery, Bran Dusters etc. [Mr. 89.]

**N. Y. Belting and Packing Co.**, N. Y. Leather Belting Co., Goulds & Austin, Agents, 167 and 169 Lake Street, Chicago. [Apr. 89.]

**Weller Bros.**, 94 Wendell st., Chicago. M'frs Mill and Elevator specialties, Cups, Boots, Spouts, Steel Conveyors, Power Grain Shovels; dealers in Cotton and Rubber Belting, etc. [Apr. 89.]

### MILLERS AND MANUFACTURERS OF WHEAT, RYE AND BUCKWHEAT FLOURS, AND CORN MEAL AND CORN PRODUCTS. (WITH NAMES OF SPECIAL "BRANDS" MADE) DESIRING CORRESPONDENCE WITH SOLID HOUSES WITH A VIEW TO TRADE.

Cards will be inserted under this head in the UNITED STATES MILLER, not exceeding three lines, paper included, for FIVE DOLLARS per year. Additional lines, \$1.00 each per year.

**J. B. Kern & Son**, "Eagle Mills," Milwaukee, Wis. WHEAT FLOUR BRANDS—Patents: "Success," "Kern's," Bakers: "Triumph," "High Ground," "Eagle," RYE FLOUR BRANDS—"A Rye," "I Rye," "Rye." Hard wheat flour and roller process rye flour SPECIALTIES.

**E. Sanderson & Co.**, "Phoenix Mills, Milwaukee, Wis., U. S. A. Manufacturers and Exporters of choice spring wheat flours. Daily capacity 1500 barrels.

**Bernhard Stern**, "Jupiter Mills," Milwaukee, Wis. Roller Mill. Hard wheat Patents. Principal brand, "Jupiter."

**Russell, Andrews & Birkett**, Penn Yan, N. Y. Manufacturers of roller process Rye and Buckwheat flour. Absolute purity guaranteed. Write for prices.

### Prominent Flour, Grain and Provision Brokers, desiring correspondence with Millers of Wheat, Rye and Buckwheat Flours, and Cornmeal and Corn Products, with a view to Trade.

Cards will be inserted under this heading in the "U. S. Miller," not exceeding three lines, copy of paper included, for FIVE DOLLARS per year. Additional lines, \$1.00 each per year.

**S. P. Thompson & Co.**, 218 Patterson st., Baltimore, Md. Flour and Grain Commission.

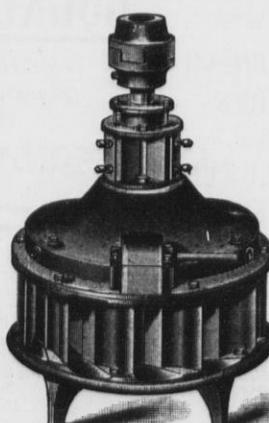
**Magor Bros. & Co.**, Produce Exchange, New York, Shipping and Commission, Flour, Grain and Provisions.

**W. K. Sherwood**, Flour and Grain Commission, 18 South Commercial Street, St. Louis, Mo. [Ap. 89.]

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### BURNHAMS Improved Standard Turbine



Guaranteed Circulation for April, May and June, 10,000 copies each month.

### WANTED!

We want the addresses of

### HEAD MILLERS

in all mills having a capacity of 150 barrels of flour per day or more with short description of mill, system, power used, etc.

We want the addresses of

### MILLWRIGHTS

who take contracts for millbuilding, repairing, etc., and who would take orders for flour mill, elevator and malt house machinery and supplies.

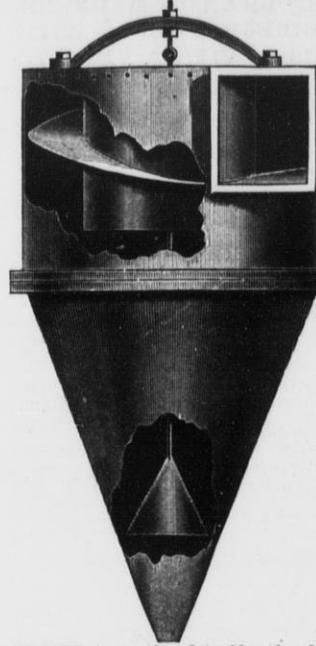
We want the addresses of

### ENGINEERS

having charge of large engines in flour mills, elevators, breweries and malt houses.

