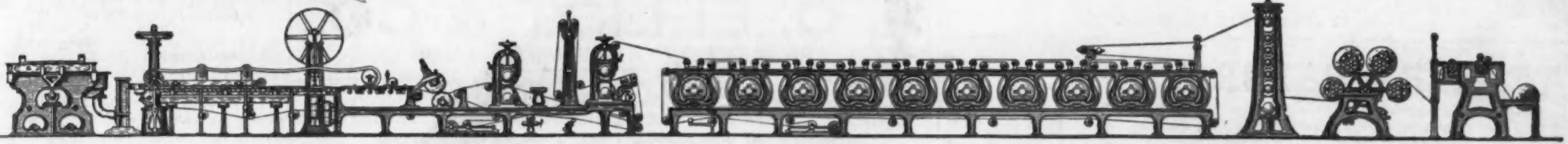


THE PAPER TRADE JOURNAL.



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

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Trade Topics.

Digester.

In the construction of the digester here-with illustrated the object is to produce a digester having a lead lining which is retained securely in place upon the body of the digester and the joints of which are strong and well protected, so that the lining has great durability.

Figure 1 is a longitudinal section of the digester; Fig. 2, a plan view with the top plate or head removed; Fig. 3, a transverse section, and Figs. 4 and 5 enlarged details.

The side or main portion of the body of the shell *a* is mainly cylindrical in shape, but terminates at the lower end in a tapering or conoidal portion, *a'*, the shell being of steel, iron or other strong metal, provided at the upper end with a flange, *b*, and at the lower end with a flange, *c*. A flange, *d*, surrounds the shell just above the tapering portion at the lower end, and constitutes a base upon which the digester may be supported, the lower end being open to form a discharge passage, which may be connected with a discharge pipe or duct, a portion of which is shown at *e*, through which the flow of material is controlled in any suitable manner.

The flanges *b* and *c* are rounded or curved at the inside, and are flush with the inner surface of the shell *a*, thus affording a smooth interior surface for the entire body of the digester without a sharp angle or shoulder from one end to the other. The inner surface is lined with strips or sheets, *f*, of lead, each of which is continuous and unbroken from top to bottom of the shell, the strips being properly shaped to fit the flaring and tapering surface at the upper and lower ends and coming together edge to edge on longitudinal lines in the body of the digester.

The edges of the breadths of the lining material are beveled to form a V shaped groove between them, and are then burned securely together, thus forming a lining having no transverse joint throughout the entire length of the digester.

It is claimed that a lining made in longitudinal strips united by longitudinal seams is far more durable than a lining of the same material applied in strips extending around the interior of the shell and united by transverse seams around the shell, and that transversely seamed linings are very frequently displaced and torn apart in the operation of blowing out the contents of the digester while under pressure—an accident which does not occur when the linings are made with longitudinal seams. There are also several advantages claimed in the manner of applying the lining when made in longitudinal strips. In the first place there are less joints, as the linings when made in transverse strips must not only be united edge to edge by the transverse circular joints, but each strip must have its meeting ends united by a short longitudinal seam. It is also comparatively easy to fit the longitudinal strips at the conoidal or tapering portion of the shell, such strips being accommodated to the tapering curved surface with little stretching, while it is very difficult to fit transverse strips on a double curved surface of this kind. It is also far easier to burn the seams, as they may be burned while the shell is horizontal and the particular seam acted upon at its under side, so that the molten metal may flow along and remain in the seam, and it is only necessary to turn the shell the distance between two seams after each seam has been finished, while with curvilinear seams only a very short length of the seam can be burned with the shell in one position, after which the shell has to be turned so as to bring the part of the seam which is being burned lowermost, so that the molten metal will stay until properly united. Owing to such greater facility in manipulation, more perfect seams

are attained when made lengthwise than when made transversely to the shell. While a longitudinally seamed lining is not so likely to tear off from the shell as one transversely seamed, the lining is in the present instance still further protected against lifting from the shell, and thus becoming torn, by fastening it to the shell, such fastenings being shown as made along each of the seams by the following means:

Over each of the seams or joints between the edges of the adjacent lining piece is secured a continuous longitudinal stay, *g* (see Figs. 3 and 4), securely fastened by bolts or rivets, *h*, to the outer shell, as shown in Figs. 1 and 3. These stays terminate a short distance from the extreme ends of the lining pieces, and each stay is covered with a cap or strip, *i*, made of lead, formed with a longitudinal groove which receives the stay within it. At either side of the groove the cap rests in contact with the lining, and both edges of each cap are securely burned to the main lining sheets *f* (see Fig. 4), so that the stays *g* are wholly inclosed in the lining material, and the stays and their fastenings *h*, as well as the primary joint between the two adjacent strips of lining material, are thus securely covered.

The lining strips or sheets *f* are extended at their top beyond the flange *b* and bent to form a gutter, *j*, around the upper edge of the digester. The upper end of the digester is provided with a head, *k*, having a central opening, upon which is supported a short flanged tube, *l*, constituting the throat or manhole. The head is lined up to the edge of this opening, as shown at *m*, and within the tubular throat is placed a sleeve, *n*, having a curved flange, *n'*, at its lower edge (see Fig. 5), which is drawn up against the edge of the lining *m* around the opening, clamping the lining tightly against the end piece or head of the digester by means of a nut or threaded ring, *o*, which screws upon the upper end of the sleeve and bears against the upper edge of the throat piece *h*.

The sleeve is provided with a lining, *p*, the lower edge of which is bent out over the flange *n'* at the lower end of the sleeve *n* and is burned to the lining *m* of the top piece, thus making the lining practically continuous over the under surface of the head and inner surface of the throat piece, although the lining is securely fastened around the opening of the throat piece by the clamping sleeve.

The upper edge of the lining for the sleeve or throat piece is turned out over the upper edge of the sleeve and serves as a packing, against which the removable cover or bonnet *q* is pressed by the bolts *r*.

By this method of construction the entire lining is made without transverse seams or joints and securely fastened to the outer shell at any desired number of points around its surface, and it is said cannot creep or bulge, like linings having numerous transverse seams, which quickly get out of repair in using the digester. It is not essential that the precise means specified should be employed for fastening the lining to the outer shell, or that such fastening should be along the seams, although such construction is believed to be the best, as it affords additional tightness and security in the seams while attaching the lining to the shell. The inner surface of the digester is smooth and unbroken lengthwise of the same, having neither transverse projections nor recesses to collect the materials that are being acted upon in the digester. This is patented.

Manufacture of Pyroxyline.

In a recently patented process of manufacturing pyroxyline, the main object of which is to avoid the necessity of handling the material to as great an extent as possible during the whole process of manufacture, and also to insure the perfect conversion of the material, the apparatus employed contains a series of nitrating pots, a suitable number of which are used. Each pot is provided with a cover made in halves, each of which is carried by a hinged shaft. Each shaft is provided with a handle for turning it, and at its other end with a toothed wheel,

which is supported above the water line of the tank by arms which extend out to standards or supports outside of the tank. At the top of each standard is a hinged arm, forked at its inner end and provided with handles for raising it. The trough is preferably provided at that part of its sides opposite the cylinder with flaring ribs.

The apparatus includes, in addition to the parts already described, a centrifugal drying machine. The nitrating pots, the centrifugal machine, and the dumping trough are arranged in suitable relation to one another, and preferably an overhead rail is provided with a trolley traveling upon it, for transporting the cage from one place to another.

The operation of the device as applied, say, to one of the pots, is as follows: The pot is filled with the acid solution in the usual way, and the cage filled with the cellulose, which is usually in the form of strips or shreds of tissue paper, is lowered into the pot and the covers of the pot are closed. These covers remain closed during the nitration, so that during this process the cellulose is not in contact with the atmosphere. Heretofore the cellulose has been placed directly in the acid, and workmen have been employed to stir it about, in order that the acid may reach every part of the material, and finally the whole mass of material had to be transferred to the centrifugal machine, and thence to the dumping trough, whereby a loss of acid and of cellulose always occurs. In this instance, however, the material is kept confined in a cage, and it being in annular form and exposed to the action of the acids on all sides and at the top and bottom of the annulus the acid mixes freely and thoroughly therewith and a better and more uniform product is insured. After the nitration is thoroughly effected the pot is opened and the cage is hoisted therefrom and allowed to drain into the pot, and is then transferred to the centrifugal machine in which the cage itself is placed, and takes the place of the whizzer basket of the machine, being subjected to rapid whirling motion until the nitro cellulose is deprived of most of the adhering acid. The cage being then hoisted from the centrifugal machine, it is conveyed to the dumping trough and lowered into the cylinder which forms a holder for such cage, and is secured there by pins passing through the forked ends of the arms and through the lugs on the cage. The cage being securely held into position, hooks are attached to the ends of the bolt on the tube, and the tube and the movable bottom of the cage are raised, which results in forcing the cellulose out over the sides of the cage into the trough, where it is washed by running water in the usual way. This provides a convenient method of emptying the cage and transferring the material to the dumping trough. The inclined flanges prevent the material from falling over the sides of the tank.

The United States consul at Malta says: "The trade journals which find their way into Malta do very much in attracting the attention of the people to American goods. I have sometimes thought it would be money well invested if advertisers in trade journals would combine to send out and cause to be intelligently distributed a goodly number of such journals." "After this consulate has finished with the trade journals sent to it they are sent to Maltese casinos and clubs, where they are in great demand. I place them where I think they will do the most good."

AMERICAN PAPER MANUFACTURERS' ASSOCIATION.

TWELFTH ANNUAL MEETING.

FIRST BANQUET OF THE ASSOCIATION.

The Banquet.

The first annual banquet of the American Paper Manufacturers' Association was held in the ballroom of the Grand Union Hotel, Saratoga Springs, N. Y., on Tuesday evening, July 30.

President E. C. Rogers presided, being flanked on his right by Hon. Warner Miller, Col. E. F. Shepard, Hon. William Whiting, Hon. William A. Russell, H. L. Carter, William H. Parsons and F. G. Pierra, and on the left by Hon. Alexander A. Rice, Hon. Wellington Smith, Richard Lacey, Timothy Merrick and O. H. Greenleaf.

Running at right angles to the main table were three other tables, at which sat Col. Samuel P. Train, Charles S. Barton, D. W. Mabee, D. S. Walton, Howard Lockwood, K. B. Fullerton, H. T. Bartow, E. H. Sterns, Charles H. Mullin, E. R. Bulkley, Theodore S. Kingsland, J. K. Cass, E. C. Robertson, William H. Clarke, F. H. Parks, George H. Parks, Frank Gilbert, W. R. Sheffield, J. Q. Preble, James Ramage, A. B. Daniels, J. K. Marshall, W. H. H. Whiting, R. Smith, John C. Newton, Moses Newton, George F. Barden, Charles D. Brown, Hiram Allen, Loren Allen, Warren Curtis, J. D. Powers, S. W. Wilder, C. F. Davis, R. H. Emerson, N. T. Pulsifer, Gen. A. C. Barnes, J. K. Dexter, Hugh J. Chisholm, C. A. Crocker, S. S. Stevens, G. Warren Manning, Eugene H. Clapp, E. Morrison, S. L. Montague, E. L. Embree, George F. Perkins, Charles G. Weeks, Dr. W. H. Manning, F. A. Brooks, C. K. Urquhart, J. R. Sergeant, James N. Mohr, Jacob Bushong, S. C. Haner, George N. Friend, F. C. Shattuck, Chas. H. Dobilinski, C. B. Hopkins, Willard E. Everett, E. J. Corey, C. T. Plunkett, W. H. Parsons, Jr., J. Willard Rice, W. Frank Keith, William Roberts, G. L. Bosworth, John J. Manning, S. M. Hunt, Martin N. Nixon, A. B. Tower, Edward Conley, J. H. McCormick, H. J. Frink, C. A. Cheney, Thomas H. Savery, S. M. Curtis, William T. Porter, William L. Scott, John C. Whiteford, Henry M. Robertson, J. C. Brocklebank, George Nightingale, F. H. Bendig, J. B. Kelly, E. L. Munn and E. C. Bullard.

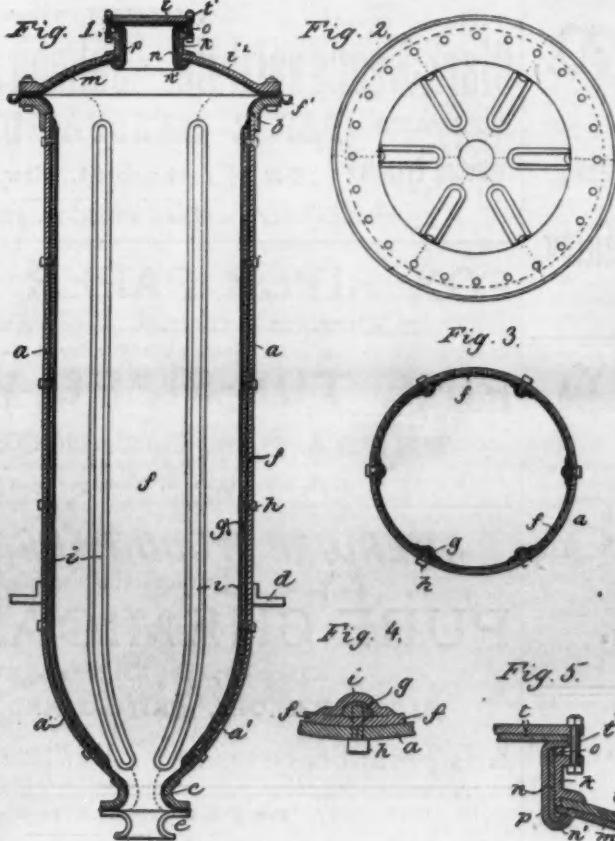
The menu card was of heavy stock, elaborately engraved, and the menu was as follows:

- Little Neck Clams.
- Green Turtle clear, au Madère.
- Timbale, à la Reine.
- Variés.
- Kennebec Salmon, à la Hollandaise.
- Potato, Brabant.
- Cucumbers.
- Tenderloin of Beef Fiqué, Jardinière.
- Haricot Vert.
- Sweetbreads en Coques, à la Cheron.
- Petits Pois.
- Punch Cardinal.
- Golden Plover sur Canapé, au Cresson.
- Salade de Laitue.
- Pudding à la Pompadour, Champagne Sauce.
- Glace Napolitaine.
- Fruits.
- Cheese.
- Coffee and Cigars.

When coffee and cigars had been served, President E. C. Rogers rapped for order and spoke as follows:

FELLOW MEMBERS AND GENTLEMEN—It is with pleasure that I welcome you to our first banquet. I think we may all truly say that we welcome one another this evening, and let us give one to the other a happy greeting. [Applause.] Some of the gentlemen who expected to be with us have been unavoidably detained, among the number ex-Governor Cheney, of New Hampshire; Congressman Wallace, of Massachusetts; Congressman Clark, of Wisconsin, and J. W. French, of Michigan, the third president of this association.

(Continued on page 587.)



WOOD FIBRE DIGESTER.

the two wheels engaging with each other, so that both covers may be opened or closed by turning a crank. One of the shafts carries a pulley provided with a chain and weight which balances the covers, so that they are made to work more easily. The edge of the pot is provided with a flange for holding a packing of asbestos or other suitable material, and one of the covers has a flange attached to it for the same purpose. The edges of the covers may also be provided with similar packing, so that close joints are formed and the pot is closed tightly from exposure to the atmosphere.

For immersing the cellulose in the acid contained in the pots, cages or perforated receptacles are employed. Such receptacles are made of suitable metal, and provided with numerous perforations throughout their sides and covers and bottoms. The bottom of each cage is removable, being attached to a perforated tube which extends up within the cage concentric therewith and to which the bottom plate is secured by screw threaded rings. The cage has an internal flange for receiving the bottom plate, and is provided with lugs to which hooks may be attached for the purpose of hoisting it, and the tube has a bolt extending across its upper part for the same purpose. The cover of the cage has a handle and two bolts at opposite sides which engage with holes in the sides of the cage, one bolt being stationary and another a sliding bolt, the latter being provided with a lever for turning it, such lever having a weight for holding the bolt forward when the cage is in rapid motion in the centrifugal machine.

The dumping trough consists of a large water tank within which is placed a cylinder

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(Continued from first page.)

Just before coming in I received a telegram from Byron Weston stating that he and several others were detained by a washout at Becket, Mass. This telegram is from Pittsfield. When they will arrive I do not know, but we are very fortunate this evening in having so many eminent gentlemen with us, and the best of it is they are paper manufacturers, or they ought to be. These gentlemen have made a wonderful success of business, and have made for themselves reputations which do great credit not only to themselves but to this association.

In 1878 a paper was circulated calling for a meeting to be held at Saratoga of the paper manufacturers throughout the country. That meeting was held on August 29, and a gentleman from Adams was chairman. At that time this association was organized and a constitution adopted, and the Hon. William Whiting, of Holyoke, was elected the first president. [Applause.] The purpose of that organization was the better acquaintance of the manufacturers of paper throughout the country, that they might be brought into a closer relationship one with the other, and that from the different lines would spring suggestions in the way of improved methods of manufacture, improved machinery, the ascertaining of the wants of the consumers and jobbers throughout the country, the finding out of the wants of our country, and also the wants of those neighboring countries lying south of us. Why should we not find out their wants when we remember that their importations are two-thirds as much as ours, and one-quarter as much as all of the importations of Great Britain? This evening our first speaker is one of the noble sons of the old State of New York. He will speak upon the closer commercial relations of this country with Mexico, the Central and South American states, and the facilities which we should have for doing business with those neighboring countries. I have the honor of introducing to you the Hon. Warner Miller, of New York.

Mr. Miller was greeted with very enthusiastic applause and spoke as follows:



HON. WARNER MILLER.

MR. PRESIDENT AND GENTLEMEN—I think that this association has made great progress within the year, in that it has established an annual banquet. This banquet has undoubtedly had a very good effect upon all of those who have partaken of it, for I discover that my friends are in much better frame of mind than when they came in. After listening to their accounts of the paper trade I took it for granted that this would be a sort of meeting for general condolence and mourning, but the result has proved quite different, and whether the trade be in its most prosperous condition or not, whether it be in its most prosperous period or not, it is quite certain the members of the association who are here to-night have enjoyed themselves for a brief season at least. I have no doubt that if each year, from 1878 down, this meeting had been characterized by a banquet of this kind, it would have resulted in bringing about the much better acquaintance of which the president has spoken among the various members of the trade generally than now prevails. Certainly the trade has made great progress during these past ten years. Many who met with us in those early days are not here now, but we remember them as worthy members of the association and as men who did their full and fair part in all that pertains to the trade and everything connected with it.

But I shall not attempt this evening at this time, and with the long list of distinguished speakers who are to follow me, to go over the history of the paper trade of this country for the past ten years, nor for any time, nor shall I attempt at any length to speak to the toast that has been set down to me—"The Central and South American States." It is more ground than I could cover in an after dinner speech if I should attempt to do it. Besides, we have present a gentleman who represents an organization lately started in the city of New York, called the Spanish-American Commercial Union, the object of which is to promote trade between the United States and all those countries lying south of us, and if anything like a careful presentation of that question should be made here it will be made by one much better able to do so than myself.

I suppose that the president has given me this toast because the American paper manufacturers are beginning to look abroad for an extended market. It so happened that our industry is one which has substantially occupied the whole of the home market. While we are importing into this country more than \$500,000,000 worth of foreign product we are importing almost no paper at all. We can congratulate ourselves and pride ourselves as manufacturers upon this fact—that we have and do now supply the home market with substantially all the paper it requires, of all varieties, and I have no doubt that in any fair exhibit or comparison made between the paper manufacturers of this country and those of any other country it will be found that we are not a whit behind the best, and that America produces substantially all of the paper it uses and of as good a quality as is to be obtained anywhere in the world. [Applause.] Having thus occupied all of our own country we are now looking for an enlarged market outside, and where should we look with greater hope of success than to those countries lying south of us?

At present they are not to any great extent manufacturing countries and will not be in the near future, at least, whatever the distant future may have in store for them. It is a vast territory, and the people there are very largely engaged in the production of raw materials and of precious metals. In short, they are not manufacturers, and they turn to the outside world to supply them with manufactured products, and to-day they are importing from Europe and from America between \$200,000,000 and \$300,000,000 worth of manufactured goods. Of that sum we furnish a little over \$50,000,000 worth. We are able to furnish much more. We are producers of a large proportion of the goods which are required in those countries, such as cottons, woollens and all sorts of tools and implements, and they cannot be produced better in any portion of the world, and they cannot be produced cheaper. They are exported to some extent, but they would be exported to

a much larger extent if we had Central and South America and Mexico closer commercial relations. [Applause.] For the past twenty-five years we have not sought this trade to any great extent, because, as a great and growing people, we have not yet arrived at that condition when we are able to manufacture all that we require for our own consumption; but at last, in our great growth, prosperity, development, the United States has come to a point where it is not only the greatest agricultural country in the world, but it is also the greatest manufacturing country in the world, producing a greater amount in value than England, Germany or France. [Applause.]

Lying south of us, including Mexico, the West Indies and South America, there are in round numbers 60,000,000 of people, and as I said before they are largely dependent upon us for their manufactured products. They draw the great bulk of those manufactured products to-day from Europe, and they procure them there because of the closer commercial relations which those countries have with them, chiefly because of the better mail service and the more frequent and rapid steam communication. Without these commerce cannot be carried on. Where there are to be extensive commercial relations there must be regular, frequent and mail communication. We shall not be able to do a large and regular business with Brazil, Argentine Republic, &c., so long as our mails must go by the way of Liverpool, and so long as our merchants who are going to look up business in those countries must go there by way of Liverpool. Only last week in New York I was talking with a gentleman who was going to look up business in South America, and I asked how he expected to get there. "I have my passage engaged on the next steamer for Liverpool," he said, "and from Liverpool I shall take a steamer direct to Brazil."

So long as that condition of affairs exists it will be impossible for us to secure any considerable portion of the trade of those countries lying south of us. But the American people have woken up to this matter, and upon every side and upon all hands I hear the demand made that there shall be better mail communication with South America and that there shall be frequent and rapid communication by steamships. [Applause.] Give us regular weekly mails going out of the port of New York upon American steamships direct to South American ports, and there will be of necessity with these American freights. It is the only great trade of the world which we can hope to capture.

We cannot manufacture and should not hope to manufacture goods to any great extent for England or France or Germany. If we have foreign trade we must look for it in the countries lying directly south of us, and while we desire their trade I think we can truly say that all these countries have an equally strong desire with the United States to come into closer commercial relations and increase their trade with us. They are the producers of raw material, the great bulk of which we require in our manufacturing processes. These raw materials are brought here in great quantities in British ships, and we pay for them in exchange upon London or Liverpool. We should pay for them by shipping back again our own products in exchange. [Applause.] The American paper manufacturers have as much at stake in the accomplishment of this desired result as any other class of American manufacturers; for, as I said before, we have arrived at that point when we are supplying all of our own demands and we can easily supply or produce a large amount for foreign shipment. If this association, then, acting as a body, or through any of its committees, shall take up this work and shall co-operate with this Spanish American Union, much good, I think, can be done to our trade and to the country at large. [Applause.] And I have only to add that I believe that the very best interests of our trade lie in the development of the trade with Mexico and with the Spanish American countries; and if this association will take up this question and bring out of it some organization that will be able to lead, I have no doubt that before the next year shall roll around it will be found that we have very largely increased our export to all the Central and South American countries. [Applause.]

The Hon. William Whiting was the second speaker and responded to the toast, "Interstate Commerce Law," as follows:



HON. WILLIAM WHITING, President 1878-9; 1879-80.

MR. PRESIDENT AND GENTLEMEN—In an assembly like this, made up of persons engaged largely in the same occupation, I am reminded of the story of the two brothers who occasionally had differences and in relating their grievances to their friends, no matter what else they had to say, always closed with: "Brother is a royal good fellow." We occasionally undersell each other, we have our differences, but I think that we can all unite in saying that our brethren of the paper trade are "royal good fellows." [Applause.] I do not know what the president has against me that he should ask me to speak on so dull a subject as the interstate commerce law. I should like to indulge in some reminiscences in reference to the paper trade. I would like to ask the president, who is supposed to be the guardian and protector of our interests, how it has been that he has allowed paper to decline over six cents a pound in the last few years. If Governor Weston were here I would like to know how it was that during the two or three years he was president he managed to keep the price of Weston's paper up and allowed that of everybody else to go down. [Laughter.] These are serious questions, but I think that there is one way in which they can be adjusted satisfactorily—to me at least. Most of us expect to remain in Saratoga for a week or two, and if these gentlemen will allow us to draw on them for our expenses while we remain, we will let the matter drop until the next annual meeting of the paper makers' association.

I have been requested to speak on the Interstate Commerce act, and as that question applies to the

management of 140,000 miles of railway, costing upward of \$8,000,000,000, you will understand that I must treat it in the most general way, and I propose to say at the outset that, considering the immense interests involved, it is too soon after the passage of the act to give a judgment of the effect upon business—too early to give a decisive opinion; but of one thing I am confident, and it is that whatever benefits have been derived from the legislation have accrued to the railroads and not to the public. [Applause.] The ablest men in this country are in charge of the management of the railways, and they have been quick to see everything to their advantage; but they have not felt it incumbent upon them to point out any of the advantages which may be concealed in the act for the benefit of the public. The intention of those who advocated the passage of the Interstate Commerce act, which was made a law on February 4, 1887, was understood to be the abolition of any arrangement for combination of rates, and the more open and intelligent conduct of the railway business of the country. The intent of the act was to bring about a more favorable state of things for the people, while doing no injustice to the capital employed in transportation. The intent of the act was that there was to be no combination, but that competition was to have full sway. I may bring a witness, and I will take one who may be said to have represented the sentiment of all who appeared before the Congressional committee. Mr. Adams, in his testimony before the Committee on Commerce, testified: "If competition worked with its full severity, and legislation put a stop to all pooling and would say absolutely to the railroads, there you are, and you have got to compete—and this I take to be the object of the proposed law—I do not suppose there would be more than three or four leading corporations in the country that would not be in the hands of receivers." You see that Mr. Adams supposed that the passage of the law meant competition and not combination.

The debate shows that this was the expectation. Now, what happened on the passage of the law? A United States railway association was formed, with headquarters at Chicago, for the purpose of regulating the rates between the different lines of railway and to see that the rates were faithfully observed, and I venture to say that in the history of railroads rates never were more strictly observed than since the passage of the Interstate Commerce act. [Applause.] A large shipper said only a few days ago that in all his experience he had never known rates to be so uniform and so thoroughly established as they had been since the passage of the law. If this opinion is correct and there has been no reduction in the rates of transportation, then we can justly say that the public has received no benefit from this legislation so far. Let us inquire if there has been any disadvantage on account of it. Inquiry will develop the fact that the railroad managers, in order to equalize the long and short haul clause, found it necessary to raise the rates on coal to New England points. That involved an immense increase in the cost of manufacture. It is estimated that 5,250,000 tons of coal are consumed in New England, and if the cost has been increased on the average 30 cents the law has proved a very expensive experiment, and costs \$1,575,000 per annum. I understand that the same state of things exists in the West. I have a letter from a friend in the West, from which I will read: "Freights on paper in Chicago and other points remain as before the passage of the law, while the rate on stock from the East is a little higher than it was before the law went into effect." The general public expected to be benefited by the passage of the law, but up to this time no benefits have accrued to the public. Look outside of our own business. I find the grain rates under date of June 13, 1889, and it is stated in a New York paper—and mark the language: "Competition cut off about two-thirds of the charges east of Chicago between 1869 and 1885, before the Interstate law was passed. By helping to destroy competition the act has enabled the lines to get a little better rates, and to that extent has increased the cost of transportation to the people." Again, if the Interstate Commerce act has been of any effect upon business it has had an unfavorable one so far as lower rates are concerned. About the only thing that we can see in favor of the law is that there is a general feeling of satisfaction that the days of rebates and free passes are gone, but the practical result of this has been for the benefit of the railroads and not for the public.

In public discussion of the railway situation there is too much disposition shown to protect the railroads from the effect of competition. There is a tendency to the belief that they should be exempt from this. In nearly all of the opinions the importance of a uniform rate of freight between the East and the West is urged, thus eliminating the element of competition from that business; but the iron and cotton and woolen and paper manufacturers are to compete in the markets of the country, and the public is to receive any benefit that may arise from such competition. I should like to have someone tell me why this industry should be exempt any more than the other industries to which I have referred. I do not desire that railway investments should be imperilled, but I do desire that they should compete for public favor on the same basis as the other great industries of the country. [Applause.]

I might go into the details of the effect of the decision of the Interstate Commerce Commission on business, but I will not take up time and weary you by so doing. I believe that we have no favorable results from this decision, and I believe that the experience of all of us will bear out what I say. I will simply say, in conclusion, that I watched with a good deal of interest the testimony of the railroad presidents in New York a few days ago before the Senate committee to investigate the operations of the act, and I was not surprised to find that all of the gentlemen favored the law. The managers of these gigantic corporations have found that the law is of advantage to them, and I believe that if there was a movement to repeal it you would find these vast interests arrayed against it. [Applause.]

Ex-Governor Rice was then introduced and responded to the toast "The New South."

He spoke as follows:

MR. PRESIDENT AND GENTLEMEN—In the letter with which your president honored me in the invitation to this banquet he emphasized the sentiment to which he has announced I am to speak by asking me to call attention to the manufacturing industries of the New South, their prospects in the near future and their influence upon the industries of New England and of the North generally. I propose in the few remarks that I shall make to speak to the proposition in this amplified form, and, of course, you will not expect me to develop in the short time given to me a subject so extensive and far reaching as this. I have not come here with an array of figures and statistics with which I can illustrate the progress of the South. I shall rather content myself with giving you a few suggestions to consider and from which you may draw inferences which perhaps would be more profitable than any I would draw myself. Some thirty years ago Mr. Thomas N. Talford, a prominent scholar and litterateur of that day, published a book, entitled "An Introduction to the Study of the Greek Classical Poets," in which he laid down the proposition that there are certain character-

istics and instincts in man generated by climate and soil on which they live which maintain their identity, and that individuals, in spite of all artificial and conventional influences, are going constantly in obedience and in accordance with certain great fundamental natural laws. If that proposition be true, and I think that it is, it is manifest that we cannot study the civil-



HON. ALEXANDER H. RICE.

ization of any people without taking into account the influences of the proposition which he enunciates.

It is true that men are to a certain degree what the climate in which they live and the soil upon which they live determine, and if we are going to consider the present and future development of any people, we must take into account those unvarying conditions. There are cited the differences between the people in Northern and Southern Asia, the difference between the people in Northern and Southern Europe, and if you reflect a moment how identical have been the race characteristics—through all periods of history with which we are acquainted—of the people living on the shores of the Baltic and the people on the shores of the Mediterranean, we shall have no difficulty in seeing that Mr. Talford was correct, at least as a general proposition, in what he says. This difference to which he alluded is not at all circumstantial. It affects not simply the outward relations which occupy the people living under these different natural conditions, but it enters into the very spirit and essence of the thoughts of men and of the feelings of men: it becomes a part of their being, underlying everything which enters into the being and thought of man. Everybody knows how essentially different the German is from the Italian, and we cannot conceive any combination of circumstances which could convert the habits of the German people into the habits of the Italian people. The Germans are introspective, seeking for the abstract, lacking in the essence and spirituality of things. The Italians are objective, seeking to manifest rather than to introspect. We find these different characteristics not only there but wherever we go.

