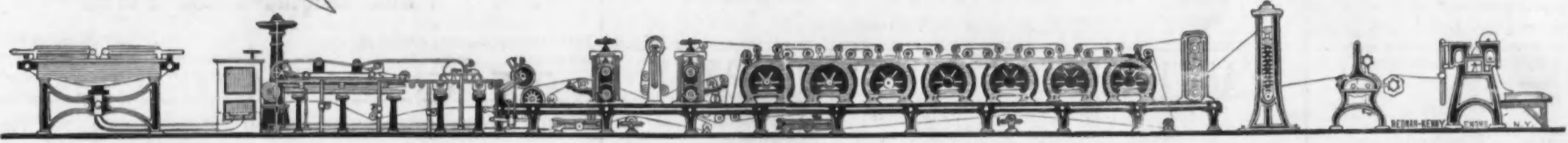


# THE PAPER TRADE JOURNAL.



"The Consumption of Paper is the Measure of a People's Culture."

VOLUME XIII.—NO. 22.

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WHOLE NUMBER 526.

## Trade Topics.

### Sizing as Applied to Paper.

Under the head of "Sizing as Applied to Paper Manufacture," the *Paper Trade Review* prints the ensuing résumé of the different methods:

Paper without size lacks consistency and, therefore, general utility. Every paper maker knows from experience that writing-ink, if deposited on one of the surfaces of a sheet, would pass through the pores, and appear at once upon the opposite side. L. S. Le Normand, in his valuable work, "Nouveau Manuel Complet du Fabricant de Papiers, ou de l'Art de la Papeterie," confirms this, and also states that printers' ink would scarcely adhere to it. [An erroneous idea.—Ed. P. T. J.] In hand-made paper making of to-day, the animal sizing is done by hand, in much the same manner as by our forefathers centuries ago. In machine mills, however, as almost every reader of this journal will know, paper is sized either in the engine or on the paper machine. The materials used are different in the two cases.

There are various prescriptions for engine size, the most common being resin size, which is made by adding a solution of alum to resin or a resin soap dissolved in soda. Our object is, however, not so much to describe what everybody knows, as to introduce the subject of sizing generally for our readers to thrash out among themselves.

Before the invention of paper machines, the leaves were sized with gelatine or animal size, a process which, as already stated, is still followed in many of the hand-made mills of to-day. This method is tedious, and at all times unsuited to the manufacture of continuous paper. All kinds of web paper will carry from five to fifteen per cent. of kaolin without size, and it is asserted by many English and Scotch paper manufacturers that a small addition of it to the pulp improves some kinds of paper, making them smoother and more opaque; but all paper makers will agree that too great a quantity weakens the paper and makes it brittle. The first attempts at pulp sizing, or sizing in the beating engine go back to the beginning of the century.

Braconnet, in analyzing German papers sized in the pulp, was led to the preparation of vegetable size, which he obtained through the precipitation of a mixture of an aluminous-resinous soap and starch, by means of alum.

D'Arcet, after several experiments, following the instructions of Braconnet, originally adopted the following proportions for 100 parts of dry pulp:

12.0	parts of starch.
1.0	" resin, dissolved in
0.5	" carbonate of soda.
315.0	" water.

He first boiled the resinous soap in water, and then added the starch previously dissolved in water. The proportion of alum made use of to precipitate the resin was such that the test-paper would no longer indicate the presence of an alkali in the pulp. As the paper, however, lacked the firmness which was imparted to it by gelatine, M. d'Arcet modified the quantities to be employed as follows:

100	parts of dry pulp.
4	" starch.
8	" resinous soap.
8	" alum.

The resinous soap is obtained from 4.80 parts of powdered resin, 2.22 " crystals of soda at 80° (fr. alkalimeter), 100 " water.

The gelatine is first dissolved in hot water. Theoretically speaking, we should only need 245 parts of alum to precipitate the resin; but the waters which are almost always calcareous, neutralize a part of it. When the alum is poured in sulphate of soda is formed, and the molecules of resin adhere with great tenacity to the fibres of the pulp.

Resin size, writes D'Arcet, is made thus: Soda at 80° (alkalimeter) is dissolved in hot water, and is rendered caustic by the addition of a little lime, which takes away the carbonic acid from the carbonated part of the salt. It may be readily understood from this that the proportion of lime ought to vary according to the composition of the soda employed. The liquid is shaken and after settling is decanted.

The part remaining at the bottom of the vessel is then washed to carry off the last remaining traces of soda. This alkaline solution is then poured into a great wooden tub heated by steam. By degrees the powdered resin is thrown in, and after continued stirring the solution is effected. The operation lasts from two to three hours. The product is then made to run off into a lower receiver. On cooling this resinous soap takes a more or less brown appearance according to the resin employed.

To make the actual size, a certain quantity of this resinous soap is thrown into a tub containing water heated by steam; the starch (if approved of), previously mixed with a small quantity of lukewarm water, is then poured into the mixture. In some paper mills (where clay is used in the size) the starch and kaolin are thrown in alternately, in small portions, and constantly stirred to obtain a perfectly homogeneous mixture. When the tub is full it is allowed to cool, and the preparation then has the appearance of a slightly yellow size, with a more or less stony feel, according to the amount of kaolin which has been added. [Hot size is preferred in many mills.] There are generally two or four tubs—two are used for the day's work, and the other two are filled for the day following. A determined quantity of this size is poured into each lot of pulp, which is indicated upon the day's working list of the foreman of the beating engines. Some manufacturers throw the powdered alum directly into the engine. It is much better to dissolve it at a temperature from 60° or 70° C. (140° to 158° Fahr.), and to draw off it as required through a felt which contains all impurities. As in the case of the size, volumes are used instead of weights, which amounts to the same thing, if we know the strength of the liquid. Generally, equal quantities of alum and lime are taken. Sometimes the proportion of alum is increased if the water is calcareous, or if it is desirable to give greater firmness to the paper. The quantities employed are very various.

Planche recommends:

16	parts of soda,
8	" lime,
to dissolve	
100	parts of resin,
210	" water.

The soda must be in excess to make sure that the resin is dissolved. He admitted that one part of soda at 80° of the alkalimeter dissolves six parts of resin, and that one part of soda rendered caustic by 0.5 part of lime will dissolve ten parts of that substance. When alum is found to be injurious to certain colors, sulphate of zinc in the proportion of one-third the amount of alum is employed.

The composition used by Piette is as follows:

30	parts of soda at 80° (fr. alkalimeter),
2	" quick-lime,
for 150	" resin.

To size 100 kilograms. (220.47 lbs. avoird.) of paper, 4 to 6 kilogs. (8.81 to 13.22 lbs.) of resin and as much alum will be required.

Payen gives the following proportion in his "Industrial Chemistry":

75	parts of crystallized soda,
12.05	" lime,
375	" water.

Then are added:

150	parts of resin,
150	" water resulting from washing and boiling by steam.

Having thus obtained the resinous soap, he takes one-tenth, or say—

75	parts of resinous soap,
500	" water containing
20	" starch.

For 100 kilograms. (220.47 lbs. avoird.) of paper, 75 litres (19.80 gallons) of size, 4 kilogs. (8.81 lbs.) of alum are employed. In some instances the mixed size is returned to—

2	parts of gelatine,
4	" starch,
2	" resin,
2	" kaolin.

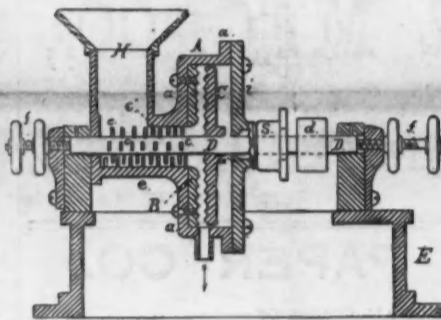
In certain particular cases, and for common papers, the pulp can be very economically sized by throwing into the rag engine perfectly pulverized resin. The resinous particles adhere to the fibres of the pulp, and render the paper impermeable. Although this method should not be followed as a regular thing, it

may sometimes offer advantages, and this has induced us to mention it.

(To be continued.)

### Machine for Reducing Paper Pulp.

The machine illustrated belongs to that class of machines for reducing straw and other material to pulp in the manufacture of paper and boards in which the stock in the process of grinding passes between two plates with suitable grinding surfaces, one of the plates being fixed and the other revolving. In machines of this class heretofore in use the circular case or drum containing the grinding plates has consisted of a hoop at its circumference, provided with flanges, to which have been bolted plates constituting the ends of the drum, the inner side of the plates serving as the fixed grinding surface of such machine, the bolts by which this plate is fastened to the flange of the hoop being also used to adjust and set the fixed plate so that its grinding surface shall at all points be equi-distant from the grinding surface of the revolving plate. This form of machine requires nicety of adjustment, and the fixed plate so arranged is liable to lose its ad-



MACHINE FOR REDUCING PAPER PULP.

justment, causing frequent breakage of this plate and its bolts. The revolving plate of such machines has heretofore been set relatively to the fixed grinding plate by means of a set-screw attached to the other fixed plate of the drum, which screw is set against the end of the shaft carrying the revolving plate. This method is said to impose an undue strain upon the plates of the drum, causing frequent breakages.

The object of the device illustrated is to obviate the objections indicated, the drawing being a central longitudinal vertical view, in section, of the machine.

The drum or cylinder containing the circular grinding-plates B and C consists of the hoop A, back plate, a, flange a', and plate f bolted to the flange a'.

D is a shaft, to which are attached revolving plate C and fingers or "knockers" c c, revolving within a cylinder, e, (which forms a shoulder for the plate a), from the inner surface of which project fingers c', and which cylinder opens into the hopper H.

This last-mentioned cylinder e, back plate, a, hoop A, and flange a' are formed of one piece, in order to give greater strength and weight to this part of the machine. The surfaces of the back plate, a, and of the stationary grinding-plate B, which are in contact, are planed or ground perfectly smooth and flat, and the plate B is bolted rigidly to the back plate, a, the adjustment, being once made, remaining until the plate B is worn out, obviating the necessity for frequent adjustment. This arrangement not only strengthens the drum, but adds strength to the plate B and renders it less liable to crack, and facilitates the removal and renewal of worn-out grinding-plates.

The machine is provided with a heavy bed plate or frame, E, to which the drum is securely bolted. The shaft D passes through the stuffing-box s, and is provided with a pulley, d. At each end of the shaft D, passing through the bed-plate E, or pieces attached thereto, are adjusting screws f f, by means of which the shaft D is moved longitudinally, carrying with it the plate C, so as to adjust and set the revolving plate at any required distance from the fixed plate B. By this arrangement the strain of the adjusting-screws, instead of being upon the plate of the drum, as in other machines is upon the bed-plate of the machine.

### Non-Vibrating Foundations for Machinery.

The power of the engines used to drive our mills, factories, forges and pumps has enormously increased. The substitution of iron for wood and the enlarged size of our machinery have more than doubled the weight to be driven. The growing use of revolving fans, of centrifugal dryers and of dynamo-electric machines necessitates a higher speed as well in motors as in shafts, counter-shafts, pulleys, drums and cog-wheels. The work required of steam hammers, stone crushers, stamps, punches, shapers, slotters and presses is constantly becoming greater, and the buildings in which these machine-tools, machinery and motors are operated are getting to be more and more lofty. Every one of these conditions is a source of instability, and serves to increase either the number or the amplitude of the vibrations produced, if it does not increase both, until they become an annoyance to visiting customers, an interference to operators, clerks and draughtsmen, an injury to the building and a nuisance to the neighborhood. Foundations of the walls are underpinned, the walls themselves buttressed, floors "deadened" and false ceiling put in, but the nuisance continues unabated. Its cure does not lie there; too frequently it is ascribed to the material which serves as the foundation for the engine or the heavy working or rapidly revolving machinery. Bricks and dimension stone set in mortar or broken stone of varied or uniform size mixed with hydraulic cement; these are the materials of which said foundations are usually built, but are they the best?

Of all the industrial arts known to the ancients, those which have made the least progress are building and road-making. The giant structures erected in Egypt and India still remain without a modern rival, and the roads to no modern city equal those by which the Roman drove on the way to his capitol. Only recently has it been determined that asphalt is the best material for much traveled roads, and there is reason to believe that its application to that purpose as well as to building was well known to the people of antiquity. M. Leon Malo, of Paris, one of the best authorities on the subject of asphalt, quotes in a recent number of the *Bulletin des Ingenieurs Civils*, a work of Professor Eyryni d'Eyrinus, published in 1721, in which that writer shows that not only were the Romans familiar with the uses of bituminous cement, but the Assyrians also. He points out the absurdity of the word "slime" in the common translation of the account of the building of the tower of Babel, and insists that the correct interpretation of the passage, Genesis XI., 3., reads as follows: "And they had brick for stone and asphalt had they for mortar." M. Malo, having ascertained that a mixture of asphalt and gravel molded in small pieces did not soften when exposed for weeks to a July sun, was engaged to construct a solid block of similar material to serve as a foundation for a horizontal steam engine of fifty horse-power. The block was in part composed of broken stone of unequal sizes, the interstices being filled up with asphalt. It became so hard and tough as to be broken with great difficulty. The fracture was as clean as that of even sandstone rock. The very slight degree of electricity was sufficient to make the vibrations of the engine imperceptible to the senses. For more than twenty years it has been running regularly without the least indication of yielding, even under the cylinder.

About ten years ago a powerful steam stone breaker was exhibited at Paris, the foundation being of ordinary masonry. So much was the surrounding ground shaken that an engraver on glass, carrying on business in the neighborhood, suffered great inconvenience, being absolutely unable to pursue his vocation. He applied for a temporary injunction, restraining the proprietor of the stone breaker from using the machine. The foundation of ordinary masonry was then removed, and one of asphalt substituted, when upon testing the machine it was found that no more tremor existed and peace was restored.