# VORTEX DUST COLLECTOR

• GREAT • SUCCESS •



Guaranteed not to Infringe <sup>ON ANY OTHER</sup> Dust Collector Patent

## NOTICE !

TO WHOM IT MAY CONCERN : We, the undersigned, give notice that we have transferred to the Vortex Dust Collector Co., of Milwaukee, Wis., all our right, title, interest and good will in and to our Dust Collector business, heretofore carried on in Indianapolis, and they will hereafter be the sole manufacturers of the "Vortex." Mr. Eugene Bretney, our President and Manager, will superintend the manufacture of said machine in the future.

THE BRETNAY DUST COLLECTOR CO.

THIS is undoubtedly the best machine on the market for Purifiers, Grain Cleaners and Elevators, or in connection with any dust producing machinery, and we respectfully solicit from our milling friends and the trade generally a share of the Dust Collector trade.

### TESTIMONIAL.

INDIANAPOLIS, IND., Feb. 16, 1888.  
To whom it may concern : This is to certify that we have in our two mills two of your Vortex Dust Collectors, manufactured by the Bretney Dust Collector Co. We are very much pleased with the working of them in our mills. We have tried them thoroughly. At first we put in a few, until we now have twenty on our purifiers and wheat cleaning machinery. Too much cannot be said in their praise.

ACME MILLING CO.  
By S. F. ROBINSON, Pres't.

SPECIAL SIZES built for ELEVATORS and WOOD-WORKING MACHINERY  
Apply for Prices before Purchasing elsewhere.

No Power! No Attention! No Clogging!  
Perfect Ventilation! Low Prices!

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**VORTEX DUST COLLECTOR CO., MILWAUKEE,  
WISCONSIN.**

## Important Notice !

MANUFACTURERS  
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THE GILBERT  
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We are Prepared to furnish **STEEL**  
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**KURTH'S PATENT**  
**IMPROVED**  
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As required, and solicit orders for  
repairs as well as for new  
machines.

Please favor us with a share of your patronage.

• READ •

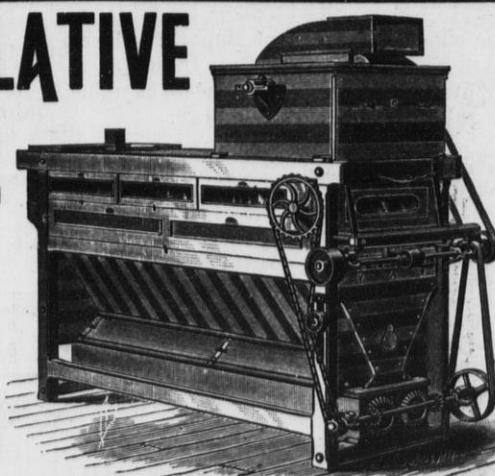
Pillsbury A Mill, Minneapolis, Feb. 13, 88.  
To Cockle Separator Mfg. Co., Milwaukee, Wis.  
Gents: In regard to your latest improved rolling  
screen Cockle Machine, we would say we like  
them very much. The eight we have put in are  
doing first-class work and we consider them the  
best cleaning machines we have.  
C. G. HOYT, Head Miller.  
HIRAM SNYDER, Second Miller.

ADDRESS

**Cockle Separator Manufacturing Co.**  
MILWAUKEE, WIS.

## SUPERLATIVE PURIFIER

BEST  
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VERY LOW PRICES on Both THESE MACHINES



**Superlative  
Bran Duster  
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Undoubted Satisfaction.  
Perfect Construction.  
SEND FOR CIRCULAR.

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# The Jonathan Mills Manufacturing Co.

MANUFACTURERS OF

## SPECIAL FLOUR MILL MACHINERY.

WE SHALL MAKE THE **Jonathan Mills Universal Flour Dresser** OUR LEADING SPECIALTY.

THIS Machine has built for itself a National Reputation solely through its Superior Merits, and stands to-day a Peer to everything in the bolting line, not alone in **Flour Milling** but for **Buckwheat, Corn Meal, Electric Carbon, Dry Lead for Paints, Salt, Sugar, Foundry Facings, Ground Bone and Soapstone.**

We carry a full line of **Heidegger & Co.'s** Celebrated **Crown Silk Anchor Bolting Cloths and Grit Gauzes.** These Cloths are famous the world over for their great strength and evenness of count.

We have the most experienced cloth makers, and can insure you as good making up of your cloth as can be made anywhere. **GIVE US A TRIAL ORDER.**

The Empire Manufacturing Company furnish us with White Special Webbing that is very strong, pliable and much less elastic than colored webbing or ticking. By favoring us with your cloth orders for any style of Reel or Purifier, you can rely on getting Superior work at satisfactory prices.