Bishop Berkley a century or more ago said: "Westward the course of empire takes its way." Now if you connect these two sayings I think that we will be able to see that these original characteristics travel westward always, and that the tendencies and characteristics of civilization travel together with the lines of latitude and never cross and go in accordance with the meridian of longitude. Professor Shaler, of Harvard College, some time ago gave a very interesting talk—I suppose he had done it in his lecture room many times—in which he attempted to delineate on the continent of America the carrying out in parallel lines of the influences and characteristics of the original settlers on the Atlantic Coast, and it is a very interesting study to see how those characteristics have gradually left their traces all the way across the continent from the Atlantic to the Pacific. The great seat of industry in this country has been in the Northern States. If we wish to see a striking parallelism between the industry of man and the production of nature go down in the tropics and see there the productions of that region; come up higher in our own country and here we have the belt of Cotton States; then we take the Middle States, the Tobacco Growing States, and then we come North into our own region and so on up to the Northern boundary. We do not expect to grow cotton up there. We examine the fruits and the flowers and whatever things are in the different zones; they are distinguished and belong to a particular locality where they grow, and they cannot be cultivated with any marked success if they are transported from their natural zone. Just as nature grows different vegetable products upon the earth, so she grows different kinds of men. And I always think in any political discussions that we have in this country it is a great mistake to try to make a Northern man into a Southern man and a Southern man into a Northern man. We cannot do it, and we do not want to do it. It is as great an advantage to this country from every standpoint, whether it be industrial, political, intellectual or moral, that we shall grow a great variety of men as it is that we shall grow a great variety of products, and what we want to learn to do is not to make every man like every other man, but so to harmonize and utilize by combination all products of our soil and all the different kinds of men in citizenship that the country shall present as a whole the largest variety and the greatest concentrated power that any nation on the face of the earth has ever produced. If we look down in the Southern States, as I judge from the wording of the toast the writer of it did, with some little anxiety as to whether the development of the industries of the "New South," as it is termed, is going to militate against the growth of the industries of the North, I for one am not a sharer in any apprehension from that source. It is for the interest of the North that the industries of the South shall be developed to the largest possible extent. They will not be our industries. They will be like ours, but they will not be ours. They will not be to any considerable extent competitors of ours, and the reason is that they have different material to work upon and different men to work those materials. And you may plant all the cotton mills you may between the Mississippi Valley and the Atlantic and they never would affect to the amount of \$100,000 the prosperity of the cotton manufactures of the New England or the Northern States. [Applause.]

A few years ago a committee of men invited a number of statesmen from the Southern States to visit New England for the purpose of inspecting our industries—the paper industry, cotton, woolen or whatever it might be we had to show them. They came and they were intelligent men; they were entertained and we had a free conversation and free discussion upon the interests and possibilities of the South and they were invited to New England for the purpose of giving them that information to enable them to develop their industries. At first they thought we were somewhat alarmed, because they were going into these industries down there and that they had been invited to the North to see us and to have intercourse with us and

fellowship with us for the purpose of enabling us to make our peace with them. They did not say this in so many words, but said substantially that the North had its good times in the past and that it must not feel jealous or aggrieved if in the future it should see its industrial strength weakening and a great and formidable competitor growing up in the South. Having visited some of the mills in the North, they said they had entirely changed their minds and said: Why do you invite us up here? What can be the object of inviting us here? They were answered: Your industrial system has been destroyed. If your States are to be rehabilitated and you are to become active and strong in this great Union of ours, you will be obliged to inaugurate a totally different system of labor. Your land must be divided in smaller sections; you must study the philosophy of the division of labor; you must multiply your industries; you must provide ways and means for the profitable occupation of your idle people, and we are desirous of showing you how you may do it and helping you to do it if we can. Do you not see that if you take the single industry of cotton you have the cotton at your door? You see that, and you feel the fact that you have this raw material at hand. You feel that to be the great source of advantage to you in the manufacture of cotton. You have also on your territory a vast amount of unskilled labor. You have not the command of a large amount of capital. It will therefore be for your interest to establish that class of cotton mills in your territory which is the first place will require the smallest amount of money in the outlay, and, secondly, those which will employ the largest number of your unemployed people, blacks and whites. And in doing that you must necessarily make a coarse fabric, compared with that which is made in the North. It would be for your interest to use the largest amount of raw material and the smallest amount of skill, and that is precisely opposite to what the interest of the North is. It will be for your interest to sell the weight of cotton with as little work upon it as possible, so as to give work to your unskilled people, while it is to the interest of the people of the North to sell the smallest amount of raw material and the largest amount of skill, and we are obliged to do that in order to pay a fair interest and income upon the costly plants which we have in our mills and factories at the North. [Applause.]

I give this as an illustration of the cotton industry, but it is applicable to everything else. We may generalize it and say it will be for the interest of the South to develop the raw material which it has right at hand, sell the most of it in bulk with the smallest amount of skill upon it, while our industries in the North are interested in precisely the opposite direction. We want to sell the smallest amount of raw material and the largest amount of skill. This condition of things will always remain, because the Almighty has established it. He has placed men in zones just as he made a variety of products in different zones, and there never will be a time when the natural order of things will be changed. Therefore I say I welcome doubly the industries of the South in the largest possible degree. They do not now and probably never will manufacture in competition with us. [Applause.] It is regretted for us sometimes, and there is a lament that nature has done so little for us in the way of natural gifts. That is not a misfortune. Nature is always true to herself and true to man. It is the business of man not to defy her, not to seek to work in opposition to her laws, but in harmony with them. When the man does that he is successful. There is no method whatsoever by which some of the great political disputes which we have had in this country, and which have shaken this Union to its very foundations, can be so harmoniously, so effectually, settled as by acting in every zone in accordance with the gifts of nature, in climate and in soil. Let every man and every zone of men do in their place that which the Almighty intended them to do, work out on their own spot their salvation, remembering that whatever strengthens the individual man or one section of the country adds strength and vigor to the whole.

We are not shut up between two oceans, and we are not shut up between ranges of mountains. As has been said by the Senator, our country has risen to a magnitude that no other country in the world equals. He has told you that we make paper in this country as well as they make it elsewhere in the world. What has come about? We are supplying our own markets, and we are looking out into the world, and the world knows that we are looking out. They do not look upon us as a people shut up by ourselves. Our competitors are the mankind of to-day; but we have got to strengthen ourselves and to prepare ourselves in our industries, in our manhood and in our intelligence to compete with the world, and do it successfully and with every variety of climate and production which the world affords. I want to know where is the people on the face of the earth, and I ask it in sober truth, where is the nation upon the earth which can successfully compete with this country of ours provided we are true to ourselves, provided we understand the philosophy of society, provided we rise up to the full measure of our opportunities and occupy the field which is waiting for us? We shall have no successful competition after awhile, and it becomes us to bear ourselves as becomes men who are examples not only in their industry and in their political organization, but as they ought to be in their efforts to be exemplars to the world. [Applause.]

"Good Men and True" was the toast to which Hon. Wellington Smith was called upon to respond. He spoke as follows:



HON. WELLINGTON SMITH, President 1880-1; 1881-2.

MR. PRESIDENT AND GENTLEMEN—The sentiment to which you request me to respond strikes a responsive chord in all of our hearts, and I only wish it were as easy for all of us to emulate the virtues of those whom we delight to honor as it is to follow their failings. Nearly all industries have had and now have men en-

gaged in them who have been and are esteemed for their superior skill, success in their various callings and for their benevolence and helpful assistance to their fellow men. In this respect the paper industry, I am pleased to be able to testify, is no exception.

This association has had four secretaries, one of whom is with us, while another tried to be, and two are dead. Charles O. Chapin, our first, and Daniel P. Crocker, the second secretary, are of the past. All who knew these men were warmly attached to them. They had the interests of this association and of the paper business ever in mind and were uniting in their efforts for its advancement. Mr. Chapin at Washington, and at Chicago before the Tariff Commission, and at all times and places, with his pleasant face and always agreeable manner, did very able and lasting work for the paper manufacturers of this country. At home at Springfield he was ever the friend of the poor and unfortunate, and full of good works for the benefit of his fellow citizens. He and his successor, Mr. Crocker, had many sincere mourners when they passed away.

In this connection many names will occur to you all of those whose memory we cherish and of whom I can only mention a few in the time allotted to me. S. D. Warren, of Boston, who died last year, was one of the largest and most successful paper manufacturers in the world. He was always cheerful and pleasant, and gave thousands of dollars to forward the good and benevolent interests of the country. Zenas Marshall Crane, of Dalton, was another eminent man in our calling, and last week a beautiful building, given by his family as a home for "aged women," was dedicated to his memory in his native county of Berkshire. Mr. Parsons, of Holyoke; Geo. Marshall, of Turner's Falls; Mr. Dunton, of New York; Mr. Moore and Mr. Jessup, of Philadelphia; Mr. Friend and Mr. Harding, of Ohio, are some of those whose memories we honor. It would give me pleasure to speak of the good and noble acts of some of the gentlemen present with us to-night, but I know that it would not be agreeable to them, and so I will have to leave that for the future. Mr. President, if calling attention to-night to some of the men who were "good and true" shall lead us to such action that it can be said of us after we have passed away that the world was better and someone was helped by our having lived, I shall feel satisfied that our first banquet was a decided success. [Applause.]

As Mr. Smith closed President Rogers said: The speaker omitted the name of one gentleman, one of the oldest paper makers in the country—the Hon. Elizur Smith, the uncle of the Hon. Wellington Smith. We all knew him to love him and to honor him, and what is true of him is true of many others, as we all know. Their lives were an inspiration for us, and now that they are gone their memories and characters come down to us as precious legacies. The president next introduced the Hon. William A. Russell, who responded as follows to the toast "Wood Fibre."



HON. WILLIAM A. RUSSELL.

MR. PRESIDENT AND GENTLEMEN OF THE ASSOCIATION—This is the first time that I have met with this association for several years. How much this banquet has to do with that I leave you to judge for yourselves. The question of wood fibre, or, as it is more familiarly called, wood pulp, is a matter with which we are all more or less familiar. It would have required considerable effort to have stood up here and talked to this intelligent audience twenty years ago about wood pulp as we can talk now. I am sure of my audience here to-night, for within the vision of my eye I can see more than a score of men who are manufacturers of wood pulp who will be very unhappy if I do not tell them how they can get rid of their surplus product. [Laughter.] Ten years ago we were in want of a cheap and abundant paper fibre. The many experiments to obtain a substitute for rags were followed by many failures, so that the advent of wood pulp at that time was looked upon with distrust and prejudice. To illustrate this I would state that about that time I was a member of the Massachusetts Legislature. Some gentlemen desired to obtain from the legislature a charter for a company to manufacture wood pulp at Turner's Falls. Alvah Crocker was one of the petitioners. We had established works at Franklin, N. H., a year or two before. I had an intimation that Frank W. Bird, who was also a member of the legislature, would oppose the granting of the charter and so I had prepared myself for the occasion. Mr. Bird opposed it on the ground that it was not the duty of the legislature to encourage the manufacture of what he called "shoddy." I followed him in the discussion, and I had in my hand a pamphlet and I went on to say that the material was a good material for paper, and I stated that the paper in the pamphlet was made of what had been called "shoddy." Mr. Bird reached over and asked to take the pamphlet. I handed it to him and as he turned over the leaves his eye fell on a quotation which the clergyman had put in his sermon and this was: "The mills of the gods grind slowly but they grind exceeding fine." He said: "The gentleman's own statement corroborates what I have stated." Mr. Bird, nor any of us at that time, had no idea of what a figure wood pulp would cut in the making of paper. Straw at that time formed no inconsiderable part in the manufacture of paper. It was used in news and book paper, but it became too expensive and it has gone almost entirely out of use. Esparto was used extensively abroad, but it was very little used in this country. It was too expensive to use here. The very large increase in the consumption of paper exceeding, as you all know, the consumption of paper in any other country, as we use more paper per capita than any other country, made us dependent upon the European countries for paper fibre and that fibre was becoming scarce and higher. Therefore we were forced

to find some new and abundant cheap fibre. Not only that but the changes in the printing of newspapers, the rotary press being introduced about that time, required a paper that would absorb the ink quickly and it was found that ground wood fibre was the best adapted for the purpose. So that although there was a strong prejudice against it finally it went largely into the making of paper.

The first wood pulp manufactured in this country was by the soda chemical process. Mills were established on the Schuylkill. Another followed shortly afterward at Manayunk. Since then many mills have been established. Ground wood pulp came into general use or began to be used generally about 1869 or 1870, and recently we have been experimenting with the new fibre called the sulphite pulp. There are at present manufactured about 50 tons of sulphite pulp daily, about 300 tons of soda pulp and 750 tons of ground wood pulp, making about 1,100 tons daily. This would require the daily importation to replace it of at least 2,500 tons of rags. You will see at once that no such amount could be obtained and that without the introduction and use of this fibre paper would be enormously high. This has been a great boon to the public and to the paper consumer, because it has reduced very largely the price of paper. Paper is at least 60 per cent. less in cost than before the war. How much this will be a benefit to the paper trade or the paper maker you can see. We are having at present somewhat of a depression in the paper trade. There is perhaps an overproduction of paper, but I think that we only need to exercise a little patience and we will soon come out of this difficulty, and the way has been suggested by a gentleman who has referred to our trade with adjoining countries. I do not limit our trade in paper as the Senator does to the South American states. I believe that our cheap raw material, for we have it—the woods which we mostly use—are abundant, and I believe we shall be able very soon to compete in England with the manufacturers there, at least on the cheaper grades of paper. Therefore, I think that while there is a little depression in our mind at present in regard to the paper trade I see no reason to doubt that we shall be able to find a foreign market to lead us out of this difficulty. We only want a little patience and a little courage. I thank you for your attention. [Applause.]

The president then called upon W. H. Parsons to respond to the toast, "New York City." Mr. Parsons spoke as follows:

MR. PRESIDENT AND GENTLEMEN—I met a paper maker yesterday—I frequently meet them nowadays, too often sometimes—and he asked: "Have you ever been in Congress or the Legislature?" "No," I said. "Why, then," he rejoined, "do they prefix 'Honorable' to your name?" Well, I told him that I presumed the reason was because this association had done me the honor to make me at one time its president.

It is a pleasant duty to speak for the city of New York. Possibly some of you do not know, and therefore I will tell you, that it is rather a large subject to be discussed in a limited time. When your president issued his invitation to me he said: "Now, Mr. Parsons, I give you ten minutes. Under no circumstances must you exceed fifteen." To discuss the past, the present and give a forecast of the future of New York in fifteen minutes compelled me to do considerable thinking, the result of which was that I concluded it would be better to write what I had to say, because if I did not I would exceed the time allotted to me. In view of the fact that at the recent centennial celebration which was held in New York, commemorating the 100th anniversary of the inauguration of George Washington as President of the United States, the past and present of the city was quite thoroughly reviewed both by public speakers and the press, I think I will pass that part of the subject and devote the time assigned to me—the president confines me to ten minutes, but graciously gives me a latitude of five minutes more—to the expression of some views as to the course of general business in the city of New York and the country at large, but more especially the business which is represented by the gentlemen at this table, and as I do not wish to trespass too much, either upon your time or patience, I will proceed without further introductory remarks to "forecast the future."

The tendency of business for some years past has been toward concentration or consolidation into fewer hands; and I think that in the future we shall see this tendency more rapidly developed.

The reason for this opinion is business can be more economically conducted when many small interests are consolidated into one or more large ones; that is, as a rule, the ratio of expense is less in a large than in a small business. I am fully aware that the public look with alarm upon what are commonly known as "trusts." I think I shall be able to show to your satisfaction (certainly I can to my own) that "trusts," properly conducted, have been of inestimable benefit to the public at large. [Hear, hear!]

The question arises, what is a "trust?" I answer: A combination of persons and capital on a large scale for the purpose of carrying on manufacture and commerce, in which various corporations place their stocks in the hands of certain trustees, and take, in lieu thereof, certificates showing each shareholder's equitable interest in all the stock so held.

As it is evident that the profit to be made in business and manufacture, in the future, will be largely the result of economies and savings, the larger the organization the greater the scope for economies and savings.

I will illustrate this point by stating that in 1872 oil had to be transported from the wells to market by railroad in small quantities, in barrels, tanks, &c., and it cost equal to \$1.50 per barrel to transport it to New York. To-day it costs only 50 cents, and for the reason that the former method of transportation has been superseded by pipe lines, which take the oil directly from the well to the market. The construction of these pipe lines was a vast undertaking, absolutely impracticable for any one individual, but the result of the consolidation of a number of companies.

When Commodore Vanderbilt first acquired an interest in what is now known as the New York Central Railroad there were eight different railroads between Albany and Buffalo. Will anyone claim that eight different corporations, each thoroughly organized, with their various officers and heads of departments, could conduct the transportation business as economically, as satisfactorily or as favorably to the traveling public as when merged into one?

Does not every traveler who wishes to go to Chicago and who has the opportunity of taking what is known as the limited train, either by the New York Central or Pennsylvania Railroad, realize that the comfort, the economy, the safety of his journey are enhanced by the fact that there is one organization controlling the line of road over which he desires to pass?

There are about 100 firms in the city of New York classified as paper manufacturers, paper dealers, paper warehouses, and, in addition, there are quite a number of firms more or less identified with the paper interest who do not properly come under either of these classifications.

These 100 firms represent, according to my estimate (which you will have to accept as correct, because I do not believe you have any figures that will disprove it),

annual sales of \$30,000,000, at an expense of, say, between \$1,000,000 and \$1,250,000. Or to make the statement in other words, the cost of distributing the product to the consumers, after it reaches the hands of the distributor, is from 3 per cent. to 4 per cent. of its value. I am not taking into consideration the question of profit to the dealer, simply cost of distribution.

I believe that it is estimated the consumption of paper during the present year will amount to 1,500,000 tons which, at an average of \$100 per ton would amount to \$150,000,000. These figures seem to be very large, and when they were first presented to me I questioned their correctness; but Lockwood's Directory for 1888 states that there are over 1,000 mills in operation in the United States. In these mills, I think, a conservative estimate would be 1,500 machines at an average output of 3 tons per day. I estimate that under the present method it will cost from 2½ to 3 per cent., not including freight charges, to place



WILLIAM H. PARSONS, President, 1884-5; 1885-6.

the goods in the hands of the consumers, which would amount to from \$3,750,000 to \$4,500,000.

Is it not fair to assume that if the 100 firms in the city of New York were consolidated into one or more large organizations, the cost of distribution would be reduced to about one-quarter of the present sum, thereby insuring a saving of \$750,000 or more, and that if the same principle was applied to the entire product of the country the saving would approximate \$4,000,000 annually; and is it not evident that if the paper manufacturer is being fairly compensated for the capital and skill employed in his business, the amount of excessive cost in distribution, caused by the present system, is paid by the consumer.

I estimate that the average cost of transportation charges on paper amounts to \$4 per ton, which upon the estimated consumption of this year would amount to \$6,000,000. What proportion of this amount paid to the transportation companies could be saved if the goods manufactured were under the control of one or more central organizations? Call it "trust" or whatever name you please.

A manufacturer of wall paper stated to me recently that the waste on all the paper he consumed (due largely to the injury received in transportation) amounted to nearly 10 per cent. Does anyone suppose that in the future wall paper is to be made at the paper mill, transported 400 or 500 miles to be printed, and then possibly a considerable portion of it shipped back over the same route for distribution through the country (thus incurring excessive railroad charges, besides the waste), or that the Eastern manufacturer of paper is to find a market for his product in the West while the Western manufacturer seeks an outlet for his goods in the East, thereby entailing a loss of double freight upon someone, either the producer or consumer?

I have no sympathy with any organization the object of which is by combination to unduly advance prices, thereby making the public pay an exorbitant price; but I do sympathize with organizations whose purpose and object are, by the concentration of large capital and skill, to effect economies and savings which will secure a fair return and yet enable them to distribute their product to the consumer at reasonable prices.

Someone will ask me what are you going to do with the vast multitude of parties who represent the business interests of the country under the present system? I fear my time is up, yet ask that I may be allowed to say that the man who asks nothing to that which already exists does not increase the prosperity of the country. I would turn these consumers into producers—not paper producers, however; there are too many of such already.

Further, such a system of business as I have indicated would no doubt inflict hardship upon a few; but it is an axiom of political economy, better that the few should suffer if the vast multitude are benefited thereby.

I would be glad to furnish you with some further facts respecting this matter; but if any of you feel interested in pursuing it, suggest you read an article entitled, "Economic and Social Aspects of Trusts," by George Gunton in the September, 1888, number of the *Political Science Quarterly*, from which I quote:

That the concentration of capital into large enterprises is an economic and social advantage tending to increase production, to lower prices and to raise wages is demonstrated in the history of every progressive country and every successful manufacturing establishment in the world. In short, the use of large capital, the specialization of labor and the concentration of productive power are the infallible evidence not only that wealth is being more economically and abundantly produced, but that the community in general and the wage receivers in particular are obtaining a constantly increasing proportion of the product.

Large establishments sustain the same economic relation to small ones that steam and electricity sustain to hand labor. The railroad supplanted the pack horse and stage coach for no other reason than that it served the community better. When the small farm and factory are driven from the field by the larger one it is always because the latter does the work better and cheaper than the former.

Reduce the cost of distributing paper to a minimum, institute economies and savings in its manufacture, such as can be secured by consolidation, and we shall be able to profitably supply American consumers at low prices, and, I hope, send a portion of our production across the water.

An amusing incident occurred with reference to 100 rolls of printing paper shipped to Liverpool; rumor says our friend Miller was the culprit. The paper was landed from the steamer upon the dock. The custom house officers inspected it; that is, they wanted to inspect it, because they felt certain it must contain something that was contraband. To their mind the idea that the United States, with its protective tariff and high priced labor, should be able to export into Her Majesty's dominions a manufactured article like paper was

an absurdity. Consequently they told Mr. C—, the agent:

"We shall have to examine this paper."

Mr. C. said: "All right! go ahead and examine it." The officers asked about how many feet one of the rolls contained. "They are only about 5 miles long," replied Mr. C. The idea of unwinding 5 miles of paper upon the Liverpool dock was a stunner to the officers and they finally concluded that the paper might be taken to the printing office and there unwound.

So they put the rolls on carts. Each cart was accompanied by two or three officers to prevent the contraband article (whatever it was) being extracted from the rolls. When they got to the office it was put upon the wetting machine, and as one roll after another was unwound and nothing discovered but white paper (presumably of good quality) they concluded to abandon their search. When asked what they supposed was contained in these reels they replied they were looking for cigars or tobacco.

I thank you, Mr. President and gentlemen, for your attention while I have endeavored to "forecast the future" of business in the city of New York and in our country. [Applause.]

"Protection to American Industries" was the toast to which the Hon. Timothy Merrick, of the Home Market Club, Boston, responded. He said:

MR. PRESIDENT AND GENTLEMEN—At this late hour it would be presumption to detain you. As your chairman has introduced me as connected with a club which includes in its membership a very estimable and large representation of this particular kind of paper manufacturers, I therefore feel a little at home here. The president in his opening remarks said that we were all paper makers, or ought to be. I suppose he meant me then. Unfortunately, perhaps, I have a small interest in a chemical fibre mill—not pulp, by any means. [Laughter.]

I propose simply to extend the congratulations and good fellowship of the Home Market Club, of which I have the honor to be president. The theme which has been allotted to me—Protection to American Industries—is the bed rock of the Home Market Club, and that upon which we rest, and it is not necessary for me to enter into any large argument or cite any instances of the benefits of protection, because if you followed the gentlemen who preceded me in their clear and intelligent statements in regard to your industry, you will find that it has its foundation in protection. Do you think that the paper interest could have had this banquet if it had not been for the necessity of the Government for raising money by the levying of duties on the imports of paper? In the answer of this question, which must be in the affirmative, you endorse the theory and idea of protection to our industries.

I am not going to speak of import duties. There are other things which we need in this country, to be able to compete without the full aid of the Government, which we do not now possess. I do not know how it is in the paper interest, but in the textile industries we are immensely short in the technical knowledge necessary for our mechanics and artisans. You may go into the dyehouses and bleacheries and into the fine cotton and woolen mills of the country, and you inquire, "Who is that gentleman? Your foreman?" "He is Mr. So and so and he came from Scotland." The majority of the men are imported from Great Britain. What does that mean? You depend upon the technical knowledge which our natives have not attained. When you take in our technical schools you will find that we have as good now as there are in the world, and it is difficult for one to keep pace with the best. I refer especially to the Boston School of Technology because I know it. There are others as good.

Educate your own sons, fit them to be the head managers, the superintendents and managers of your departments. Then you will have interested in that particular business an element which is not a hiring element altogether. You interest in your business an element which will not wait the drummer to divide the commission with him when he is selling supplies. I merely call your attention to this one point—the educated skilled force of our native population. It gives me pleasure to extend to you the congratulations and fellowship of the Home Market Club. We are alive and propose in the next two years to do efficient work in the lines of education, and in that way we shall soon become able to do away with a portion of the duties which many people call taxes, from the fact that we will have skilled labor and improved methods and we can then solve the difficult problem of how to maintain wholesome, good and intelligent living. Thanking you for your attention, I give way to somebody else. [Applause.]

President Rogers then called upon Col. Elliott F. Shepard, who spoke as follows:

MR. PRESIDENT, in your opening remarks you stated that all this present company are paper makers. Now, while in one sense of the word, I may be said to "make a paper" every day, yet I am more strictly to be classed among paper consumers; and, therefore, I represent the minority in this pleasant gathering of an association which, although eleven years old, to-night eats its first dinner—a sample of the tough fibre, whether wood fibre or not, of which their stomachs must be made. [Laughter.]

I have gathered from the speeches to-night that there may be an effort made to advance the price of paper; but it seems to me that your real prosperity lies in making paper as cheap as light. Centuries ago when paper cost several hundred dollars a pound, very little of it was either made or used, and to have a small library cost a mint of money and took a lifetime for its collection. That was when papyrus was the paper.

The ancient Egyptians only got as far as the leaf, but it was reserved for the universal Yankee nation to adopt the whole tree and put the trunk and branches as well into the pulp vat. [Applause.] Then paper production and consumption immensely increased; and the profits of the business, although the price has come down to 3½ cents a pound, have made you all prosperous and many of you millionaires. [Applause.]

I would suggest to you two ways of accomplishing what Congressman Russell says is one of your desires, and that is to get rid of your surplus production. One of these is to encourage the circulation of Republican newspapers. [Laughter and applause.] The larger the circulation of the newspaper the more of your so-called raw material the newspaper must have. And the public press is your friend, because every journal tries to consume just as much paper as it possibly can [laughter]; and if you will help them in this laudable purpose by taking their journals and distributing them to your workmen in your factories you will both help to educate your workmen in the knowledge and philosophy of the protective American system, which has brought you all to such a degree of prosperity, and also in those true economic and social ideas which prevent strikes and advance the prosperity of your men. [Laughter.] And the other suggestion is for you to take possession of the other countries on the hemisphere and make consumers of them for your surplus products. Thereby you will be giving them an opportunity of disseminating information in those various countries and become a positive lever in rais-

ing their masses of mankind. [Applause.] Time was when oil could not be bought for less than \$1.50 a gallon, and now oil of equal or greater illuminating power may be had for about 1 cent a gallon. When the higher prices prevailed the oil industry was small, and not near as much money was made by the people engaged in it as at the present time. And, in my opinion, your true interests lie in reducing the cost of paper to a cents a pound, when your profits will be larger in the aggregate than they are now by reason of the increased sale of your products.

There are various ways of affecting the price of paper, and, indeed, of seeking to produce a corner in it; and while I do not charge any man with being an incendiary, yet the public know very well that the most of your paper is made out of wood, and they are inclined to think that the number of forest fires lately is quite significant, and heaven seems to have been on the side of low priced paper from the bountiful and extinguishing showers which have so copiously descended. [Laughter and applause.]

Instead of the paper makers having occasion to feel blue from the outlook, it is a matter of congratulation for them that as long as trees grow and showers descend the principal components of their manufacture will be plentiful and cheap. The paper manufacturer in making his pulp is not to be blamed for watering his stock. [Laughter.] I thank you for the honor of your invitation to be present this evening. I have enjoyed the proceedings much, and bid you "good night" or "good morning," whichever the time may be. [Applause.]

Dr. W. H. Manning, of Dayton, Ohio, was called upon to speak for the West. He said:

MR. PRESIDENT AND GENTLEMEN OF THE ASSOCIATION—It is several years since I had the pleasure of meeting with you, and in that time the only special change I know of is that I have been getting older, while the members of the association, many of them, seem to be growing youthful. I am quite surprised to find such a discouraging condition of things among the paper makers of the East. I will not pretend to say anything about it in the West, but as some remarks were made about climate and zones, I will say that, although we live south of the isothermal line, if you will come out West we will show you a fluid which they make paper at a profit. That is natural gas.

You don't need to feel that owing to the Interstate Commerce law the price of coal has been advanced 30 or 50 per cent., as Mr. Whiting claimed, but you get your power for absolutely nothing. You get your heat free of charge and you get your light free of charge. The wood costs only the price of cutting it, so that if you go out there, with free power, free heat and free light, I believe you can make money. [Laughter and applause.]

The proceedings ended at midnight. The banquet was a most enjoyable affair, and a great deal of credit is due to Col. S. P. Train, of Boston, who was the only member of the banquet committee on the ground, and who labored hard to make the event, what it undoubtedly was, a decided success.

The Annual Meeting.

The twelfth annual meeting of the American Paper Manufacturers' Association was held at the Grand Union Hotel, Saratoga, N. Y., on Wednesday, July 31.

The members in attendance were: Warner Miller, Herkimer Paper Company, Herkimer, N. Y., and Hudson River Pulp and Paper Company, Palmer's Falls, N. Y. Byron Weston, Dalton, Mass.

William Whiting, Whiting Paper Company, Holyoke, Mass.

William A. Russell, Russell Paper Company, Lawrence, Mass.

E. C. Rogers, Massasoit Paper Company, Holyoke, Mass.

Wellington Smith, Smith Paper Company, Lee, Mass.

Alexander H. Rice, Rice, Kendall & Co., Boston, Mass.

Timothy Merrick, Hudson River Water Power and Paper Company, Mechanicsville, N. Y.

W. H. Parsons, Bowdoin Paper Manufacturing Company, Brunswick, Me., and Westmoreland Paper Company, West Newton, Pa.

Moses Newton, Newton Paper Company, Holyoke, Mass.

E. C. Bullard, D. A. Bullard & Sons, Schuylerville, N. Y.

C. H. Delano, Ticonderoga Pulp and Paper Company, Ticonderoga, N. Y.

Eugene H. Clapp, Penobscot Chemical Fibre Company, Great Works, Me., and Piscataquis Falls Paper and Pulp Company, Enfield, Me., Boston, Mass.

N. T. Pulsifer, Oakland Paper Company, Manchester, Conn.

R. M. Fairfield, Fairfield Paper Company, Fairfield, Mass.

T. O. Hurlbut, Hurlbut Paper Company, Lee, Mass.

C. A. Crocker, Crocker Manufacturing Company, Holyoke, Mass.

Loren A. Allen, Allen Brothers, Sandy Hill, N. Y.

William Roberts, Waltham, Mass.

