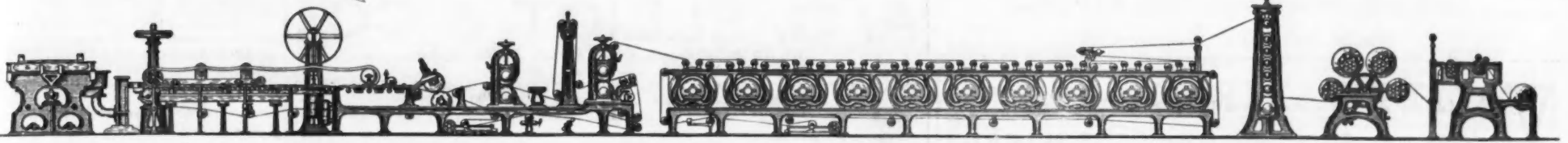


# THE PAPER TRADE JOURNAL.

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SEP 27 1890



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

VOLUME XIX.—NO. 39.

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## Trade Topics.

### Microscopic Examination of Paper.

A communication, by F. Von Hohnel, on the subject of the microscopic examination of paper appears in the *Central Blatt für die Papier Industrie*. The writer says:

The separation between the three following groups of fibres for paper is of practical importance:

1. The fibres of old rags (flax, hemp, cotton).
2. The best succedanea are composed of cellulose (cellulose of wood, straw, fibres of straw, of esparto).
3. The inferior fibres of succedanea, containing wood (wood fibres, jute).

The first problem of the microscopic examination of paper is solved, if one succeeds in distinguishing these three groups among themselves, by three clear and very different colors, making their appearance simultaneously, and by the same microscopic preparation and also with the same reagents.

In the Royal Institution of Technical Experiments at Berlin great importance is given to the separation of these groups. This separation is, so to speak, effected by means of a concentrated aqueous solution of iodine.

This method is only an imperfect expedient. Per contra, there is one which always gives certain results, if iodine and sulphuric acid are used.

To execute it, one must have a solution of alkali, very dilute, an aqueous solution of iodine in iodide of potassium of determined concentration, and sulphuric acid of very exact density. This sulphuric acid is best obtained by proceeding by experiment.

Some fibres of white cotton and linen rags are taken, then a little cellulose of white wood and pulp of whistraw. These fibres are boiled together for some minutes with so much per cent. (1 to 5 per cent.) of alkali. Next the second water is taken away by a washing, and there are placed side by side on object holders very small quantities of each fibre, in order that each preparation may be composed of the four above named fibres.

It is important that they should not form buttons or knots, but that they should be carefully isolated from each other by means of a needle.

After having taken away the water (at a favorable moment) with a piece of blotting paper pressed vigorously twice, add a drop of solution of iodine in the iodide of potassium, which should entirely cover the fibres fixed on the object holders.

The solution of iodine in the iodide of potassium should be concentrated in such a way that a thick layer of about 3 centimetres of ruby red may appear clear and transparent.

After an action of one to two minutes of this last it is completely taken off again by applying the blotting paper twice, in order that there may not remain any solution of iodine between the fibres.

The preparation composed of four fibres, thus treated by iodine, must be finally covered with a drop of diluted sulphuric acid and covered with the glass cover.

If the concentration of sulphuric acid has been exact, cotton, flax or hemp will be colored a beautiful red violet; the cellulose of wood and the cellulose of ordinary white straw will be colored limpid blue, or gray blue, which permits of a distinction of great clearness being made between the two groups of filaments.

The method can be employed for the superior, ordinary and white papers which hardly ever contain, like the German and ordinary article, filaments of esparto or maize, and regularly give results of great exactness.

In these papers, cotton, hemp, flax, jute bleached white, rhea (China grass) and Chi-

nese paper are colored in red violet; the cellulose of wood and the ordinary cellulose of straw, a clear blue; the fibres of wood and unbleached jute, a deep yellow.