We also furnish the very best **Wire Scalping Cloths** made up to fit any kind of Reel.

We shall at once issue a forty or fifty page pamphlet that will interest every one in the Milling business.

WE EARNESTLY SOLICIT YOUR CORRESPONDENCE AND TRADE. ADDRESS

# The Jonathan Mills M'f'g Co., Cleveland, Ohio.

## INDIANA MILLERS' ASSOCIATION.

The annual meeting of Indiana millers will assemble in Agricultural Hall in the new Capitol, Indianapolis, on Tuesday, May 8, and they are preparing for a regular old-fashioned, orthodox camp-meeting time, as will be seen from the programme, as partly completed, which is for at least a three-days' session, as follows:

## TUESDAY, MAY 8.

Convention called to order at 10 a. m.

Welcome Address—Governor Isaac P. Gray.  
Welcome to the City—Mayor Caleb S. Denney.

Address by the President—S. B. Boyer.

Introduction of President C. H. Seybt, of the Millers' National Association, Judge Cyrus Hoffa, Vice-President of the Pennsylvania Millers' Association, and other invited guests.

## AFTERNOON.

Report of Secretary and Treasurer.

Appointment of Committees.

Paper—"Advantages of Organization."—Judge Cyrus Hoffa.

Discussion.

Paper—"Purposes and Methods of District Organization."—E. G. Thomas, President Northern Indiana Millers' Association.

Discussion.

Adjournment.

## WEDNESDAY, MAY 9.

Re-assemble at 10 o'clock a. m.

Report of Committees.

Paper—"Small Millers and the Export Trade."—C. H. Seybt.

Discussion.

Paper—"Disposal of Surplus Products."—J. F. Lingaman.

Discussion.

Paper—"Uniform System of Grading."—Nic. Elles.

Discussion.

## AFTERNOON.

Paper—"Mill Mutual Insurance."—L. H. Gibson.

Discussion.

Paper—"Mill Book-Keeping."—C. W. McDaniel.

Discussion.

Paper—"Cash vs. Credit in Sale of Flour."—L. H. Blanton.

Discussion.

Paper—"The Exchange System from the Farmer's Standpoint."—W. W. Sullivan.

Paper—"The Exchange System from the Miller's Standpoint."—J. E. Loughrey.

Discussion.

Adjournment.

## THURSDAY, MAY 10.

Re-assemble at 10 o'clock a. m.

General Business.

Presentation of papers assigned, acceptance of which not yet reported.

Discussion.

## AFTERNOON.

Election of officers for ensuing year.

Installation of officers elected.

General love-feast.

Adjournment sine die.

A reliable report of the meeting will be duly published in the May number of THE UNITED STATES MILLER.

THE FOX RIVER is up, and damage to the amount of \$5,000 or more is reported from Kaukauna, Wis.

BURNED—Howard Risher's flour mill at Hay, Pa.

IF there is *anything* about a mill or elevator that should be absolutely reliable at any and all times it is the weighing scales. The HOWE SCALES (Borden, Selleck & Co., 48 and 50 Lake st., Chicago) have stood all the tests and are pronounced *perfect*.

DO NOT FAIL to send in your subscriptions to the UNITED STATES MILLER. With our May number a new volume commences. By the way see our advertisement elsewhere, commencing: "50 Charming Complete Novels.

[From our own Correspondent.]

## OUR ST. LOUIS LETTER.

The general business situation at this date makes all speculation as to the future exceedingly problematical. The depression in the products of almost every description, which has governed commercial values for the past several years, has resulted in the establishment of such a bear sentiment, that both war and famine must, seemingly, appear upon the scene before the current can be changed. These influences for the past few weeks having both (especially the latter) become factors in the calculation of commerce. Sharp advances have been established in our leading products, and a growing bull sentiment seems to have "come to stay," and the "theory" or "fancy" that the earth rests every seventh year, gives promise of being vindicated this year, anyhow. Our business interests have endeavored, as far as possible, to ascertain the condition of the growing wheat, and with the exception of Kansas, the reports present a most unfavorable average. A tabulated statement of our receipts and shipments from Jan. 1 to this date, makes the following showing:

	Receipts.	Shipments.
Wheat	760,989 bushels.	1,342,415 bushels
Corn	6,194,210 "	4,812,436 "
Oats	2,147,905 "	1,660,740 "
Rye	38,012 "	29,367 "
Barley	702,339 "	113,772 "
Flour	271,716 barrels.	844,590 barrels
Meal	4,625 "	120,384 "
Bran, 140,315 sacks and 66 cars, 198,510 sacks and 49 cars		
Output of local millers		572,874 barrels.