H. A. Emerson, Contocook Valley Paper Company, West Heniker, N. H.

J. Willard Rice, Carter, Rice & Co., Boston, Mass.

O. H. Greenleaf, Holyoke Paper Company, Holyoke, Mass.

C. H. Wead, Salmon River Paper Company, Malone, N. Y.

James Ramage, James Ramage Paper Company, Monroe Bridge, Mass.

C. G. Weeks, Lakeside Paper Company, Skaneateles, N. Y.

F. H. Parks, Glens Falls Paper Company, Glens Falls, N. Y.

Thomas H. Savery, York Haven Paper Company, York Haven, Pa.

Correspondence.

Holyoke Notes.

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, MASS., July 31, 1889.
The dog star has asserted itself in right good earnest this week and in consequence we are having some thoroughly disagreeable weather. For five days we have not seen the sun, and the heavens have fairly wept. The atmosphere has been damp and muggy and all ambition has been taken out of us. No one feels like pushing matters during such weather and therefore business lags.

The demand for all kinds of paper is somewhat limited, but not more so than might naturally be expected at this season. There is some fault finding heard now and then, but the complaint is not general. Many of the mills are running on orders booked some time ago, and others are receiving enough to keep the machinery busy. Fine writings are in fair movement and prices are unchanged. There is a limited demand for book and engine sized papers, and manillas are unchanged in demand or price. Other grades are quiet. There is very little activity in the stock market. Foreign rags are having a light sale, and domestics are moving rather slowly. Chemicals are quiet in tone and unchanged in price.

Our assessors finished the work of figuring up the valuation and tax rate this week, and a few extracts from their report may not be out of place. They find that the total valuation is \$21,192,950, against \$19,120,285 last year, showing an increase of \$2,072,665 during the past twelve months. The total number of polls is 8,053, a gain of 549. The tax rate is \$16 on \$1,000, a decrease over last year of \$1.20. The total value of personal estate is \$4,588,320, and of real estate \$16,109,770. The amount to be raised by taxation is \$351,378. Since 1870 the valuation has increased from \$5,566,980 to nearly four times that amount, and the number of polls has increased in about the same proportion. There has been an unexpected amount of building this season, which has added several hundred thousands of dollars to the property valuation.

The Parsons Paper Company, owner of the Holyoke House, is about to make some radical changes in the house which will add materially to its capacity and general convenience. An addition to the building will afford about twenty-five more rooms and a new billiard and bar room will also be put in. At the same time an addition will be made to the post office building below, affording more room for the letter carriers. It is understood that George H. Bowker,

formerly landlord of the Windsor Hotel, in this city, who is at present managing the Mellen House at Fall River, will be the new landlord of the Holyoke House. Mr. Bowker was formerly clerk at this house under Landlord Belden.

F. D. Smith, the local paper finisher and ruler in the Whitcomb Mill, and W. H. Wilson, foreman of the Hampden Glazed Paper Factory, have each bought \$1,500 building lots on Fairfield avenue, a rapidly growing suburb, and will build \$4,000 residences for themselves.

Alexander Paul, formerly superintendent of the Wauregan Paper Mill, but now holding a similar position with the Gilbert Paper Company at Menasha, Wis., is visiting friends in this city, previous to sailing for Scotland, his native land, where he expects to sojourn for a time.

Quite a delegation of our manufacturers and some not identified with the trade left for Saratoga yesterday to attend the annual gathering of the American Paper Makers' Association.

D. J. Curtis, a Springfield contractor, has the contract to build an addition 57 by 40 feet to the mill of the Worthy Paper Company at Mittineague.

George Montague, for a year or more a salesman for the Plymouth Paper Company, has resigned to accept a similar position with the Nesochague Manufacturing Company, of Philadelphia.

Charles A. Edgerton, for many years bookkeeper for the Southworth Paper Company at West Springfield, is to succeed O. S. Houghton as general superintendent of the business, Mr. Houghton having resigned.

D. P. Williams, superintendent of the Holyoke Paper Mill, has bought a lot at Elmwood, a pleasant suburb of the city, and will build a residence.

Ex-Congressman William Whiting will be found at the Grand Union, Saratoga, for the next two weeks. D. H. Newton's present address is Old Orchard Beach, Me.

P. S. McElwain, president of the Parsons Paper Company, has just returned from the White Mountains. H.

Chicago Notes.

[FROM OUR REGULAR CORRESPONDENT.]

WESTERN OFFICE PAPER TRADE JOURNAL,
114-118 La Salle Street,
CHICAGO, July 29, 1889.

The Union Strawboard Company, if it desires to hold the fort with any degree of certainty, must be careful not to turn its guns on the jobber.

It would seem to be unreasonable to suppose that the larger paper houses will be much elated over the manifesto which has

just reached them. It is to this effect: Take 120 tons per month and you shall get 5 per cent off. Take any less and you buy at the same price we sell at, \$32.50 per ton. This treatment of the millowner's best friends will be liable to result in driving the jobber to make common cause with the little mills which are not in the company.

The Union Strawboard Company should remember that a successful combination is somewhat like a circus. A circus has a ring-master and an elephant. So long as they work together things are all right; but if the elephant gets "off his base," the circus always goes with the elephant every time.

It appears that there are fourteen mills in the combination, eight mills on No. 1 board, and six mills on No. 2.

Some interest is attached to the difficulties which have lately beset the *Times* of this city.

A confession of judgment was entered against Mr. West in the early part of this month, in favor of the Commercial National Bank, upon a note for \$25,000, payable on demand. This note was signed by J. J. West.

Henry F. Eames, the president of the bank, said that the note was given for a loan and secured by collateral. The collateral consisted of claims against the J. L. Regan Printing Company, which failed some eighteen months ago. The note was given for a loan about the time that Mr. West purchased the *Times*. A payment of \$12,000 was made on it, and it is the balance that is wanted.

On Friday last Mr. West's house and personal effects were levied upon.

W. C. Gillette, of the Chicago Paper Company, who has been East since the 6th of July, returned home last week. Holyoke, Springfield, New York, Boston and other paper centres were visited. LYSER.

Boston Notes.

[FROM OUR REGULAR CORRESPONDENT.]

EASTERN OFFICE PAPER TRADE JOURNAL,
43 Federal Street,
BOSTON, August 1, 1889.

The fears entertained some weeks ago relative to a scarcity of water for paper mill use are now entirely dispelled. Instead of a scarcity of water there is an idea that we are having too much.

Such rains as have poured down upon us of late call for more than ordinary notice. For the past two weeks it has hardly done anything else but rain. One day it would rain in the morning, next day in the afternoon, then all day for a change, to say nothing of the torrents which came down at night. Nor have these rains been local, for

reports from the surrounding country show that the storms have been quite general.

Reports from Lee, Mass., state that the heavy rains and continually rising waters have awakened considerable fear among the people least the dam might give way. The danger from the bursting of the dam is fully recognized and efforts are being made to prevent such a catastrophe.

Whether the continual heavy rains are responsible for the present state of trade is problematic, but the fact is business in paper trade circles is very quiet, more so than for some weeks past.

Paper stock importers are not being crowded with orders, although some seem to be badly crowded for the want of orders. Prices are claimed to be lower here than in foreign markets, and it is difficult for buyers and sellers to harmonize their views.

The chemical market is very quiet, or, to quote the expressive language of an importer, "It is blankety, blank, blank dull." Bleaching powders are quoted at 1.70@1.75c., with very little selling. Caustic soda is moving in limited quantities at prices ranging from 2.15@2.20c. Soda ash is unchanged. Soda crystals still hold at 7/8@.90c.

The receipts of chemicals for the past seven days include 648 casks of bleaching powder, 223 casks, 480 bags of soda ash, 280 barrels and 400 bags of soda crystals.

Imports of paper stock for the same time include 339 bales of rags, 495 bales, 127 coils of manillas, and 561 bales of miscellaneous grades.

Other receipts include 2,390 bales of wood pulp and 902 barrels of rosin.

William O. Russell, manager of the Lawrence Machine Company, passed last Sunday in New York city, where he went to welcome his father, George W. Russell, who was a passenger on the steamer La Bourgogne from Havre.

The steamer Eider which is expected to reach New York next week, about the 8th, will bring T. A. Mole, of the L. L. Brown Paper Company, from his foreign rambles. Some of Mr. Mole's friends will be on hand to greet him on his safe return, among them W. J. Corbett, of Boston, and Roswell N. Fairfield, of Holyoke.

Charles N. Pulsifer, of Pulsifer, Jordan & Piatt, is expected to reach New York at the same time, he too being a passenger on the Eider.

C. A. Cheney may possibly be found on the dock when the good ship Eider arrives.

Edward Arms, of Moore, Arms & Thompson, Bellows Falls, Vt., is summering at Swampscott and makes frequent trips to the city.

F. G. Flint and J. W. Flint, of Bellows Falls, Vt., were in town this week, besides

H. A. Emerson, of West Henniker, N. H., and C. H. Nickham, of Hartford, Conn.

Mr. Wheaton, of the Russell Paper Company, leaves Boston to-morrow for the White Mountains, where he will enjoy a few weeks' recreation in company with his family.

J. Richard Carter, of Carter, Rice & Co., will start for Alaska early in the coming week, to be gone a month or more.

Charles A. Young has returned from his summer outing and can be found again behind the rail at Carter, Rice & Co.'s. George Young is on deck again; but then he looks weary—seems to want more vacation.

Rice, Kendall & Co. are prepared to interest the trade in blotting paper and will furnish samples when wanted. This house is selling agent for the Albemarle Paper Manufacturing Company and the Virginia Paper Company, both of Richmond, Va. English "Red Granite" blotting, which is made by the Albemarle Paper Manufacturing Company, is an "electric" absorbent. The product of the Virginia Paper Company is styled "Virginia" blotting, and is said to be pure cotton fibre. These blottings are made in all colors in all regular weights and can be furnished in rolls of any desired width.

Your correspondent is pained to write, and the trade will be grieved to read, the announcement of the death of Mrs. Pinkham, wife of Theodore Pinkham, the prominent strawboard dealer, of Boston. The funeral will take place to-day from the family residence at Brookline.

DELESDERNIER.

Artificial Stone.

A patent has been taken out for making cement, artificial stone, wall covering, &c., from what is known as "land plaster."

The composition is prepared by taking 1 part of acid, preferably sulphuric or muriatic acid and adding thereto 4 parts of any proper material for retarding the action of the acid, which material may be glue or oil, either vegetable, animal or mineral, or a combination of glue and oil. To this solution about 15 parts of water are added, and then a composition consisting of 10 parts of any calcined calcareous base—such, for instance, as plaster of paris—and 1 part of silicate of potash or natron, mixing so much of the last described composition with the mixture of acid, its retarder, and water as will make a thick pasty mass, after which the material is allowed to stand and dry. After drying the material is pulverized and mixed with calcined land plaster, 10 to 20 parts of the land plaster being used to 1 part of the composition described.

In using the material water is added in

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Employees with pay rolls of \$50,000 already covered. No employer should be without this protection. Cases investigated by competent inspectors and considered by eminent Counsel. If liability shown, claims settled without litigation.
AGENTS: SAM'L APPLETON, 28 Central Street, Boston. KIRBY & DWIGHT, 54 Pine St., New York. F. D. HIRSHBERG & BRO., 120 N. Third Street, St. Louis. GEO. A. GILBERT, 226 LaSalle Street, Chicago. TATTNALL PAULDING and J. G. HOOVEN, Managers, Middle Dept., 411 Walnut Street, Philadelphia.
ENDICOTT & MACOMBER, Managers for United States, 71 Kilby Street, Boston.

HOLLINGSWORTH & VOSE, 44 FEDERAL ST.,
BOSTON, MASS.,
MANUFACTURERS OF
PURE MANILLA ROPE PAPER.
Z. T. HOLLINGSWORTH. Mills at West Groton and East Walpole, Mass. Daily Capacity, 22,000 pounds. CHARLES VOSE.

PERKINS, GOODWIN & CO.,
Nos. 66 and 68 DUANE STREET, NEW YORK,
Have on hand and to arrive all grades of Bleached and Unbleached
SULPHITE AND SODA PULPS.
SOLE AGENTS FOR ZELLSTOFFFABRIK, WALDHOF, GERMANY. DAILY PRODUCTION, 100 TONS DRY. SEND FOR SAMPLES AND PRICES.

the usual manner, and it is applied as ordinary plaster, or it may be cast in molds and allowed to indurate, thus forming a good artificial stone or marble.

If the land plaster contains a large percentage of gypsum the amount of silicate of potash or natron could be materially reduced, and in some cases such potash or natron could be entirely omitted.

Contracts—Government Printing Office.

The following awards have been made for supplies for the Government Printing Office:

- FIRST-CLASS LEDGER PAPER.**
- Item 1. 1,500 reams flat cap, 14x17, white or blue, laid or wove, 14 to 20 pounds to ream, 14 9-10 cents per pound, Parsons Paper Company.
 - 2. 1,500 reams, 16x21, do., 24 to 29 pounds to ream, do.
 - 3. 1,000 reams medium, 18x23, do., 28 to 38 pounds to ream, 14 3-10 cents per pound, Mt. Holly Paper Co.
 - 4. 800 reams royal, 19x24, do., 32 to 46 pounds to ream, 14 3-10 cents, do.
 - 5. 400 reams super royal, 20x28, do., 45 to 57 pounds to ream, 20 cents per pound, L. L. Brown Paper Company.
 - 6. 200 reams imperial, 23x31, do., 75 pounds to ream, 20 cents, do.
 - 7. 200 reams double demy, 21x32, do., 75 pounds to ream, 19 cents per pound, Parsons Paper Company.
 - 8. 500 reams double cap, 17x28, do., 28 to 48 pounds to ream, 14 3-10 cents per pound, Mt. Holly Paper Company.
 - 9. 500 reams of any size or weight not enumerated above, not to be under the equivalent of 14 pound flat cap, 20 cents per pound, L. L. Brown Paper Company.

- SECOND-CLASS LEDGER PAPER.**
- 10. 500 reams flat cap, 14x17, white or blue, laid or wove, 14 to 20 pounds to ream, 10 9-10 cents per pound, Dobler & Mudge.
 - 11. 500 reams demy, 16x21, do., 24 to 29 pounds to ream, 10 9-10 cents per pound, M. Plummer & Co.
 - 12. 300 reams medium, 18x23, do., 28 to 38 pounds to ream, 10 9-10 cents per pound, do.
 - 13. 200 reams double cap, 17x28, 28 to 38 pounds to ream, 10 9-10 cents per pound, Dobler & Mudge.
 - 14. 200 reams double demy, 21x32, do., 48 to 75 pounds to ream, 11 cents per pound, do.
 - 15. 500 reams of any size or weight not enumerated above, not to be under the

- equivalent of 14 pound cap, 11 cents per pound, do.
 - 16. 100 reams tissue, S and C, 21x32, \$1.79 per ream, do.
 - 17. 100 reams copying, 18½x22½, no bid.
 - 18. 100 reams copying, 20½x24½, no bid.
- MANILLA PAPER.**
- 19. 100 reams rope manilla, 24x36, 50 pounds to ream, put up flat, \$3.75 per ream, Dobler & Mudge.
 - 20. 100 reams rope manilla, 27x38, 100 pounds to ream, put up flat, \$8.52 per ream, do.
 - 21. 50 reams rope manilla, 36x40, 100 pounds to ream, put up flat, \$7.54 per ream, do.
 - 22. 50 reams pure bleached manilla, 40x48, 300 pounds to ream, \$17.75 per ream, M. O. Raiguel & Co.
 - 23. 100 reams rope manilla of any size and weight as may be required, not enumerated above, put up flat, 7½ cents per pound, Dobler & Mudge.

- BLOTTING, HARDWARE, PLAID, MARBLE AND COMB PAPERS.**
- 24. 10 reams blotting paper, 19x24, 100 pounds to ream, \$9 per ream, Conrow Brothers.
 - 25. 100 reams hardware, 24x36, 50 pounds to ream, \$4 per ream, Dobler & Mudge.
 - 26. 30 reams plaid paper, 22½x27, \$6.50 per ream, Louis De Jonge & Co.
 - 27. 25 reams plaid paper, 23x31¼, best quality, \$7.50 per ream, do.
 - 28. 100 reams German wave medium, or double cap marble paper, \$5.90 per ream, John Campbell & Co.
 - 29. 40 reams best German comb paper, 20x25, \$8.80 per ream, Louis De Jonge & Co.
 - 30. 40 reams best German double cap comb paper, \$8.80 per ream, do.
 - 31. 20 reams best German comb paper, 22x28, \$9.75 per ream, John Campbell & Co.

- PAPER FOR PROOFS AND OVERLAYING.**
- 32. 25 reams blue printing paper, 24x38, 25 pounds to 480 sheets, \$1.50 per ream, Dobler & Mudge.
 - 33. 10 reams pink printing paper, 24x38, 25 pounds to 480 sheets, \$1.50 per ream, do.
 - 34. 30 reams French folio, white, 17x22, 10 pounds to 480 sheets, 80 cents per ream, M. O. Raiguel & Co.

- BINDERS' BOARDS.**
- 35. 25,000 pounds binders' boards, No. 1 quality, 3 2-10 cents per pound, A. L. Henderson.
 - 36. 20,000 pounds binders' boards, good, No. 2 quality, 2 3-10 cents per pound, do.
 - 37. 80,000 pounds Davey's boards, or those of equal quality, 4 7-10 cents per pound, W. O. Davey & Sons.

- 38. 10,000 pounds strawboard, 2½ cents per pound, Dobler & Mudge.
 - 39. 2,500 pounds trunk board, 5 7-10 cents per pound, Davey & Sons.
- ENVELOPES.**
- 242. 1,000 envelopes, No. 5, triple laid, white, 3 1-16x5½, \$1.55 per 1,000, Easton & Rupp.
 - 243. 20,000 envelopes, No. 6, triple laid, white, 1 5-10x6, \$1.70 per 1,000, do.
 - 244. 10,000 envelopes, No. 9, triple laid, white, 3 15-16x8¾, \$2.78 per 1,000, do.
 - 245. 10,000 envelopes, No. 10, triple laid, white, 4x9½, \$3.08 per 1,000, do.
 - 246. 5,000 envelopes, manilla, 9½x12½, \$7.60 per 1,000, Ballantyne & Son.
 - 247. 3,000 envelopes, manilla, 7½x11½, \$5.34 per 1,000, do.
 - 248. 3,000 envelopes, manilla, 7x10½, \$4.94 per 1,000, do.
 - 249. 5,000 envelopes, manilla, 6½x10, \$4.42 per 1,000, do.
 - 250. 50,000 coin envelopes, rope manilla, 3¼x5¼, \$1.75 per 1,000, do.

Personals.

Thomas Barrett is spending the summer at Long Branch with his family.

John L. Taylor put in part of this week fishing in Sullivan County, N. Y.

J. S. Nugent, of J. S. Nugent & Co., and his family are at Long Branch for the summer.

George N. Friend, of Franklin, Ohio, visited the New York trade yesterday after doing the convention at Saratoga.

Ethan Allen Doty, of Doty & Scrimgeour, and William Irwin Martin, of Raynor & Martin, have both been appointed on the committee to represent the Board of Trade and Transportation at the world's fair to be held in New York in 1892.

August Kaandler, of Paris, has returned home. Mr. Kaandler has successfully started the sulphite fibre works at Chatham, N. B., which were built on plans prepared by him, and the result has been gratifying. His friends unite in wishing Mr. Kaandler *bon voyage!*

Ornamental Brick.

Brick for the fronts of buildings was for many years subordinated to various kinds of stone, iron, &c., but of late it has been returning to favor, chiefly because it has been produced in ornamental forms and because people have grown tired of materials which do not so well withstand the ravages of time. Among the recent changes in the manufacture of bricks is the production of an ornamental and metallic surface, the bricks being

made from a pure clay in which there are practically no metallic oxides, but which is combined with certain metals. Such bricks have been patented, and the following descriptions will explain their character.

A pure clay which will burn to a white or slightly buff color is reduced to a fine dry powdered condition by any suitable mechanical means, and to each 100 parts about 5 parts of metallic copper are added in a finely divided or comminuted condition in the form of coarse filings or sawings or fine chippings and intimately mixed with the previously prepared clay powder, so as to form a homogeneous mass. The clay and finely divided metallic copper thus prepared are submitted to an intense pressure while in a dry state in suitable molds to bring them to the desired form and to eliminate the air therefrom. The bricks, blocks, or other shapes thus formed are then placed in a suitable kiln and fired to a degree of heat which will burn the brick to the desired hardness and fuse the metal, causing it to impart its color to the main body of the brick and at the same time deposit the dross of the metal on the surface of the brick in the shape of spots or blotches.

The different shades of color in the main body of the brick may be varied by changing the proportions of the comminuted copper mixed with the clay, or other color effects may be obtained by using a small portion of suitable metallic oxides in a finely powdered condition thoroughly incorporated with the clay in a dry state before mixing the clay mass with the finely divided copper.

In bricks produced by this method the main body will be found to possess the same characteristics, color, texture, &c., as rolled sheets of metallic copper, with the addition of numerous spots and blisters appearing on the surface of the same, giving it a mottled appearance.

The metals are not oxidized, but fused within the clay body in the metallic state by the burning process and remain in the bricks as metals. The color imparted to the bricks does not exhibit the color of the oxide of the metal, but the color of the metal itself and the melted drosses of the metal, which metal colors and drosses go to make up the distinctive character of the bricks.

Another method is to substitute phosphor bronze for the copper, proceeding as above described. Oxides of copper or cobalt may be added to give a green or blue tint, and the bricks thus produced are said to present the appearance of a beautiful bronze metal and to possess many of the qualities of such a metal in texture.

A third method is to replace the metallic constituents above noted by brass, and thus make a brick having the color and characteristics of brass.

WILKINSON BROS. & Co.,
72 & 74 Duane St., New York,
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Fine Manilla and Colored Paper.

GENERAL DEALERS IN
PAPER AND TWINE OF EVERY DESCRIPTION.

Mills at Birmingham, Conn.

WEEKLY WANTS.

G. H. WHITTEMORE,
11 Tribune Building, New York,
BROKER IN ALL GRADES OF PAPER.

PRICES WANTED ON FOLLOWING:

- 150 Tons, 38 in. Rolls, White, News.
- 3,000 Tons, 75 in. " " "
- 60 Tons, S. S. & C. Book, delivered in Chicago.
- 600 Tons, 28 x 40 in., 37 lb. White, M. F. Book.
- 100 Tons, 30 x 41 in., 70 lb. No. 3 Book.
- 20 Tons, B. S. Lining, Ultramarine, Sheets and Rolls.
- 5 Tons, 30 x 40 in., 100 lb. and 150 lb., No. 1 Manilla.
- 100 Reams, Pink, No. 2 Book.

Sulphite News for New York Delivery.
General Line Manilla Papers.

Manufacturers will find it to their advantage to correspond with me and send samples of their products.

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Paper Stock,
— OFFICE: —
No. 38 NEUE KÖNIG STREET,
Near Alexanderplatz C,
BERLIN, GERMANY.

SMITH'S PNEUMATIC CALENDER FEED.

Patented Sept. 29, 1885; Nov. 16, 1886; other Patents now pending. This Machine is also Patented in England, France and Germany.

THE DANGER TO PAPER MACHINE TENDERS and the LOSS IN BROKEN PAPER at the CALENDER ROLLS MAKE THIS INVENTION OF ESPECIAL VALUE FOR THE REASONS THAT:

It prevents all danger and risk to the person of the operatives ordinarily incident upon leading the paper through the stack. It avoids "making broken" in the stack, as the doctors prevent the paper from clinging to the rolls, and as the action of the doctors upon the individual rolls removes any and all calender spots from their surfaces, the latter are kept in perfect condition, thereby preventing defacement or injury to the paper, which would otherwise be the case; also by keeping the rolls clean, removing all dust and grit, the necessity for frequent grinding of the latter is avoided.

The blower or fan which supplies the air should be located in some place whence cold, moist air can be obtained, and as this cold air is supplied through the doctors to the surface of the rolls, the latter are prevented from heating, and a better and more uniform surface is given to the paper.

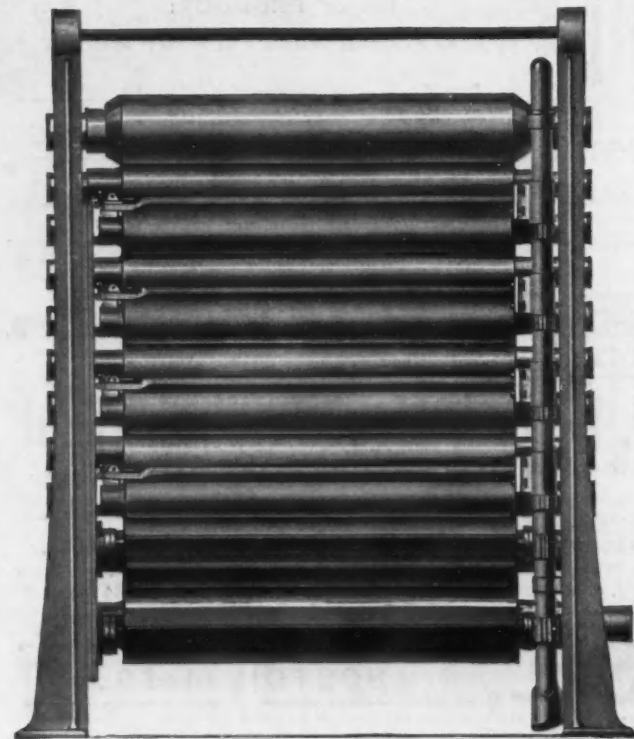
In operation, the paper is introduced at the top roll and is conducted automatically between the other rolls, emerging from the bottom, and can be conducted immediately, without loss, to the reel.

Among Paper Manufacturers now using Smith's Pneumatic Calender Feed, all of whom indorse it most highly, are:

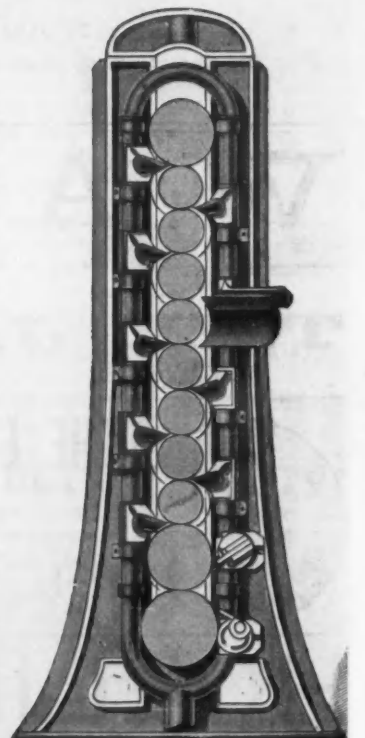
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| HUDSON RIVER PULP AND PAPER CO., Palmer Falls, N. Y. (3) | POWELL H. RAMSDELL, ARLINGTON MILLS, Salisbury Mills, N. Y. (2) |
| GLEN MANUFACTURING CO., Berlin Falls, Vt. (3) | GLENS FALLS PAPER MILL CO., Glens Falls, N. Y. |
| HAVERHILL PAPER CO., Haverhill, Mass. (2) | FRANK GILBERT, Waterford, N. Y. |
| RUSSELL PAPER CO., Lawrence, Mass. (6) | TILESTON & HOLLINGSWORTH, Groton, Mass. |
| SUGAR RIVER PAPER CO., Claremont, N. H. | FAIRCHILD PAPER CO., Pepperell, Mass. |
| MONTAGUE PAPER CO., Turner's Falls, Mass. | VAN NORTWICK PAPER CO., Batavia, Ill. |
| BRIDGEPORT PAPER CO., Bridgeport, Conn. | KIMBERLY & CLARK CO., Neenah, Wis. |
| LAKE GEORGE PULP AND PAPER CO., Ticonderoga, N. Y. | SYMS & DUDLEY PAPER CO., Holyoke, Mass. |
| GEORGE W. WHEELWRIGHT PAPER CO., Fitchburg, Mass. | WINONA PAPER CO., " " |
| TICONDEROGA PULP AND PAPER CO., Ticonderoga, N. Y. | GEO. R. DICKINSON PAPER CO., " " |
| JESSUP & MOORE PAPER CO., Philadelphia, Pa. | EXCELSIOR PAPER CO., " " |
| MARTIN & W. H. NIXON, Manayunk, Pa. (2) | PAGE PAPER CO., Furnace, " " |
| WINNIPESOGEE PAPER CO., Franklin, N. H. (4) | WILDER & CO., Olcott, N. H. |
| HERKIMER PAPER CO., Herkimer, N. Y. | C. H. DEXTER & SON, Windsor Locks, Conn. |
| GEORGE H. FRIEND PAPER CO., West Carrollton, Ohio. | W. C. HAMILTON & SON, Philadelphia, Pa. |
| SPRING GROVE PAPER MILLS, Spring Forge, Pa. (3) | |
| BRIDGE MILL PAPER CO., Pawtucket, R. I. | |

Convincing testimonials as to the real merits and advantages of SMITH'S PNEUMATIC CALENDER FEED will be shown upon application. The entire device is compact, readily adjusted, and enables large stacks to be easily and efficiently managed with least labor, and with but little or no loss of broken or damaged paper.

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85 WATER STREET, BOSTON.



Applied to Calender on the Machine.



A Doctor for each Roll keeps off all Calender Scabs.

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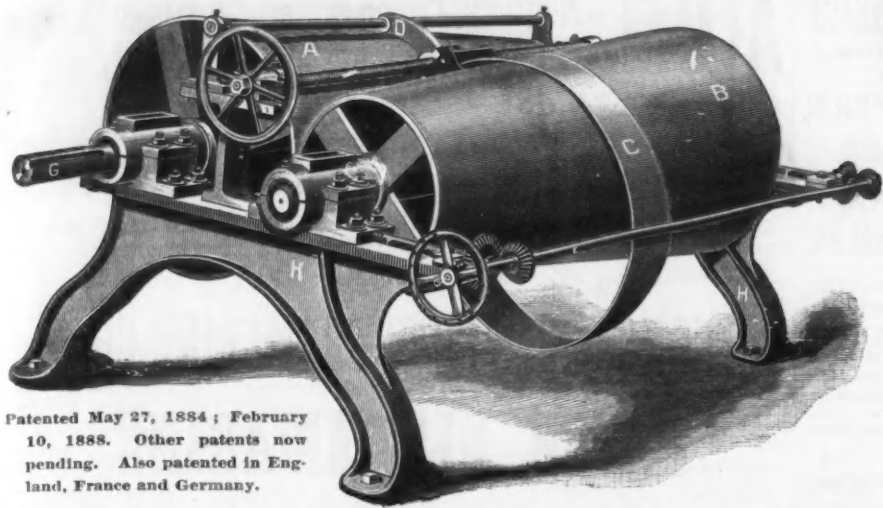
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CORRESPONDENCE SOLICITED.

Mitscherlich Process.

DETROIT, MICHIGAN.



Patented May 27, 1884; February 10, 1888. Other patents now pending. Also patented in England, France and Germany.