Asphalt is a calcareous mineral naturally impregnated with pure bitumen in the proportion of 6 to 10 per cent. There are, perhaps, twenty localities of it in Europe, from which it is extracted as though it were so much coal. The limestone is in the form of small grains; each of them is coated with a pellicle of bitumen, which serves to agglutinate them. If the asphalt be heated for five or six hours in a boiler provided with an agitator, somewhat after the manner of a barrel-churn, and constantly stirred, a black, pasty, semi-fluid mass is obtained, of which, when mixed with a certain quantity of gravel, the admirable sidewalks of Paris are made. Unfortunately, the material can be adulterated and even counterfeited without the fraud being detected. Nor does bad workmanship at once reveal itself. To the temptation to dishonesty, as well in the furnishing and preparing of the material as in the work of laying and inspecting it, contractors have too often yielded: Time, the true test, has, when too late, made manifest the cheat which in more than one city has brought into disfavor a system of constructing roadways, which, when well done, has no superior. Let a similar fate attend the construction of asphalt foundations for heavy engines, machinery, we shall give more in detail the approved methods. Faithful and experienced workmen will, however, always be required, as the nature of this bituminous masonry must more or less depend upon the kind of machine we wish to instal.

A casing, the exact size and shape of the intended foundation, is made of half-planed tongued-and-groined boards, the planed side being inwards. The casing may be hooked, strapped on the corners, or stiffened by sturges or struts attached to it on the outside, as its height and capacity may render necessary. If adhesion between the casing and the asphalt which has been poured into it is feared, the inside may be lined with thick paper, or coated with whitewash or a haasty mixture of beat clay and water. Thus prepared, it may be filled with the materials for the foundation in one of the three following ways:

#### ASPHALT BETON.

When the asphalt has been heated to 360° Fahr. to 400° Fahr., from 50 to 60 per cent. of turnpike stuff are to be thrown into the boiler and the whole heated and stirred until it has again reached the above temperature. If the broken stone be thrown in hot, time will be saved. The mixture is then to be poured into the casing, care being taken to ram well during the pouring. After cooling, the time for which will, of course, depend upon the dimensions, the casing may be removed. The foundation will be found to possess all the qualities of resistance and durability required.

#### ASPHALT MASONRY.

Into a casing similar to that above described a quantity of very hot and therefore fluid pure asphalt is to be poured to the depth of two inches. Follow this with hot broken stone which need not be of uniform size. Form with them a close, compact and level layer, which will be the better if removed. Pour over the first layer of stone sufficient hot asphalt to fill up all the interstices and then follow with another layer of stone, fulfilling the conditions before mentioned. Proceed in this manner until the casing is filled, attaching to it in their proper places any nuts, bolts, or parts of the framing of the engine to be installed, which are to be imbedded in the foundation, remembering that if any of these parts are of wood they must be firmly attached, or they will be lifted from their places by the influx of the asphalt which has a specific gravity of 2.3.

#### MIXED MASONRY.

In the constantly increasing cases where masonry is a main consideration, the mixed system may be used. It was resorted to in building the foundation of the above-mentioned steam engine, where the block was 22 feet long, and with every success. Under this system the centre of the foundation is built of ordinary masonry, dimension stone being employed. When it has become dry the space between it and the interior of the casing is filled either with asphalt beton or asphalt masonry, depending on the size, and the whole carefully surfaced with asphalt.

Non-vibrating foundations for machinery,

built on one or another of the three ways briefly described, have passed beyond the experimental stage. An experience of more than twenty years attests their superiority and entitles them to every confidence. For other purposes the employment of the materials and methods of construction are also indicated, as for example the important works known as running wells, where the thrust of large masses of wet earth is to be withstood. But the discussion of these cognate uses would divert us from our present purpose, and must be adjourned to another time.—*Industrial Review.*

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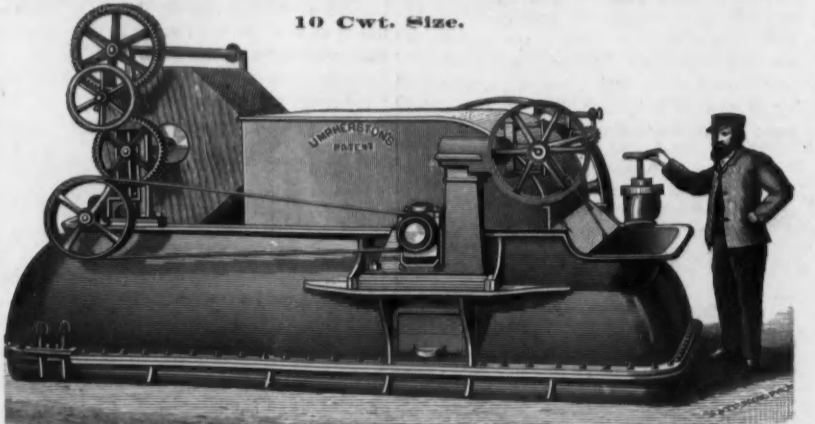
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[FROM OUR REGULAR CORRESPONDENT.]

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Trade is dull, and the commercial marts have an air of quietness. The paper trade is not excepted. Though some little business is doing in the several branches of this great industry, the movements are so light and so quietly made that no perceptible ripple mars the placid channels of commerce.

Many large orders for paper are reported as being in the market, but are not placed, owing to a conviction held by consumers that manufacturers are making too much money at present prices. These buyers think that paper may be cheaper. Present prices have ruled so long, that they think it is time for a change. I think so myself, and I would be delighted to note a change. But the change I want to note is in higher prices. When will it come?

In paper stocks only a moderate amount of business can be reported. Present needs are all that mills are calling for, and these needs appear to be limited. The week's imports of paper stock are very light, comprising 997 bales paper stock and 675 bales rags.

Bleaching powders are quoted at 1.90c. to 2c., and with only small demands. Very little is in store. The market on the other side is reported easier, though steady, owing to the small supply. It is thought possible by some dealers that deliveries for next month could be shaded a little in favor of buyers. Seventy per cent. caustic soda is held at 2 3/4c. for 60 per cent. Sal soda is firm, and without change in quotations. Forty-eight caustic ash is moderately firm to arrive; very little from dock. Forty-eight carbonated ash is held at 1.60c. to 1 1/2c. to arrive. High test caustic ash is in light supply. Rosins are unchanged. Southern clay continues in good demand at \$13 to \$13.50 from dock.

Imports of chemicals for the past week were 117 casks bleaching powders, 280 barrels soda crystals, 93 casks soda ash, and 100 drums caustic soda.

The steamer Ilyrian, from Liverpool, due at this port on last Monday, having been lost at sea, lessens the imports of chemicals for this week by 345 tierces soda ash, and 176 casks bleaching powders, and 52 bales of paper stock were also a part of the cargo lost. So the paper-stock dealers got off easy that time.

Mr. E. Storey Smith, of Train, Smith & Co., has returned from his travels in foreign lands. To say that Mr. Smith was looking much refreshed by his trip "o'er the ocean blue" would be in strict accord with the "rules and regulations" made and provided for in personal mentions, but the fact is E. Storey is always cheerful and in the best of humor.

In relation to the state of trade on the other side Mr. Smith observed that packers abroad are beginning to realize that buyers in this country are getting to be more exacting and that to protect their interests more care must be taken in packing rags for this market. Prices have been depreciating so rapidly during the past few years that packers abroad have ceased to show the proper care in baling their stock for this market, and this fact has tended to lessen confidence in the trade. Still it is the desire of all honest packers abroad to do all they can to protect the trade, and the irregularities so often complained of has been due more to an ignorance of the demand of the trade than to a disposition to be dishonest in their packing. Close figures and the small margins realized on the sale of paper stock, together with the necessity of giving to buyers long explanations, which would tend to lessen the irregularities complained of, is having a beneficial effect upon the foreign packers. Packers are learning that it is necessary to give this market full satisfaction. The packers of inferior stock are coming to understand this fact, as they are the only ones complaining. While they are holding rags, the honest packers carry very little in store, as the most reliable goods are always salable. Honesty is the best policy even for a rag packer to follow. Taken as a whole the rag packers are disposed to do the right thing, and in future more attention will be given to honest packing.

In response to questions relative to the enlargement of the firm's connections abroad, Mr. Smith gave me to understand that his trip abroad was not undertaken for such a purpose. As the conditions of the trade were not such as to demand more extensive relations than were now enjoyed by his house. His object was to have a personal interview with such packers as he had relations with, and to explain to them the necessity of packing better rags, that the large number of manufacturers the house was supplying with paper stocks might be better satisfied with the stock furnished. "In other words," said Mr. Smith, "we want all orders we fill to prove to be as we represent them."

Mr. Spaulding, of Spaulding & Tewksbury, manufacturers and dealers in card board, is on a tour through the West in the interest of business connected with the house, and is not expected back for some ten days.

The National Wood Fibre Company is preparing to have three of its patent fibre machines put to a test in mills at Fitchburg, so

that the value of its machines for producing wood fibre for a pulp suitable for paper makers' use can be satisfactorily demonstrated. When it is shown that paper can be made from the fibre which the Holmes patent machine produces, and made cheaper, manufacturers will begin to show a keener interest in the claims made by the company for its fibre machine.

The New England Gauge Company, located on Atlantic avenue, is preparing to move its manufacturing department to Lawrence, Mass., where more spacious quarters can be had for its increasing business. This company is engaged upon a new valve which will be shortly perfected, and which is especially designed for paper makers' use. Its claims will be noticed when the valve is perfected.

THE PAPER TRADE JOURNAL, I notice, is out in a new dress. This attire is very becoming to its "form" and "ads" much to the beauty of its "make-up." But THE JOURNAL tells a tale of much merriment, relative to the midnight carousal of the Lockwood Press, the occasion of its anniversary, and judging from the "menu" the occasion will long be remembered.

The trade here joins me in a glass;  
And, with sentiments fraternal,  
Drink to the health of Lockwood Rex,  
And to THE PAPER TRADE JOURNAL.

A. L. D.

Holyoke Notes.

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, MASS., MAY 29, 1884.

We had a touch of summer at the close of last week, but it is cool enough to-day. The water in the river keeps high, but is cleaner and is used for washing purposes with the usual filtering. I have no change in the business situation to report. Paper remains at the same price—that is, very low—and rags have not advanced any. The mills have been carrying pretty fair stocks, owing to the low prices, but they will not buy very freely now till after the July inventory. This will, no doubt, prevent any efforts to boom the price for awhile, even if there was any disposition to do it, of which I have no evidence.

As we near the last month of another half year, the officers of the paper companies, and the managers of the mills are naturally looking forward with anxiety to the settling day, at the end of the six months. The profits last January, for the previous half year, were small and strong efforts have been made to bring the cost of manufacture down, so that there will be a safe margin. "The saving, if there has been any, has been made in small things which enter into the cost, and in an increased production. A few mills have cut wages a little, but there has been no general reduction, while stock and the other large items that enter into the cost of the paper, remain about the same as last year. But if a mill can increase its output without any more or little more expenditure for labor, the result will speedily be felt.

Daniel H. Newton and family are expected home from their winter's sojourn in Southern California in a few days, and about June 20 his brothers, John C. and James H. Newton, with the latter's son, Edward T., will start for Europe.

Mr. Smith, of the Boston firm of Train, Smith & Co., having returned from his European trip, we shall probably see more of Colonel Train in Holyoke.

The Connecticut River Railroad Company has built a branch track, 400 feet long, to the Whiting Paper Company's new stock house.

A young man named Willie Hall had his hand cut off by a Cranston paper cutter at the Syms & Dudley Mill this forenoon. He was trimming wrappers and, getting his right hand too far under, it was cut off clean just below the wrist and left on the table. The surgeons amputated the arm near the elbow.

Mrs. Moren, who was shot by her husband about ten days ago, died yesterday morning, and the man, whose excuse for the crime is drunkenness, will now have to be indicted for murder.

A large share of our population is in mourning because the agent of Barnum's circus has had orders to "skip" Holyoke for the reason that the city fathers charged \$300 for a license. They lowered the liquor licenses and raised the circus fee, and now the liquor dealers have offered to raise the money to pay the circus license; but Barnum refuses to stop here even on those terms, and the saloon keepers and boys are despondent.

The West Springfield paper mills are suffering quite an attack of the improvement mania. The Southworth Company is to spend \$20,000 in new machinery and buildings. An addition to the finishing room, 40 by 70 feet in size and three stories high, and a two-story machine room, 100 feet long, will be built. A new 50-inch Fourdrinier machine will be added to the equipment. The Agawam Company thinks of putting in a new 80-inch machine and run the paper only in the daytime. A 100-horse power will be added, increasing the available steam power to over 200. The company expects to add half a ton to its daily average product, and the Agawam Company will increase its output about the same by three new 600-lb. beating engines, and a 100 horse-power steam boiler.

The automatic sprinklers have been introduced and the feeding machine for ruling is being tried.

Two young girls, one employed in a paper mill and the other in a cotton mill, are missing.

A. W. Esleeck, treasurer of the Valley Paper Company, has gone with a fishing party to Rangeley Lakes, Maine.

The body of one of the men carried over the dam about a fortnight ago was discovered Tuesday morning by a milkman while crossing the South-end bridge at Springfield, about ten miles below the dam.

Edward B. McGowan, foreman of the Union Paper Company's rag room, has just finished a residence at Willimansett.

Norman Evans, of the Hampden Glazed Paper Company's office, has gone to Boston to study awhile at the Institute of Technology.

British Notes.

[FROM OUR REGULAR CORRESPONDENT.]

5 LUDGATE CIRCUS BUILDINGS,  
LONDON, MAY 17, 1884.

Trade is yet extremely quiet; indeed I scarcely know whether there is any at all. It requires a powerful microscope to see anybody satisfied and doing well, now, in the paper trade. I quite expect soon to see stock dealers inquiring how much makers will give them to live on and save them from the poorhouse. The fact is that trade is getting quite cruel here. Probably there is some good reason for it, and although some people say that it's Gladstone, the London Reform Bill, Bradlaugh, &c., &c., I don't believe them. It's very amusing, however, to be the confidant of every caller, who gives his opinion on the state of trade.

Trade news here is especially unexciting. In fact people seem to me to be asleep. Paper is somewhat cheap and you can buy now news for journalism at about 2d. or 4 cents. This is cutting it very fine, I think. All other sorts of printings are tarred with the same brush. Meanwhile everybody is howling. But it's no use my attempting to give you any idea of how things are looking here.