Respectfully,

St. Louis, Apr. 24, '88. W. K. SHERWOOD.

[From our own Correspondent.]

## OUR BUFFALO LETTER.

BUFFALO, April 22.—Millers here have advanced prices 15 to 25 cents per barrel on all grades of flour during the past week, but not without creating the usual hubbub among dealers. For months past there has been little or no profit in milling, owing to a want of harmony in the ranks of the fraternity, and the above action was only taken after the desperation of the case became too apparent to admit of further delay. Another advance is looked for if the wheat markets continue stationary, and with any fair sized "slump" no decline is contemplated. The fact is, it is impossible to see where the profit can be made with No. 1 hard Duluth wheat quotable at \$1.00 per bushel in this market.

A famine in No. 1 hard Duluth wheat exists here at present. That the supply of this grade was not sufficient to meet the requirements of our local millers, to say nothing of the Rochester and surrounding country demand, was known among holders of this wheat here, but no amount of coaxing would induce buyers to take hold to any extent. About a month ago, however, a syndicate of local millers were convinced by figures that there was something in a famine article published in a local paper, and commenced picking up only the choicest lots of No. 1 hard at 88 or 89 cents. As soon as they had cleaned out sellers at these prices the market strengthened and 91@92 cents was asked which brought out a few thousand bushels more. When the "syndicate" were sole owners of all the available hard wheat, they commenced selling small lots to their more unfortunate brethren at 93@93½ cents until

the drop in Chicago, when the "peg" was put down to 91 cents. Then the heaviest sellers laughed at the "syndicate" saying "we have unloaded," and a few were doubled up with fits when it was discovered that the millers had neglected to "short" their large accumulations. But the millers kept on milling, and when an order came to hand it could only be filled at the office of the head of the "combine." This grew monotonous to traders, especially when orders increased in size and number, but nothing less than 91 cents, which was 15 cents or more over Chicago May, would budge a bushel of No. 1 hard. For three weeks this was the price, by which time the millers had worked off all the wheat they did not want for certain reasons. On Saturday last 5,000 bushels No. 1 hard wheat sold at 93 cents, closing with 95 cents asked, and Monday morning 8,000 bushels was taken at 98½ cents. Not a bushel of this grade can now be obtained under \$1.00.

No. 1 northern from Duluth and Washburn naturally advanced during this time, but not in proportion to hard. Duluth No. 1 northern was next cleaned out at 11 cents over Chicago May, and then buyers began on the "Washburn," taking large lots at 9 cents over Chicago May. "Washburn" wheat came here cursed by former records of wheat from that point last year, and it required the utmost tact and perseverance to induce buyers to even look at it; to-day only 50,000 bushels remain out of 275,000 in store here when the fight commenced. This is held at 11½ cents over, and will all be taken by next week. Buffalo millers have all the choice No. 1 hard they can grind until navigation opens, but it is feared that Rochester and other country millers will suffer or be forced to pay an extortionate high price for spring wheat.

Flour is active and strong at the advance; it was hard work to move it at the old price.

A lot of Duluth or Minneapolis wheat now in store near Chicago, and which was sent there to break the corner, is offered here, but the notty seller has not disposed of it yet.

Larger rollers are being put in the Urban and also one of Schoellkopf & Matthew's mills; the output will be doubled next year.

Country miller's advanced prices 3 to 5 cents for wheat from farmers' hands without bringing in enough to supply their demands.

The only mill for sale here is the Queen City, owned by Harvey & Henry, water power, and capacity 400 barrels; the firm having too many "irons in the fire" is the only reason for wishing to sell.

The mills are all running full time, except three shut down for repairs.

The grumbling against certain railroads for discriminating against Buffalo millers has about ceased. A little combination of millers against this injustice will result in getting fair treatment if judiciously managed.

Feed is scarce and high, winter bran selling at \$20 per ton, and spring \$19.25@19.50.