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The machine can be stopped or started by simply turning a hand wheel to open and close the Cones. The speed can be quickly and easily varied while running from 100 to 200 feet per minute. They are **PROMPT, EFFICIENT AND NOISELESS.**

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| HAVERHILL PAPER CO., . . . Haverhill, Mass. | FALL MOUNTAIN PAPER CO., Bellows Falls, Vt. | PENN. PULP AND PAPER CO., Lock Haven, Pa. |
| HOLLINGSWORTH & VOSE, East Walpole, Mass. | F. W. BIRD & SONS, . . . East Walpole, Mass. | CLARION PULP AND PAPER CO., Johnsonburg, Pa. |
| SYMS & DUDLEY PAPER CO., Holyoke, Mass. | HOLLINGSWORTH & WHITNEY CO., Gardiner, Me. | PARSONS PAPER CO., . . . Holyoke, Mass. |

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145 Broadway, cor. Liberty St., NEW YORK.

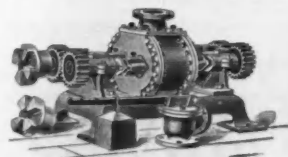
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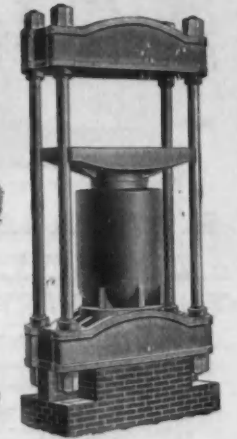
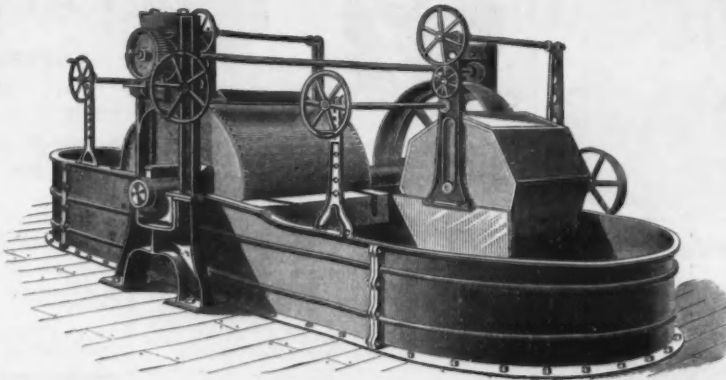
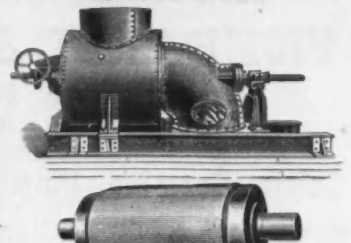
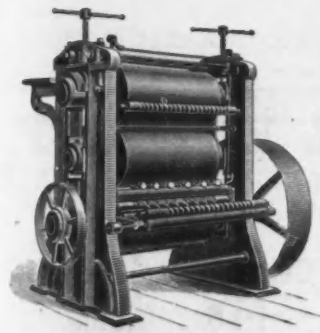
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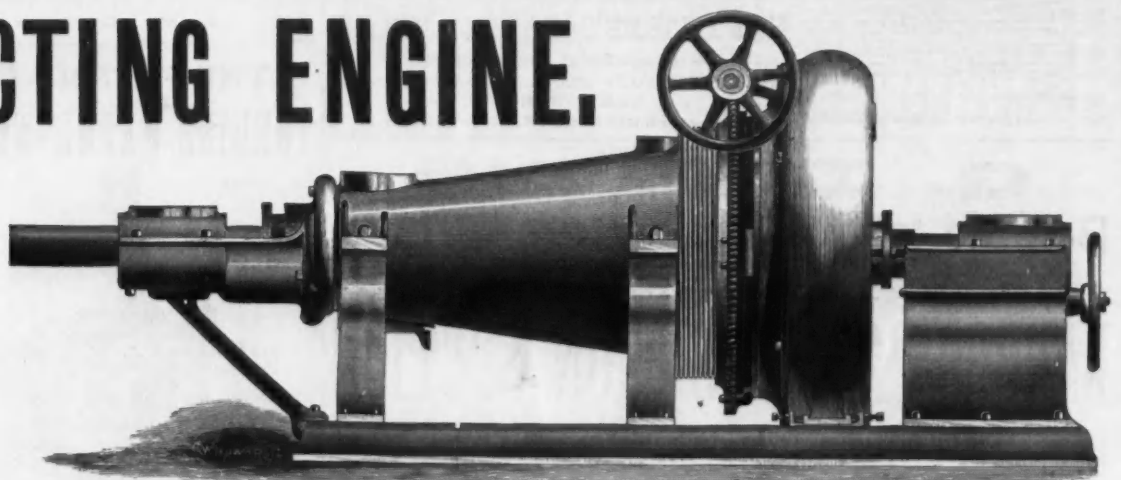
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ALL FELTS GUARANTEED TO RUN WELL, OR THEY CAN BE RETURNED.
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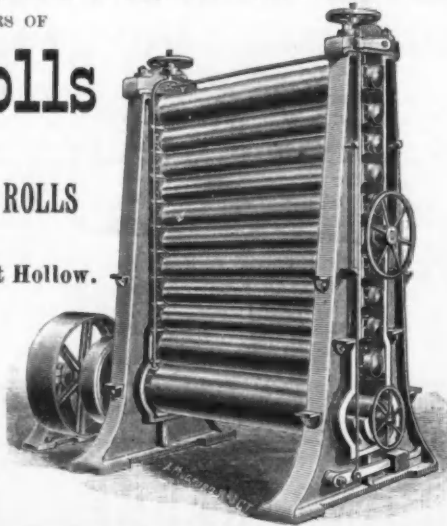
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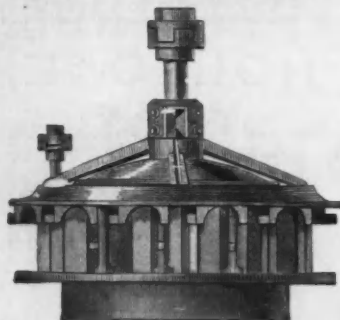
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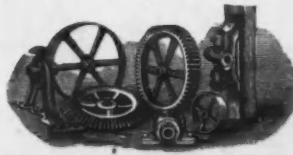
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The most perfect method of joining Fourdriner Wires. GUARANTEED TO BE STRONGER THAN ANY OTHER SEAM NOW IN USE.

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For exhausting the air and water from Paper Pulp on Fourdriner, Harper, or Cylinder Machines. Once in operation it will not require attention or repairs.

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We guarantee every Wheel to give entire satisfaction.

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ENGINEERS,

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SPECIALTIES:

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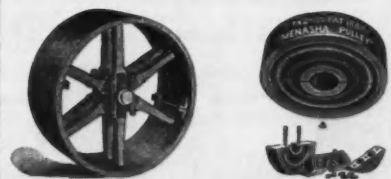
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Leather Belting and all kinds of Mechanical Rubber Goods carried in stock or made to order.

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We are Sole Makers of the Hardwood, Bent Rim, Spoke Arm and Iron Hub Pulleys, bushed and gripped to the shaft by pure friction board.

Also, we are Makers of the smallest Wood Split Pulley made. We make them as small as 1 inch diameter.

Also, we are Sole Makers of the only Split Loose Pulley in the market. It has metallic bushing that requires no oil or other lubricant. No glue used in the construction of our pulleys. They are made of the best seasoned and kiln dried hardwood.

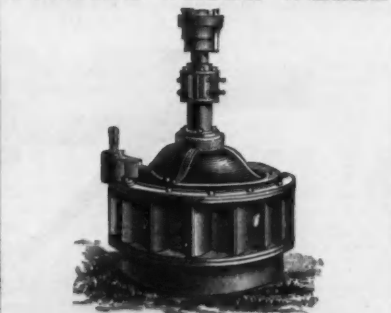
We also make the largest Wood Split Pulleys in the Market. A large number of Paper Mills in the United States are operated with our pulleys. The pulleys are similar to the above cuts.

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MENASHA, WIS., U. S. A.

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Paper and Paper Makers' Supplies.

BELDEN & DEAN, Paper Bags, Flour Sacks, Manila and Straw Papers. 166 Fulton st., N. Y. BUTLER & JOHNSON, 44 Beekman st., N. Y. CLARK, CHARLES S., Newspaper in Rolls for Perfecting Presses. Book, Plate and Chromo Papers. Potter Building, 38 Park Row, New York.

Paper Makers' Felts and Jackets.

LOUIS GEHLERT, 508 East 80th Street, New York. Sole Agent for DOLLUS, DETTWILLER & Co., Mulhouse (Alsace).

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DIAMOND MILLS PAPER CO., White and Colored Tissues, Copying Paper, 44 Murray St., New York. HAND, A. F., White and Colored Tissue and Copying Paper; mill at Peekskill. Paper Warehouse and office, 51 Beekman st., New York.

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THOS. A. O'KEEFE, Printed Wrapping, 48 & 50 Duane.

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ATTEBURY BROS., 140 Nassau st. BOYLE, LUKE, 203 South 5th Avenue, New York. DARMSTADT & SCOTT, 21 & 23 Centre St., N. Y. EVANS & CURRY, 44 Rose Street, New York. FITZGERALD, J. M., 135 & 137 So. Fifth Ave., N. Y. FLYNN, MICHAEL, 61 Congress st., So. Brooklyn, N. Y. GILDEA, PATRICK, 445 & 447 West 12th st. HARLEY, CHARLES, Cotton and Woolen Rags, 302 Third st., New York.

Recording Gauges.

EDSON, JARVIS B., 145 Broadway.

Straw Boards.

HAYES, JAMES E., & CO., 75 Duane st. JAEGER, GUSTAV L., Straw Boards, Lining and Box Machinery, 136 and 138 Mulberry st., N. Y.

OUT OF TOWN HOUSES.

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ELLSWORTH, EMORY A., [formerly with D. H. & A. B. Tower], Architect, Civil and Mechanical Engineer. Plans for Mills, Surveys and Plans for Mill Sites and the development of Water Power. Holyoke, Mass. TOWER, D. H. & A. B.—Designs for Paper and Fibre Mills. Surveys and Plans for Mill Sites. Valuations of Mill Properties. Holyoke, Mass.

Dandy Roll Manufacturers.

BUCHANAN, BOLT & CO., Patent Seamless Wove and Laid Dandy Rolls. Holyoke, Mass. CHENEY BIGELOW WIRE WORKS, Springfield, Mass. Pat. Seamless Wove and Laid Dandy Rolls.

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BOYNTON & SON, Manufacturers of Paper Makers' Felts and Jackets, East Aurora, N. Y.

Paper Manufacturers.

JERSEY CITY PAPER CO., White and Colored Tissue & Manila Wrapping, Cornelison avenue and Montgomery st., Jersey City, N. J.

Paper Makers' and Paper Stainers' Colors.

HAMPDEN PAINT & CHEMICAL CO., Springfield, Mass.

Paper Making Machinery.

SMITH, WINCHESTER & CO., South Windham, Ct.

Paper Mill Engine Bars and Plates.

SIMMONS, A. A., Dayton, Ohio, Manufacturer of Planing Machine Knives, &c.

Rags, Paper and Paper Stock.

BUTLER, THOMAS, Cotton and Woolen Rags, Iron and Metals. 240 Causeway st., Boston, Mass. BRODERICK BROS., 608-614 W. Pratt St., Baltimore. ELLIOT, A. G., & Co., Paper and Paper Stock, 38 and 34 South Sixth st., Philadelphia. LANEY, JAMES, & CO., Dealer in Paper and Paper Stock, Cotton and Woolen Rags, Rochester, N. Y. RICHMOND, F. H., & CO., Paper and Paper Stock Warehouse, Cotton Waste Dealers, Providence, R. I. SIMMONS, JOHN, Wholesale Dealer in Paper and Rags, 20 and 22 Decatur street, Philadelphia. SNIDER'S, LOUIS, SONS, Manufacturers and Wholesale Paper Dealers, 121 Walnut st., Cincinnati, Ohio.

Rags, Paper and Paper Stock.

WILLCOX, JAMES M., & CO., Wholesale Commission Paper and Rag Warehouse, 209 Minor street, Philadelphia, Pa.

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EDSON PRESSURE-RECORDING GAUGE. Saves coal and secures steady steam. Address JARVIS B. EDSON, 145 Broadway, cor. Liberty Street, New York.

"PEERLESS" RECORDING GAUGES. Write for testimonials. S. P. JONES, No. 28 School st. Boston, Mass.

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E. E. CLARK is at first hands for perfectly clean Bating Strained Rosin for Paper-Makers' use. Orders solicited. 5 Custom-House St., Boston, Mass.

Screen Plate Manufacturers and Repairers.

HARDY & PINDER, manufacturers of Patent Cast-Metal Sectional Screen Plates. Fitchburg, Mass.

Sealing Wax.

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Straw Boards.

TUCKER'S, E., SONS, Straw Boards, Paper, Twines, Paper Box Mach'y, 100 Trumbull st. Hartford, Conn.

Wholesale Paper Dealers.

MOORE & STARK, Wholesale Paper. 637 West Main Street, Louisville, Ky.

IMPORTS AT NEW YORK.

FOR THE WEEK ENDED JULY 26, 1889.

Table with columns: An. Colors, Alum, Alum's Cake, Bl. Powders, Soda Ash, Soda, Caus., Soda, Sal., Ultramarine, Books, Newspapers, Engravings, Ink, Lead Pencils, Paper, Steel Pens, Stationery, Slate Pencils, Clay, Jute Butts, P. Hangings, Paper Stock, Terra Alba, Waste, Wood Pulp, Totals.

Imports General Merchandise for the week ended July 26, 1889. \$7,360,998

IMPORTS OF PAPER STOCK AT NEW YORK.

JANUARY 1 TO JULY 30, 1889.

Table with columns: Whence Imported, Rags, Old Papers, Chemical Fibre, General Wood, Manila Stock, Sales, Hales, Tons, Tons, Sales. Lists various cities like Alexandria, Amsterdam, Antwerp, etc.

a. Including 98 bs. cotton waste and 89 bs. flax waste. b. Flax waste. c. Including 313 bs. cotton waste. d. Cotton waste. e. Including 69 bs. cotton waste. f. Including 330 bs. cotton waste and 135 bs. flax waste. g. Including 294 bs. flax waste and 194 bs. cotton waste. h. Including 453 bs. cotton waste. i. Including 742 bs. cotton waste and 128 bs. flax waste.

NEW YORK IMPORTS.

FROM JULY 23 TO JULY 30, 1889.

Paper Stock.

L. Gottheil, Alsatia, Fiume, 100 tons chemical fibre. Train, Smith & Co., E. Crampa, Genoa, 177 bs. cotton waste. W. Castle, St. Anna Munci, Genoa, 250 bs. rags. Burgass & Co., Susanne, Hamburg, 241 bs. bagging. Neumark & Gross, Victoria, Hamburg, 391 bs. manillas. Norwegian Wood Pulp Company, Colorado, Hull, 25 tons chemical fibre. James Pirnie, by same, 50 tons chemical fibre, 461 bs. bagging. Perkins, Goodwin & Co., by same, 180 bs. rags. A. Wertheim & Co., by same, 50 bs. rags. Lewy Brothers, by same, 171 bs. rags. Darmstadt & Scott, by same, 38 bs. rags. E. Hatton & Co., by same, 141 bs. rags. L. Gottheil, by same, 44 bs. rags.

John W. Mason & Co., by same, 258 bs. manillas. James Pirnie, Martello, Hull, 50 tons chemical fibre. J. Lebnan & Son, Australia, Leghorn, 81 bs. rags. W. A. Castle, by same, 50 bs. rags. W. A. Castle, Lenucia, Leghorn, 265 bs. rags. James Pirnie, St. Ronan's, Liverpool, 350 bs. rags. Darmstadt & Scott, by same, 47 bs. papers. M. A. Ring, Jr., by same, 64 bs. rags. Atterbury Brothers, by same, 23 bs. rags. J. W. Lyon & Co., by same, 15 bs. papers. R. F. Downing & Co., Persian Monarch, London, 25 bs. bagging. H. M. Robertson & Co., Ludgate Hill, London, 63 bs. rags. J. L. Taylor, by same, 49 bs. manillas. R. H. Overton, by same, 41 bs. papers. Darmstadt & Scott, France, London, 154 bs. papers. M. A. Ring, Jr., by same, 105 bs. papers. Woolworth & Graham, by same, 42 bs. rags. Lewy Brothers, by same, 125 bs. rags. F. Solomon, by same, 125 bs. rags. Perkins, Goodwin & Co., by same, 54 bs. bagging. Horace Dutton & Co., Chussa, Marseilles, 105 bs. bagging. A. Wertheim & Co., Rotterdam, Rotterdam, 10 tons chemical fibre. C. B. Richard & Co., Island, Stettin, 30 tons chemical fibre. C. B. Richard & Co., Hekia, Stettin, 60 tons chemical fibre. Burgass & Co., Slavonia, Stettin, 93 bs. rags. Lewy Brothers, by same, 171 bs. rags. John H. Lyon & Co., by same, 30 tons chemical fibre. R. H. Overton, by same, 12 tons chemical fibre. A. Wertheim & Co., by same, 305 tons chemical fibre.

Paper. Vernon Brothers & Co., Wyoming, Liverpool, 19 cs. Merchants' Dispatch Company, Rhyndland, Antwerp, 16 cs. Henry Griffin & Son, by same, 9 cs. James E. Ward & Co., by same, 5 cs. L. De Jonge & Co., Geiert, Hamburg, 22 cs. Hensel, Bruckman & L., by same, 3 cs. G. W. Sheldon & Co., by same, 5 cs. Williams & Rankin, by same, 14 cs. E. & H. T. Anthony & Co., by same, 11 cs. Willy Wallach, by same, 33 cs., 11 bs. Spencer & Chapin, by same, 11 bs. G. Gennert, by same, 7 cs. Dingtstedt & Co., by same, 5 cs. Keuffel & Esser, by same, 1 cs. Kaufmann & Son, by same, 2 cs. T. E. McAllister, Amalfi, Hamburg, 2 cs. Davis Brothers, by same, 7 cs. Dingtstedt & Co., Adriatic, Liverpool, 14 cs. C. L. Nevius, by same, 7 bs. C. H. George, La Bourgoigne, Havre, 1 cs. hangings. W. S. Kimball & Co., by same, 14 cs. Nevius & Haviland, Umbria, Liverpool, 1 cs. hangings. C. H. George, by same, 2 cs. hangings. Herter Brothers, by same, 1 cs. hangings. F. Lowry & Co., France, London, 20 cs.

EXPORTS OF PAPER, &c., FROM NEW YORK FOR THE WEEK ENDED JULY 30, 1889.

BOOKS, to British Australasia, 6 cs.; to Central America, 1 cs.; to Glasgow, 2 cs.; to Hamburg, 6 cs.; to London, 15 cs.; to Liverpool, 44 cs.; to Argentine Republic, 1 cs.; to Brazil, 2 cs.; to British West Indies, 1 cs.; to British Guiana, 1 cs.; to Cuba, 2 cs.; to Havre, 19 cs.; to Japan, 5 cs.; to Mexico, 5 cs.; to New Zealand, 1 cs.; to San Domingo, 1 cs.; to United States of Colombia, 1 cs. PAPER, to Argentine Republic, 4 cs.; to Antwerp, 17 bbls.; to Brazil, 600 rms.; to British Australasia, 4 pks., 11 cs.; to Cuba, 485 pks., 18 cs.; to Chili, 9 cs.; to Hull, 11 pks.; to Hamburg, 73 cs.; to Havre, 3 cs., 25 rolls; to Mexico, 113 pks.; to San Domingo, 16 pks.; to British West Indies, 745 rms., 82 pks.; to Berlin, 1 cs.; to Canada, 1 cs.; to Central America, 8 pks.; to Glasgow, 3 pks.; to Liverpool, 2 cs.; to Mexico, 14 pks.; to Vienna, 7 bs.; to United States of Colombia, 162 pks. STATIONERY, to British West Indies, 1 cs.; to Belfast, 1 cs.; to Bremen, 3 cs.; to Central America, 2 cs.; to Ecuador, 8 cs.; to Hamburg, 26 cs.; to Liverpool, 4 cs.; to Mexico, 15 cs.; to British Australasia, 23 cs.; to China, 1 cs.; to Copenhagen, 1 cs.; to Havre, 37 cs.; to Japan, 113 cs.; to London, 30 cs.; to San Domingo, 2 cs.; to United States of Colombia, 22 cs.; to Cuba, 24 cs.

AGGREGATES AND VALUES.

Table with columns: Paper, reams, Paper, pks., Paper, cases, Books, cases, Stationery, cases, Rosin, bbls., Totals.

Exports General Merchandise for the week ended July 30, 1889. \$5,893,720

BOSTON IMPORTS.

FROM JULY 25 TO JULY 31, 1889, INCLUSIVE.

Books. W. J. Bartlett & Co., Virginian, Liverpool, 1 cs. Little, Brown & Co., by same, 2 cs. Wellesley College, by same, 1 cs. Paper, &c. A. H. Roffe & Co., Virginian, Liverpool, 5 bs. periodicals. Louis Wolf & Co., Colorado, Hull, 60 cs. albums. Thorp & Adams Manufacturing Company, by same, 41 cs. albums. Hooper, Lewis & Co., Mareca, Antwerp, 4 cs. paper, 1 cs. playing cards. Paper Stock. George N. True, Virginian, Liverpool, 56 bs. paper stock. Horace Dutton & Co., by same, 127 coils manillas. T. F. Ring, Colorado, Hull, 100 bs. manillas. Horace Dutton & Co., by same, 216 bs. manillas. Hollingsworth & Whitney Company, by same, 100 bs. manillas. Crocker, Burbank & Co., by same, 152 bs. paper stock. W. A. Castle, by same, 37 bs. rags. Stephen Lee, Mareca, Antwerp, 52 bs. rags. Train, Smith & Co., by same, 90 bs. rags, 65 bs. paper stock. W. A. Castle, by same, 202 bs. paper stock. Horace Dutton & Co., by same, 141 bs. rags, 79 bs. manillas. Delong & Seaman, by same, 82 bs. paper stock. W. F. Corne, by same, 9 bs. rags.

Wood Pulp. Perkins, Goodwin & Co., Mareca, Antwerp, 1,200 bs. Felix Salomon, Colorado, Hull, 1,000 bs. Bleaching Powders. Mason, Chapin & Co., Virginian, Liverpool, 343 cks. Linder & Meyer, by same, 127 cks. Train, Smith & Co., by same, 79 cks. E. & F. King & Co., by same, 93 cks. Soda Ash. Morey & Co., Virginian, Liverpool, 95 cks. Linder & Meyer, by same, 128 cks. and 480 bags. Soda Crystals. E. & F. King & Co., Virginian, Liverpool, 286 bbls. and 400 kegs. Rosin. E. E. Clark, Gate City, Savannah, 300 bbls. E. E. Clark, D. H. Miller, Baltimore, 129 bbls. E. E. Clark, Dorchester, Baltimore, 473 bbls.

PHILADELPHIA IMPORTS. FOR THE WEEK ENDED JULY 27, 1889. Books. Philadelphia Library Company, Lord Clive, Liverpool, 2 cs. T. & J. W. Johnson & Co., by same, 1 cs. Paper. M. Thanhausen, Norma, Hamburg, 20 cs. J. B. Lippincott Company, Lord Clive, Liverpool, 3 cs. Paper Stock. Moore & Co., Norma, Hamburg, 366 bs. rags. Brown Brothers & Co., Lord Clive, Liverpool, 12 bs. waste. Caustic Soda. Order, Lord Clive, Liverpool, 30 bbls. Soda Crystals. Order, Lord Clive, Liverpool, 26 bbls.

TRAIN, SMITH & CO., IMPORTERS OF AND DEALERS IN ALL DESCRIPTIONS OF Paper Makers' Supplies, 24 FEDERAL STREET, BOSTON. BRANCH OFFICES: 36 BEEKMAN STREET, NEW YORK. 21 ST. MARY AXE, E. C., LONDON. EDMUND ST. CHAMBERS, LIVERPOOL.

WM. J. CORBETT & CO., Successors to BARLOW & CO., WHOLESALE DEALERS IN AND PACKERS OF Woolen Rags and Paper Makers' Supplies, 237 and 239 SOUTH STREET, and 66 and 68 UTICA STREET, THE OLD MANH, BOSTON, MASS. WOOLEN RAGS GRADED IN COLORS AND QUALITY.

STEPHEN LEE, SPRINGFIELD, MASS., IMPORTER OF AND DEALER IN Paper-Makers' Supplies.

F. BREDT & CO., No. 194 Fulton Street, SOLE AGENTS FOR New York City, U. S. A. JOSEPH PORRITT & SONS' ENGLISH FELTINGS. SOLE IMPORTERS OF MARINE BLUE (Aniline) for Newspaper Mills. Jacketing, Roll Cloth, Double Extra Canvass, Ultramarine Blue. ESTABLISHED 1855.

DARMSTADT & SCOTT, IMPORTERS AND PACKERS OF PAPER STOCK. Offices: 21 and 23 Centre Street; Packing House: 312 Water Street, New York. SPECIAL ATTENTION CALLED TO OUR OWN PACKING.

WOOD PULP, Chemical and Mechanical, IMPORTED BY A. WERTHEIM & CO., Times Building, Rooms 110 and 111, New York. GRIFFIN & LITTLE, PAPER MILL CHEMISTS, Office and Laboratory: 103 Milk Street, Boston. SPECIAL ATTENTION GIVEN TO ALL CHEMICAL WORK RELATING TO THE MANUFACTURE OF PAPER. YEARLY Contracts at Low Figures made with Pulp and Paper Mills for CHEMICAL ADVICE and ANALYTICAL WORK. NEW PROCESSES INVESTIGATED. EXPERTS IN THE SULPHITE PROCESSES. We are prepared to furnish Drawings for all apparatus peculiar to the process, and to take charge of new Mills at time of starting.

THE OLD RELIABLE Heald & Sisco Centrifugal Pump. MORE OF THEM USED BY PAPER MAKERS THAN OF ALL OTHER KINDS COMBINED. More than Fourteen Thousand in Use. CAUTION!—Other pump makers are advertising their wares as the "Baldwinsville" Centrifugal Pump. This claim is fraudulent and intended to deceive. We are the only manufacturers of Centrifugal Pumps in Baldwinsville, and we warn all purchasers against parties falsely claiming otherwise. MORRIS MACHINE WORKS (formerly Heald & Morris), Baldwinsville, N. Y., U. S. A.

The Paper Trade Journal.

DEVOTED EXCLUSIVELY TO THE INTERESTS OF

The American Paper Trade.
Weekly, \$4.00 per Annum.

Single Copies, 10 Cents

HOWARD LOCKWOOD & CO.,
Publishers.

HOWARD LOCKWOOD. WILLIAM F. HAMILTON.

NEW YORK: SATURDAY, AUGUST 3, 1889.

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.

Advertisements cannot be received for insertion in the current week later than 9 A. M. on Friday. The charge for advertising is 25 cents a line, each insertion. The rates for standing and displayed advertisements to be had on application. Card in Directory Column and was copy of paper, \$15 a year.

Subscription per annum and postage for Great Britain. 4s
Subscription and postage for France, per annum. 25 francs
Subscription and postage for Germany, per annum. 24 reichsmark
Foreign subscribers may address our New York office.

Payment for subscriptions or advertising may be made by express money-order, draft, post-office order or registered letter.

All communications must be addressed to
HOWARD LOCKWOOD & CO.,
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126 and 128 Duane Street, N. Y.

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Western Office—FREDERICK E. LYSTER, General Manager, 114 LA SALLE ST., CHICAGO, ILL.

Boston Office—A. L. DELANEY, General Manager, 49 FEDERAL ST., BOSTON, MASS.

LOCKWOOD PRESS PUBLICATIONS:

	PER YEAR.	PRICE.
Paper Trade Journal, Every Saturday,		\$4.00
American Stationer, " Thursday,		2.00
American Bookmaker, Monthly,		2.00
American Mail and Export Journal, Monthly,		3.00
Lockwood's Directory of the Paper and Stationery Trades, Annually,		2.00
All Pioneer Publications.		

HOWARD LOCKWOOD & CO.,
126 & 128 DUANE ST., NEW YORK.

WE illustrate and describe in this issue a new digester, which is said to present superior advantages in the method of affixing the leaden lining. It is claimed that by the construction described the lining cannot creep or bulge.

IN connection with the proceedings of the American Paper Manufacturers' Association, THE JOURNAL presents portraits, specially engraved for the purpose, of the various presidents and invited guests of the association.

READERS of THE JOURNAL will find a complete report of the proceedings of the American Paper Manufacturers' Association, both at the banquet and business meeting, in this issue. The Tuesday evening programme was successfully carried out, and the thoughtful utterances of speakers at the banquet and on the subsequent day will command respect and attention. These need no elaboration from us.

THE storm, or rather succession of storms, which has prevailed during the past week has flooded large sections of country, carrying away a number of dams, but in only one instance, so far as we have been yet informed, doing serious injury to a paper mill. There has been considerable damage done to other property and some loss of life, but without the extreme and terrible features of the floods of sixty days ago.

LOCKWOOD'S Directory of the Paper and Stationery Trades for 1889-90 has been a little delayed in publication, but is now ready for delivery. Orders for this work should be sent in early, and will be filled according to the date of their receipt.

THIS issue of Lockwood's Directory has been made as complete as possible, the data being carried down to the latest possible moment. In its usual summary of changes in mills and firms during the year we are told that the total number of mills in the paper making interest in the United States and Canada is 1,123, an increase of forty-three over last year, there

being thirty-one more mills in operation than were reported at the same date a year ago.

REFERENCE is made to the great changes in equipment made with the twofold purpose of increasing production and economizing in manufacture. This is a noteworthy feature, and it shows that the paper manufacturers of North America are alive to the importance of meeting the demands of the day in regard to supplies, and the quality as well as cheapness of their product. Twenty-six mills are reported to be under construction, and to this number we might add several which have been projected and for which the preliminary work has been undertaken since Lockwood's Directory went to press. This publication, besides being a valuable guide to paper mills, contains within its covers, the announcements of numerous firms dealing in paper and paper making material and appliances. It also affords an interesting study of one of the most important industries of the country, and therefore is one of the most valuable business compendiums before the public.

IT is quite usual at this time of the year for trade to be quiet, and there are many people who are disposed at the least sign of abatement in demand to take the most extreme view of the business situation and pronounce it to be of the worst. We find, therefore, some who assert that trade in the metropolis is exceptionally dull, although they do not state the basis of their comparison. Contrasted with seasons of greatest activity, it must be conceded that there is considerable difference in the movement of goods and that the demands of buyers are comparatively light; but we have seen worse seasons for business, and we have known many which were much better. If conditions have changed or are changing the readjustment recently spoken of is going on, and commerce and manufacture must accommodate themselves to it with as little friction as possible. But against this feeling of dullness what is there to offer or look forward to? Prospects for fall trade appear to be more than encouraging; anticipation for the future seems to be bright in every quarter. Crops are abundant, money is plentiful and cheap, confidence is well sustained and consumption is increasing. Merchants ought not to be scared because the business of one season—that of last spring, when many difficulties intervened—was not up to reasonable anticipations. If goods, prices and enterprise in placing wares before the public are properly balanced and the wants of consumers are fairly met, the last half of the year ought to show satisfactory results and bring the twelvemonth's business up to a fair average, if not in advance of former experiences.