Last Saturday we had a legal dispute in the Lord Mayor's court to amuse ourselves with. It was a case of a rag merchant here, J. Webb, suing Butterworth & Co., of Manchester, &c., for goods delivered nearly three months previously. The defendants made a claim for inferior quality, &c., but the Judge very properly asked why they had not done this before, considering that they had kept the goods for over two months and never complained. The defendants lost the case, also all chance of appeal, whereupon there was much joy that afternoon. Of course, that is to say, among the plaintiff's friends, who, I believe, "did not go home till morning." Such is the rag business!

I am very pleased to note by your May 3rd issue that Umpherston's rag engine has appeared on your side. I can speak a good word for it, as it has given every satisfaction here and on the Continent also. Knowing all about its career, I can speak with every satisfactory authority on the matter, and I advise your makers strongly to go in for this engine, without prejudice or any attention to what may be said or thought about it. Perhaps the feeling of antagonism against anything new does not exist among your paper makers to the ridiculous extent that it does here. In this country any new machine, no matter for what purpose, is at once pooh-pooh'd. Not only machinery, but ideas of any kind, new proposals, original ideas, &c., are served all alike, viz., laughed at and ridiculed. It is simply astonishing that so much of the jackass still sticks to business men. Nothing can possibly stand in any business man's way so dangerously as a too conservative sense of perfection. Yet, with us Englishmen it is a national characteristic of which we are proud and boast about to everybody. Hurrah!

I see that your Mr. "Dandy," whose notes each week are somewhat too local for me to thoroughly understand, holds forth upon woman labor in a paper mill in Worcester County, Mass., and seems pretty well astonished. I can assure Dandy that in two mills in our U. K. he can see women working. I know of a mill that is worked by a family. I remember a traveler calling at the place with a sample of China clay and being received "by a nice-looking party." He told me this, and I have often wondered what it meant. He not only had a deal but an evening promenade, too. At another mill I know of, the three daughters look after the boiling and beating of the stuff while the "old chap" attends to the paper machine.

Mr. Ring, Jr., is here in London and is busy. This is all the information I can give you about him and I have no doubt that your dealers on your side will exactly understand all about it.

I note your new address and wish you all the success which you know I always feel for any forward move you ever make. In these times of dull trade, we have to save every expense because we are obliged to do so. It is the old English rule. I am not sure that it is the best; but these are not days for teaching.

W. F. C.

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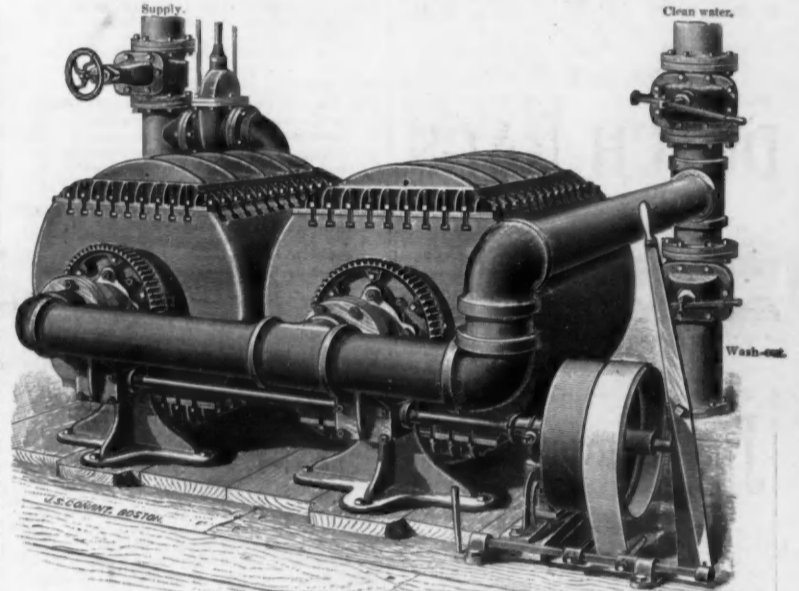
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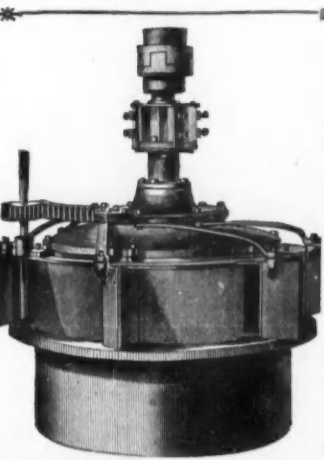
**BOOKS OF REFERENCE.**

THE following is a list of Books of Reference on  
subjects connected with Paper Making, Chemi-  
cals, Colors, Machinery, Hydraulics, &c.:

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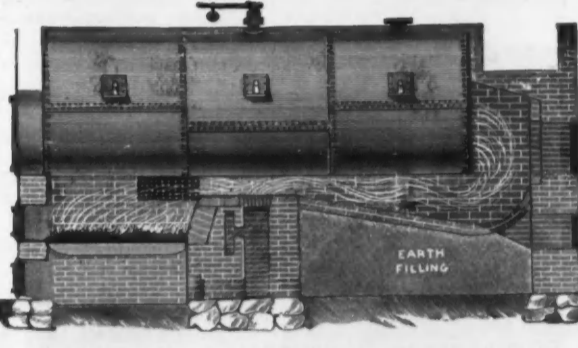


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# The Paper Trade Journal.

DEVOTED EXCLUSIVELY TO THE INTERESTS OF

**The American Paper Trade.**

Weekly, \$4.00 per Annum.

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THE PAPER TRADE JOURNAL is the recognized organ of the various Paper Makers' Associations of the United States.

THE JOURNAL contains the latest and fullest information relative to the paper trade in all parts of the world, including descriptions of new appliances and processes for making paper, experiments with new fibres and other materials, a record of the water supply, with the latest manufacturing news in all parts of the country. It gives the cream of all the foreign technical journals which relate to the paper interest, besides communications from competent persons in the trade, both at home and abroad. The market review and quotations show the state of trade in all the principal cities, and no pains have been spared to make these accurate and complete.

Subscription and postage for Great Britain, £1  
Subscription and postage for France, 25 francs  
Subscription and postage for Germany, 24 reichsmark  
Foreign subscribers may address our New York office.

Communications on matters of interest to the trade are earnestly solicited from all quarters, and if used will be liberally paid for. Items of news and facts of all kinds in relation to the state of the mills, &c., will be gladly received.

All communications must be addressed to

**HOWARD LOCKWOOD,**

Publisher and Proprietor,

126 and 128 Duane Street, N. Y.

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## TO CORRESPONDENTS.

As THE PAPER TRADE JOURNAL is the recognized vehicle of communication in matters of trade interest, we will be glad to receive correspondence from all parts of the country. Information and suggestion upon paper-making topics are especially valuable, and manufacturing news and personal items are equally acceptable.

Readers of this paper who avail themselves of the information obtained from its columns, by advertisement or otherwise, are requested to notify their correspondents of the source of their information.

Subscribers to THE JOURNAL can be supplied with the best cloth binder in the market. Deliverable at the publication office. Price \$1.25.

WITH this issue THE JOURNAL begins the reprint of an article on "Sizing in Paper Manufacture," taken from an English contemporary. Our readers should follow this up and offer comments upon such of the suggestions as may seem to need approval or remark. We don't know but we shall have something to say on the subject later on.

SETTLING down after the excitement of breaking banks and failing bankers, people seem to be arriving at the comfortable assurance that no general trouble is to be expected, and that only those, as a rule, who most deserved disaster, are to suffer. There is plainly a reasonable confidence in trade, but at the same time an equally reasonable degree of caution. It is not desirable that business men should forego the conservatism which they have practiced too soon or all at once, nor ought they ever to permit themselves to be swept beyond the bounds of reasonable prudence; but at the same time, while it is better to err on the safe side, it is good judgment to consider the situation carefully, and to take advantage of all favor-

able opportunities that may offer, and for providing against a possible, if not probable, enlargement of trade.

SLOWNESS is usually attributed to the Dutch, but there is more enterprise in Holland than we think for, and much in the steady habits and cool imperturbability of the people of that country which we might emulate with profit. Their undemonstrativeness gives color to belief in their want of energy, but it also serves to conceal an immense amount of push. It may perhaps be said that the Dutch as an exploring and trading nation are not what they once were, but perhaps we shall find out in time that there is a revival in this respect. For instance, there has been established in Amsterdam a "trading museum" where it is intended to hold a permanent exhibition of domestic and foreign products and manufactures. It is also intended to supply information relating to commerce and industry and to encourage intercourse between producers and merchants and to further everything which will tend to foster and develop commerce and industry. It will be seen from this that the idea of commercial and industrial museums is becoming fixed in the minds of Europeans. France, Germany and Italy have been preparing to establish such exhibitions, and Holland has just definitely located one. The tendency toward this form of commercial intelligence is certainly becoming very marked, and it is worth our while to consider their relations to us, and what, if anything, we should undertake in the same line.

EXPORT to South America and Australia is still being discussed in the German paper-trade journals. Some time ago, correspondence from Chili on the subject was published and communications have been since received from people familiar with the Chilean paper and stationery business, giving it, as their opinion, that it would be a mistaken policy on the part of paper makers in Germany if, as had been suggested, they consigned to a man who has a printing and lithographing establishment in Valparaiso or Santiago, inasmuch, as in the first place, he would look upon the selling of paper and stationery consignments made him by manufacturers from abroad as merely a secondary matter, and in the second place, other local consumers would probably not buy of him. It is therefore suggested to make arrangements with a business man in Chili, willing to undertake to push the paper and stationery trade as his sole occupation. But even then, the opinion is expressed, that only German news and other print paper could be able to compete with like goods from other countries. In writing papers and envelopes it is stated that English manufacturers undersell the Germans and furnish really desirable goods. All this, another party writes, applies to Australia as well, where preference is given to English paper over German. The great difficulty, it is conceded on all hands, is always to find a person who may be safely trusted by consigning manufacturers; and one who has had experience on the spot and speaks the language of the country creditably, and who is a thorough business man and has the energy and tact to push the sale of the goods sent out to him, would be invaluable. At any rate, by continually returning to the subject in their trade papers, many valuable suggestions are elicited in connection with the paper and stationery export trade with transatlantic countries, and finally the Germans may succeed in securing a good foothold. Nor is there any reason why Americans should not do likewise if they were to give the subject the attention it certainly deserves.

## Watermarks.

By DANDY.

THE JOURNAL last week gave an illustration of an "improved cylinder machine." There is an idea in this, but perhaps some one will connect it with something which has already been made practical and operative. Now, just let some of the trade think of it; push the idea further and tell you where it will fetch them.

An English paper says that that bet on bleach going down to 1½ cents was "presumably" by some one having contracts to fill. Here is where the Britisher is out. The person offering the bet is rags, all rags and scarcely ever handles bleach. In fact, he has no special interest in the article.

I write this on the Memorial Day of the

Grand Army of the Republic. It is a day sacred to me, as it is to many. It is a day of "festival of our dead; no less a festival because it is full of solemnity." And with it we are thankful for peace; that the passion of war is stilled, and that unity prevails.

There is a great deal of invention in the way of making various articles from paper pulp. The greatest desire of inventors in this line is to get some means of rendering the pulp absolutely waterproof. This, it is alleged, has not yet been achieved. The time will probably come when success will follow the effort. It does seem as if we ought not to wait long for it.

There is scarcely a known thing for which paper pulp can be utilized on which people are not bestowing time and thought; but the paper rail for railways, so vaunted not long ago, has not been heard from lately. What has become of it?

The paper-stock trade of New York are represented in the Board of Aldermen. Why was it that this City Father felt so outraged because he couldn't run the Board of Excise? Because he had a constituent whose license was properly revoked was no reason for getting excited. Alderman, don't do so any more.

There has been a bit of inquiry for George M. It is rumored that he has been devoting a good deal of time lately to the invention of devices for protecting travelers in railway cars from cremation when accidents occur. He is said to be getting up asbestos upholstering material for seats, &c. If this proves successful probably the inventor will give less attention to sample bales of Leghorns and Hamburgs.

The chemical trade are said to be making a corner on Greek fire. In other words, some of the trade known to paper makers are alleged to be trying to concentrate the stock of Lycopodium, and thereby cause a material advance in the price of the article. I don't know anything about this stuff, but for goodness sake, don't make 4th of July and the coming election too expensive.

A new style of note paper is made in the form of a small square, representing a lady's hemstitched handkerchief and having the appearance of linen cambric. It gives the idea of a person short of writing paper, using a handkerchief as a substitute.

A member of a Beekman street paper firm has a fine horse at the horse show. It is said to be worth fifty cents to look at.

E. Story S. has got back. To hear him talk, people would think that he didn't know rags while he was away. The colonel was here to meet him, and says that Boston shows more life in the paper-stock trade than New York, but that, with all of the stagnation talked of here, he just went out "for a flyer" and took orders for—hundred tons. The New York boys must wake up if this is so. By the way, rehearsals are to begin immediately.

There is said to be the liveliest kind of competition going on in shelf papers. There are some six manufacturers of this class of goods in this country, and although under a proper condition of affairs there would be room enough for all without treading on each other's toes, as the case is now certain, dealers have been trying to monopolize the trade by cutting down prices. Where formerly the business yielded a good profit, it now scarcely pays the cost of manufacture. The only person who is said to derive any benefit from this reduction is the retailer. The consumer continues to pay the price originally asked. The peculiar feature of the thing is that the manufacturers will not combine, and hence are continually at sword's points.

## Changes, Removals and New Firms.

W. S. Boughton, printer, Lawrence, Kan., has sold out to P. T. Foley.

C. B. Thompson, publisher of the *Le Roy Gazette*, Le Roy, N. Y., has sold out.

F. Newman, publisher of the *Democrat*, Crestline, Ohio, has sold out to B. Pope.

The Cincinnati New Publishing Company, Cincinnati, Ohio, is advertising to close out.

Charles A. Barnes, publisher of the *Clarion*, Reed City, Mich., has sold out to L. A. Barker.

F. P. Wormley & Co., stationers, &c., Red Rock, Ia., have been succeeded by Eliza Wormley.

H. A. Croft, publisher of the *Express*, Fort Collins, Col., has discontinued the publication of that paper.

S. C. Whitehead has retired from the firm of John D. Suter & Co., stationers, &c., Lynchburg, Va.

George T. Bisel & Co., dealers in law-books and blanks, Philadelphia, Pa., have dissolved partnership. The business is continued by George T. Bisel.