## WISCONSIN MILLERS' ASSOCIATION.

A quorum of members of the Wisconsin Millers' Association met in the Club-room of the Plankinton House, April 10, at 2 p. m., President Sanderson in the Chair, and S. H. Seamans, Secretary. Among those present were E. Sanderson, C. Manegold and S. H. Seamans of Milwaukee; E. W. Arndt, Depere; E. J. Lachman, Neenah; G. May and E. A. Ordway, Beaver Dam; John Schrouth, Theresa;

R. E. Mailer of Z. G. Simmons & Co., Kenosha; A. D. Bridge of Dexter & Bridge Bros., Whitewater; and B. S. Potter, Barton. The UNITED STATES MILLER was represented by E. Harrison Cawker. From the Secretary's report we take the following:

"Referring to the existing great depression in the milling business, every miller, it was urged, should become a member of his State Association. To secure such a result, the annual meetings should be made more interesting and not be confined to mere routine business. There should be a social reunion and possibly a banquet, so members could become better acquainted with each other. The association's deliberations have heretofore been confined almost exclusively to patent suits, etc., now matters of the past, while at present the commercial status of the milling business demands immediate attention. The National Executive Committee have taken in hand that part looking toward the general abuses which exist in the foreign and domestic flour trade. It is not their province, neither is it advisable that they should interfere in any way with the local difficulties which surround the business, that is the business of the State associations to contend with. In order that efficient work may be accomplished, every district should have its local organization to which every miller in the district should belong. The district associations should then unite and maintain an efficient State organization; and the State associations should come together in the form of a strong and efficient National association. While writers in the milling press were complaining that the National Association should look after and remedy all evils, yet the writers never contributed a cent to the National Association. Any reforms or suggestions which it is intended the National Executive Council should take hold of must carry with them the necessary financial aid to bring success.

"There should be as large delegations as possible sent to the National Millers' Convention at Buffalo, June 14. That will be a business meeting from beginning to end. The commercial interest of millers will take precedence; and it is expected that important rules and regulations will be adopted which will be of interest to millers in all sections of the country. The foreign and domestic flour trade will each have its share of time devoted by the convention. I wish to impress upon the miller who does not export his product that he is equally interested in promoting the export trade with the miller who exports his entire product. In my intercourse with millers I have frequently found in talking with them, they do not realize the fact that, in encouraging the exportation of flour, they indirectly helped their own trade. Heretofore the millers in various sections of the country, have seemed to be antagonistic, in a commercial sense, to millers of other sections.

I think that feeling is undergoing a change, and the time is now ripe for breaking down any prejudices that may exist in this direction. The idea that has prevailed heretofore, that the large mills would eventually wind up the small and that the small mills would finally tire out the large, has proved a fallacy. There would seem to be room for all; and if all work in harmony there is no reason why the milling business should not be conducted on sound

business principles in the same manner as other legitimate trades.

"The National Executive Committee in connection with the flour receivers of Great Britain have taken up the abuses existing in the transportation of flour and mill products. This will only relate to through business, more particularly pertaining to through bills of lading. All matters of local transportation, the State and District organizations will have to take under their charge. To that end I would suggest a committee of three on transportation to whom all matters of complaint should be referred. I feel warranted in saying that if any matters in which the National Executive Committee can aid the local organizations, they will do so cheerfully."

This report was received with marked favor.

The old officials were all re-elected except Vice President Puhlmann, who has removed to Iowa; and Director Green, who has gone out of the business; so the official roster for the current year stands as follows: Ed. Sanderson, president; E. J. Lachmann, vice president; S. H. Seamans, secretary and treasurer; J. B. A. Kern, C. Manegold and Gust. May constitute the board of directors; and Mr. Seamans was for the twelfth consecutive time chosen the representative of Wisconsin millers upon the executive committee of the National Association.

An informal discussion of various matters of interest to the trade occupied a half-hour more. In regard to district associations, Mr. Lachmann said he was a thorough believer in them as tributary to the State Association.

"There are a dozen mills in the Fox River valley and during the brief period which has elapsed since we organized our district association up there, a variety of substantial benefits have accrued to us all by united action."

Some shippers from the interior complained of delays at this port during the winter where express instructions were given to the transportation companies to forward by rail if impracticable to forward by water.

"The very same difficulties are encountered by exporters as by inter-state shippers," replied Mr. Seamans. "So far as these abuses occur in the two former modes of shipment, the National Association has taken the bull by the horns. Its executive committee will convene with the Minnesota Association at their annual meeting, when there will be formulated an inter-state and seaboard bill of lading, designed to obviate the evils complained of. And this will be adopted together with the interstate rail and trans-oceanic bill already formulated by the importers on the other side. So far as local abuses are concerned, let district organizations take hold of them in the same spirit and do away with them in the same way."

"Lawsuits don't pay," a member remarked, "neither does bluffing a railroad singlehanded, but united action, if determined and persistent, gets there every time."

An assessment of \$3 per unit was levied to defray expense of dues to National Association, and leave a slight surplus for contingencies, and the annual meeting adjourned *sine die*.

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