SOME of the Western newspapers seem to be trying to stir up jealousy and bitterness because of the movement to hold a world's exposition at New York in 1892. This is all wrong. The question of locality for such an important undertaking is not a matter of sectional or personal importance, but of fitness. If there are superior reasons why the exhibition should be held in any other part of the country, whether at the apex of the Rocky Mountains or in the remotest desert of the Southwest, such reasons ought to prevail, and there can be no occasion for New York, Chicago or any other city to put in a claim for selection, except that such a city presents advantages which exceed those which others possess and which are best calculated to make the exhibition a success. This is, we conceive, the view which will be taken of this important undertaking by all level headed men of business. It will, undoubtedly, be pleasant for many, particularly for those who delight to expend their energies in promoting great enterprises and whose feelings of local pride are easily excited, to engage in it, but every interest must be subordinated to the questions of eligibility and undoubted success.

THE celebration of the four hundredth anniversary of the discovery of America, therefore, calls for the consideration of circumstances most likely to yield the best practical results and evoke the most complete participation. It is evident that New York enterprise is abundantly able to carry it through, and it would seem from the turn which matters have been taking that it is almost a *sine qua non*

that the exhibition shall be held at the chief seaport and most important business centre of the country. The effort to make Chicago the chosen point is not discreditable to those who favor the selection of that city, but even admitting the force of all the arguments urged in that interest—the more central location as to population, the energy and enterprise of the people and all of the facilities of space and communication—we can still see that Chicago falls far short of meeting the requirements as compared with New York. The transshipment of goods for exhibition, rendered necessary by the location of a remote interior point, may be a strong argument to enlist the support of the railway companies which are likely to profit therefrom, but is not calculated to promote the success of the exhibition. There is ample room within the limits of the city of New York for an exposition of the greatest probable magnitude. The facilities for transferring goods are or can be made ample, and there are available localities at which exhibits can be unloaded almost directly from the ships which bring them to our shores into the exhibition buildings. There ought to be no question that an exhibition held in New York will prove more attractive to the people of other countries. The resources of this city as to accommodations for visitors far exceed those of any other place and this is an important item to take into account. It may be assumed, therefore, that the gentlemen now engaged in the work of organization here will go steadily forward, and as it has already been arranged to secure the co-operation of all of our varied commercial and industrial interests, the paper and stationery trades will be called upon to do their part and provide representation. An important duty is involved in this selection, and we trust that the trades mentioned will choose energetic representatives, men whose ambition will compass all of the resources of their constituencies and not be confined by personal and private interests.

Watermarks.

BY DANDY.

Now we shall probably be regaled with all sorts of incidents and coincident anent the symposium, et cetera, at Saratoga. Well, let 'em come.

I wish to remark that had I been managing the affair I should have had the banquet after the business meeting, thus keeping up the order of things, viz., (1) a feast of reason and (2) a flow of soul.

Perhaps, too, the members of the association would have felt better inclined to attend to business. Yet it may not be correct to insinuate that some of them wore larger hats on Wednesday morning.

It has been hinted to me that the dinner or banquet was conducted on the temperance plan. If this is true the hat sizes must have been changed outside of the dining room.

Wetness has been no name for the weather during the past week. And as if it wasn't enough for the skies to give their outpour, the temperature was such as to open every other pore, and so poor humanity, to be in the fashion, helped along the rainy procession.

It seems to be quite a little remarkable that with the astonishing downfall of water and the wreck of dams, only one paper mill has been so far reported as being injured. We must remember the "bow of promise."

I observe that some of the Western newspapers are getting extremely excited over the prospect of holding the 1892 exhibition in New York. They even suggest a sectional combination of Congressmen to prevent any Government aid to the exhibition in case it is held here. This is puerile.

Does it not occur to these hotheads that there is such a thing as *lex talionis* and that what one can do another may perform. It would be ridiculous vengeance in any case and I hope for the honor and dignity of all of our commonwealths that such vaporings will be shut off and that courtesy will prevail. We all want a successful international exhibition, no matter where located.

Trade Talks.

August Kaindler, of Everling & Kaindler, Paris, France—I have started the works of the Maritime Sulphite Fibre Company, at Chatham, New Brunswick, Canada. These works use the Ritter-Kellner process, and

were constructed on plans furnished by me. They were built four years ago, but were destroyed by fire, and the interruption thus caused deferred their completion until this summer. At this mill the sulphurous acid is produced by burning pyrites brought from Newfoundland, and the burning is done in special furnaces such as are used in England and France. This is so well burned that no more than 1 per cent. of sulphur is lost. The sulphurous gases are conducted by lead pipes directly to the towers charged with ordinary limestone; these towers are 50 feet high, and the draft is given by the chimney of the mill with a regulator. No pump and no machinery is used for the production of the solution or for forcing the gases through the towers. The starting of the chemical apparatus was made without difficulty. The solution has been produced with great regularity and without any change, everything being perfectly studied and in place.

The digesters are fixed and vertical, with manometer and thermometer close at hand, so that the workman can direct his operations without trouble and by looking only at the apparatus. It is very true that the cooking of the wood is due only to the temperature, and that the pressure is always against this cooking. With sulphurous acid in solution with lime or magnesia the pressure at the digester is very high for a time after the steam valves are opened. This is due to the expansion of the gases, and also to the condensation of the steam, which fills the digester. For this reason in many processes—or, better, say in all processes—it is necessary to let the gases escape after two or three hours of steaming, so as to give place to the steam and to secure the temperature needed. But the pulp maker is very often mistaken if he does not know when he must let the gases escape and the quantity of gas to be released, and also if he does not know the temperature at the digester, as he then works only by approximation or guess and is never sure of having the same kind of pulp. This is one of the defects of all rotary digesters, in which also the pulp made cannot be as strong as that made in fixed digesters. It is very necessary to be careful as to the escape of the gases, and at Chatham all of the gases are recovered and not lost, but are used again for making a new solution. The digesters are emptied into tanks under pressure. These tanks have false bottoms and the first washing is made in them, which makes the pulp as white as snow. A special pump (employed by me for this purpose), and working without valves at a very slow speed, sends the pulp to the cylinder washers, and from there to Kaindler's cleaning apparatus for taking off the knots, sand, lime and all impurities contained in the pulp; thence the pulp goes to the machine. This mill is certainly the best mill in Canada.

Changes, Removals and New Firms.

Charles A. Bates, printer, Indianapolis, Ind., has sold out.

J. H. Drake, publisher, Aberdeen, Dak. Ter., has sold out.

H. L. Pitts & Co., printers, Richmond, Va., have dissolved partnership.

J. K. Calkins & Co., publishers, Lusk, Wyo. Ter., have dissolved partnership.

Townsend & Simpson, stationers, Norfolk, Va., have dissolved partnership.

Lucien Lord, stationer and fancy goods dealer, Athol, Mass., has sold out.

W. C. Martindale, bookseller and stationer, Madison, Kan., has sold out.

Stokey & Summers, publishers, Shellsburgh, Ia., have dissolved partnership.

T. S. Wilson, Jackson, Miss., will publish a paper to be called the *Commonwealth*.

E. Rische & Son, stationers, &c., San Antonio, Tex., have dissolved partnership.

Edson & Morrison, newsdealers, &c., San Diego, Cal., have dissolved partnership.

H. W. Story, printer, Guthrie Centre, Ia., has been succeeded by Story & Thompson.

D. W. Whiting has begun the publication of a paper called the *News*, at Alexandria, Va.

Farris, Smith & Co., printers and publishers, St. Louis, Mo., have dissolved partnership.

E. R. Freeman is now the sole proprietor of the E. R. Freeman Wall Paper Company, Nashville, Tenn.

M. A. Keroack, bookseller and stationer, St. Boniface, Man., has opened a branch store at Winnipeg.

A paper to be called the *Herald* will be published by Archibald Pool, W. M. Smith and others at Mayfield, Ky.

The Buena Vista Pulp and Paper Company, Buena Vista, Va., has been organized with a capital of \$80,000.

The name of the Carson & Brown Company (incorporated), Dalton, Mass., has been changed to the Old Berkshire Mills Company.

Duprat & Co., booksellers, &c., New York,

have been succeeded by Felicie Duprat, who will continue the business under the same style.

The News Publishing Company, of Mobile, Ala., has been organized, with W. W. Harris as president and John J. Dunn secretary. It will publish an afternoon paper.

Failures.

Merrill & McIntire, booksellers and stationers, Salem, Mass., have made an assignment.

Irwin E. Lilly, dealer in paper hangings, South Bethlehem, Pa., is in the hands of the sheriff.

Emma L. Estes and Charles H. Provost, composing the firm of Estes & Provost, doing business as the American Wall Paper Mills, whose factory was at 128 Pearl street, Brooklyn, with retail stores at 461 Fulton street, Brooklyn, and 344 Bowery, New York, made an assignment on August 1 to Joseph H. Porter. The business was started by Mrs. Estes in 1886, with a claimed capital of \$20,000, which she afterward increased to \$33,000, Mr. Provost becoming a partner in July, 1887. Their machinery and plant, it is said, cost \$20,000, and they purchased most of their material from one house in New York.

A statement of the Richmond Paper Company, Providence, R. I., shows the condition six months ago as follows:

ASSETS.	
Real estate as last taxed.	\$305,000
Machinery at cost.	351,000
Quick assets or merchandise on hand.	151,000
Accounts and notes receivable.	77,000
Total.	\$884,000
LIABILITIES.	
First mortgage notes.	\$187,000
Second mortgage notes.	234,000
Notes payable.	2,000
Outstanding bills.	45,000
Total.	\$668,000

According to the mercantile agencies the credit of the company during the present year has been waning, it being understood by those best posted that its chances of working out were doubtful. At the meeting of stockholders held on Friday of last week, after listening to the report of the company's affairs presented by Arnold B. Chace, of the executive committee of the board of directors, which inclined to the opinion that it would not be advisable for the concern to go on, the matter was talked over, and finally it was decided to authorize the directors to do what they thought best, either to run the mill or to sell or lease it. It was ascertained after the meeting that the concern owes only \$25,000 over and above its old indebtedness of \$385,000, which existed before the last reorganization. The policy to be pursued with reference to the property has not been decided upon.

Fires.

J. F. Holland, stationer and fancy goods dealer, Holland, Man., has been burned out. Partly insured.

The Hastings, Neb., *Gazette-Journal* plant, recently purchased by ex-Public Printer S. P. Rounds, of Omaha was burned on July 30. Loss on buildings, \$5,000; insurance, \$15,000. Loss on stock, \$25,000; insurance, \$15,000. Other losses aggregate \$7,000; insured for \$4,000.

American Paper Manufacturers' Association.

MEMORIAL RESOLUTIONS.

The committee appointed to draft resolutions of condolence in memory of deceased members met after the adjournment of the association and adopted the following:

It is with profound sorrow that the American Paper Manufacturers' Association learn of the death during the last year of the following members of the trade and association:

Stoughton Petebone, Niagara Falls, N. Y.
Calvin L. Hawes, Dayton, Ohio.
Theodore Megargee, Philadelphia, Pa.
Royal M. Pulsifer, Boston, Mass.
Edward Mill, Cleveland, Ohio.
George H. Friend, Lockland, Ohio.
F. W. Bidwell, Chicago, Ill.
Moses W. Field, Detroit, Mich.
Eliuz Smith, Lee, Mass.
D. H. Clutch, Franklin, Ohio.
Wm. H. Chatfield, Cincinnati, Ohio.
William W. Harding, Philadelphia, Pa.
Cornelius Perry, New York.
M. B. Carpenter, Brooklyn, N. Y.

Whereas, It is fitting and eminently proper that the association should at this time express its sense of loss; therefore be it

Resolved, That the association will ever cherish the memory of those who by their many manly qualities, high sense of honor and sterling integrity have endeared themselves to the paper fraternity;

Resolved, That we tender our sincere sympathy to the families and friends of the deceased;

Resolved, That these resolutions be spread on the records of the association and a copy be sent to their respective families.

W. R. SHEPHERD, }
C. M. CLAPP, } Committee.
O. S. GREENLEAF, }

Association Notes.

Byron Weston, R. M. Fairfield and O. Greenleaf were on their way to Saratoga to attend the banquet last Tuesday evening, but were detained by a washout at Becket, Mass.

Among the paper, paper stock and machinery men other than manufacturers who attended the banquet and convention were George F. Perkins, of Perkins, Goodwin & Co.; James Pirnie, of E. Butterworth & Co.; H. T. Bartow, of Perkins, Goodwin & Co.; J. C. Brocklebank, Chicago representative of the Manufacturers Paper Company; W. H. Parsons, Jr., of W. H. Parsons & Co.; E. L. Munn, cashier Home National Bank, Holyoke, Mass.; J. B. Kelly, Mason, Chapin & Co., Boston, Mass.; F. H. Bendig, Harrison Brothers & Co., Philadelphia, Pa.; Charles H. Dobilinski, Pennsylvania Salt Manufacturing Company, Philadelphia, Pa.; George Nightingale, Holyoke, Mass.; John C. Whiteford, Wabash Manufacturing Company, Chicago, Ill.; J. Q. Preble, J. Q. Preble & Co., New York; H. M. Robertson, William T. Porter and William L. Scott, J. Morton Poole Company, Wilmington, Del.; J. H. McCormick, F. Bredt & Co., New York; Thomas H. Savery, Pusey & Jones Company, Wilmington, Del.; E. Morrison, Washington, D. C.; C. A. Cheney, Boston; H. J. Frink, Holyoke Machine Company, Holyoke, Mass.; Edward Conley, Morey & Co., Boston, Mass.; Ashley Bemis Tower, Holyoke, Mass.; Martin N. Nixon, United States Chemical Company, Philadelphia, Pa.; S. M. Hunt, E. B. Hunt & Co., Pittsfield, Mass.; E. H. Haskell, Boston, Mass.; John J. Manning, New York; J. R. Sargeant, Sargeant Brothers, New York; Felix Salomon, New York; Dr. W. H. Manning, Anderson Knife and Bar Works, Anderson, Ind.; F. A. Brooks, Stilwell & Bierce Manufacturing Company, Dayton, Ohio; Captain Wilson, Wilson & Hughes Stone Company, Cleveland, Ohio; D. S. Walton, of D. S. Walton & Co., New York; Charles S. Barton, Rice, Barton & Fales Machine and Iron Company, Worcester, Mass.; E. H. Sterns, Sterns Paper Company, Holyoke, Mass.; E. R. Bulkley, Bulkley, Ward & Co., Philadelphia, Pa., and J. K. Marshall, Boston, Mass.

The Chemical Fibre Association held a meeting at the Grand Union Hotel, Saratoga, N. Y., on Wednesday evening last. There was a full representation, but no business of importance was transacted.

F. G. Pierra, secretary of the Spanish American Commercial Union, gave a dinner on Wednesday evening to a number of paper makers, &c. The dinner was a handsome one. The menu cards were neatly embossed and printed, each containing the name of the guest. Among those present were Byron Weston, Howard Lockwood, E. C. Rogers, W. H. Parsons, William Whiting and W. R. Sheffield.

Manufacturing News.

EASTERN STATES. A sulphite fibre mill is to be built at Lisbon Falls, Me., from plans to be furnished by August Kaandler, the French engineer.

MIDDLE STATES. At an early hour on Wednesday morning, July 31, the dam at Seeley's paper mills, which are located just above Scotch Plains, N. J., collapsed, and every vestige of one of the largest paper manufacturing in New Jersey was soon washed away. The heavy mill machinery was swept down Green Brook, together with all the mill property. Mr. Seeley estimates his loss at \$60,000. He has twice before been reduced to poverty by a disaster of this nature, and will make no attempt to rebuild.

The Schuylkill River attained its greatest height in twenty years on Thursday last. The industrial establishments at Manayunk, Pa., were obliged to shut down, and the paper mills at that point were flooded. No reports of special damage have been received.

The Megargee Paper Company, of Philadelphia, Pa., has ordered a Marshall perfecting engine from the Marshall Engine Company, Turner's Falls, Mass.

SOUTHERN STATES. A paper mill is to be built at Buena Vista, Va., by the Buena Vista Pulp and Paper Company.

Works for the manufacture of soda in its various forms by a newly patented process are to be built at an early day near Brandenburg, Ky., where there is said to be abundant material. It is claimed that by this process soda ash, caustic soda and other products can be sold at a lower price, and that duty and cost of freight from Europe to the interior can be saved.

CANADA.

The new sulphite fibre mill of the Maritime Chemical Pulp Company, Chatham,

N. B., has been started up and is producing a nice fibre. The mill is H shaped, occupying a space of about 290 by 300 feet. The wood preparing department is in one arm of the building, the digester room being the central transverse portion. A 300 horse power engine gives power by rope transmission. The other portion of the building contains the washing engines and the wet machine. The steam boilers and chemical apparatus are located in rear of the digester room. All parts of the mill are effectively lighted.

A mammoth cutter, built by George H. Sanborn & Sons, New York, is in use at Byron Weston's new mill, Dalton, Mass. This cutter is not only remarkable for its size and capacity, but also for the accuracy with which it does its work. This reflects great credit on its manufacturers, as the following letter will show:

DALTON, MASS., March 6, 1889. Messrs. Geo. H. Sanborn & Sons, 69 Beekman Street, New York:

GENTLEMEN:—In reply to your inquiry, would say that the 64 inch mammoth "Star" cutting machine you built for me six months ago for my new mill works to my entire satisfaction and is the strongest, most rapid and powerful cutter I ever saw. My reputation for accuracy in trimming is perfectly sustained by the use of this machine. I purchased the "Star" especially for trimming my Double Elephant, Antiquarian and Emperor sizes, and I understand it is the largest cutting machine in the United States, if not in the world. Yours truly, BYRON WESTON.

General Notes.

The will of John P. Morton, the publisher, just admitted to probate at Louisville, Ky., leaves \$40,000 to the church, home and infirmary there which bear his name, and \$10,000 as a nucleus for the construction and equipment of buildings at the Orphanage of the Good Shepherd, suitable for giving mechanical training and education.

SPECIAL NOTICES.

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

THOS. BUTLER & CO., Rags, Paper Stock, Old Metals, Rubber, 249-253 CAUSEWAY ST., BOSTON, MASS.

CARPENTER & BARTLETT, Cotton and Woolen Rags, Paper Stock, Old Metals and Rubber, No. 190 FRONT STREET, HARTFORD, CONN.

JAMES SAVAGE, JR., Rags, Paper Stock, Rubber, &c., &c., 530 to 536 WEST 53RD ST., NEW YORK.

Market Review.

OFFICE OF THE PAPER TRADE JOURNAL, FRIDAY, AUGUST 2, 1889. THE MONEY MARKET.—The stock market is dull and irregular. The money market was steady, call loans on stock collateral ruling at 2@3 per cent. Time loaning rates were unchanged. Commercial paper is dull and quoted as follows:

Table with columns for Double named, Sixty days, Four months, and Single named, with corresponding rates.

The market for sterling was inactive. Bankers asked rather higher rates, but no business resulted. Posted rates closed at \$4.86 for sixty days' and \$4.88 for demand. Rates for actual business were as follows: Sixty days' sight, \$4.85 1/2; demand, \$4.87 1/2; cables, \$4.88; commercial, \$4.83 1/2 @ \$4.84. Continental bills were quoted as follows: France, 5.18 1/2 and 5.15 1/2; reichsmarks, 95 and 95 1/2; guilders, 40 1/2 @ 40 1/4 and 40 1/2. Government bonds were quiet and steady. Railroad bonds were firm.

THE PAPER TRADE.—The annual meeting of the American Paper Makers' Association was held at Saratoga Springs, N. Y., on Thursday of this week, a banquet being given the evening preceding. The attendance was larger than usual and the events were enjoyable. There is little new in trade. There is considerable complaint as to light demand and small margins, both among the mills and dealers. Writings are in fair movement and prices are steady. In Book the demand has not increased and prices are same as last week. Mills having large contracts for News are busy, but some machines are still idle. Manillas are unchanged. There is still a good trade in Strawboard, buyers taking advantage of the present low prices.

JUTE BUTTS.—The volume of business is small, but prices are steady. We note sale 250 bales at 1.70c. The general quotation, however, is 1 1/4c. The statistical position, as given in the August circular of Cabot, Ray & Co., is as follows: Imported to the United States, 1886, 408,659 bs.; 1887, 348,524 bs.; 1888, 457,884 bs. Consumed in the United States, 1886, 434,259 bs.; 1887, 376,424 bs.; 1888, 389,684 bs. Stock on hand, New York and Boston, 70,700 bs. Imported, New York and Boston, since January 1, 1889, 327,802 bs.; 1888, 405,041 bs.; 1887, 277,758 bs. Stock, New York and Boston, August 1, 1889, 15,200 bs.; 1888, 85,400 bs.; 1887, 12,

720 bs. On passage for United States, June 29, and by cable August 1, 1889, 66,805 bs., 1888, 51,400 bs.; 1887, 60,205 bs. Visible supply to December 1, 218,805 bs.; 1888, 136,800 bs.; 1887, 72,925 bs. Consumption since January 1, 1889, 246,502 bs.; 1888, 322,181 bs.; 1887, 295,438 bs. Delivered to consumers past 30 days, 29,058 bs.; 1888, 6,400 bs.; 1887, 27,595 bs. The same circular says: "The arrivals past month have been 24,158 bales, including 9,100 bales at Boston. These have been almost entirely bagging and mixing quality and have been delivered to consumers on previous contracts. The deliveries from store of paper qualities have been moderate. We quote market dull at 1.70 to 1 1/4c. for paper and 2 to 2 1/2c. for mixing and bagging qualities. Shipments from Calcutta for July are only 1,000 bales"

WOOD PULP.—There is no change in the market. No foreign ground pulp has come to hand, and domestic grades still rule the roost.

WOOD FIBRE.—The demand is not as active as it has been, but there are no important accumulations of stock, so far as domestic manufactures are concerned. The association price for Bleached is still 3 1/4c. Domestic Sulphite is offered in this market at 3 1/4c. Foreign grades are quoted as follows: Unbleached Pine, soda process, 3@3.30c.; Bleached, same process, 3 1/2 @ 4.15c.; Unbleached, sulphite process, 3 1/2 @ 3 3/4c., and Bleached do., 4 1/4 @ 5 1/4c.; Bleached Straw Pulp, 4 1/4 @ 4 1/2c. There were imported this week 672 tons chemical fibre—100 tons from Fiume, 125 tons from Hull, 10 tons from Rotterdam and 437 tons from Stettin.

FOREIGN RAGS AND PAPER STOCK.—There is considerable complaint still in the market as to business, and one hears all sorts of reports ranging from dull to fair. Imports for the week aggregated 4,872 bales and 672 tons chemical fibre, ports of shipment and quantities being: Fiume, 100 tons chemical fibre; Genoa, 427 bs. rags; Hamburg, 632 bs. manillas; Hull, 624 bs. rags, 125 tons chemical fibre, 719 bs. manillas; Leghorn, 396 bs. rags; Liverpool, 860 bs. rags, 62 bs. old papers; London, 355 bs. rags, 300 bs. old papers, 128 bs. manillas; Marseilles, 105 bs. manillas; Rotterdam, 10 tons chemical fibre; Stettin, 264 bs. rags, 437 tons chemical fibre.

DOMESTIC RAGS.—There is still a steady movement under contracts, but new business is not at all active. Old values rule and there are not material changes.

BAGGING, &c.—The demand for Manchester is light, but lower grades are moving in a fair way. The market for Manchester is 1.70@1 1/4c. Ropes and Threads are quiet. Manilla imports for the week aggregated 1,584 bales, being 632 bs. from Hamburg, 719 bs. from Hull, 128 bs. from London, 105 bs. from Marseilles.

OLD PAPERS.—There is a moderate business in course of transaction, and prices are steady. We quote: No. 1 Hard White Shavings, 3 1/2c.; No. 1 Soft White do., 2 1/2 @ 2 3/4c.; Old Ledgers, 2 1/2c.; Solid Printed Books, 1.60@1.65c.; Mixed Shavings, 1 1/2 @ 1 3/4c.; No. 1 Manillas, 1.60@1 1/2c.; Light Book Stock, 3/4 @ 7/7 1/2c.; Folded News, 75 @ 90c.; Commons, 55@65c.; Bogus Manillas, 60@90c.; Strawboard Clippings, 75c.; Binders' do., 65c.

STRAW.—The market rules steady on fair demands. We quote: No. 1 rye at 70 @ 75c.; short rye at 50@55c.; oat at 40@45c.

ROSINS.—The market is firm on moderate demands. We quote in lots from the yard: Common to Good Strained, \$1.30; E, \$1.45; F, \$1.55; G, \$1.65; H, \$1.75; I, \$2.10; K, \$2.20; M, \$2.35; N, \$2.50, and W. G., \$2.80.

CHEMICALS.—The market for paper makers' chemicals does not show any features of special interest. Prices are mainly steady. J. P. Brunner & Co., under date of 17th ult., say of the Liverpool market: "With the exception of Bleach there is not much moving in heavy chemicals at the present moment, but the market generally is steady. For Caustic Ash there is little inquiry, but for 48 per cent. Carb. Ash sales have been made at 31-32d., while most makers hold for an advance on this figure. We quote Caustic Ash, 48 per cent., 15-16 @ 1 1-32d.; high test, 31-32 @ 1 1-32d.; Carb. Ash, 48 per cent., 31-32 @ 1 1-32d.; high test, 31-32 @ 1 1-32d. Soda Crystals are scarcely so firm, and although £2 10s. @ 2 12s. 6d. are still nominal quotations the lower figure are being shaded in some cases for quantity. Caustic Soda is not active, but prices are fairly steady, 60 per cent. being held for £5 12s. 6d. @ 5 15s., and business has been done at this range. Seventy per cent. is quoted at £6 12s. 6d. @ 6 15s. by makers, but resale parcels could be picked up at a shade under the lower figure. For 74 per cent. £7 @ 7 2s. 6d. is asked, and a sale of 500 drums is reported for August delivery at the lower quotation; 76 per cent. is held at £8 @ 8 5s. Bleaching powder has been active, and a considerable business done at £6 10s. It is now very scarce for prompt delivery, and £7 is asked by holders, but this price has

not been paid except for small lots. Chlorate of potash is somewhat quieter, and 4 1/2 @ 5d. represent nearest spot values. Bicarb. soda continues in good demand at £4 12s. 6d. @ 15s. per ton for 1 cwt. kegs, according to brand and quantity, with usual allowances for larger packages." In the local market Caustic Soda Ash is still quiet. Refined alkali is in good request. Caustic Soda closed firm, as the stocks both here and in Boston are very light. Sal Soda is in small supply and prices are firm. Bleach has recovered very materially, and 1 1/4c. is the inside quotation for spot or early arrival, with 1.80@1.85c. asked in a small way. The demand, however, is light. During the week there have been sales of 15 cks. Bleach, spot, at 1 1/4c.; 200 cks. Bleach to arrive at 1 1/4c.; 100 tons 48 per cent. Soda Ash at 1.32 1/2c.; 250 bbls. Natrona Porous Alum at 2 1/2c.; 250 bbls. Pearl Alum at 2 1/2c.; 100 bbls. Ground Alum at 1.85c.; 150 bbls. Lump Alum at 1.75c.; 200 bbls. Keystone Alum at 1.37 1/2c.; 200 drums Caustic Soda at 2 1/2c.; 20 c. German Ultramarine at 17c.; 20 bbls. American Ultramarine at 12 1/2c.; 15 cks. Bichromate at 12c.; 200 bbls. Copperas at 70c.; 10 cks. German Orange Mineral at 9c.; 50 tons Alkali, 58 per cent., at 1.20c.; 20 tons Sal Soda, ex store, at 1c.; 10 cks. Brown Sugar of Lead at 8c.; 10 cks. Yellow Prussiate at 17 1/2c.

CHINA CLAY.—China Clay continues to sell fairly for the season, though buyers give the preference to the better grades, poorer qualities receiving little or no attention. Prices are steadily maintained on the basis of former quotations.

COAL.—The general tone of the Anthracite market reports is of dullness. At the same time the production is kept up at a pace that means plenty of coal at the time when it shall be needed. It will indeed be strange if we have no period of that buoyant activity which has been recorded to a greater or less extent in the past, for the fall trade naturally is the largest in volume, and prices are usually the firmest then. Our Chicago advices state that there is a fair amount of orders and of shipments, but they are nothing to what they should be. The trouble is that there is no confidence in the future, nothing to appeal to buyers. "The market needs toning up and the prospect of some definite policy by which the retail merchants can guide themselves. As it is, there is nothing to induce the public to exert themselves to lay in their coal for some time to come, and the dealer sees no great object in laying hold for several weeks." This delay or lack of confidence, or whatever it may be, will naturally cause a rush later on, if we are to do anything like last year's tonnage. The Western committee held its regular monthly meeting in Buffalo last week. There was some discussion as to an advance in the circular prices, but this was finally laid over for another occasion. The clearances at Buffalo last week footed 70,650 tons; there is no change in freight rates thence, and they may be quoted at 60 cents to Chicago, 40 cents to Saginaw, 50 cents to the Sault; 30 cents to Toledo, 50 cents to Milwaukee. The cut rate initiated by the P. R.R. on all rail coal will come before the Trunk Line Commission; after a lot of orders have been secured at the lower rates, the representatives of the several roads will promise not to do so any more. At New York there has been a remarkably quiet condition of affairs in the week since the date of our last edition; the dealers are fairly well supplied and do not care to enter upon any new contracts until they find that the purchases made some time since pass out of their hands more rapidly than has been the case. Philadelphia report is that trade continues dull; shipments East are less than previously reported; some orders have been received from the West; the local line and city trade is still in a stagnant condition, and there is heard considerable talk of shading in prices. St. Paul advices are that prices are being cut on hard coal to the extent of 25 cents a ton or more as occasion warrants.

EDWIN BUTTERWORTH & CO. MANCHESTER, ENGLAND. PACKERS OF ALL KINDS OF Paper Stock, Cotton Waste and Buffalo Slag, Wood Pulp, Moist and Air Dry Pulp, Soda and Ground Pulp. 83 GUNNY BAGGING, &c. OFFICE IN NEW YORK: Tract House, 150 Nassau Street, near Tribune Office. JAMES PIRNIE, Manager. CRATTY BROS. & ASHCRAFT, Lawyers, 189 Dearborn Street, CHICAGO, COMMERCIAL AND CORPORATION LAW. COLLECTORS & SPECIALTY. REFERENCES.—Western Wrapping Paper Mfg. Ass'n, CHICAGO; Chicago National Bank; Western News Co.; Bond, McNally & Co., New York; George Mather's Sons, BOSTON; Carter, Rice & Co.

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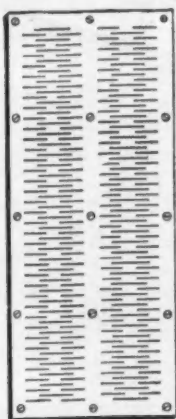
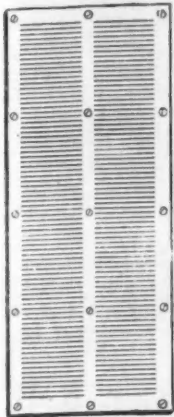
Table of market prices for various goods including Paper Market, English Rags, Alexandria Rags, Smyrna Rags, Russian Rags, Constantinople Rags, Japanese Rags, and Chemicals/Coloring Materials.