Edward Dekum & Co., Portland, Ore., have opened a book and stationery store in the Council Building. Mr. Dekum was formerly

in charge of the retail department of J. K. Gill & Co.

The Mississippi Valley News and Publishing Company, East St. Louis, Ill., has been incorporated with a capital of \$100,000.

The Phoenix Printing Company, St. Louis, Mo., has been incorporated with a capital stock of \$3,000.

Pierce & Snyder, booksellers, stationers, &c., Chicago, Ill., have been succeeded by Gerald Pierce & Co.

The W. E. Riley Printing Company, Louisville, Ky., has been incorporated, with an authorized capital of \$50,000.

Sinz & Finsel, lithographers, Cleveland, Ohio, have dissolved partnership. Charles Sinz succeeds to the business.

Chandler & Burgess, paper-hangers, Boston, Mass., have dissolved partnership. R. N. Chandler continues the business.

A dissolution has taken place in the firm of Epstein, Reugosky & Co., paper-stock dealers, St. Louis, Mo., I. Epstein having withdrawn from the firm.

Thomas J. Caystle, of the firm of Francisco, Caystle, Mathews & Otis, publishers of the *Daily Times* and *Weekly Mirror*, Los Angeles, Cal., is dead.

## Failures.

Ladd Brothers & Wood, paper manufacturers, Skowhegan, Me., are reported insolvent.

The *Journal Printing and Publishing Company*, Wheeling, W. Va., has assigned to J. R. Cowden.

Louder & Moss, manufacturers of paper boxes, Chicago, Ill., have made an assignment to H. S. Dietrich.

J. F. Miller, publisher, Piqua, Ohio, has assigned to Frank C. Davies. Liabilities, \$4,768; assets estimated at \$6,000.

The assignees of E. Claxton & Co., publishers, booksellers and stationers, Philadelphia, Pa., have postponed the sale of the stock, &c., of the firm advertised for the 27th inst.

## Mortgages, Etc.

[In the appended list R. signifies a renewal of a pre-existing mortgage; B. S., bill of sale; and Real, a mortgage on real estate.]

Mortgagor.	NEW YORK CITY.	Amount.
J. F. Knox	.....	\$1,500
Frank H. Adams (R.)	.....	540
Charles Hyllested, Jr.	.....	6,000
Leve & Alden	.....	4,000
G. McNamara (B. S.)	.....	3,000
J. H. Probst	.....	3,000

## EASTERN STATES.

James Cooper, Boston, Mass.	100
Alfred Smith, Boston, Mass.	250
T. J. Hutchinson & Son, Salem, Mass.	2,000
Floyd & Jackson, Boston, Mass., <i>Daily Law Reporter</i>	1,000
S. V. Stillings, Boston, Mass., subject to prior	300

## MIDDLE STATES.

Ledger Association, Jersey City, N. J.	150
Norton & Conklin, Ithaca, N. Y.	1,200
H. H. Heckman, Reading, Pa.	169
Eugene Stuart, Williamsport, Pa. (R.)	555

## WESTERN STATES.

Charles H. Soules (et ux), Indianapolis, Ind. (Real)	1,200
Robert J. Silk, Davenport, Ia.	1,100
C. J. Campbell, Columbus, Ohio	979
T. J. White, Portland, Ore.	125
William Farrell, Ogden, Utah	1,100
P. Lazarus, Los Angeles, Cal. (Real)	220
James Spanton, San Francisco, Cal. (Real)	.....
King & Co., Boulder, Col.	51
W. L. Bales, Denver, Col.	1,350
F. Glossop, Chicago, Ill.	307
George W. Crane & Co., Topeka, Kan.	1,000
J. K. Hudson, Topeka, Kan., <i>Daily Capital</i>	500
The W. E. Riley Printing Company, Louisville, Ky.	3,000

## TERRITORIES.

E. T. Wilson, Dayton, W. T., <i>Chronicle</i> (Real)	150
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## CANADA.

Thomas A. McLean, Moncton, N. B. (B. S.)	1,000
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## LIENS RELEASED.

Charles H. Soules, Indianapolis, Ind.	600
Max Reider, Boston, Mass.	100
George Nightingale, Holyoke, Mass. (Real)	1,500
John V. Stout, Easton, Pa. (Real)	400
J. J. Arakelyan, Boston, Mass.	900
E. J. Armstrong, St. John, N. B. (B. S.)	.....

## Personals.

C. A. Rothwell, bookseller, &c., Strathroy, Ont., is dead.

Joseph Harris, paper-stock dealer, Philadelphia, Pa., is dead.

Luke J. Rodgers, of the firm of Rodgers & O'Neill, paper stock dealers, Philadelphia, Pa., is dead.

B. F. Pond is on his way to South America in the interest of Woolworth & Graham. This is his third business trip for this firm in the same direction.

Charles Lynde, for many years a printer in Boston, and during his last years the proprietor of a job-printing office on Cornhill, died at his home in Chelsea, Mass., on Friday, May 23, aged 47 years and 4 months.

Charles D. Myers, stationer, doing business under the style of Myers Brothers, at No. 62 John street, accidentally shot himself in the abdomen on Tuesday morning last at his residence in Roselle, N. J. He had gone to his barn at the time to shoot an animal that was destroying his poultry. While searching for the animal about the premises he stumbled and partially fell. The weapon he had brought

with him was discharged, taking effect in the abdomen as stated. Mr. Myers' bookkeeper did not learn of the accident until Wednesday afternoon, when he hastened to his employer's bedside. The latest information regarding the unfortunate man's condition is very unfavorable to his recovery, as he is said to be very low. Mr. Myers is forty-five years of age. In the latter part of February of this year, in consequence of the failure of Myers Brothers, he assumed control of the business at No. 62 John street, under the old style, and was rapidly building up a prosperous business when the accident occurred.

Edward Cohen, of A. Cohen & Co., London paper stock packers, arrived here in company with his wife by the Aurania on Monday. Mr. Cohen has not visited this country for a number of years, and he proposes to take the opportunity for seeing Niagara Falls and many other natural beauties on this side.

## Disastrous Explosion.

At a late hour on Tuesday night an appalling calamity occurred at Waterford, N. Y. Along King's Ditch, between Cohoes and Waterford, was situated the straw-board mill of Moore & Wilson. It was a two-story wooden building, and was once the property of the late T. G. Younglove. Fourteen men were employed in the mill by day and nine at night. On Tuesday night the men were at work as usual. Suddenly, just before 11 o'clock, one of the rotary bleachers exploded and crushed through the front of the building, and in its way tore the corner away from the storehouse opposite the mill. The bleacher was carried fully 400 feet away imbedding itself in the soft earth several feet.

The noise awakened the entire neighborhood. A fire alarm was sounded, but as no blaze could be seen, the firemen were returning home, when Peter Quigley, employed in the mill, ran after them, and they set to work on the ruins. On an L of an adjoining building, the body of a man was seen and rescued. The bodies of two other men were found on the gable roof close at hand. The first man was alive when found, but died in fifteen minutes. It was after two o'clock in the morning before all the bodies were recovered and the missing accounted for.

The killed were:

James Reddish, of Cohoes, 45 years old. He was a widower, and leaves five children. The calves of both of his legs were blown off, his arms were broken, his skull was fractured, his jaw and nose were broken, and his back was badly crushed. He was also shockingly scalded.

Edward Kelly, of Waterford, 23 years old. Kelly was married about six months ago, and leaves a widow. His left leg and right arm were fractured, and he was badly scalded. He breathed only a few minutes after being taken from the roof.

Michael O'Shay, about 30 years old, of Albany. He had recently moved to Waterford, and had just rented a house and moved into it at Doyle City. He leaves a widow and two children. Both his legs were broken and barely hung by pieces of skin and flesh. His skull was fractured and the body was badly scalded.

Michael Creed, 26 years old, unmarried. He boarded with his brother, Thomas Creed, at North Side. The top of his head was blown off down to the forehead. One arm was broken and he was badly scalded.

John Heffernan, Waterford, 42 years old. He leaves a widow and one child. He hired out to Moore & Wilson that day, and went to work at 9 o'clock that night for the first time. His skull was carried away, including part of one eye. Both legs and arms were broken. He was also cut in the lower part of the stomach and scalded.

No other persons were injured. No one can account for the explosion. C. K. Moore, one of the proprietors, said: "The bleacher that exploded was here when we took possession of the property, six years ago. We recently had new pieces put on it, making its sides of double thickness. I think about three or four months ago we had a new head put in by T. S. Sutherland & Son, of Troy, and the bleacher was recently tested, standing a hydrostatic pressure of 100 pounds to the square inch without a leak or seam of any kind. We believe the bleacher was perfectly safe. I cannot tell what caused the explosion. The man who had charge of the bleacher is dead. When I left the mill at six o'clock in the evening everything was working smoothly. As soon as I got here after the explosion I went into the engine-room, where the one boiler that supplies the entire mill is located. The boiler showed 90 pounds of steam. The engineer is Henry Collier, a careful man. He had just begun to blow off the steam when I arrived, and at once drew the fires. At the time of the explosion the steam generated in the boiler showed a pressure of 105 pounds, and this supplied the rotary bleacher, the engine and paper machine, all of which were running. Only one bleacher was in use at the time. The unused bleacher is in perfect condition. The fireman was in the bleach-room ten minutes before the explosion, and the bleacher showed a pressure of sixty pounds. Our loss is between \$10,000 and \$15,000."

Manufacturing News.

EASTERN STATES.

Owing to an increased demand for thinner papers and the large assortment now necessarily kept in stock, the Southworth Company, of Mittineaque, Mass., is about to expend \$20,000 in new buildings and machinery.

The Agawam Paper Company, Mittineaque, Mass., contemplates building a new machine-room and putting in an 80-inch machine to reinforce the present 62-inch one and do away with the night work, now necessary.

The Worthy Paper Company, Mittineaque, Mass., is making important improvements, which will add 1,000 pounds a day to its production, increasing the daily output to 2 1/2 tons.

MIDDLE STATES.

The Rochester Paper Company, Rochester, N. Y., has bought eight large size Moore filters, after a trial of two months with their river water in all stages, and in competition with filters of other make.

The Carthage Company, Carthage, N. Y., is about to start up its mill on pulp board. It uses five Munson mills in reducing the wood.

SOUTHERN STATES.

It is reported that a paper mill is soon to be erected in Lampasas, Tex.

U. B. Wilkinson will rebuild the paper mill dam at Newnan, Ga., and commence manufacturing paper.

In Town.

George R. Dickinson, Jr., Holyoke, Mass.; George Knowlton, Watertown, N. Y.; John Manning, Troy, N. Y.; John N. Mohr, Philadelphia, Pa.; Charles S. White, Hohokus, N. J.; E. B. Wate, Little Falls, N. Y.; Russell Jarvis, Claremont, N. H.; L. C. Mead, Malone, N. Y.; A. C. Moore, Bellows Falls, Vt.; George W. Russell, Lawrence, Mass.; A. H. Hubbard, Norwich, Conn.; George Hopkins, Hinsdale, N. H.; L. S. Safford, Camden, N. J.

New Patents.

No. 297,284. Paper Holder.—Isaiah S. Mudgett, Princeton, Minn. No. 297,484. Paper Box Machine.—Phillips Abbott, Brooklyn, N. Y. No. 297,554. Process of and Apparatus for the treatment of Ramic and Jute.—Nicholas Arthurs, New Orleans, La. No. 297,595. Feeding Device for Ruling Machines.—Emil Larson and Oscar Hammarlund, Chicago, Ill., assignors of one-third to Niles F. Olson, same place.

General Notes.

A. T. Patrick, bookseller and stationer, New Tacoma, W. T., has been attached for \$900.

The Wolverine Car Roofing and Paper Manufacturing Company, Detroit, Mich., has been attached.

An attachment for \$900 has been issued against H. C. Patrick, printer and publisher, New Tacoma, W. T.

The Chaplin Paper Mill, owned by Fred. L. Case, Chaplin, Conn., was burned on May 21. Loss, \$25,000; insurance, \$5,000.

A judgment of \$350 has been obtained against Alvah Bushnell, stationer, Philadelphia, Pa., and execution has been issued.

A judgment of \$350 has been secured against J. C. Perry, dealer in wall-paper, &c., San Francisco, Cal., and execution has been issued.

The last game at base-ball between Henry Lindenmeyr's store nine and office nine resulted in a victory for the former, whereat the latter are not at all pleased.

Butler & Miles, paper dealers, 23 Beekman street, New York, carry a very large stock of manilla papers of all weights. They are also prepared to take orders for any kind of paper to be made at short notice.

Dager & Cox, whose Eureka Paper Mill at

Bridgeport, Pa., was destroyed by fire last week, had only just completed a new addition to it, and had put in new and improved machinery, all of which was completely ruined.

A partition sale of a valuable paper-mill property is announced in another column. The sale will be at auction. The mill is convenient to several lines of railway and is only a short distance from the Erie Canal. Attention is invited to the advertisement.

Bigelow & Main, of 76 East Ninth street, and James Pott & Co., of 12 Astor place, were elected to membership in the Stationers' Board of Trade at the last regular meeting of the board, and the Prang Educational Company, Boston, Mass.; Anderson School-Book Company, 66 and 68 Reade street, New York, and Roberts Brothers, Boston, Mass., were nominated for membership and will be elected at the next meeting of the board.

Charles C. Overton is the publisher of The Brighton Journal, Coney Island, of which the first number has just been issued. It is to be a weekly publication devoted to seaside matters. The Journal presents a handsome typographical appearance, and is printed on tinted paper. It is full of interesting selected matter and shows a good advertising patronage.

An English recipe for cleaning and renovating leather belting which has become soft and useless from oil is as follows: If the belting is not brittle or rotten, a thorough wiping off of the excess of oil, and scraping the face with a sharp tool to take off the gummy matter, and finally wiping the inside with a little naphtha upon a cloth, will generally restore the belt. The pulleys should be cleaned also, and then the efficiency of the belt can be increased by rubbing the inside with a piece of beeswax, applying only a little. If the belt has become weak and rotten it should be thrown away.

A writer on the subject of steam boilers speaks of the necessity of giving sufficient space for the combustion of the fuel, as it is only in this way that the maximum production of heat can be obtained.