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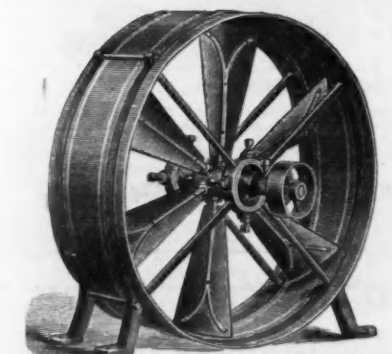


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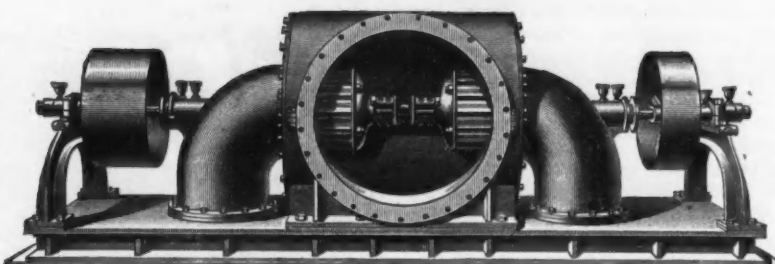
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within its edges, as my Patents cover that method.

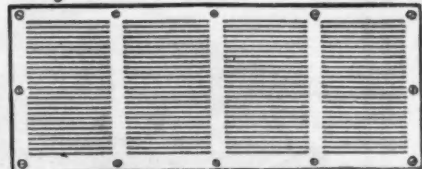
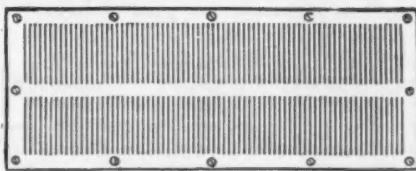
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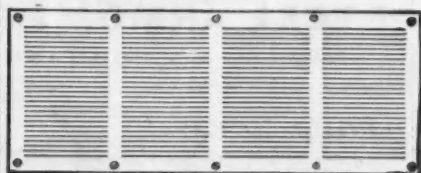
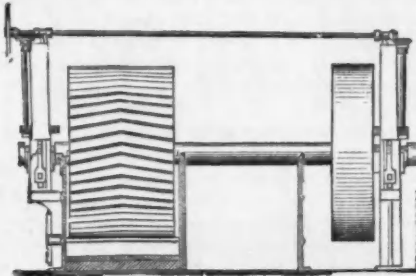
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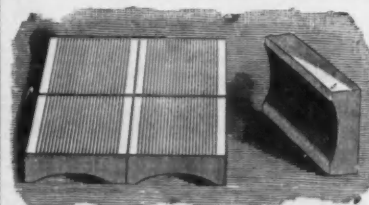
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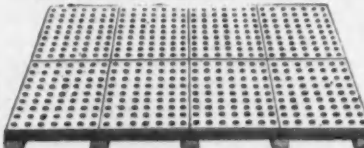
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WHEEL SIZE	HEAD IN FEET	HOSE POWER	PER CENT. OF USEFUL EFFICIENCY
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17 1/2 inch.	17.96	36.35	.8680
20 inch.	18.21	49.00	.8582
25 inch.	17.90	65.62	.8584
30 inch.	11.63	52.54	.8676

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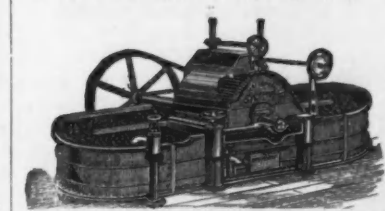
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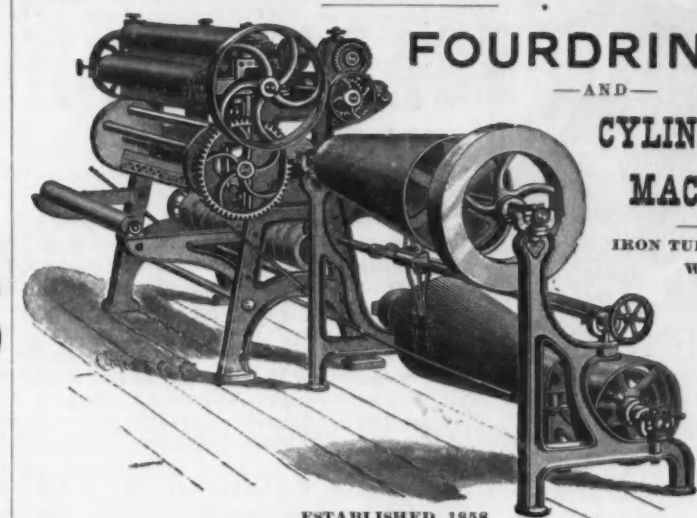
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(Continued from page 588.)

- John C. Newton, Chemical Paper Company, Holyoke, Mass.
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- Samuel P. Train, Train, Smith & Co., Boston, Mass.
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- K. B. Fullerton, Manufacturers Paper Company and Hudson River Pulp and Paper Company, New York.
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- W. E. Everett, Turner's Falls Paper Company, Turner's Falls, Mass.
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- Loren Allen and Hiram Allen, Allen Brothers, Sandy Hill, N. Y.
- Samuel L. Montague, Penobscot Chemical Fibre Company, Great Works, Me.
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- D. W. Maybee, Ballston Spa, N. Y.
- Theo. S. Kingsland, Connecticut River Paper Company, Holyoke, Mass.
- E. C. Robertson, Robertson Brothers, Hinsdale, N. H.
- William H. Clarke, George R. Dickinson Paper Company, Holyoke, Mass.
- S. W. Wilder, S. W. Wilder & Co., Ashland, N. H.
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- G. Warren Manning, Troy, N. Y.
- S. C. Haner, Chatham Centre, N. Y.
- C. B. Hopkins, George C. Fisk, Hinsdale, N. H.
- C. C. Woolworth, Fort Orange Paper Company, Castleton, N. Y.

After the reading and approval of the minutes of last meeting, President Rogers



E. C. ROGERS,
President 1888-9, 1889-90.

introduced F. G. Pierra, secretary of the Spanish American Commercial Union, who spoke as follows:

I have come here to greet you in behalf of the Spanish American Commercial Union of New York, or I should rather say, of the United States, for our union aims to be not a local nor a State, but a national organization, wherein every industry seeking to enlarge the outlet of its products in the markets of Spanish America and Brazil may be properly and efficiently represented.

Some of the gentlemen present are, no doubt, familiar with the aims and purposes of the union; but as its organization was only recently effected, and owing to the summer vacation it has not been possible to lay the matter in a formal manner before the different trade associations of the country, I suppose that many gentlemen have only heard of its name, and some, perhaps, not even that.

The aims and purposes of the Spanish American Commercial Union are few, simple and, I believe, practical. They are very

concisely stated in the provisional by-laws, in the plan of organization and in part of the address which I had the honor to deliver at the banquet given by the members of the union on May 1 last. As it will take but two minutes I will read them to you.

Believing that the overproduction of our factories, of which so much is heard nowadays, instead of a transitory phenomenon, will become, if the radius of demand is not extended beyond the national markets, a permanent state or condition of our industries, the founders of the Spanish American Commercial Union, after mature consideration, came to the conclusion that the most available markets to our manufacturers are those of Spanish America and Brazil. But while coming to that conclusion they could not ignore or overlook several very important facts, such as that the Europeans control the import trade of those markets; that the majority of our manufacturers, having had no occasion to study the subject, are not well informed in regard to the requirements of that trade; that we are lacking adequate means of steam communication, as well as adequate financial facilities, to carry on a large export trade in manufactured goods; that the relations existing between the manufacturers and the exporters are not sufficiently close and harmonious; and finally, that, for the attainment of the end in view, certain preliminary work is indispensably necessary and can only be accomplished by the combined action of the different interests concerned in the export business.

I do not exaggerate, gentlemen, when I say that heretofore the subject of our trade and commerce with Spanish America and Brazil has been discussed too much on purely rational grounds, and that suppositions and imaginations have entered too largely into the discussion. It is, therefore, the purpose of the Spanish American Commercial Union, as far as it may be possible, to remove the discussion from the world of abstraction and imagination to the sphere of facts and experience. General principles and well devised theories are not only useful but indispensable in the world of speculation, but in trade and finance we are and must be chiefly concerned with facts. Whether they agree or disagree with admitted theories, business men cannot overlook them with impunity. It is proposed, therefore, to collect the necessary facts in order to show our manufacturers, in a way that they may see it for themselves, why and how the Europeans monopolize the import trade of those countries; why it is that attempts made to introduce there some of our manufactures have failed, and why the demand for others already introduced remains limited and restricted. Then, if our manufacturers are really in need of the trade of those countries, knowing exactly what must be done, they will be able to decide whether it will pay them to do it or not.

The assertion is very frequently made that, supported by the skill of our artisans and the enterprise of our manufacturers and merchants, we need not fear the competition of our European rivals. Now, I fully appreciate the value of that skill and of that spirit of enterprise, and have more than once given public testimony of my admiration for both; but twenty years' experience in the export trade has convinced me that it is no easy task for our manufacturers to compete with the Europeans in Spanish America and Brazil. It is not by any means a *veni, vidi, vici* affair. It is not by mere spasmodic and ill-considered efforts that a foothold commensurate with our industrial importance will be gained in those countries. I firmly believe that victory awaits our manufacturers in the commercial field of Spanish America and Brazil, but they must go to it with a perfect knowledge of the tactics of the enemy and prepared to fight hard and perseveringly. What those tactics are it will be the duty of the Spanish American Commercial Union to explain to our manufacturers.

It will be likewise the duty of the Spanish American Commercial Union to show how deficient are our means of communications with Mexico, Central and South America; and to point out how the current of trade flows to other countries in proportion to the frequency and regularity of the steam communication which they possess.

Of this, en passant, I will offer you a single instance. The import trade of the Argentine Republic amounts in round numbers to \$90,000,000. Our share of it is about 7 1/2 per cent.; that of England, France, Germany and Belgium combined about 70 per cent. We have no regular steam communication, either good or bad, with that republic, while about sixty magnificent steamships (freight steamers not included) enter every month the port of Buenos Ayres. The same is exactly the case with Brazil, of whose imports England alone controls 45 per cent, and the United States only about 5 per cent. It seems to me that the relation of cause and effect is very clearly discernible in both cases.

In the matter of banking facilities we find ourselves in a position no less disadvan-

teous. Europe is well provided with them, while we have none. We have, it is true, thousands of banks, as many, no doubt, as are needed for our internal trade, but their functions being restricted by law those institutions are precluded from doing some of the transactions most important in connection with the export trade; moreover, if, even in Europe, special institutions are necessary to foster the export trade, you may well imagine whether in our country, whose economic development has not reached the stage of those of the Old World, such institutions are an absolute necessity or not. A large trade cannot be secured in Spanish America and Brazil unless long credits are given. The reason is very simple and obvious. These countries are new and capital is scarce. Transportation is slow and goods take a long time to reach the interior markets. The agricultural classes are the principal consumers, and as these have only their crops to pay for what they buy merchants must wait for reimbursement until the crops are gathered and brought to market; but in order to grant long credits the importer must obtain the same facility abroad.

It may perhaps be thought that the facts which I have presented are somewhat discouraging, because they constitute obstacles which it will be very difficult to remove. That the obstacles are somewhat serious I cannot deny, but I believe that it is possible to overcome them. When they shall have been properly examined and considered I feel sure that a way will be found to obviate them, and it shall be the duty of the Spanish American Commercial Union earnestly to enter into that examination and study.

It is not, of course, the part of the manufacturers to establish the lines of steamers nor the banks, but it is in their interest to know to what extent the lack of transportation and banking facilities affects the outlet of their products abroad; and when it shall have been shown that without these facilities the export trade must be limited and restricted, the manufacturers will know in what direction to use their influence in order that the facilities may be created.

But had we the necessary transportation and banking facilities no increase would take place in our export trade to Spanish America and Brazil unless our manufacturers show more disposition than heretofore to supply the people of those countries with the goods which they want. It must be remembered that what may be good for us and within the purchasing power of our consumers may be too good or rather beyond the means of the consumers of Spanish America and Brazil. Such is really the case with regard to several of our manufactures. The laboring classes constitute in all countries the great mass of the consumers of low priced goods, and as those classes in Spanish America and Brazil earn lower wages than their equals in this country, they have of necessity to supply their wants with cheaper articles.

It seems to me, therefore, that the real question to be considered by our manufacturers is not how to dispose of the surplus of the goods which they produce for this country, but how to distribute their producing forces so as to turn out goods of the quality wanted here as well as of the quality wanted in the foreign markets whose trade they wish to secure.

It is one of the purposes of the Spanish American Commercial Union carefully to watch the course of trade in Spanish America and Brazil and publish periodical reports thereon for distribution among its members. Also to make any special investigation which may be required by any of them and to procure and furnish such samples as may be desired.

Those are, gentlemen, the aims and purposes of the Spanish American Commercial Union. If properly supported by our manufacturers, I have no doubt that it will accomplish some good for them as well as for the country at large; without their support, our most earnest endeavors will be barren of results and leave us only the satisfaction of having at least attempted to carry out a scheme the realization of which we think will be beneficial to our manufacturers, to our merchants and to the whole country. [Applause.]

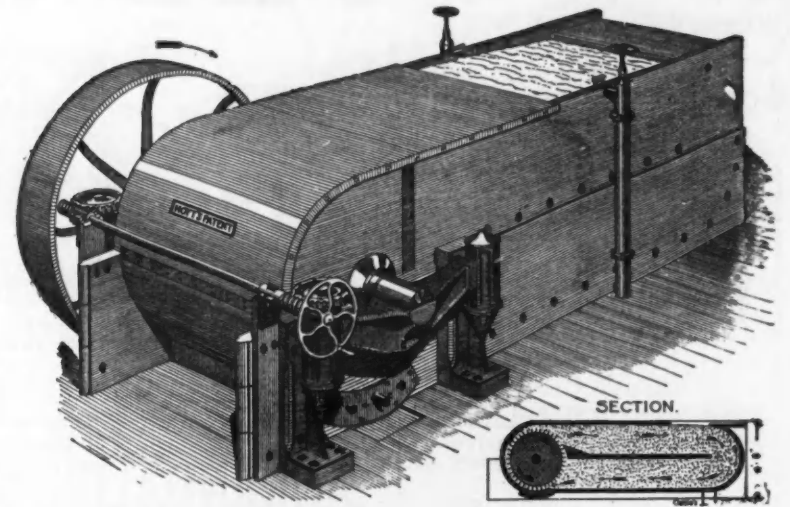
W. H. PARSONS—I move that we tender a vote of thanks to Mr. Pierra for his interesting address, and that we express our sympathy with the objects to be achieved by the Spanish American Commercial Union.

The motion was unanimously adopted. President Rogers suspended the regular order of business and called upon the Hon. Warner Miller, who responded as follows.

MR. PRESIDENT AND GENTLEMEN—You are very kind to ask me to speak again, but remembering that I took up considerable of your time a year ago and that I spoke at length last evening, I shall refrain from making any extended remarks. In fact there is nothing at the present time which I desire to talk about. A number of those who were to be at the dinner were detained by

(Continued on page 602.)

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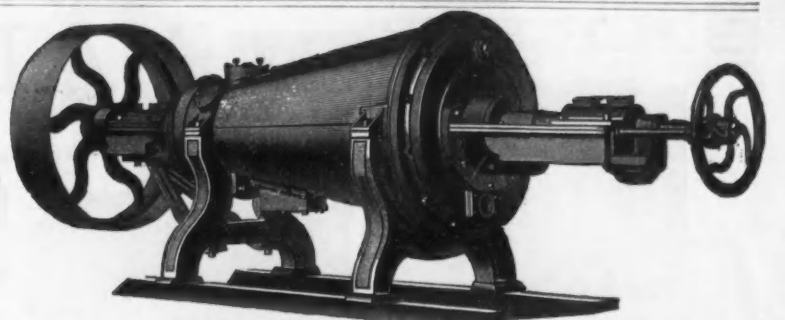
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Produces More and Better Pulp than any other Machine with equal power.



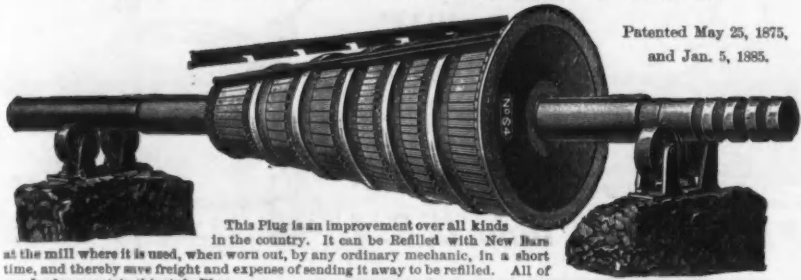
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THE PATENT JORDAN PLUG.



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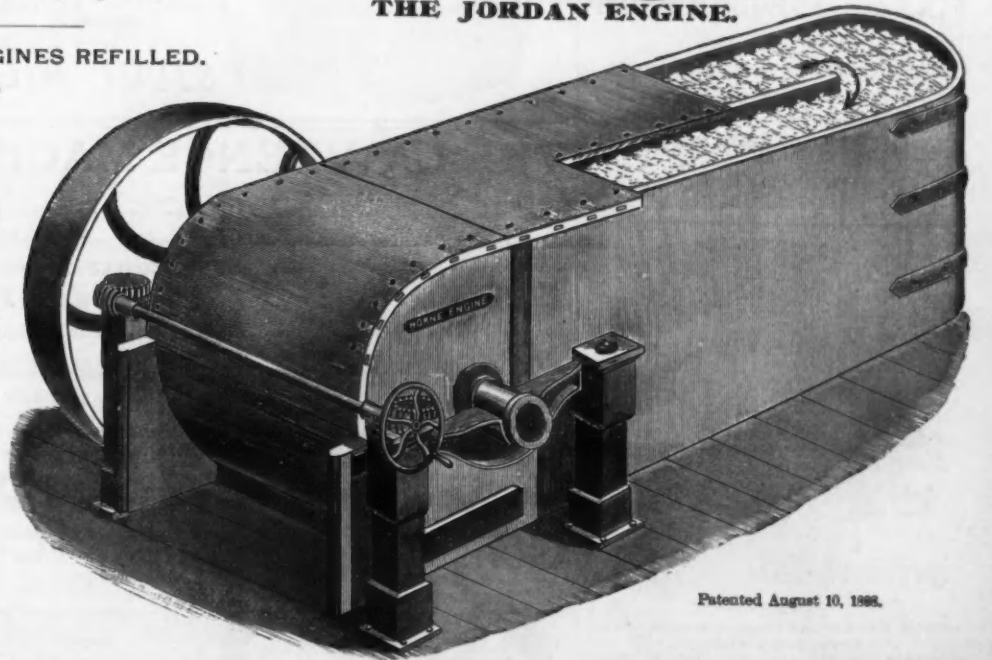
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NO STIRRING.
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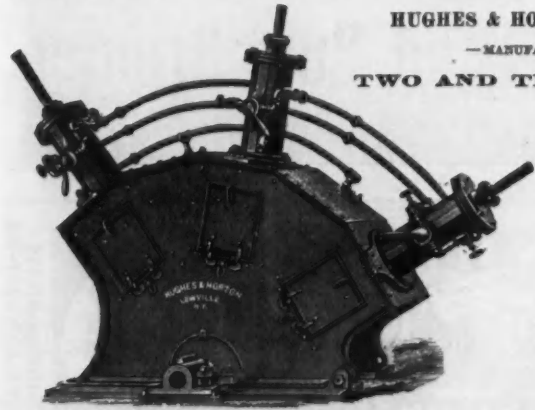
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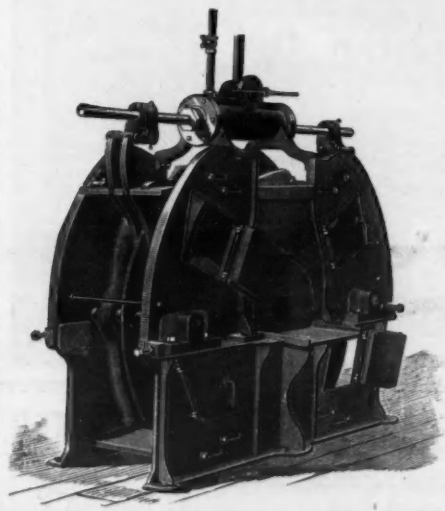
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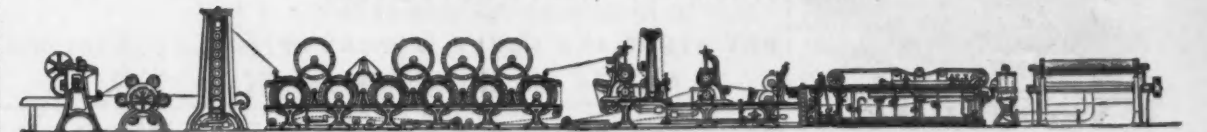
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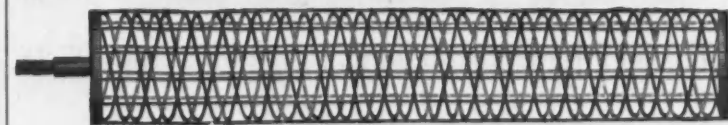
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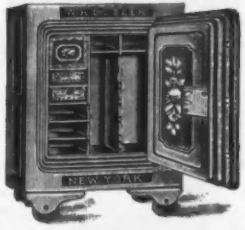
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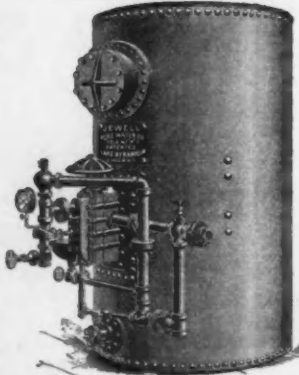
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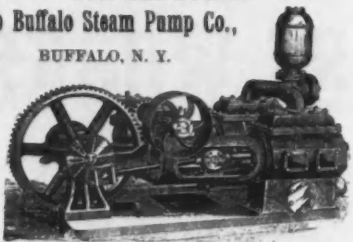
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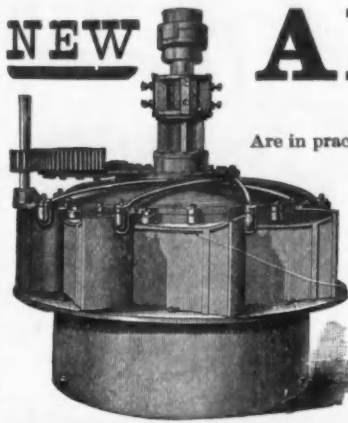
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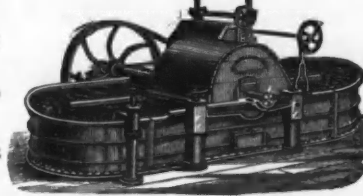
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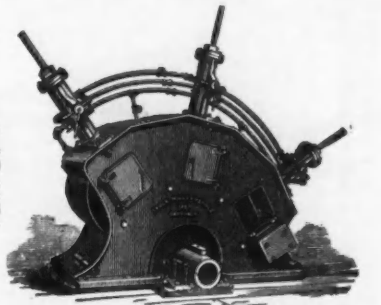
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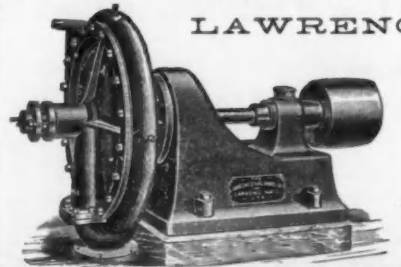
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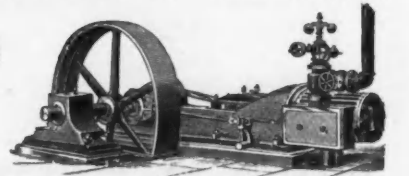
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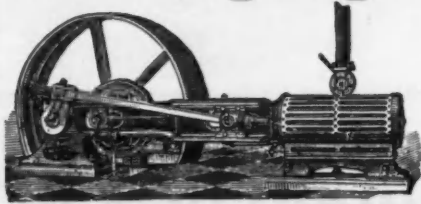
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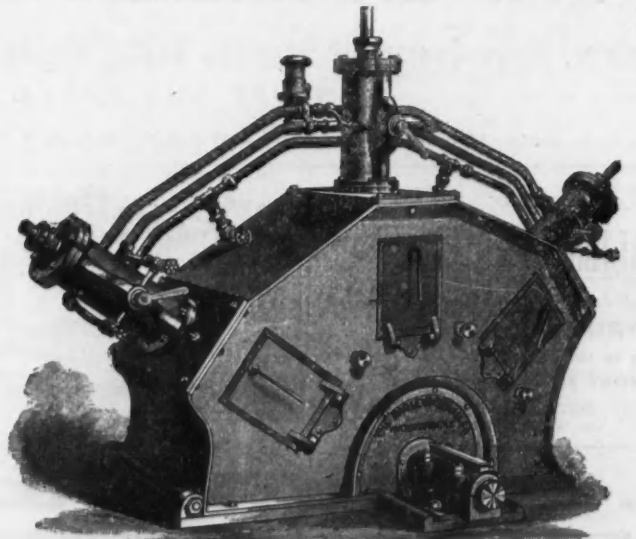
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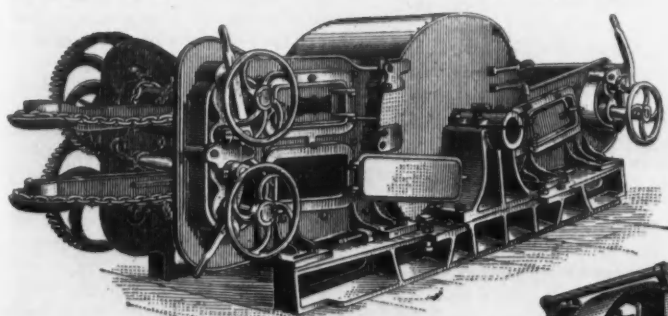
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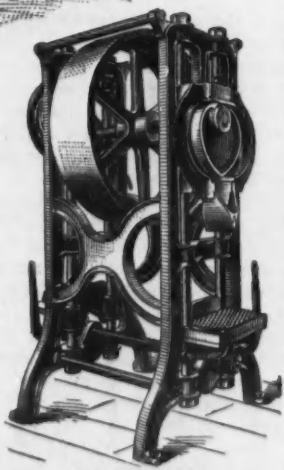
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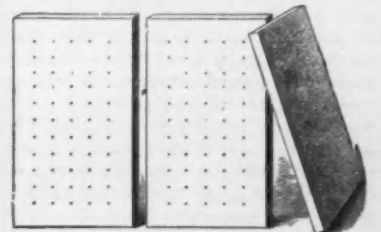
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BOSTON.

(Continued from page 598.)

floods. They are with us this morning, and I have no doubt that the association will be glad to hear from as many as possible in regard to the state of trade and the conditions of our business generally. I am very sure that this large meeting has done much to revive interest in this association, and I have no doubt that at the next meeting we will have a larger representation than we have here now. I am very much interested in the remarks of Mr. Pierra in this question of trade with South American countries. I have had some communication with him and the association which he represents, and I am very sure that the resolution we have passed here, thanking him and expressing sympathy and a determination to co-operate in this movement, expresses the views of those of our trade, whether present or not, and I, for one, believe that very much good work can be done in this direction. It seems to be an established fact that we are to have a great quadricentennial celebration in 1892. I look forward to it with much interest, for I have no doubt it will bring into our midst representative merchants and business men of adjacent countries, and by that movement undoubtedly much will be done for the opening up and increasing of our foreign trade. We are all looking to this, and we naturally turn to this great exhibition which we expect to have in 1892, not only to show to ourselves what we have done in our own country by bringing together all our products; but we naturally expect by this exhibition much attention of the surrounding nations will be directed to us, and it will necessarily lead to an increased trade. I am sure that the paper trade will be doing its full part in that exhibition if it comes, as I have no doubt it will, in 1892.

Hon. Alexander H. Rice was then called upon and spoke as follows: Lightning does strike in the most unexpected places and so does your president in calling me to my feet in this large assemblage, where there are so many to whom we should be glad to listen. If there was any particular subject before the meeting to which I could instantly direct my thoughts I should be very glad to say something upon that. In the absence of that it occurs to me at the moment that in the first portion of his remarks last evening Mr. Merrick touched upon an idea which is of very considerable practical importance and interest to the industries of the country at large, and not less so to the particular industry in which we are engaged, and that is the necessity of educated men in the different branches of our productive industries. The importance which attaches to that suggestion will become immediately apparent if we reflect for a moment upon the great change that has taken place in the industrial arts of the world during the memory of some of the gentlemen who are present in this room.

My own recollection of the paper trade runs back to the time when there was scarcely any machinery used in paper mills beyond the pulp engine; when paper making was almost wholly conducted by manual labor, by dipping sheet by sheet out of the vat, and when there were scarcely any chemicals used in the manufacture of paper. As we all know our paper mills are now vast chemical laboratories, and the art of paper making has not only developed in magnitude in our own country and throughout the world, but has changed from commonplace imitative practice to the scientific and intricate piece of mechanism requiring skill and perseverance and high intelligence to conduct it successfully. In a single word it is true to say that all of the industrial arts have in a period within the memory of the oldest of us entirely changed, and that we do nothing now according to the ancient method.

Industrial arts have changed from an imitative basis, and the learning of trades by apprenticeship and the young men doing what the older men did before them. The industrial arts have changed from that to a scientific basis. Hence it is—as Mr. Merrick said last night—of the highest importance that we shall establish in this country and liberally uphold technical institutions in which science is practically applied to the arts. This is rendered necessary by the state of the arts in this country, and more especially by the state of the arts in the other countries of the world with which we have become competitors. As was said last night, the world is growing gradually smaller, or, to put it in another way, by means of intercommunication mankind are coming into close and intimate relations and our competitors are not limited by any state or national lines, but we stand as factors in the world. We are individuals among the nations. Our field is the world, because science is universal and because the arts and industries are becoming correspondingly universal.

The great impetus to this change was given by the first national exhibition in Great Britain. That was followed by the exhibition held in France, in England again, in Vienna, again in this country, and we

have one in prospect, as Senator Miller has said, which, I trust, will take form in 1892 again in this country. One reason why we are able to compete with other countries of the world, so far as our skill and common sense and our industry are concerned, is because we have all of the skill in this country that they have in any country of the world. Senator Miller remarked that he thought the quality of our product in paper making was equal to that of any other country. I think that is probably true, unless it be that the Austrians are a little ahead of us. I think we make paper as well as England or France, Belgium or Germany proper, but I think I have seen some specimens of paper products made in Austria which, on the whole, surpassed anything I have seen among the products of our own nation.

We have therefore to contend, not with the scientific difficulties which enter into our business, not with the technical difficulties which enter into the business, but those other difficulties which are somewhat natural, which are somewhat beyond control, to cheaper living and cheaper labor. The cheaper labor of other countries is the principal thing with which we have to contend to-day. Our facilities for transportation are as great within ourselves as those of perhaps any other nation. Our means of communication with other parts of the world are very limited and they ought to be amplified, and I trust that the drift and tendency of thought and opinion and determination of this country is to increase our means of communication with the other great markets of the world. We have coming forward out of the scientific schools connected with our colleges and universities, and more especially out of our technical schools located in different parts of the country, a body of young men who are thoroughly educated in science as applied to the arts, and I think our own branch of industry, as well as almost every other branch of industry in this country, is beginning to value the influence of that accession to the industrial force of the country.