In order to produce the maximum volume of heat from a given weight of fuel, there should be a proper quantity of oxygen, under correct conditions, admitted to the furnace and combustion chamber. The surface of the boiler exposed to the operation of heat should be of such an extent as to allow proper time for the transmission of heat to the water within the boiler. If this is not done, the heat is liable to be carried through the flues or tubes and into the uptake before it can be economically absorbed.

SPECIAL NOTICES.

[Insertions under this heading will be charged 50 cents a line. Payment invariably in advance.]

EUGENE SULLIVAN, Packer of Rags and Paper Stock, 336 & 338, WATER STREET, NEW YORK.

THOS. BUTLER & CO., Rags, Paper Stock, Old Metals, Rubber, 245-253 CAUSEWAY ST., BOSTON, MASS.

THE DEMAND FOR LOCKWOOD'S DIRECTORY FOR 1884

Has so far exceeded all calculations that the regular edition is already nearly exhausted. It is the most comprehensive, complete and accurate work of the kind issued.

THE ONLY STANDARD WORK.

Sent, post-paid, on receipt of TWO DOLLARS. OVER 20,000 ADDRESSES REVISED TO DATE.

HOWARD LOCKWOOD, 126 & 128 Duane Street, cor. Church, NEW YORK.

Market Review.

OFFICE OF THE PAPER TRADE JOURNAL, FRIDAY, MAY 30, 1884.

MONEY MARKET.—The money market has undergone an improvement, and is now working with comparative ease, the supply of loanable funds being ample, and the banks strengthening their position. Call loans on stock collateral have ranged from 1 to 8 per cent., but at the close @ 5 per cent. are the most frequent rates. The stock market has experienced a period of feverish activity, depressed and weak in the fore-part of the week, and under the manipulation of large holders of stocks closed at an advance. Government bonds were lower, and railroad bonds were active and weak at the close. The market for sterling exchange was quiet, and closed only fairly steady, owing to the depression in stocks causing arbitrage transactions. The actual rates ranged: At 60 days' sight, 4.83@4.83 1/2; demand, 4.85@4.85 1/2; cables, 4.85 1/2@4.86, and commercial, 4.80 1/2@4.81. Continental exchange quiet and steady; francs, 5.20@

5.19 3/4 and 5.17 1/2 @ 5.16 1/2; reichsmarks, 95 @ 95 1/4 and 95 1/4 @ 95 1/4; guilders, 39 3/4 and 40 3/4.

THE PAPER TRADE.—The market retains a very steady appearance, without, however, showing any increase in business. As in nearly every department of trade at present caution is the rule with most buyers, the orders for the most part representing grades, sizes and quantities necessary to meet the legitimate wants of consumption. Efforts made on the part of dealers to induce larger orders to be given are met in most instances by a reluctance to anticipate the future, buyers preferring to be governed by their current necessities. Supplies of most grades continue quite full, although there is no great surplus seeking a market, as many of the large mills are not running to their full capacity. Some have their current production engaged on orders, while there are still others who embrace the opportunity to shut down to make needed repairs. There is no doubt but what low prices are the controlling motive of some manufacturers in lessening their production, and it would inure to the benefit of the whole trade if their example was followed more generally. There is an improvement in the affairs of Wall street, and a greater degree of encouragement as to the future outlook, and while recovery from the strain put upon business operations during the past three weeks may prove slow and tedious, recuperation is going on, and each day marks some slight progress toward a return to a more healthy activity. In the meantime there appears to be very little disposition to enter into new ventures, and in every direction the tendency is to curtail operations of all kinds within the limits of absolute safety.

JUTE BUTTS.—There is scarcely anything interesting to note of the Jute Butt market. There have been no arrivals since May 20, and the sales have been very small; in fact, the only transactions that we hear of were 500 bales paper quality at 2 1/4 c. and 1,000 bales of spinning butts at 2 3/4 c. Nothing whatever reported in futures.

WOOD PULP.—Ground Wood Pulp is still nominal and weak, but manufacturers continue to hold to 2 @ 2 1/4 c. as their price for Spruce, with scarcely no inquiry whatever for Poplar, and prices entirely nominal.

WOOD FIBRE.—Chemical Fibre is without any improvement, the offerings continuing large and prices showing very little strength. Manufacturers still quote 4 1/2 @ 4 3/4 c. as the range for Bleached and 3 1/2 @ 3 3/4 c. for Unbleached.

FOREIGN RAGS AND PAPER STOCK.—There has been a continued very dull and quiet market this week, manufacturers ordering in small lots only, with the general disposition of the market about the same as reported last week. It is very likely that there will be a steady movement right through the summer, with very little variation either way, with a fairly moderate demand at very low prices, and no contracts of any considerable size for future deliveries. The foreign markets are still above the ideas of buyers here as regards prices, and our importers and holders of foreign goods will have to bide the time when the views of packers abroad will come nearer to the condition of things here. There is some little inquiry for English Waste Papers, with moderate sales; but the offerings in most instances are very low. The shipments, as will be seen from our figures, are very much larger this week; but it is claimed that the greater portion are for delivery on old orders. While there is a willingness to sell freely, holders show no disposition to modify their views very materially as to prices. The arrivals during the past week aggregate 6,210 bales and bags, embracing 2,952 bales Rags, 547 bales Old Papers, and 2,711 bales Manillas.

DOMESTIC RAGS.—The demand from manufacturers is being met to a considerable extent by supplies of Western stock and foreign goods which are being taken up at relatively lower prices than New York packers will accept. While the demand for No. 1 City Whites is light, the supply offering is believed to be correspondingly small, the range quoted is 4.31 1/4 @ 4 3/4 c.; No. 2 Whites are in more liberal supply, and 2.30c. to 2.37 1/2 c. is about the limit as to quality. Seconds remain about the same as they have ruled for some time past.

BAGGING, &c.—Gunny Bagging for future delivery is a shade weaker, considerable offerings for July, August and September delivery having been made this week at 2c. on 60 days, without much having been taken up. Spot bagging holds its own very well, as the supply here is very limited, and dealers are firm at 2 1-16 @ 2 1/4 c. for No. 1 Manchester as to quality and terms. Manilla Rope has not shown any further weakness; 3 @ 3 1-16c. is still asked for Domestic and 3 1-16c. for English. Jute Rope and threads are also unchanged; sales of moderate quantities of the latter reported at 2 3/4 c.

OLD PAPERS.—Manillas are inquired for to a fair extent, but the offers are very low, and there is a moderate demand for Shavings, but Solid Book Stock, Folded News and other lower grades are almost entirely neglected. We quote: Solid Book Stock, 2 1/2 @ 2 3/4 c.; No. 1 Hard White Shavings at 3 1/4 c.; No. 1 Soft White do. at 3 1/4 @ 3 1/2 c.; Mixed do., 2 3/4 c.; Ledger Stock, 2 1/2 @ 3 1/4 c.; Light

Book Stock, 1 1/2 @ 1 1/4 c.; Folded News, 1 3/4 @ 1 1/2 c.; No. 1 Manillas, 1 1/2 @ 2c.; Bogus Manillas, 1/4 c.; Commons, 35 @ 45c.; Straw Board Clippings, 1/2 @ 3/4 c., and Binders' do., 1/2 @ 3/4 c.

STRAW.—Straw continues scarce and very firm in price. We quote in New York: No. 1 Rye Straw, 80 @ 85c.; No. 2 do., 60 @ 70c.; and Oat, 50 @ 55c.

ROSINS.—Rosins have ruled quiet, with common grades very dull and Pales and Mediums easier to buy, with no sales of consequence of any grade reported. We quote yard lots, cartage included, viz.: Common to Good Strained, \$1.60 @ 1.65; E at \$1.70; F Good No. 2 at \$1.80; G Low No. 1 at 1.85; H No. 1 at \$2.05 @ 2.15; I Good No. 1 at \$2.35; K Low Pale at \$2.75 @ 2.87 1/2; M Pale at \$3.25 @ 3.50; N Extra Pale at \$3.75 @ 4, and W G at \$4.50 @ 4.75.

CHEMICALS.—Beyond supplying their actual needs, buyers show no disposition to purchase any quantities at the present time, and the market is dull and there is little of interest to report. Supplies here are quite full, and there is more or less disposition to urge business, this being particularly the case with high-test Caustic Soda and Sal Soda. Bleach and Soda Ash are held at about the same as last week, except that under lighter stocks of the former prices are a shade firmer. Alum is selling quite freely for the season, and prices are steady. Sales are said to have been made here as follows: 400 cks. Bleaching Powders at \$1.87 1/2 @ 2.00 to arrive and on the spot, as to brand and quantity; 150 tons Soda Ash at \$1.55; 300 drums Caustic Soda, 70 per cent., at 2.02 1/2 c., spot and to arrive; 50 tons Sal Soda at \$1.15; 200 barrels Lump Alum at 1 1/4 c.; 250 barrels Ground do. at 2c.; 750 barrels Pearl do. at 2 1/4 c.; 1,287 barrels Natrona Porous Alum at 2 3/4 c.; 100 tons Aluminous Cake at \$1.42 1/2; 25 cases German Ultramarine at 21c.; 10 cks. Brown Sugar of Lead at 7 1/4 c.; 20 cks. Yellow Prussiate of Potash at 23 1/2 c.; 15 cks. Bichromate of Potash at 11 1/4 c.; 100 barrels Venetian Red at \$1.50; and 20 cks. Antichlorine at 23 1/4 c.

CHINA CLAY.—Business in English continues limited, and as consumers' wants are being liberally supplied by the recent large arrivals, importers do not look for an improvement in the demand until later in the season. We note sales of 50 tons low grades ex-vessel at \$13.50, and 30 tons prime at \$16 @ 16.50. We quote common to medium at \$14 @ 14.50, Southern Clay is moving in a fair way at \$11.50 @ 12, with sales reported of 50 cks. at the inside figure.

COAL.—The Anthracite coal trade has been quiet, and the business done has not been of great volume. Seward's Coal Trade Journal says: "There is to be a stoppage of two full weeks in June—the first and the third weeks. This will, no doubt, tend to greatly alter the condition of affairs, and should change the position of the buyer and the seller as to any anxiety for the future. It is rather early yet to note any special effect of this stoppage, but there is already a firmer feeling, and we hear of certain coals being held for an advance, rather than parting with the same at the prices which have been current. In another fortnight the reduction of the output will have had a more defined effect, no doubt. Were the present circular prices actually realized, there would be no cause for complaint of the condition of the coal trade as compared with other industries. Bituminous coal is quiet and prices are low, with heavy production in all the regions." Scranton at Hoboken is quoted at \$3.80 for Lump, Grate and Egg; \$4.15 for Stove and \$4 for Chestnut. Philadelphia and Reading Company at Elizabethport, N. J., quotes Broken and Egg, \$4.10; Stove, \$4.15, and Chestnut, \$4.

PRICES CURRENT NEW YORK MARKET.

Table with columns for Paper Market, Dealers' Selling Prices, and various types of paper and rags with their respective prices.

Table listing prices for Straw Boards, air-dried, Penn., 40.00 @ 45.00; Straw Boards, air-dried, State, 40.00 @ 45.00; Straw Wrapping, basis, 15 x 20, 15 1/2 lbs., 30 sheets—

Table listing prices for Woolen Rags, including Mill Assorted Whites, White Woolens, Blue Gray Stockings, White Stockings, Blue Flannels, etc.

Table listing prices for Shavings and Old Paper, including White Collar Cuttings, muslin lined, White Envelope Cuttings, Hard White Shavings, etc.

Table listing prices for English Old Papers and Shavings, including Hard Shavings, No. 1, Soft Shavings, No. 2, White and Colored Shavings, etc.

Table listing prices for English Rags, &c., including New Cuttings, cotton, London Fines, cotton, Outsides, cotton, etc.

Table listing prices for Hamburg Rags, &c., including S P F F F, S P F F, F P F, L F X, etc.

Table listing prices for Paper Market, including Ledger and Record, Flat Caps, superfines, Flat Caps, engine-sized, etc.

Table listing prices for Ropes, including T R (tarred), M R (manilla), Old Book Paper, Old Printed Books, etc.

Table listing prices for Ordinary Leghorn Rags, including P P, No. 1 White Linens, S S, No. 2 White Linens, T T, No. 3 White Linens, etc.

Table of Chemicals, Coloring Materials, &c. listing various substances and their prices.

BOSTON MARKET.

Paper Stock.

Table of Paper Stock prices for various types of paper.

English Rags, &c.

Table of English Rags and other materials prices.

English Old Papers and Shavings.

Table of English Old Papers and Shavings prices.

New Papers.

Table of New Papers prices.

Leghorn Rags.

Table of Leghorn Rags prices.

Alexandria Rags.

Table of Alexandria Rags prices.

Smyrna Rags.

Table of Smyrna Rags prices.

Constantinople Rags.

Table of Constantinople Rags prices.

Chemicals.

Table of Chemicals prices.

Advertisements.

THE WRITER IS MAKING POWER, HAND AND Hydraulic Elevators or Hoists.

WANTED.—SITUATION AS FOREMAN BY A practical paper maker of 37 years' experience on Manila, Straw or Rag Wrapping, Sewing Board, Roofing, &c.; salary asked, \$1,000 per year; first-class references. Address WM. H. SMITH, P. O. box 1154, Elkhart, Ind.

WANTED.—POSITION AS MANAGER OF A Mill, writings, news, colored or manilla—by a thoroughly posted man; experienced also in the manufacture of wood pulp and chemical fibre. Address "P.L.P." 23 PAPER, Care Paper Trade Journal.

WANTED.—A NEW OR GOOD SECOND-hand 40 horse-power steam boiler, cheap. BLOOMSBURG PAPER CO., Bloomsburg, Pa.

ONE ENGINE, WITH WASHER AND OTHER attachments complete, roll 33x36, in good order, bars nearly new. Two Cylinder Molds, 62 in. face, one newly covered, both in good condition. One Upright R. & Sisco Fan Pump, in first-class condition. One Heat & Sisco Fan Pump, in first-class condition. McALPINE BROS. & CO., Lee, Mass.

FOR SALE.—PAPER MILL AND FARM, situated near Pleasantville, Berks County, Pa., said mill contains one 42-inch Fourdrinier machine, five dryers, two stacks calenders (one steam chilled iron rolls, by Morton Poles), two beating engines, 250 pounds capacity each; one iron washing engine, 600 pounds capacity; iron chest for boiling stock, rag cutter, duster, Loeffel wheel, steam engine and two steam boilers; good water power, 15 feet head, very excellent wash-water; mill ready to start up. The farm contains about 28 acres, also stone dwelling-house and large barn. For further particulars write or apply to HENRY CONNARD, Reading, Pa.

MACHINERY.—68 IN. FOURDRINIER MACHINE, good width and extra strong; Paper Engine, iron roll, 36x34, large tub; Paper Engine, 32x28, large new Cedar Tub, Screw Press, Hydraulic Press, 49x27; 3 Prats Steam Traps, Holyoke Duster, 15x5 feet; Holyoke Duster, 14x3 feet; good 25 in. Houston Water-Wheel, two cheap Water-Wheels, Hydraulic Ram, two 62 in. Suction-Boxes, two Copper Filters, four Screen Plates, 12x36; Flat and Rope Pulleys, Gears, &c. FLATNER & PORTER MFG. CO., Unionville, Conn.

FOR SALE CHEAP ONE HORIZONTAL COR-RIS Engine, 20x48 in., 200 horse-power, in first-class order; one Horizontal Slide-valve Engine, 12x24 in., in good order; one Horizontal Cut-off Engine, 9x16 in., new; one Horizontal Wrigt Engine, 8x24 in., in good order; one large Hydraulic Press, 8 in. ram; one small Hydraulic Press, 5 in. ram, with Pump; one No. 11 Sturtevant Pressure-Blower; 600 ft. 4 in. Cast-iron Pipe, flanged; 80 feet Shafting, 2 7/16 in.; 1,500 Pulleys, from 4 in. to 7 ft.; several Rotary and Steam Pumps at less than cost. D. B. CRUIKSHANK, 245 Dyer St., Providence, R. I.

WANTED. Three Cylinder Washers, 36x36, complete; also, one Jordan Engine, large size; must be in good condition and cheap. CHURCH, UTLEY & CO., Rock Falls, Ill.

WANTED. Stack Chilled Rolls, 64 to 68 inch face; could use 58-inch rolls without frame; must be chilled rolls in good order. Address, with description and price for net cash, P. O. Box 1928, Boston, Mass.

WANTED. A competent man to go out West and take charge of and work in an air-dried straw-board mill. He must understand thoroughly the manufacturing of all kinds of board made on a wet machine, must be practical, sober, honest and industrious and come well recommended. Such a person can obtain an excellent situation. Apply to C. A. MALLORY & CO., 53 Walker Street, New York City.

FOR SALE CHEAP. Two Rotary Wood Pulp Boilers, Harrison Loring's make. These boilers are made of 3/4-in. iron, are 7 feet in diameter and 24 feet long; capacity, about 6,000 gallons. A splendid piece of workmanship, and safe at high pressure. special bargain can be obtained by addressing WEST VIRGINIA FIBRE CO., Parkersburg, W. Va.

FOR SALE. Paper Mill at York, Pa., on York & Peach Bottom Railroad, with switch delivering freight to yard; stone mill, three dwelling houses, large storage barn, forty acres of land; mill fitted with steam and water power; large dam, with head and fall of 21 feet; 62-inch cylinder mill machinery in perfect order, now making Tissue Manilla. Address W. IRVING CLARK, 212 Pearl St., New York.

FOR SALE. (Apply to Portage Straw Board Co.) Two Suction Boxes, 84 and 96 inches long, with stands, Dunn & McAlpine patent. One 3x10 Victor Double-acting Power Pump, J. H. McGowan make. One 3x12 Victor Double-acting Power Pump, J. H. McGowan make. PORTAGE STRAW BOARD CO., New Portage, Ohio.

FOR SALE—CHEAP. One 48-inch Harper Fourdrinier Machine. One 1200-lb. Washing Engine and Tub. One 1200-lb. Washing Engine, iron work only. Two 300-lb. Mixing Engines. One Steam Boiler, 64x30 feet. Two Rag Rotary Boilers, 4 1/2x16 feet. Two Straw Rotary Boilers, 6x30 feet. Two 90-inch Risdon Turbine Water-Wheels. One 60-inch Barber Turbine Water-Wheel. One 48-inch Barber Turbine Water-Wheel. One 40-inch Barber Turbine Water-Wheel. One 4-inch Double Plunger Pump. One 4-inch Single Plunger Pump. Eight 7 1/2-inch x 12-inch Pulleys. One Norwalk Portable Engine and Boiler (15 H. P.).

HUDSON RIVER WATER-POWER AND PAPER CO., MECHANICVILLE, N. Y. FOR SALE. Part of a 62 in. Paper Machine, consisting of one Stuff Pump, one Fan Pump, six Screen Plates, 12x40; one Forming Cylinder; one First Press, two Iron Rolls; one Second Press, two Iron Rolls; three Iron Dryers, 36x66 in. Address West Virginia Fibre Co., Parkersburg, W. Va. P. O. Box 485.

FOR SALE CHEAP. Three Allen & Jones Wood Pulp machines, three Wood Pulp Refiners, one 36-in. Wet machine, one Cut-off Saw Frame, one 4-in. Double Plunger Pump, one 2-in. Fan Pump, one large 3-roll Wood Crusher—all in good order. Pulleys of different sizes and other machinery. BENNINGTON PULP CO., Middle Falls, N. Y.

LINK-BELT MACHINERY CO. CHICAGO. Elevators and Conveyors for Wood Chips. Improved Appliances for Elevating and Conveying Rag, Straw, Manilla and Wood Pulp. Estimates furnished on application. Send for 144-page Catalogue, with full illustrations. BRANCH HOUSES: 51 John Street, New York. 921 N. Second St., St. Louis.

PAPER MILL MACHINERY Of Every Description, and STEAM ENGINES, R. O. MOORHOUSE & CO., Thirteenth and Buttonwood Sts., Philadelphia. PARTITION SALE Valuable Paper Mill Property. FINE WATER-POWER. CLEAR TITLE.

THE BRICK PAPER MILL formerly operated by BEARD, CROUSE & Co., is offered for sale at Public Auction on the 25th day of June, 1884, at two o'clock P. M., at Fayetteville, N. Y., to close up the copartnership affairs of BEARD & CROUSE. This property is situated at Fayetteville, Onondaga County, N. Y., one quarter mile from S. O. & N. Y. R. R., two and one-half miles from N. Y. C. & H. R. R., one and one-half miles from New York, West Shore and Buffalo R. R., one half mile from Erie Canal; contains one 62-inch Paper Machine, with 72-inch Fourdrinier Wet Part; one stack nine Chilled Calender Rolls (two 14 inch, seven 7 inch each); two 500 and one 300 pound Engines. Mill complete with Steam Rotary Boiler and Tub Bleach, Rag Cutter—Three Dusters—with all appliances for making two tons or more daily, of book, news or manilla papers; with sufficient water, on a race creek, or a fall of 21 feet. Also a good supply of pure spring water. This mill is located in one of the nicest villages in the State. Buildings mostly brick and stone. SALE POSITIVE ON THE DAY ABOVE MENTIONED.

N. B.—Further particulars with regard to the property can be obtained by addressing H. L. Beard, Robert Crouse, or Andrew W. Wilkin, Auct'y, at Fayetteville, Onondaga County, N. Y. Parties desirous of purchasing are invited to come and examine property before day of sale. O. D. BLANCHARD, Auctioneer. Fayetteville, Onondaga Co., N. Y., May 24, 1884.

FOR SALE. A new Wet Machine; cylinder, 30-inch diameter, 52-inch face, 12-inch press rolls; iron and wood; vat, screens and pulleys, all complete, except stuff pump Set of super-calenders, six rolls, 52-inch face; in good order. Address MEAD PAPER CO., Dayton, Ohio.

PAPER MACHINERY FOR SALE. One 66-in. Paper Machine, as follows: One good Stuff Pump. Vat, nearly new. Set of Screens. 2d. Press, new 14 in. Iron Roll, 14-in. Wood Roll. 1st. Press, 12 in. Iron Roll, 14-in. Wood Roll. Four 36-in. Iron Dryers. Four Stacks of Calender Rolls. Six Revolving and fourteen standing Reels. Revolving Cutter and Winder complete. The above includes all Paper and Felt Rolls, Iron Paper and Felt Rolls on Dryers, Iron Frames throughout. Driving Power Pulleys and Shafting complete.

Rotary Bleach, 5 ft. x 17 ft. Driving Power complete. One 2-in. Head & Sisco Pump. One 1 1/2-in. Head & Sisco Pump. One Stack of 72-in. Chilled Calender Rolls, two 12-in. Rolls, seven 5-in. Rolls. One 31 horse-power Head & Morris Steam Engine, Pump and everything complete.

For further particulars address G. & G. A. ROBERTSON & CO., Hinsdale, N. H.

FOR SALE, SIX BEATING ENGINES, Rolls 28x30 inches. PARSONS PAPER CO., Holyoke, Mass.

PAPER MILL IN SAVANNAH, GA., FOR SALE. This mill is complete in every detail, having just been remodeled and enlarged by the addition of the latest improved machinery. Fifty thousand dollars having been expended in the improvements, it is now one of the best mills in the United States, and is ready for immediate operation. The property consists of a lot in the city of Savannah, about 300 feet square, with main building, paper and stock warehouses. The power consists of one 150 horse-power and one 50 horse-power Wright engines. Three tubular boilers, made by E. Hoge & Co., Boston (one has not had fire under). The paper machinery consists of one 72-in. Fourdrinier machine, complete and new, made by Smith, Winchester & Co.; one stack (eleven rolls) calenders, made by Holyoke Machine Co.; one stop cutter, made by Fitchburg Machine Co.; two Jordan engines, five beating engines, one wet machine, two large rotary boilers, newly made expressly for this mill by Harrison Loring, of Boston; four stock cutters, one Railroad and one Hevil Duster, eight iron chemical tanks, six large wood stock tubs, gas works complete with fixtures, pumps, belting, &c., &c. A large proportion of the above-described machinery is entirely new. Not being a paper maker, and having no use for the property, I offer it for sale at less than half of its real value, and will make very reasonable terms of payment. There are local reasons which make this the best located paper mill in the South. Address SAMUEL P. HAMILTON, Owner, Savannah, Ga.

PROPOSALS FOR POST-OFFICE ENVELOPES. POST-OFFICE DEPARTMENT. WASHINGTON, D. C., May 2, 1884. Sealed proposals will be received at this Department until Wednesday, the 28th day of May, 1884, at 12 o'clock M., for furnishing Post Office Envelopes, in such quantities and at such times as they may be ordered, during the fiscal year ending June 30, 1885, of the following classes, viz: Nos. 1 to 4. For Official Letters and Returns. No. 5. For Returning Dead Letters. No. 6. For Registered Packages. No. 7. Tag Envelopes for Registered Packages. No. 8. For International Money Order Advertisements. Blank forms of bids, with samples and full specifications, will be furnished upon application to the Third Assistant Postmaster-General, Washington, D. C. W. Q. GRESHAM, Postmaster-Gen.

Established 1831. CHAS. E. BARRETT, (Successor to the late NEWMAN & TYLER), Manufacturer of PAPER and SPECIAL MACHINERY, and Screen Plates. Paper Machines made from New and Improved Patterns BRATTLEBORO, VT.

THE BLACK & CLAWSON CO. MANUFACTURERS OF Paper Mill Machinery, FOURDRINIER AND CYLINDER MACHINES, Beating and Washing Engines, CALENDERS, CUTTERS, STUFF AND FAN PUMPS, Reels, Rag Cutters, Screens, Screen Plates, REAM CUTTERS, CYLINDER MOLDS, WIRE CLOTH, DANDY ROLLS, DECKLE STRAPS, PERFORATED DRAINER BOTTOMS, STUFF BOX TRUCKS, TRACK, TURN-TABLES, IRON AND BRASS CASTINGS. Address THE BLACK & CLAWSON CO., HAMILTON, OHIO.

CLEVELAND WIRE WORKS.—W. S. TYLER, MANUFACTURER OF Fourdrinier and Cylinder Wires. Send for Catalogue and Prices. CLEVELAND, OHIO. DANDY ROLLS, &c.

CYRUS CURRIER & SONS, NEWARK, N. J. General Machinists, Founders and Engine Builders.

PAPER MACHINERY A SPECIALTY. Fourdrinier and Cylinder Machines, Chilled Iron and Paper Calenders, Beating and Washing Engines, &c. All Steel Roll Bars and Bed Plates cheaper and better than Laid Bars. KINGSLAND BEATING ENGINE, THE BEST AND CHEAPEST, UPWARD OF TWO HUNDRED IN USE.

GUARANTEE SATISFACTION. 30 DAYS' TRIAL. THE ORIGINAL IMPROVED

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Manufactured by BOGGS & CLARKE, 123 & 125 South Clinton Street, Syracuse, N. Y. Our Patterns are New and of the Best Design. Our Shop has been fitted up with New Tools and Appliances of the best manufacture.

BOSTON MACHINE MFG. COMPANY, Office and Works, Granite, cor. First St., Boston, Mass., MACHINISTS, IRON AND BRASS FOUNDERS, MANUFACTURERS OF

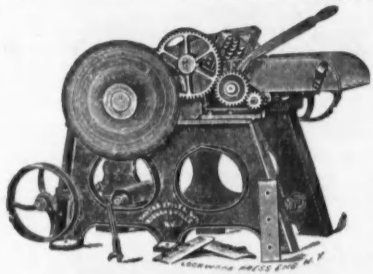
PAPER MACHINERY OF EVERY DESCRIPTION. FOURDRINIER, CYLINDER and LEATHER BOARD Machines, IMPROVED Washing and Beating Engines, Roll Bars, Bed Plates, Plunger and Fan Pumps, Rope and Rag Cutters, Bundles and Stop Cutters, CHILLED IRON and GUN METAL COVERED ROLLS a specialty; also Iron Rolls furnished, covered with RUBBER, by James B. Forsyth's process. HARPER'S IMPROVED FOURDRINIER. LARGELY INCREASED facilities for Grinding Rolls. CHARLES CARR, VICE-PRESIDENT and MANAGER. HENRY F. EATON, SUPT. PAPER MACHINERY DEPT.