Not very many months ago the head or trustee of one of the largest cotton corporations in Massachusetts, speaking of the class which had a year before graduated at the Massachusetts Institute of Technology and of the great importance of having educated men come into the ranks of the industrial classes, made the remark that his company had a young man who had been out of this institution only one year, employed in his mill, and he said: "I am paying him now \$2,500 a year, and I would not like to have him know it, but if it was necessary in order to retain him, I would pay him \$25,000 a year rather than that he should go away." It does not follow by any means that this corps of young men who are coming into the industrial force of the country are going to displace the practical workman or that their skill is going to surmount and subordinate those who are conducting these enterprises to-day. They are to come in not to supersede and displace and eradicate the men who have been trained in a practical way, men of good sound sense and understanding, but they are coming into the mills and factories and our social and industrial life, and are going to place their qualities with the thought and experience of more practically educated men, and these scholarly men are going to be turned and disciplined on the one side by the practically educated man, and the practically educated men are to be inoculated, if I may use the term, with the learning and acquirements of these technically educated men, and then the whole industry is going to be elevated and vivified and made energetic and beyond anything we have seen in this or in any other country.

There are times of depression in every industry. There are in every trade. Individuals do not feel the same on every day in the year, perhaps not the same in every day in the week. We are all subject to the influences, to a greater or less degree, of our surroundings. What may be said of the individual may be said of men in the aggregate and may be said of men of whatever nature they may be. We have our times of elevation, we have our times of depression. But we know that the time of depression is only the prelude to the greater season of prosperity which follows it, and, as was remarked by Mr. Russell, all that the paper trade needs to-day, if it be depressed, is patience to wait and the courage to undertake when the new opportunity shall appear.

I see nothing from my limited standpoint, and I confess it is limited, that should at all be discouraging. With the brain we have in our business, and the energy we have in it, and the experience we have in it, and the extraordinary opportunities which are open to us of this country as compared with the opportunities of any other country in the world, it seems to me to be full of promise that we shall keep our own field and enter the other markets of the world as soon as the Government furnishes us with the necessary facilities for doing so. [Applause.]

In response to a call from the president

the Hon. William A. Russell spoke as follows:

MR. PRESIDENT AND GENTLEMEN—I do not desire to take much of your time. What I shall say will be only a word, and that in the line of the suggestion I made last night, and which has been made by nearly everyone who has spoken, and that is in the direction of a foreign market. I have a strong belief that we have reached, or nearly reached, that point in our business when we can successfully compete with foreign countries in the paper market. We have very cheap raw material; we have improved machinery—the very best, I believe, in the world—and with the ability and energy with which we are now doing business it certainly will put us in a position to compete with foreign paper manufacturers. I was in the Forty-sixth Congress, and it was my pleasure and duty to do some committee work. That was some time ago, and this is not a new question. The work we did is embodied in the report of the sub-committee of which I had the honor to be chairman. The result of our investigation brought us to the same conclusion which has been suggested here—that we are at a disadvantage in the way of reaching these markets, especially South America, in not having direct mail and freight communication. We have no considerable line of steamers. It has not been the policy of the Government to subsidize steamship lines as other countries have done, as being unpopular; but I believe that it will be a part of our duty and effort in the future to create a sentiment in that direction as well as to put ourselves mechanically in a position to compete; that is, to try and bring about a policy which shall establish steamship communication with these countries. I believe that our attention should be turned in that direction rather than to undertake to elevate ourselves by pulling on our bootstraps in the direction of trusts. Trusts may give temporary relief, but in the end I believe they will bring disaster. I think that if we turn our thoughts and efforts to reaching out to other markets it will bring us the needed relief. [Applause.]

President Rogers then called on the Hon. William Whiting, who spoke as follows:

I was hoping that you would excuse me from speaking. I do not feel that there is very much ground to stand upon after listening to the eloquent gentlemen who have preceded me and I will take only three or four minutes of your time. There was one idea which struck me as Mr. Pierra was making his remarks and also in the remarks of the gentleman who preceded me, and it is that the American or the Yankee has got it in his head that he is a pretty smart fellow and that there is nobody in the world who is able to compete with him. Right there I believe is our great danger. My experience is that there are other people in this world pretty nearly as smart as the Yankee, and while my friends Mr. Russell and ex-Governor Rice were speaking I could not but think, if I understand the matter properly, that the man who first made wood pulp and who brought the machine to this country, Mr. Pagenstecher, was from abroad. And in that other branch of the business, sulphite fibre, the invention was brought from abroad. We are improving them; but I think that if we go on the idea that we are abler or smarter than the people abroad we shall find that we are much mistaken, and when our friend stated that we can compete with all of the nations of the world the thought crossed my mind how that could be, because they have as good machines as we, just as skillful men, and they have cheaper labor than we, at least one-half cheaper. The only way in which we have the advantage is in cheaper raw material. That I think is the whole thing. In reference to the quality of our paper alluded to by ex-Governor Rice, I agree that the American paper is probably as good as any other made, and when he stated that the Austrians made better paper than we, I presumed that he was speaking of printing paper, and not of writing paper. [Laughter and applause.]

EX-GOVERNOR RICE—I think my friend has demonstrated the converse of the proposition which he stated. He thinks we are not as smart as the other people, but he has proved the other thing. [Laughter.]

MR. WHITING—Perhaps the writing men are a little smarter than the rest. [Laughter.] There is one point alluded to by Senator Miller and by both of the gentlemen who preceded me, and it is apropos of what I have already said, and that is the matter of steam communication with South America. That is the vital point in our success; but when I go down to Washington to ask the Government to appropriate money for that purpose I find the same idea which has prevailed here to-day to a certain extent. Talking with gentlemen from the South and West and especially from the South, they say that the Americans are smarter than any other people, and there is no reason under heaven why our goods should not go there without steamships. We understand that

this cannot be done, and it is important for us to have steam communication established with South America and the other countries in the world, and I believe it to be one of the greatest duties that any of us can perform to try and move popular sentiment in favor of liberal appropriations for mail service to these South American ports and for subsidies if necessary.

MR. RICE—I do not care to turn this meeting into a debating society, but I wish to say a word about wood pulp. It is true that the use of wood originated in another country, and also the use of chemical wood. They are older than we, but this is a young republic, and we are very quick to "catch on," and when we do we generally travel as fast as our neighbors. Although they were earlier than we in the use of wood pulp I claim that we have made better use of it, made better paper, have improved upon them, and in the matter of raw material we have cheaper raw material than they. That gives us confidence in what we may do in competing with them. Our wood is cheaper than in Germany or England. They have cheap wood in Norway and Sweden, but their wood is not as fibrous and is not as good for paper making. Therefore I do not want the remarks of our brother, Whiting, to discourage us in the line of thought and action which I hope we shall be directed in.

The Hon. Timothy Merrick was called upon, but excused himself, as he said he had a very severe headache.

Hon. Byron Weston was asked to say a word, and responded as follows:



HON. BYRON WESTON,
President, 1886-7, 1887-8.

MR. PRESIDENT AND GENTLEMEN—Having noted in the morning papers and having been complimented on the beautiful and sensible remarks which I made last night [laughter], I do not now feel like getting up and repeating the speech I then made. Some months ago the president did me the honor to tell me that he was going to have an array of good speakers, such as he had last night, and he did not expect to call upon me to make any remarks; but that if he slipped up at the last end he would like me to have a little story about Mexico ready. If I went back for old stories, I might talk about when Rice and I were boys. Now, sir, I have nothing more than I have read in the papers to speak of, and nothing particularly new at that; but I want to say, as the last preceding president of this association, that I congratulate you, Mr. President, upon the success of this meeting of this association. I had some back-handed compliments while I was president, such as they did not think that the association would last long, &c., but I do believe in this association, and I believe in keeping out all matters of private management and private business, and the conduct of the mills and employees. I am glad we have shaken off the matter of bringing up here the things which belong to a man's own mill, and I think that we have shown the country that we do not intend to be a trust or combination, and that we do not rule a man's hands in the mill. Last year, when it was proposed to have a banquet, I questioned the propriety of the thing; but from what I have heard of the affair last night I think it was a great success, and I do not know but that it will be the right thing to get us together. My wife does not like this banquet business. She says that she does not like to come to Saratoga and let the men have a good time and the women be left out. From what I hear it was a good time. You learned a good deal from each other, and different gentlemen were complimentary last night. One who had honorable prefixed to his name said that he did not know how he got the honorable, but presumed it was because he had been president of the Paper Makers' Association. Another gentleman said that when the last president was in office he maintained the price of his own paper and let the others go down, and I suspect that the reason why this president was so lively and polished the handle of the front door was that he makes his paper so good that the paper sells for the full price and does not have to go down. [Laughter.]

It was said by the president that I would make a few remarks about Mexico. There is not much to be said about that country,

Mexico wants education more than she wants paper; the people want rags, they want fibre, they want wood; they are away off for wood and it is sold by the pound. They want everything more than they want paper. There is very little paper used. The wood is scarce, and one paper mill that I visited near the city of Mexico was running on partial time for the reason that there was not much demand for paper. A gentleman who tried to introduce American paper there—Mr. Guernsey—found it very small work trying to sell paper. It is no country to look for a trade in our product. I spoke of it last year.

I have heard a great many remarks about the different kinds of paper. There was one man who wanted to get corn husks and found that he could not get to tons of corn husks in the country. Some people say that paper can be made of immortelles; others say that it can be made of asbestos. My experience is that asbestos has not sufficient fibre. The great thing is to get a fibre and get it in any quantity. The great rag market used to furnish fibre, but with all of the experiments of getting fibres from hay, straw, wheat and all these other things we could not get the quantities. It was only when the pioneers in the method of getting fibre from the wood, who are in this room to-day, attacked the forests and got the fibre from the forest, where it could be had by the thousands and millions of cords and floated down the rivers, that the price of news paper has been brought down so that we see it selling for less than 4 cents a pound. Speaking about the men who invented the way of making wood paper, I do not want you to lose track of the fact that I was the first man to make wood paper in this country. It was in the mill of Mr. Smith, the uncle of the man who sits here, and I was the young man who took hold and acted as the practical man. These Germans did not know how to convert that wood. They said it could be done, but they did not know how to do it. They came to me, and we got a poplar log and put it into a veneering machine. They boiled the wood in soda. I got another log and put it in an engine lathe and ripped off pieces and soaked them in chloride of lime, and then in sal soda and made carbonic acid gas. Those men did not do it. I have sheets of the paper now made by that process, trying one way and the other, made entirely of wood without anything else. My speech about Mexico is very short. They want education worse than they want paper.

Dr. Manning, of Dayton, in response to the call of the president, said:

I cannot say that I have anything special to offer that would enlighten the paper makers of the East, but paper making in the West at the present time is not as remunerative as it was fifteen years ago. There are mills there with modern construction and well managed which are making some money. Unfortunately they are the exceptions, and there are a large number in the Western country which are complaining of the hard times. I incidentally spoke last night of natural gas. We have fine water—a freestone water which is almost neutral; there is plenty of timber, and the power costs absolutely nothing. The strawboard men have seemed to grasp the idea better than any other, so much so that they have planted mills in various portions of our gas territory and some of the largest mills in the United States; many mills are 500 feet long and have branches 300 feet long, and make about 60 tons in a day. They have planted so many that they have killed themselves. They have raised the price of straw to that extent that the straw costs more than the coal in that portion of the country. It is a question now whether they will run on strawboard or whether they will run on printing paper and manillas. A few mills not eligibly located here would have no trouble in getting a gas well there. If a man came properly indorsed and recommended sufficient money will be raised in any town or city to erect a building for him and he will get a donation of a gas well. In locating our works two years ago they gave us a gas well, which allowing 36,000 feet of gas for a ton of coal would give us 340 tons of coal per week. You will understand that fuel is not an item of expense with us, and if some of you gentlemen will come out to the gas territory and let us show it to you it occurs to me it will benefit you. George Friend, who is the head of the largest manufacturing institution of printing and manilla paper in Ohio and Indiana, can tell you something which I think the association would be glad to hear.

GEORGE N. FRIEND—Mr. President, I do not know that I am the head of the largest manufacturing institution of paper in the West. I am rather a young member of the association, and I thought I would come here and get acquainted with some of you. As Mr. Manning says, I am connected with a book mill. There are some forty or fifty machines in the Miami Valley, and I am sorry there are not more represented. I prevailed on some of them to promise to

...but at the last moment they found it impossible. Mr. Harding, the only manufacturer of writing paper there, is my next door neighbor, and he felt sure he would come, but he could not get away. Business in the Miami Valley is demoralized more than it is here. The crops are better than for many years, and we suppose that business will follow the productions of the soil. We are hoping for better times. I thank you very kindly. [Applause.]

O. H. GREENLEAF—I am informed by a gentleman in this room that there is an immense quantity of copying book paper imported in this country annually, and as it is stated that we can make paper cheaper than in any other part of the world I wanted to correct that, so far as that paper is concerned. The paper is very thin and most of the expense is for labor. Most of the paper imported to this country is made in Germany, where labor is one-third the price it is in this country. It seems that is something which should be brought to the attention of our next Congress, when the duties will be revised. There is another article, and that is albums. The stuff with which they are covered is subject to a duty of 45 per cent; but when the album is made up with the paper the duty is reduced to 15 per cent; consequently the duty on the album made is not so much as the duty on its covering if it was not in the album. It seems that both of these articles ought to be brought to the attention of Congress when the matter of the duties comes up.

On motion of Wellington Smith the treasurer was authorized to pay any deficiency reported by the banquet committee.

Treasurer O. S. Greenleaf presented his report as follows:

RECEIPTS.	
Cash on hand July 25, 1888.....	\$344.52
Interest on bank balance.....	12.67
Total.....	\$557.19
DISBURSEMENTS.	
Printing, postage stamps, &c.....	40.00
Cash on hand.....	\$517.19

The report was accepted and adopted.

Reports by divisions were then called for. Charles H. Mullin spoke for the Writing Division as follows:

MR. PRESIDENT AND GENTLEMEN—It is the first time that I have had the pleasure of meeting with this association. Last year you saw fit to compliment me by making me one of the vice-presidents of the Writing Division. Just why I don't know, unless it was that my colleague was from the ex-

...treme North and I was from the extreme South. If Mr. Mole was here he, no doubt, would have made a report that would have interested you, but as I am not able to say anything now that would interest you, I hope I will be excused.

The president was then authorized by motion to appoint a nominating committee consisting of Byron Weston, George N. Friend and William Whiting.

For the Book Division N. T. Pulsifer reported as follows:

MR. PRESIDENT AND GENTLEMEN OF THE CONVENTION—A few days since I was called upon by the secretary of the Paper Makers' Association to report for the Book Division at the convention held here. As my experience in the book department of the paper trade has been exceedingly limited, having never made or sold a pound of book paper, the value of my report to the convention can be taken for what it is worth. In my endeavors to make a report of some kind, (as from my experience at the convention for the last few years very little has been heard from the Book Division), I took occasion to write to several of the prominent manufacturers of book papers and have received several responses from them. There seems to be a slight diversity of opinion in regard to the state of the market, and as the reports have come from the most prominent mills in New England and the Middle States, they ought to have some bearing on the state of the market.

One large manufacturer reports that book paper from their standpoint has kept up very well during the past year; the demand has not been quite as active as a year ago and the prices are a fraction lower.

Another large manufacturer from the same section states that "the business is dull, but not alarmingly so; as to overproduction there is a constant tendency in that direction and we must all take our chances; the same tendency works also to reduce the price of paper. We see no remedy for these difficulties but patience and to make the best paper possible."

A large mill in New Hampshire reports that they have hardly been looking for business for the past six months, as they have had all they could do, but the prices were low and they see no prospect of their improving with the fast increasing plants for making the sulphite and ground pulps.

A large concern in Holyoke reports that the "prices are wretchedly low and the book business mighty poor."

As it has always seemed impossible for

any concerted action to be taken by any divisions of the paper trade looking toward a reduction in product to increase the price of paper to a living profit, it would seem, in view of this fact, that the only help for the various mills interested in the production of paper of all classes, instead of their straining every nerve and effort and spending large sums of money in the direction of increasing their product, is to decrease the cost, to keep their mills at their present capacities and strive to reduce the cost of the paper by improved facilities for doing the work, greater economy in the use of steam power, improved facilities for handling the raw stock and the finished product, lower rates of insurance and all fixed expenses without an increase in product. This would in a short time remedy the trouble of overproduction and would reduce the expense of selling the product to its minimum. The market would be in a more healthy condition, the cost of disposing of the products of the mills would be very much decreased, and a general move in this direction would have a greater tendency to benefit the general trade than any action that paper makers could make in the way of combinations, consolidations, trusts or agreements to govern the product or control the prices in an industry so diversified in its character as the production of paper at the present time.

Another concern located in Connecticut says: "In reply to your favor of 24th inst. would say that we think manufacturers are to blame for present overproduction and consequent low prices for book papers. Buyers have it all their own way and crowd the manufacturers on every order, as they (the manufacturers) are too eager to sell and let the publishers get all of the benefit, as they get the same price for their publications as when paper was higher. Manufacturers should get together and restrict production to the actual demand in each locality. They would in that way keep up the price of paper, and, as demand for stock would be much less, prices would fall and manufacturers would make more both buying and selling. In our opinion the extravagant use of wood pulp has tended to greatly increase production and to deteriorate the quality of the paper, so that unless there is a change in this respect and a return to the use of genuine stock a further decline in prices is to be looked for. Consumers, however, are beginning to demand a better quality of goods, and we think this will help matters some."

Loren Allen read the report of the News Division as follows:

MR. PRESIDENT—Your committee have diligently sought information for this meeting. We have nothing new or interesting to



J. W. FRENCH,
President 1882-3; 1883-4.

report; we find things in an unsatisfactory condition, no unanimity of opinion and little or no disposition to work in concert to better the outlook. Each manufacturer seems to think he is as wise as his neighbor and proposes to seek his fortune in his own way, regardless of consequences to others. Ruinously low prices and overproduction are the reports from all quarters. Such being the case we can offer no suggestions.

For the Manilla Division Moses Newton reported as follows:

I received a letter from Mr. Waterbury, saying that he had a telegram from Mr. Johnson stating that he could not be here. The Manilla Division in some respects is different from any other division in this association. Owing to this difference we have been forced for the last two or three years to have meetings of the manufacturers of manilla paper to consider how we could carry on the business with profit. We have met during the past three years and have voted to raise the price of paper and have met with some success in that direction. We have never met or been called together to lower the prices. That accomplishes itself without any concerted action. A year ago nearly we found that we were circumscribed more than ever before. A certain dealer, a speculator in Calcutta goods, from which source we receive the most of our supplies

for making paper, went upon the market and bought more than half of last year's production of jute butts, to cost in this country 2 cents or a little more per pound. We were paying about 1 1/4 cents a pound, and found it very difficult to get a new dollar for an old one. Consequently we formed an association, composed of the larger manufacturers and consumers of jute butts, to see what action we could take to keep the price within the limit of a small profit. We elected a gentleman to make our purchases. We have had our stated meetings to advise with one another. The result of this is simply this: That at the present time the merchants, so styled in this country, are carrying two-thirds of last year's product of jute butts, 150,000 bales, in store in Brooklyn.

We have supplied ourselves in part with bagging, sulphite and a little ground wood, but most of the members of this association, or compact as you may call it, who use the larger part of this product are confined to a large extent to jute butts or bagging, which is the same material after being once used. Owing to the depression in the price of print paper, the cousins to whom I referred in my report last year have come to our rescue during the past year and have put a manilla paper on the market varying in price from 3 1/2 to 4 1/2 cents per pound.

Of course that was a great deal less than a jute paper could be made at. They, in a large part, have supplied the demand for manilla paper during the past year with this cheaper grade of paper. As a result the makers of manilla paper have been obliged to pile up in store a considerable quantity of paper and reduce their production. There has been quite a number of machines standing idle during the past summer, and I venture the remark that when the other divisions shall be reduced to so close a margin of profit they will be just as closely united and work just as united as the Manilla Division has for the last year or two. It takes this close margin of profit—in fact, it was removed entirely—to unite any one division. The paper makers, as a whole, have a serious question to look at in the near future in my opinion. If the production is greater than the consumption prices must inevitably go down, and if there is any one single division that pays a much larger profit than another the fence is not so high and the bars are not so secure but what it is possible for one in the division not receiving the profit which another is receiving to crawl over.

It may be in part that by our association

TABLE SHOWING THE DAILY CAPACITY IN POUNDS OF THE PAPER MILLS OF THE UNITED STATES NOW RUNNING, AS REPORTED BY THE MANUFACTURERS FOR INSERTION IN THE FOURTEENTH EDITION OF LOCKWOOD'S DIRECTORY OF THE PAPER TRADE, 1889-90 (a).

SUBMITTED TO THE TWELFTH ANNUAL MEETING OF THE AMERICAN PAPER MAKERS' ASSOCIATION, BY HOWARD LOCKWOOD.

STATES.	Binders' Board.	Blotting.	Book and News. (b)	Building, Roofing and Sheathing.	Card.	Chemical Fibre. (c)	Collar.	Colored. (d)	Hanging and Curtain.	Leather Board.	Manilla.	Palm Fibre.	Press Board.	Straw Board. (e)	Straw Fibre. (f)	Straw Wrapping.	Tissue. (g)	Tissue Manilla.	Wood Pulp. (h)	Wood Pulp Board.	Wrapping. (i)	Writing. (j)	Miscellaneous.	Total Capacity of States.	
California.....	2,000	.....	21,500	.....	.....	.....	.....	2,000	.....	.....	5,000	.....	.....	2,000	.....	20,000	.....	.....	16,000	.....	4,000	.....	.....	81,500
Colorado.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,500	.....	.....	.....	.....	3,500	.....	.....	.....	.....	3,000	.....	.....	10,000
Connecticut.....	28,000	4,000	115,750	7,000	17,250	4,500	.....	31,000	18,500	3,000	71,300	.....	13,800	23,500	.....	.....	700	3,300	6,000	.....	36,400	16,500	.....	400,500
Delaware.....	.....	.....	67,000	.....	.....	42,000	.....	5,000	.....	.....	1,000	.....	.....	.....	.....	.....	.....	180	.....	.....	800	2,000	.....	117,980
Georgia.....	.....	.....	3,000	.....	.....	.....	.....	.....	.....	.....	8,000	.....	.....	.....	.....	.....	.....	.....	12,000	.....	10,000	.....	.....	33,000
Illinois.....	.....	.....	31,500	23,000	.....	.....	.....	.....	.....	.....	12,000	.....	.....	133,500	.....	181,200	.....	.....	.....	.....	115,000	.....	15,000	511,200
Indiana.....	.....	.....	41,000	50,000	.....	40,000	.....	.....	.....	.....	36,500	.....	.....	213,000	.....	60,000	4,000	.....	131,000	20,000	47,000	.....	.....	642,500
Iowa.....	.....	.....	.....	2,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,000	.....	65,500	.....	.....	.....	.....	17,500	.....	.....	95,000
Kansas.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,000	.....	.....	.....	.....	6,000	.....	.....	12,000
Kentucky.....	.....	.....	30,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30,000
Maine.....	.....	.....	170,000	.....	.....	200,000	.....	.....	.....	29,500	26,000	.....	.....	.....	.....	.....	.....	.....	305,000	37,000	.....	.....	.....	776,500
Maryland.....	3,000	.....	57,000	2,500	.....	26,000	.....	.....	6,000	.....	34,500	.....	.....	30,000	.....	22,100	.....	.....	14,000	.....	1,500	.....	.....	106,600
Massachusetts.....	6,000	6,500	431,500	63,500	66,500	25,000	.....	28,200	25,000	42,000	152,500	.....	2,000	2,500	.....	2,000	5,600	800	67,300	.....	37,100	437,400	16,000	1,417,400
Michigan.....	4,000	.....	84,000	22,500	11,000	78,000	.....	4,000	.....	.....	20,000	.....	.....	40,500	.....	70,000	.....	.....	65,600	24,000	20,000	.....	10,000	453,600
Minnesota.....	.....	.....	10,000	27,000	.....	.....	.....	.....	.....	.....	10,000	.....	.....	.....	.....	.....	.....	.....	8,000	.....	18,000	.....	.....	73,000
Missouri.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,000	.....	.....	.....	.....	.....	.....	.....	9,000
Nebraska.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	46,000	.....	.....	.....	.....	.....	.....	.....	46,000
New Hampshire.....	.....	.....	168,000	.....	6,500	80,000	.....	400	12,000	30,000	.....	.....	.....	4,000	.....	1,000	9,400	209,100	.....	6,000	9,000	.....	.....	535,400
New Jersey.....	55,800	.....	9,500	11,000	2,500	4,000	.....	2,500	2,000	1,000	57,000	.....	.....	36,000	.....	1,600	9,000	6,000	.....	.....	26,000	4,000	7,000	234,900
New York.....	8,000	.....	612,700	38,500	11,000	162,000	.....	17,500	149,700	.....	264,800	.....	.....	121,500	.....	273,250	10,950	6,400	891,400	14,500	53,250	15,000	3,500	2,653,900
North Carolina.....	600	5,000	1,100	600	8,000	2,000	18,500
Ohio.....	42,000	2,500	193,500	32,500	.....	32,000	.....	20,000	.....	.....	144,500	.....	.....	405,000	6,000	80,000	.....	.....	19,000	110,500	13,000	6,000	.....	1,106,500
Oregon.....	16,000	6,000	18,000	40,000
Pennsylvania.....	62,400	1,500	338,900	121,000	14,000	83,000	.....	2,000	18,000	.....	199,400	.....	.....	13,000	.....	11,800	800	6,200	147,500	.....	59,700	47,000	1,000	1,127,200
Rhode Island.....	23,000	40,000	5,000	68,000
South Carolina.....	3,000	3,000	6,000
Tennessee.....	7,000	1,000	1,000	2,000	11,000
Utah Territory.....	4,000	1,000	5,000	10,000
Vermont.....	103,000	10,000	9,000	59,500	5,000	1,800	12,300	323,200	523,800
Virginia.....	9,000	10,000	5,000	20,000	2,000	26,000	72,000
Washington Territory.....	4,000	4,000	4,000	2,500	4,000	18,500
West Virginia.....	6,000	6,000	25,000	4,000	18,000	14,000	114,000	187,000
Wisconsin.....	270,000	44,000	9,000	74,500	40,000	35,500	223,000	4,000	17,000	717,000
Totals.....	217,200	24,100	2,837,850	444,500	138,750	866,500	.....	113,300	228,600	87,500	1,228,600	.....	15,800	1,117,500	6,000	925,400	33,850	46,580	2,607,600	95,500	583,750	567,100	58,500	12,244,480
Totals for 1888-9.....	209,650	25,100	2,661,550	377,000	106,250	617,000	.....	121,600	210,100	71,500	1,092,400	.....	10,800	988,500	6,000	885,200	36,250	50,880	1,536,500	83,000	477,250	474,700	49,900	10,091,130
Per cent. of gain.....	7.55	1.000	176.300	67.500	32.500	249.500																			

in the Manilla Division in the past we have been enabled to have some little margin. We have. That perhaps has invited to a certain extent competitors to come into



HON. GEORGE WEST.

our pasture and field. We, in turn, if there was any green grass on their side, would have entered theirs, but we fear it is pretty barren. There are other pastures, however, where there is some grass growing. It is time that the paper manufacturers as a whole look upon this question seriously and see if there cannot be something done in the near future which shall reduce production. Prices will take care of themselves. There is no trouble about them if we do not over produce.

Charles D. Brown, of Portland, Me., read the report of the Board Division, as follows: MR. PRESIDENT AND GENTLEMEN—You, of course, do not expect me to report on strawboards, as that is entirely out of my line of manufacture. In wood boards the year ending June 30, 1889, has been anything but satisfactory. In sympathy with other goods, the demand has fallen off somewhat. Less boards have been made, and still the stock on hand exceeds that of one year ago. Recently the price has been materially reduced and the quality much improved. There have been made in the United States about 10,367,000 pounds of so-called "wood

boards." Considerably less than this amount has been sold. At the greatly reduced prices the manufacturers hope the coming year they can find a market that will absorb more nearly the amount produced, and give them, at least, "a new dollar for an old one;" but to-day there is a great overproduction, and the mills are fully equipped and anxiously awaiting the "boom."

E. H. Clapp presented the report of the Chemical Fibre Association as follows:

American Paper Manufacturers' Association.
GENTLEMEN—The undersigned, representing the Chemical Fibre Division, desire to report the following regarding their industry for the past year.

There have been practically no changes in price during the year, and matters have



HON. C. B. CLARK.

moved along with a great deal of regularity during this time. In common with all the paper trade industries we have felt the depression in business during the past few months and sales have been restricted in consequence; but there has been little or no accumulation of material on hand, owing to the product of the factories being reduced on account of various circumstances. Considerable complaint has been manifested on account of the low prices incident to various causes, and the trade would be very

glad to see a higher range of price, were it possible. Competition of foreign fibre has been quite a factor in the case, and will be in the future, unless Congress shall see fit to afford this branch of our business the same protection that is afforded other American industries. We are thorough believers in the principle that "to Americans belongs the American trade." No failures in our particular branch have occurred during the year, and the number of mills remains about the same as last year. We are,

Yours respectfully,

R. H. EMERSON,
EUGENE H. CLAPP.

The report of the nominating committee was presented by Mr. Friend, naming all of the old officers, O. C. Barber, Akron, Ohio, being named as vice-president of the Board Division to fill the vacancy caused by the death of C. L. Hawes.

Loren Allen withdrew as vice-president of the News Division in favor of Warren Curtis, whom he nominated, and F. C. Shattuck was named as vice-president of the Book Division in place of Mr. Pulsifer, who was not in that line.

The report was adopted and officers were elected as follows:

- PRESIDENT:
E. C. Rogers, Holyoke, Mass.
- VICE-PRESIDENTS:
Writing:
T. A. Mole, Adams, Mass.
C. H. Mulin, Mount Holly Springs, Pa.
- Book:*
M. B. Mason, Boston, Mass.
F. C. Shattuck, Neenah, Wis.
- News:*
C. G. Weeks, Skaneateles, N. Y.
Warren Curtis, Palmer's Falls, N. Y.
- Manilla:*
J. M. Waterbury, New York.
J. M. Johnson, Middletown, Ohio.
- Straw Wrapping:*
H. S. Van de Carr, Stockport, N. Y.
C. M. Smith, Chicago, Ill.
- Boards:*
C. D. Brown, Portland, Me.
O. C. Barber, Akron, Ohio.
- Chemical Fibre:*
E. H. Clapp, Boston, Mass.
R. H. Emerson, Jackson, Mich.
- SECRETARY:
Oscar S. Greenleaf, Holyoke, Mass.

On motion of E. H. Clapp the by-laws were amended so as to give officers power to fill all vacancies.

On motion of O. S. Greenleaf the chair appointed a committee on resolutions of condolence, consisting of E. H. Clapp, W. R. Sheffield, and O. S. Greenleaf.

W. R. Sheffield moved that a committee be appointed to confer with the Spanish American Commercial Union and also to take some action in regard to bringing about some practical development as to steamship communication with foreign countries in the next Congress.

The motion was adopted and the chair appointed Warner Miller, William A. Russell and William Whiting.