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**MACHINE BELTING**  
 Manufactured by  
**THE GANDY BELTING CO.,**  
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**ADVANTAGES**—Much cheaper and stronger than leather. Thoroughly waterproof, and not affected by temperature. Clings well to the pulleys. Runs true, and can be made any length without joints.  
 Used in all the principal paper mills of Great Britain.



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**PAPER STOCK CUTTERS**  
 (THREE SIZES).

They are the most durable, have greater capacity, take less power, and are the cheapest cutters in the market. Estimates and full description furnished on application. Manufacturers of the Angle Bed Finishes, Roll Bars (steel laid or all steel), Trimming Knives and Paper Mill Knives of every description.

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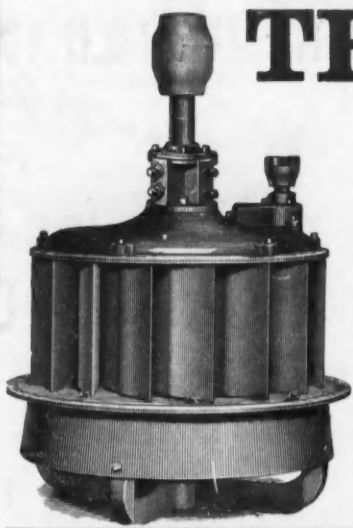


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In use in a large number of best Paper and Pulp Mills in this and other Countries.

On view at Permanent Exhibition of Mill Machinery, 36 Broadway, New York.

Possesses more than Double the Capacity of other Water Wheels of same diameter, and has produced the Best Results on Record, as shown in the following tests at Holyoke Testing Flume:

SIZE WHEEL	HEAD IN FEET	HORSE-POWER	PER CENT. OF USEFUL EFFICIENCY
15-inch	18.06	30.17	.8632
17½-inch	17.96	36.35	.8930
20-inch	18.21	49.09	.8532
25-inch	17.90	68.62	.8284
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With proportionately High Efficiency at Port-Gate.

Such results, together with its nicely-working gate, and simple, strong and durable construction, should favorably commend it to the attention of ALL discriminating purchasers. These Wheels are of very Superior Workmanship and Finish, and of the Best Material. We also continue to manufacture and sell at very low prices, the

**ECLIPSE DOUBLE TURBINE,**  
 So long and favorably known. State your requirements, and send for Catalogue to the  
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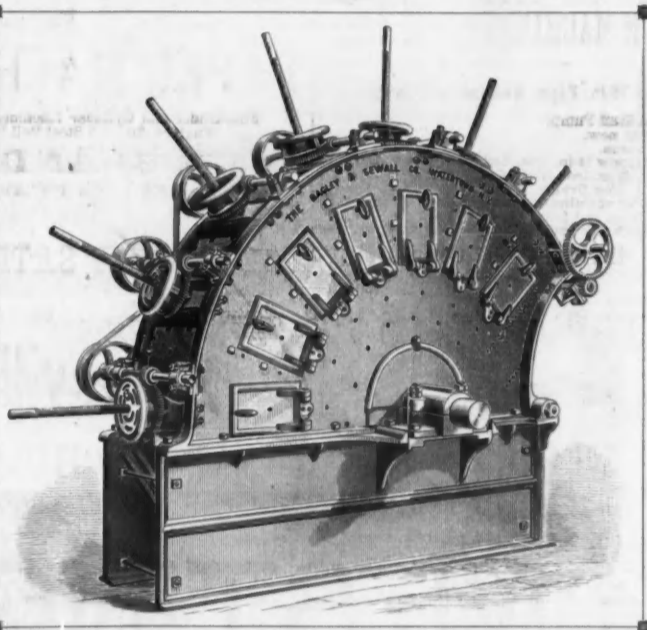
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For information and prices for Pulp Machines, and other Machinery for the Voelter Process, address

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**STANDARD PAPER BAG CO.,**  
 46 Federal Street, BOSTON, MASS.,  
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**SATCHEL-BOTTOM PAPER BAGS.**  
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THESE BAGS ARE EXTRA STRONG, FULL COUNT, FULL WEIGHT. Each Bag numbered. The bottoms being ready shaped for immediate use, save the time and trouble of having to form the bottom and corners before filling. Guaranteed to be Superior to any other Bag in the market. Send for Samples of the "STANDARD'S CHALLENGE BAG."

**ATTENTION, PAPER-MAKERS!**  
**THE EXHAUST VENTILATOR FAN**

IS PARTICULARLY ADAPTED TO THE  
 Removal of Steam, Moisture and Heat from Machine and Bleach Rooms in Paper Mills.

IT is in successful operation in the following places: Paper Mill of Messrs. Averill, Russell & Carpenter, Minneapolis. Paper Mill of Messrs. Warner, Newman & Warner, Minneapolis. Paper Mill of Minneapolis Straw Board Co., Minneapolis. Atlas Paper Co., Appleton, Wis. Lockport Paper Co., Lockport, Ill. Cedar Falls Paper Co., Cedar Falls, Iowa. Cleveland Paper Co., Cleveland, O. Geo. H. Friend & Son, West Carrollton, O. South Bend Paper Co., South Bend, Ind. Mead Paper Co., Dayton, O., and many other places.

Send us diagram of your mill and dimensions, specifying where steam is generated, and we will make estimate and guarantee the removal of steam in winter and heat in summer.

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 111 Monroe St., Chicago, Ill.  
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 Agents for New York, New Jersey and New England States, 45 Fulton Street, New York.



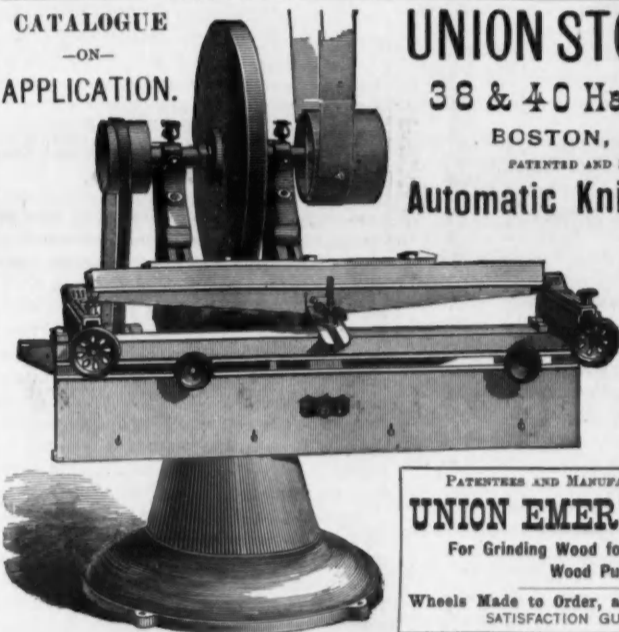
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 MANUFACTURERS OF  
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Book-Binders' Knives and every variety of Pattern Knives made to order.  
 — WORKS ON DAYTON VIEW HYDRAULIC, DAYTON, OHIO. —

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 38 & 40 Hawley St.  
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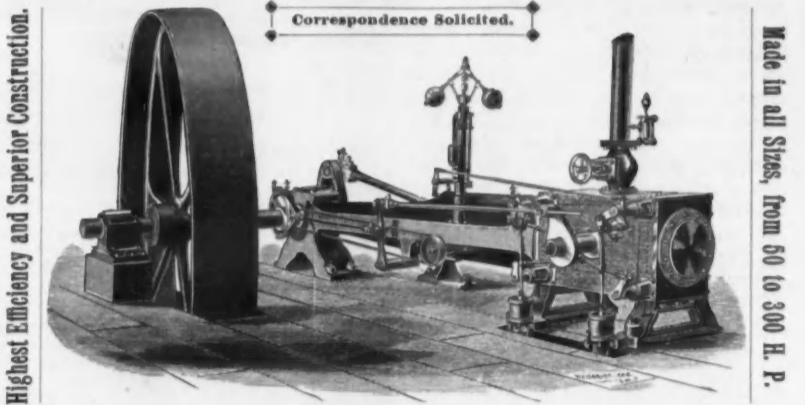


**Automatic Knife Grinder,**  
 FOR ALL KINDS OF  
**LONG KNIVES.**

THIS MACHINE SOON pays for itself in the labor it saves. It will grind a knife in less time than on a grindstone, and with a perfectly straight edge, in itself a sufficient reason for purchasing the machine, to say nothing of the economy.

PATENTERS AND MANUFACTURERS OF THE  
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 For Grinding Wood for Manufacturing  
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 Wheels Made to Order, and Castings Filled.  
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Highest Efficiency and Superior Construction.

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**Lubricators and Solidified Oil**  
 THE most economical, perfect, practical, simplest, cheapest and elegantly furnished Lubricators ever put on the market. One million sold within a couple of years. The Barthel Solidified Oil or Lubricating Compound is used with the Lubricators exclusively. Whoever has once tried this Lubricant will never again use any other lubricating compounds. Send for Illustrated Catalogue.



**Relation of Trade Journals to Business Interests.**

At the Lockwood Press Dinner, Charles K. Hammit responding to the toast: "Trade Journals—Their relation to the Mercantile and Manufacturing Interests," said:

Trade journals, more or less, intimately concern all present, and, doubtless, all that I can say in this connection has already been fully thought over by you. Their existence is in response to the demands of trade, and should they cease to exist, they would leave a void which nothing yet developed could fill.

The duty of trade journals is to point out defects in systems of trade, and advocate policies of improvement; to ferret out and expose what are commonly known as the tricks of trade, and by earnest and constant denunciation to encourage a sentiment of fair dealing; to study carefully the requirements of trade and present plans for its promotion; to collect news of every description from all quarters, select such portions as concerns the trade represented, and to present it in a full yet condensed and readable form; to seek channels of trade hitherto unexplored, and point out the advantages of and ways to develop them; to draw together members of trade, and secure co-operation where individual effort would not be sufficiently potent; to suggest instruments for a more speedy or more economical method of accomplishing given results; to learn of and give prominent notice to improvements in systems or implements calculated to benefit trade as perfected by specialists; to report the conditions of markets, and record fluctuating prices; to crowd out antiquated wares, and bring forward new and improved styles. This and much other kindred work enters into the duty of the highest type of trade journalism.

Work of this character, vigorously prosecuted, naturally makes the influence of the trade paper very great. Its columns are read closely by those whose interests are of such magnitude as to keep them from searching for themselves through every source of information, to learn what has transpired or is likely to transpire to affect them. The full and condensed form of the information in the trade journal is fully appreciated by them, and their paper becomes to them what the chart is to the mariner—a guide in navigating the sea of commerce.

It is sought after, also, and read closely by the wiser members of trade in all classes, whether manufacturer, distributor or he who sells to the consumer—in fact, by the larger and wiser consumers.

In measuring the influence of the trade journal it will be well to consider the character of the men to whom I refer. Numerically, men of this class, in any single trade, represents only a small portion of any one community, but they are scattered throughout the land, and in their respective communities their opinion has great weight for shaping the opinion of their neighbors, not alone on matters of trade and commerce, but on whatever relates to the general good.

Of necessity trade journals meet with people connected with the trades which they represent, who antagonize them and try to belittle their influence as every progressive work strikes the personal interests of individuals and awakens opposition, but these men are careful to learn the contents of their trade paper, and are unconsciously influenced thereby, and in common with those who declare their appreciation, seek desired information in its columns. Although, perhaps, it has not been realized, the trade journals of the country have exerted an influence, during the past few years, which has counteracted in advance much of the evils which might have resulted from the recent financial panic in Wall street. The faithful record of the condition and prospects of trade, coupled with the cautions against overtrading and the advice to shorten credits and to avoid excessive indebtedness, acted upon by their readers, has placed the country in such a position that, heavy as this shock was, the mercantile interests have weathered the storm without any important disaster.

A duty of the trade journal not yet referred to, and yet one of its most important duties, is to bring the buyer and seller together. The buyer in reading his paper seeks not only prevailing prices, conditions and prospects of trade, but expects and requires reasonable assistance in directing him to the best sources through which to supply his wants. For this assistance he consults the advertising columns, and this at a time when he is peculiarly alive to his business interests. At such times houses which have shown sufficient forethought and enterprise to secure representation in the advertising columns of their trade paper derive benefit of immeasurable value, even

though business did not immediately result, as in the buyer's mind they and their business have become associated with the idea of supplying his present or future wants.

For the convenience of buyers, leading producers and manufacturers congregate in one location, frequently having their places of business adjoining each other so that buyers may complete their purchases without needless delay in going from one to the other; and so for the convenience of buyers leading producers and manufacturers should constantly keep their card setting forth their business and location prominent in accepted trade journals so that buyers may, without loss of time, find the address and name of any firm wanted. This card should be supplemented by seasonable announcements, attractively displayed, setting forth fully the wares manufactured and ability to meet trade requirements.

The trade journal affords an opportunity for this use not presented by any other medium of any character, because all of its readers are interested parties and possible customers, and few but those interested in a given trade would find its trade journal of interest to them, while in the general press it is only the occasional reader who is interested in trade matters.

The value of reaching the readers of the trade journal as compared with that of other mediums is further increased by the fact that the former buy for hundreds or thousands while the latter buy only for themselves.

Some patrons of trade papers have the idea that money spent in advertising in them is so much of a contribution toward their support, and while they realize the necessity of their existence, they do not recognize their value as mediums of advertising.

The disposition to extend support to trade journals because of their usefulness is commendable on their part, but it is liable to lead to error in that the inferior journal may present the same claim as the superior. Careful preparation of advertising matter accompanied by ordinary watchfulness and proper analysis of results will convince philanthropic supporters of trade papers that those journals which really merit their support bring evidences of their value as advertising mediums fully commensurate with their charges, and they would promote trade interests as well as their own, and secure a higher standard of merit in these journals by patronizing them upon the ground of merit as well as usefulness. Where cheapness in price as compared with others is the reason urged why support should be given, it is safe to assume that support is costly at any price.

Prominent houses sometimes boast that they have always been successful, and that, too, without advertising in trade papers; and while this may be true, it does not follow that they would not have been more successful had they so advertised. Somehow, this boast always reminds me of the aged Christian who, in remarking upon how free Christianity was, boasted that it had cost him throughout his life only 25 cents, and to him his minister, in righteous indignation, exclaimed: "The Lord have mercy on your poor stingy soul!"

Evidently, the Christian had never learned the beneficial influence upon his own character of giving as God had prospered him, nor the richness of experience of those who recognize that they have entered into His plan, and are fulfilling the part allotted to them in His work. Nor have the houses referred to learned the broadening and ennobling influence upon the character of their individual members by realizing their intimate relations to the fabric of trade and the consciousness that they are fulfilling their part in its development.

**The Booksellers and Stationers' Provident Association.**

At the last meeting of the Board of Trustees the following named applicants were elected to membership:

- |                               |                                   |
|-------------------------------|-----------------------------------|
| John R. Anderson, New York.   | G. F. Finn, New York.             |
| J. W. Carroll, Jr., New York. | W. G. Hall, New York.             |
| J. H. Chilver, New York.      | C. M. Hart, New York.             |
| J. F. Clouan, New York.       | C. E. Locking, New York.          |
| W. O. Davis, Cincinnati.      | Thos. Mulrone, Chicago.           |
| David L. Davis, Brooklyn.     | R. J. Palmer, New York.           |
| Joseph F. Day, New York.      | J. H. Rooney, New York.           |
| R. M. Donaldson, New York.    | C. F. Walter, New York.           |
| J. P. Flersheim, Chicago.     | C. E. Wentworth, Cambridge, Mass. |
|                               | C. Wildermann, New York.          |

J. A. HOLDEN, Secretary.

A pint of linseed (not linseed oil) used weekly, in connection with a thorough washing with hose, is said to have been found to be one of the best substances to prevent scale in steam boilers. The linseed softens the scale so much that it comes away like sludge. Brown slippery elm bark also gives good results.

**American Exhibition in London.**

A movement is on foot to hold an exhibition of American products and manufactures in London early in the year 1885. Gen. C. B. Norton is at the head of the project, and has, it is said, secured the co-operation of a large number of leading American manufacturers. It is difficult to say at this time whether the movement will come to a successful issue, but there is no doubt that an exhibition of American products and manufactures in London would have a tendency to further the interests of American exporters by leading to an increasing demand abroad for goods handled by them. General Norton, who has charge of the movement, is a resident of Boston, where he is well known. He is reputed to be a man of the highest integrity and ability, and has previously been connected with several exhibitions of the kind, having been secretary of the recent Foreign Exhibition in Boston, where he is said to have discharged his duties with credit to himself and profit to the large number of dealers and producers directly interested.

The New York Herald, of March 24, of this year, thus alludes to the proposed American exhibition in London:

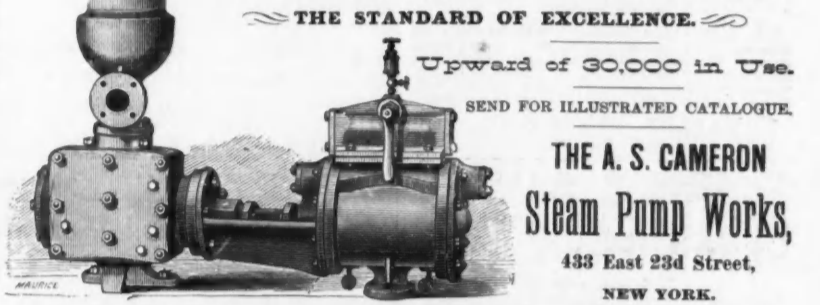
"The idea is a good one, and General Norton, from his experience in Paris, Philadelphia and Boston exhibitions, should be a good man to prosecute it. The fact is that America has never made a favorable showing at any of the foreign exhibitions. In London and Paris we made comparatively light displays, our railroads not exhibiting at all, and in Vienna our efforts were not commendable, and were rendered abortive by the conduct of the American department. At Amsterdam last year we were represented only by a few sewing-machines and parlor organs. It has been seen, however, at the Centennial and the Atlanta exhibitions and at the Fisheries Exhibition in London, in 1883, that there is almost no department, natural or artificial, in which America cannot offer an exhibition that shall be generally attractive. This is particularly the case in the magnificent show of natural products, which can be organized by our great railroad trunk lines, and which would be entirely new to London or any other European capital. It is to be hoped the American exhibition will make a liberal display in this direction as an encouragement to the emigration of the better class of English farmers, very few of whom have yet come to this country, and who would better themselves by coming, besides being very desirable citizens."

**PERFORATED SHEET METALS.**



For Mills, Elevators, Warehouses, and all kinds of GRAIN-CLEANING MACHINERY. **PAPER MILL WORK A SPECIALTY.** PERFORATED IRON, COPPER AND BRASS for Vats and Drainer-Bottoms, Washers, Pulp Screens, False Bottoms, Stock Boilers, both Rotary and Stationary; Sand Traps, Button Catchers, Section-Box Covers, Shower Pipes, &c., &c. Iron, Steel, Copper, Brass and Zinc punched any size and thickness. Write for Prices, &c. **THE HARRINGTON & KING PERFORATING CO.,** No. 51 So. Jefferson Street, CHICAGO. No. 100 Beekman Street, NEW YORK.

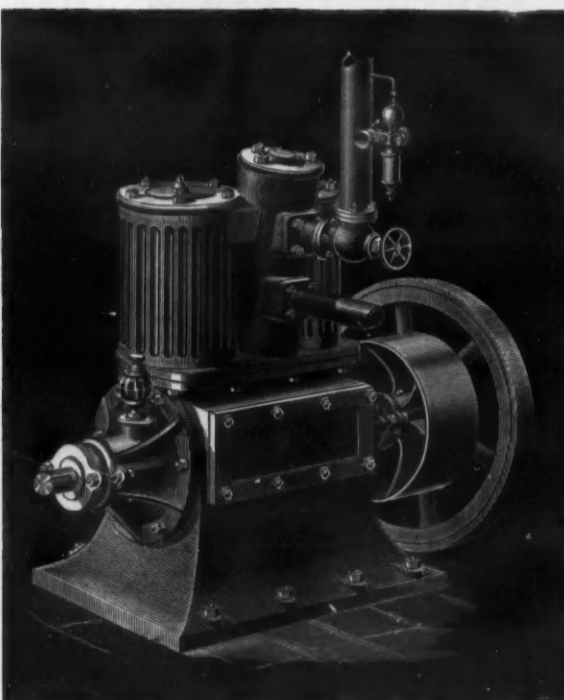
**THE CAMERON STEAM PUMP.**



**NOVELTY BELT HOOK CO.** HARTFORD, Conn. Manufacturers HARTFORD, Conn.



**THE WESTINGHOUSE AUTOMATIC ENGINE.**



OVER 500 ENGINES NOW IN USE.

Average Sales, 1,200 Horse-Power per Month.

THE WESTINGHOUSE AUTOMATIC ENGINE has no equal in sensitive and close regulation, low cost of maintenance and general convenience, and in all other essential features of a First-class Engine, it is guaranteed to have no superior.

Occupies the least space, and saves half the cost of foundations. All sizes built strictly to gauge, and parts interchangeable. Every Engine tested to full power before leaving the shop.

Our small Engines are largely used for driving Fourdriner Machines, Centrifugal Pumps, Journal Engines, Calenders, &c.; and our large Engines as a Relay to Deficient Water-Power.

Especially adapted to coupling direct to the Jack-Shaft, Belting direct to Beaters, &c.

Send for Illustrated Circular and Reference List, and STATE THE HORSE-POWER REQUIRED.

OUR PRICES ARE MODERATE.

**THE WESTINGHOUSE MACHINE CO.,** PITTSBURGH, PA.

Address our following Branch Offices, if more convenient:

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| No. 94 LIBERTY STREET,<br>NEW YORK. | No. 14 SOUTH CANAL STREET,<br>CHICAGO. | No. 401 ELM STREET,<br>DALLAS, Texas. |
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**THE "DUC" BUCKET.**

Always First Premium in Competitive Trials. Extra Strong and Very Durable. Made of the best Charcoal Iron. Only one seam. No corners to catch. Runs with least power.

**BEST PULP BUCKET MADE.**

PRICES GREATLY REDUCED. 50,000 ON HAND.

TELEGRAPHIC ORDERS FILLED. Address

**IRON-CLAD MFG. CO., 22 Cliff Street, New York.**

ALWAYS GIVES THE UTMOST SATISFACTION.

**MAIN BELTING COMPANY,**  
 MANUFACTURERS OF  
**THE LEVIATHAN COTTON BELTING,**  
 Unsurpassed for Strength, Durability and  
 Cheapness.  
 Made to any Length, Width and Strength.  
**MAIN DRIVING BELTS,**  
 Guaranteed to Run Straight, Even Throughout.  
 No Cross Joints, Unaffected by Damp, Clings well  
 to the Pulley, Has no Equal; in fact, is THE BELT.  
**MAIN BELTING COMPANY,**  
 S. W. cor. Ninth and Reed Sts., Philadelphia,  
 and 248 East Randolph St., Chicago.  
 F. GRAY, President. H. C. NELLIS, Vice-President.  
 W. C. GRAY, Secretary and Treasurer.

**PIQUA WOOLEN MILLS.**  
**THE F. GRAY CO.,**

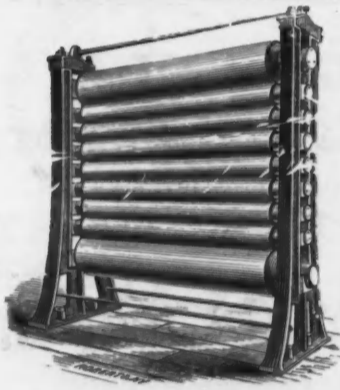
MANUFACTURERS OF  
**FOURDRINIER and CYLINDER  
 FELTS,**

**FELTS** Press Felts and Jackets  
 for all kinds of  
 Paper.  
**FELTS**  
 Especial attention is invited to  
 our FOURDRINIER FELTS for  
 FAST RUNNING ON NEWS,  
 which are unsurpassed.  
 ALSO, TO OUR

**"EUREKA FELT,"**  
 For Fast Running on Cylinder Machines,  
 which we have perfected within the last few months,  
 and which is rapidly gaining favor with Paper Makers  
 wherever it is used.  
**EXTRA HEAVY CANVAS DRYER FELTS,**  
 all widths, cut to any length, at Manufacturers' Prices.  
**WE WARRANT EVERY FELT** to work well,  
 and if it does not, it can be returned.  
 We also manufacture Blankets, Flannels, Stocking  
 Yarns of all Colors, and Men's Heavy Wool Socks.  
 Also, an Extra Heavy 6-4 Scarlet and White  
 Flannel for underwear, which we guarantee not  
 to shrink. All the above we offer to Paper Makers  
 at the Lowest Wholesale Prices, in quantities to suit.  
 Very respectfully,

**THE F. GRAY CO.,** Piqua, Ohio.

**THE J. MORTON POOLE CO.,**  
 Wilmington, Delaware.



MANUFACTURE

**Chilled Rolls**

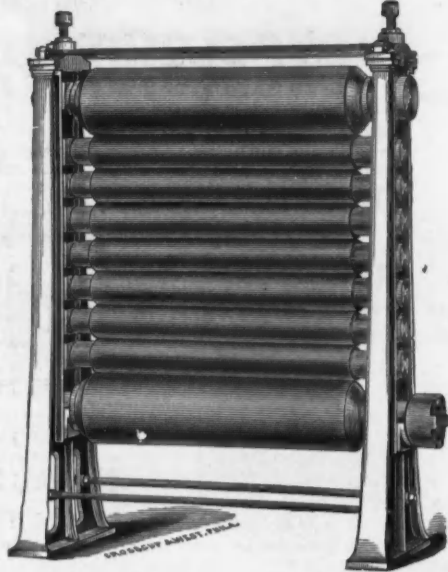
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**PRESSES for Baling PAPER, RAGS, &c.**



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**LOBDELL CAR WHEEL COMPANY,**  
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The Oldest and Most Extensive Manufacturers of Chilled Car Wheels in this or any other Country.



**EXTRACT OF AWARD ON CHILLED  
 ROLLS.**

The undersigned having examined the  
 product herein described respectfully recom-  
 mends the same to the United States Centen-  
 nial Commission for award, for the following  
 reasons, viz.:

This exhibit contains a stack of calender-  
 ing rolls intended to be part of a complete  
 paper machine. These rolls are of cast-iron,  
 chilled at the surface in casting, and thereby  
 made hard, like tempered steel. They are  
 separately ground according to a highly im-  
 proved plan, and are so true that, when placed  
 together, they bear upon each other through-  
 out their entire length. This exhibit has  
 the exceptional merit that the rolls are  
 not only GROUND true but CAST by  
 the exhibitor.

(Signed) **JAMES M. WILCOX,**  
 Signature of the Judge.

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For Paper Machines, Rubber, Brass, Copper, Rolling Mills, &c.

The vast quantity of iron used daily in the business of this establishment permits the very best selection  
 for the composition of CHILLED ROLLS. The long experience of Mr. Geo. G. Lobdell in making chilled  
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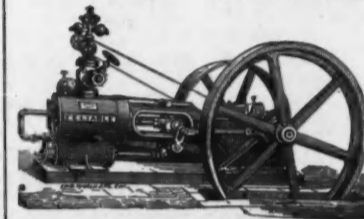
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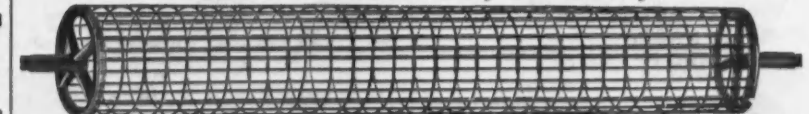
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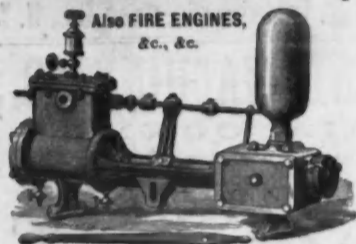
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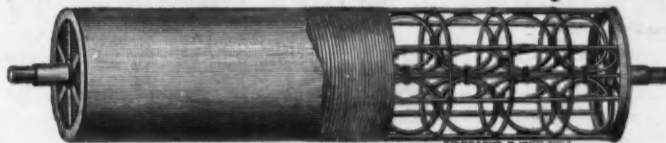
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