The president was empowered to appoint a tariff committee should necessity arise.



HON. RODNEY WALLACE.

A communication was received from Horatio Gates Jones, asking the association to express its approval of the proposed celebration of the anniversary of the building of the first paper mill. The letter was referred to the secretary, who was authorized to answer it.

On motion of E. H. Clapp, seconded by Byron Weston, the officers of the association were authorized to arrange for a banquet next year.

On motion of Charles D. Brown a resolu-

tion of thanks was passed to the members of the banquet committee, and a similar resolution was passed to the proprietors of the hotel on motion of Loren Allen.

On motion of O. S. Greenleaf the president was authorized to appoint a committee to investigate alleged undervaluations of imported paper.

The chair appointed as such committee O. S. Greenleaf, E. L. Embree and Byron Weston.

Howard Lockwood presented a table (see page 603) showing the statistical position of the trade, for which, on motion of O. S. Greenleaf, a vote of thanks was passed to Mr. Lockwood.

The meeting then adjourned.

Obituary

MILES B. CARPENTER.

Miles B. Carpenter, a member of the firm of Henry A. Philp & Co., paper manufacturers, Carroll and Nevins streets, Brooklyn, died on Sunday last at his residence, 54 East Fifty-seventh street, New York. The deceased had been ailing for some time, but the immediate cause of death was dropsy of the heart. Mr. Carpenter was born at Pleasantville, N. Y., about fifty-three years ago, and at the age of thirteen went to California and entered the service of J. Y. Halleck, who at that period supplied the whole mining district with hardware. He afterward became a partner in that house, but came East upon its dissolution in 1864. In 1866 he joined Henry A. Philp in the paper making business and soon began to show that enterprise which had characterized his career on the Pacific Coast. He was well and favorably known in the trade and was a man of high character. The funeral took place on Wednesday at Woodlawn. Since the death of Henry A. Philp the firm of H. A. Philp & Co. has been carried on by George W. Philp and Mr. Carpenter. It is understood that the firm of H. A. Philp & Co. is not likely to change its name, and the admission of other partners will, of course, depend to some extent upon the disposal of the interest which the deceased held in the firm.

D. J. Kane, of the firm of D. J. Kane & Brothers, bookbinders, New Bedford, Mass., is dead.

"THE MILL WILL NEVER GRIND WITH THE WATER THAT HAS PASSED."

LOW WATER AND RELAY STEAM POWER.

THE season thus far has been exceptionally favorable as regards abundance of water power upon our manufacturing streams. Of course this forms no positive insurance against low water later on. Many of our rivers are very "quick," and no large margin of time is usually allowed between considering and acting in the matter of relay to water power. A few suggestions on the topic of relay power are timely even now.

When relay steam power is wanted at all it is wanted worse than the traditional revolver. Under like circumstances the Texas cowboy does not select a firearm requiring several days' preparation for use, probably more or less repairs, and which even then is not sure to go off when the trigger is pulled. By this rather homely comparison we are brought at once to the meat of the application of steam power as relay to water:

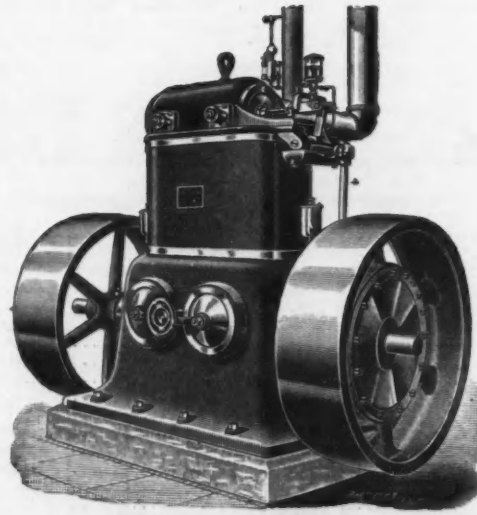
- That engine is best applied to this service which possesses certain qualities:
- It must not suffer deterioration by standing idle.
- It must not get out of line by unnoticed settlement of foundation.
- It must not require to be dismantled or slushed when stopped for the season.
- It must not need overhauling and reconnecting before starting up.
- It must be of such design that it may go within the cramped space ordinarily available for such purposes; particularly when relay power is an afterthought.
- It must be of such simple design as to admit of an ordinary helper as a temporary engineer in many cases.
- It must be economical.

This last statement would seem to be self evident, but in point of fact the value of economy as a factor in the selection of a relay engine varies very widely with the conditions. If a relay engine is to be used a considerable portion of the time, being in effect supplementary to the water power, then its specific economy becomes a prime consideration. If, on the other hand, it is to be used only in emergencies for a few days or weeks in the year, then its economy is less important, and first cost comes to the front. To aid in the selection of an engine for this service we may take as data the fact that a Compound Engine will average from 1 to 1½ pounds of coal per horse power per hour less than a non-compound engine, and this either non-condensing or condensing. This multiplied into the required horse power and the estimated hours of service per annum, and again by the price of coal in each locality, determines the net value of its economy. On the other hand a Compound Engine costs more per horse power than a non-compound, and the interest and depreciation on this excess represent the net value of first cost. It is simply a business man's problem to balance the two, although he will usually call in the aid of an engineer to supply the data.

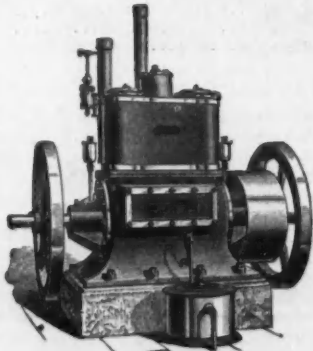
There are probably more mistakes made in the application of relay steam power than in any other branch of steam engineering, due chiefly to the following causes:

Lack of space.

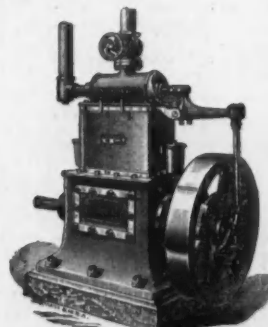
Uncertainty as to the exact power that will be required.
Bad conditions for the erection of foundations.



THE WESTINGHOUSE COMPOUND ENGINE.



THE WESTINGHOUSE STANDARD ENGINE.



THE WESTINGHOUSE JUNIOR ENGINE.

Bad arrangement of shafting. This follows from the fact that the only available place where the engine can be located is often a long distance from the heaviest work.

Again, the engine may necessarily be located near the small end of the line shafting whence it frequently follows that a shaft which was properly proportioned to transmit the power from the wheel may be entirely misproportioned for transmitting the same power toward the wheel from an engine in another position. This point always needs careful consideration.

The frequent necessity of submitting to an engine too large or too small, on account of inability to deliver an engine of the proper size in time for the emergency.

The hurry generally attending the selection, location and erection of the relay steam plant.

The day has passed when anything which will turn over and yield sufficient power for the work in hand constitutes a relay steam power. Some of the knottiest problems which tax the good judgment of the experienced engineer arise in connection with relay plants. If a relay is worth having at all it is worth while to lay it out in the most permanent, reliable and efficient form, and because expensive it must be all the more efficient to render good returns on the investment.

Where minimum low water is sufficient to run a part of the mill at all times subdivision of steam power becomes applicable to relay. That is to say, it is often advisable to divide the power between two or more engines placed at the most convenient points, and carry the steam to them. Any section of the mill can then be cut off from the wheel, and the engine used to drive that section alone. This calls for an engine which is adapted to the subdivision of power by reason of its simplicity, small space required, low cost of foundation, and such qualities of self operation as enable several such engines to be cared for by a single engineer. A point often overlooked in the subdivision of relay power is that one or more of the engines may necessarily be located in a room where the finished product is handled, where it must run without injury to such product. Another engine in the same mill must, perhaps, go in the grimey hole without danger to its parts from dirt, moisture or acid fumes. A case in point in our practice is of a concern operating two engines, one of which stands in a handsome engine room, polished, painted, ornamented with gilt stripes, and the pride of the engineer, while its companion is running and doing equally good duty under a crust of white salt an inch thick, the evaporated residue of brine trickling constantly upon it. This cake of salt has to be chipped off whenever the engine is opened for examination.

It is of the utmost importance that millowners prepare beforehand a well considered plan of relay power, in order that when the time comes the work may be done quickly and consistent with good engineering. A thorough understanding of the engines now on the market, applicable to this exacting class of work, must be the basis of such plans. We present the Westinghouse Compound, Standard, and Junior Engines as covering the whole range between the extremes of the lowest price and the highest efficiency, and as being in their design the *us plus ultra* for relay power. The personal services of the several members of the subscribing firm, and of their local managers, are always at the command of their customers. Very respectfully,

WESTINGHOUSE, CHURCH, KERR & Co., Engineers,
17 Cortlandt Street, New York.
630 Atlantic Avenue, Boston, Mass.
156 and 158 Lake Street, Chicago.
Westinghouse Building, Pittsburgh.
608 Chestnut Street, Philadelphia.



NATIONAL FILTER.

MAIN FEATURES: SIMPLICITY, ECONOMY AND SURFACE WASHING.

We are now altering over to our NATIONAL System Filters of the ROESKE, HYATT, and other makes. The "NATIONAL" Filter is the only one in the market that can be thoroughly cleansed. In successful operation in the leading Paper Mills of the country.

— SEND FOR CATALOGUE TO —

NATIONAL WATER PURIFYING CO., 145 Broadway and 86 Liberty Street, New York City.



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.]

Table with columns: Mortgages, Amount. Sub-sections: EASTERN STATES, MIDDLE STATES, WESTERN STATES, TERRITORIES, LIENS RELEASED.

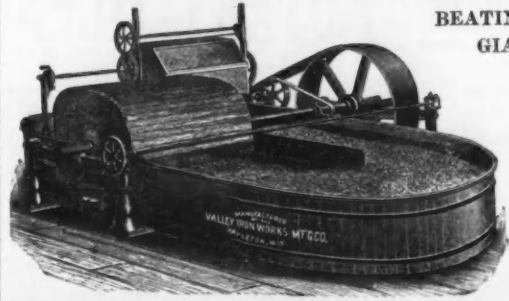
An impervious enamel for paper, wood, &c., is a solution of shellac in methylated spirit. A coating of this is applied, and then another coating is laid at a high temperature and under great pressure.

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The undersigned are prepared to contract with a News or Book Mill for their supply of Sulphite Pulp. Thirty Tons per Month can be supplied. TORONTO PAPER CO., Cornwall, Ont.

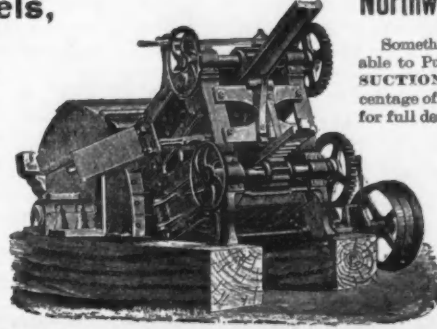
VALLEY IRON WORKS MFG. CO., APPLETON, WIS., U. S. A.,

New Elmer Turbine Water Wheels,



BEATING ENGINES, GIANT WASHERS, FELT WASHERS, STEAM REGULATORS, SLIVER SCREENS.

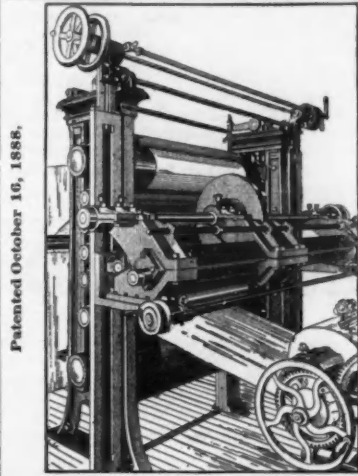
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Something new, practical and indispensable to Pulp makers is our PULP MILL SUCTION SCREEN for reducing the percentage of water in the pulp. Write for full descriptions.

BARKING and SPLITTING MACHINES, PULP MILL WOOD SAWS, FEED GRINDING MILLS, HORSE POWERS, &c., &c.



Patented October 16, 1888.

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OF MALONE, N. Y.

C. COOPER CLARK, President. LESLIE C. WEAD, Vice-President. P. F. DOOLEY, Superintendent. CHESTER H. WEAD, Secretary. JOHN C. PEASE, Treasurer.

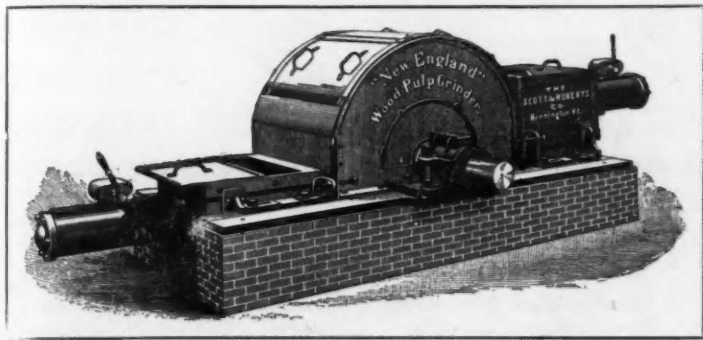
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NEW ENGLAND WOOD PULP GRINDER.



THIS MACHINE IS PRODUCING THE MOST WONDERFUL RESULTS EVER KNOWN IN THE HISTORY of Wood Grinding. Mills, with only moderate power, using this Machine, are turning out enormous quantities of Pulp, and making more money at present prices than they ever made under the old systems. The NEW ENGLAND is manufactured in two sizes: one size has stone 25 inches wide, and the other size is made to set in the place of the old Voelter Machine. Parties desiring to do so can use their old shafts, flanges, pulleys, &c.

We guarantee that the NEW ENGLAND GRINDER will produce more Pulp of a superior grade than any machine now on the market, when operated according to our New England system.

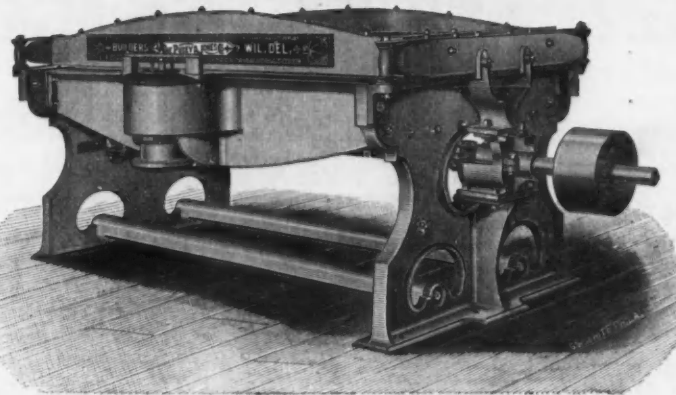
MANUFACTURED ONLY BY

THE SCOTT & ROBERTS CO., Bennington, Vermont.

THE PUSEY & JONES COMPANY, PAPER MACHINERY.

PURCHASERS.

Table listing purchasers and their locations, including Freiberger Papierfabrik, Rolland Paper Co., etc.



GOULD'S PATENT SCREEN.

THE PUSEY & JONES COMPANY, WILMINGTON, DELAWARE.

THESE SCREENS have withstood the test for many years, and have been pronounced by all who have used them satisfactory in an eminent degree. About three hundred of them are now in use in this country, and the fact that there are no second-hand ones for sale indicates that all who have purchased have been pleased.

Anyone who is in doubt as to the kind or type of Screen to use can safely rely upon the judgment of parties whose names appear herewith, and feel assured they are doing what is right and best for their own interests when they follow the example set them by these well-known leaders in their trade.

Anyone who refers to the List of Purchasers will be impressed with the fact that it comprises a large proportion of the most able and successful Paper Manufacturers. It will also be found from this List that the GOULD SCREEN is successfully used in almost every variety of Paper Mills, including those where the finest Writing, Lithograph and Ledger Papers are made, as well as in those where the coarsest Wrapping, Strawboard, and all intermediate grades are manufactured.

It is an acknowledged fact that a Screen that is pre-eminently valuable on one kind of stock will be so on others also. And, judging from the testimonials of purchasers, the GOULD SCREEN will give better results than any other in mills where Sulphite or Chemical Pulp is made, and no Ground Wood Pulp plant should be without them.

PURCHASERS.

Table listing purchasers and their locations, including G. W. Wheelwright Paper Co., Wilder & Co., etc.

The Boston Belting Company.

The accompanying cut illustrates the well-known factories of the Boston Belting Company, which is the largest manufacturer in the world of rubber goods for mechanical purposes. This concern was established in 1828, the factories being on the site of that used by Charles Goodyear in making his experiments in vulcanizing rubber. Its

required by both the army and navy departments. The company now, however, confines itself exclusively to the manufacture of rubber belting, hose, packing and other mechanical goods, and in this connection the attention of the readers of THE PAPER TRADE JOURNAL is directed to the company's facilities for the manufacture of paper mill specialties, such as rubber rolls (of which the company was the original maker) for



WORKS OF THE BOSTON BELTING COMPANY, BOSTON, MASS.

establishment at this date makes the company the oldest manufacturer of rubber goods in existence. Its business has always been increasing, and was exceedingly large even during the war, although not of its present proportions. During the civil war it not only manufactured very largely mechanical goods, but also entered into large contracts for supplying blankets and other articles

press, size, couch rolls, and for wet machines. These effect a great saving in felts, and are to be found in nearly all of the modern mills, most of those now in use being of its make.

The company also manufactures extensively rubber deckle straps for Fourdrinier machines and is the only concern which has facilities for making them up to 2 inches

WANTED

Superintendent having experience in the manufacture of binders, album, box and trunk boards, from either straw or paper stock, to take charge of a mill; capacity 4 tons each twenty-four hours. None but an experienced and energetic person, furnishing the highest references and stating salary expected, need address
Post Office Box 1323,
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WOOLWORTH & GRAHAM,
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PATENT
Washing and Beating
ENGINE.

THE STRONGEST TESTIMONIALS THAT WE have to offer in support of the merits of the UMPHERSTON PATENT WASHING AND BEATING ENGINES are shown by the list of users in this country, as set forth below.

We commend to your notice the number of cases in which additional orders have been received from the same parties.

Company Name	Engines	Quantity
Jessup & Moore Paper Co.	One	10 cwt.
" " "	2d order	One
" " "	3d order	Three
Remington Paper Co.	Two	10 cwt.
" " "	2d order	Two
" " "	3d order	Two
C. H. Dexter & Sons	One	10 cwt.
" " "	2d order	Two
S. D. Warren & Co.	Two	6 cwt.
" " "	2d order	Two
Fitchburg Paper Co.	One	10 cwt.
Wardlow-Thomas Paper Co.	One	10 cwt.
" " "	2d order	One
Hudson River Pulp and Paper Co.	One	10 cwt.
" " "	2d order	Six
Xenia Paper Co.	Two	10 cwt.
Hollingsworth & Vose	One	10 cwt.
" " "	2d order	Three
Brown Brothers	One	10 cwt.
Fairchild Paper Co.	Two	10 cwt.
" " "	2d order	Three
Lake George Pulp and Paper Co.	One	10 cwt.
Glens Falls Paper Mills Co.	Three	10 cwt.
J. Howard Lewis	One	10 cwt.
Reading Paper Mills	Two	10 cwt.
J. D. Stowe & Sons	One	10 cwt.
Ogden Paper Co.	Two	10 cwt.
Harding Paper Co.	One	10 cwt.
" " "	2d order	Two
Geo. H. Friend Paper Co.	One	10 cwt.
Beckett Paper Co.	Two	6 cwt.
J. B. Sheffield & Son	One	10 cwt.
F. W. Bird & Son	One	10 cwt.
" " "	2d order	Two
Monsan Manufacturing Co.	Two	10 cwt.
Marquette and Menominee Paper Co.	One	10 cwt.
Van Nostrand Paper Co.	Two	10 cwt.
Hollingsworth & Whitney Co.	One	10 cwt.
Fall Mountain Paper Co.	Two	10 cwt.
Tilston & Hollingsworth	Three	10 cwt.
" " "	2d order	One
Warren Manufacturing Co.	One	10 cwt.
L. Waterbury & Co.	One	10 cwt.
Edwin H. Sampson	One	10 cwt.
Friend & Forgy Paper Co.	One	10 cwt.
Morrison & Cass	One	10 cwt.
The Hartford Paper Co.	One	6 cwt.

The above seventy-eight (78) Engines are at work on all grades of paper known to the trade, from Tub Sized and Loft Dried Writings and Ledgers to the strongest Rope Papers and Straw Wrappings, and in all cases with the utmost satisfaction and success.

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THE J. MORTON POOLE CO.,
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square. The belting and hose of the company are so favorably known that they require no special commendation in these columns, as they are used in the largest paper mills in this country, and have been sent abroad in large quantities to the paper mills recently started in Japan and South America. The company carries an exceedingly large stock of its manufactures at its home office, 256 to 260 Devonshire street, Boston, and a full assortment at the New York store, 100 Chambers street.

New Patents.

- No. 401,814. Paper Reel.—Homer T. Wilson, Harrodsburg, Ky.
- No. 403,870. Recovering Alkali.—Victor G. Bloede, Baltimore, Md., assignor of one-half to John Bancroft, Wilmington, Del.
- No. 405,044. Apparatus for Coating Paper.—George Manahan and Henry Gade, New York, N. Y.
- No. 405,067. Paper Bag.—James Arkell, Canajoharie, N. Y., assignor to Sarah Hall Arkell, same place.
- No. 405,068. Soft Tie Paper Bag.—James Arkell, Canajoharie, N. Y., assignor to Sarah Hall Arkell, same place.
- TRADE MARKS.
- No. 16,739. Toilet Paper.—George W. Thompson, New York, N. Y. Used since January 1, 1873. "The word 'Bromo.'"

WOOD PULP, STRAW PULP,
—AND—
ROTARY BLEACHING BOILERS.

THOSE WHO HAVE UNSAFE ROTARY BOILERS IN USE CAN EXCHANGE THEM FOR THE Loring Patent Rotary, and can be furnished with abundant evidence that the Loring Boiler is absolutely safe, and the only safe Rotary Bleaching Boiler in use. For the production of chemically prepared wood pulp it has been found extremely difficult to make a boiler that would remain absolutely tight for any considerable length of time. I have accomplished this result by adopting modes of construction far in advance of the best methods for producing first-class boiler work, in combination with substances and methods entirely independent of boiler work, and only known to myself. I invite special inquiries in regard to my patent **WOOD PULP BOILERS**, patent **STRAW PULP BOILERS**, and Rotary Bleaching Boilers; also to my patent process for extracting water from wood and straw pulp, and to my improved Fibre or Drainer Tanks, and Fibre Valves. The common steam boilers built by the undersigned have proved more durable and safer than those of any other manufacturer in the United States. Steam boilers now in good condition that have been in constant use twenty-eight years can still be seen in use in Boston. Not one of the many thousand boilers, varying in weight from one-half to forty tons, has ever exploded or given out, to cause injury to a single person or to one dollar's worth of property, during the twenty-eight years.

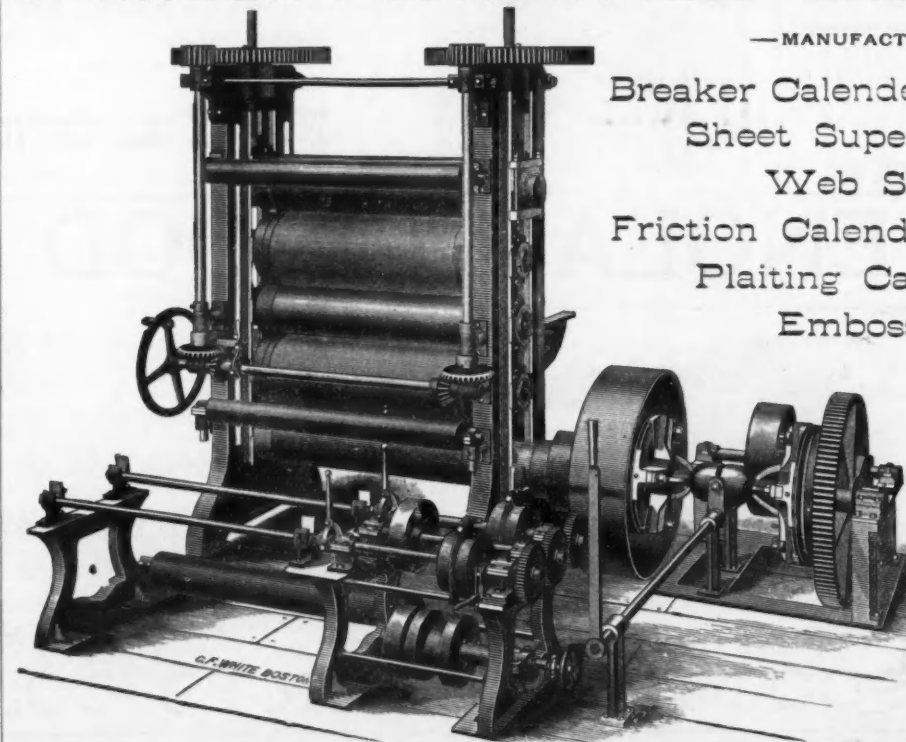
HARRISON LORING, Boston, Mass.

NOTICE.—I have been informed that irresponsible boiler makers have offered to build Rotary Boilers with whole wrought iron heads and a hollow journal, which would be an infringement of my patent. Such boilers will be made by the undersigned at low prices—having special tools for the work—and no extra charge made for the patent right, which would have to be paid by the user if made by an unauthorized person.

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Chilled-Iron Rolls,
Cotton Rolls,
Paper Rolls,

PROVIDENCE, R. I.

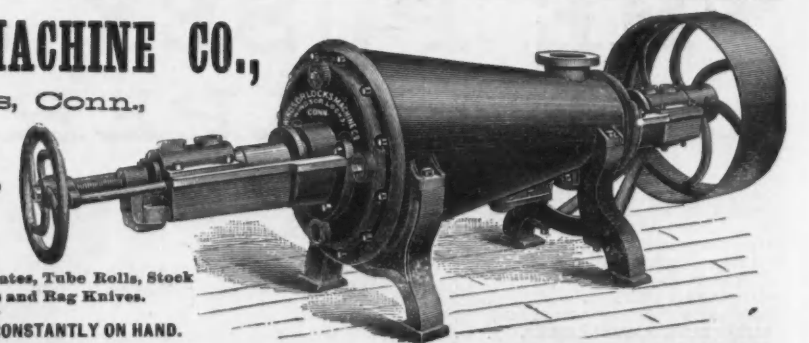
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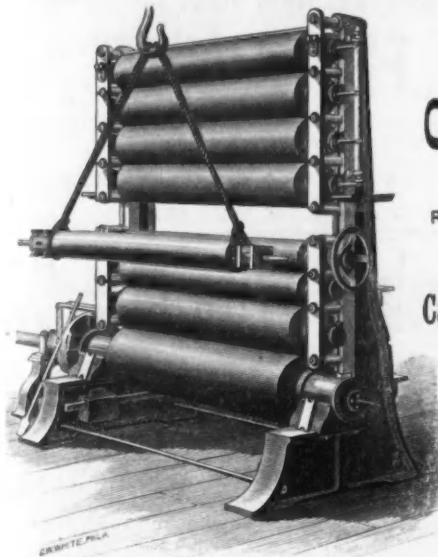
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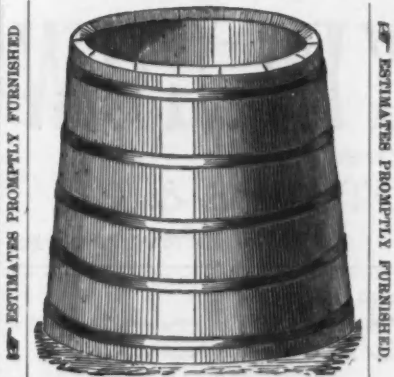
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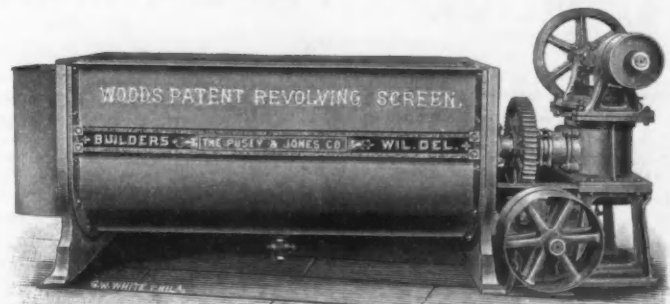


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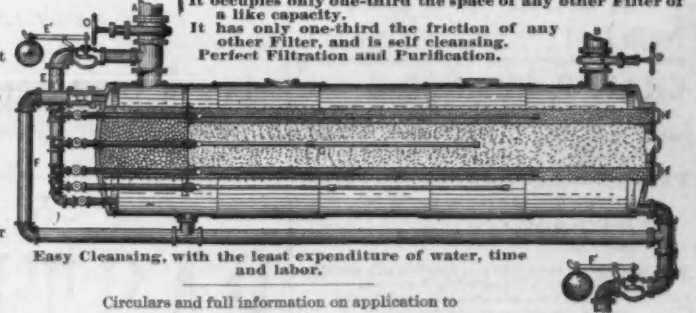
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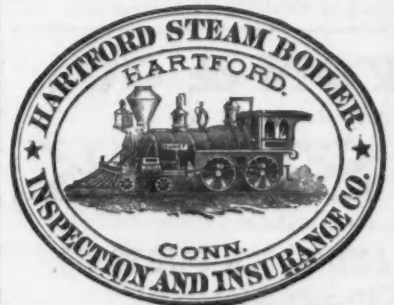
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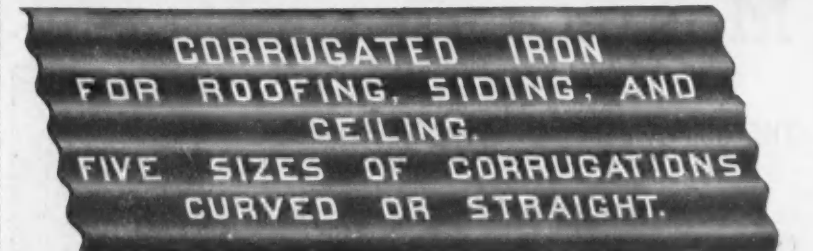
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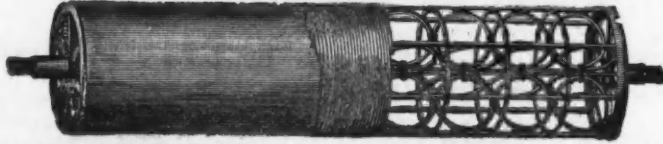
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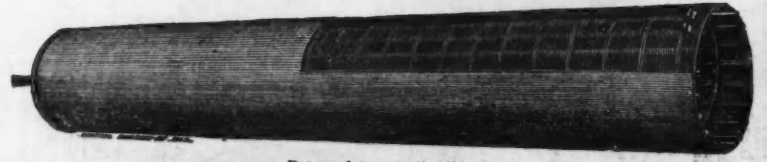
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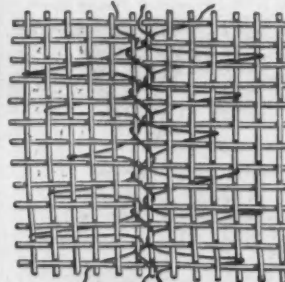
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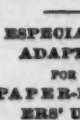
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