The method in question is only of value in the case of the fibres of fine papers.

The raw fibres and coarse papers, in which the fibres have not yet undergone a strong bleaching in part, act otherwise.

### Agitator for Stuff Chests.

The agitator for stuff chests herewith illustrated has been designed with a view to making this detail of paper making machinery more efficient in keeping the stuff thoroughly agitated, thereby preventing the latter from settling to the bottom of the chest and causing it to mix more thoroughly.

Figure 1 is a plan view of the agitator removed from the stuff chest and with the actuating shaft [shown in horizontal section. Fig. 2 is a vertical section of one of the arms or blades taken on line x x, Fig. 1. Fig. 3 is a reduced elevation of the agitator in position in a stuff chest shown in vertical section.

A represents an ordinary stuff chest, and B is the shaft, to which rotary motion is applied by suitable mechanism.

C is a disk or plate rigidly secured to the actuating shaft near its lower end and of suitable diameter.

D D are agitating arms or blades secured to and extending radially from the shaft A and also secured to the disk C on their under edges and on their upper edges to a flat ring or plate, E, having a central opening, E'. These arms or agitating blades are alike and are of the shape shown in the drawings. At the part directly above the plate C and near the shaft they are concavo convex in vertical section and extend above the surface of the plate E, being bent forward into lips at D'. From this part, instead of being on straight radial lines, they curve back, as shown by broken lines in Fig. 1, and are still concavo convex to a certain point, but with the lower edge extending forward into lips D'. Beyond the outer edge of the plate E the outer edges of the blade extend, sloping outward toward the lower edges, which extend perceptibly beyond the plate, while the forward projecting lips D' are larger and more pronounced and scoop shaped.

In practice the stuff is caught by the lips D' as the blades rapidly revolve and drawn in through the central opening C and discharged at the outer ends of the blades D, the lines of discharge being nearly or quite radial. An almost circular path is formed by the stuff as it enters at the centre and passes out at the outer end of a blade. The office of the lower lips D' is to catch the stock and guide it up on the blade, and thus give it an upward tendency in its discharge. The result is to thoroughly agitate and mix the stuff, as above mentioned.

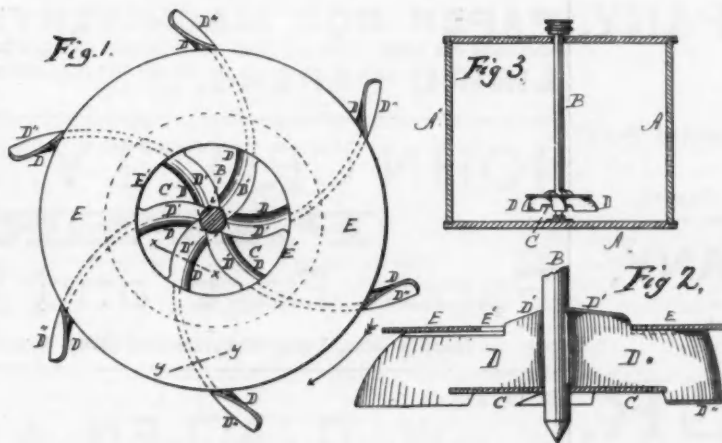
This agitator is useful for mixing various substances in a semi-liquid condition—such as chloride of lime—in bleaching, &c.

Remedy has been sought for the vibration and noise attendant on the working of the engines employed to run dynamos. A plan which has given satisfaction is to build hair felt into the foundations of the engine. An electric company had one of its 90 horse power engines removed from its foundations, which were then taken up to the depth of 4 feet. A layer of felt 5 inches thick was then placed on the foundations and run up 2 feet on all sides, and on the top of this the brickwork was built up. The cost was about \$300.

### The British Chemical Union.

Announcement is made this week that the proposed union of manufacturers of paper makers' chemicals in the United Kingdom has progressed to the extent that a prospectus has been issued setting forth, of course, the manifest advantages, not unaccompanied by liberal profits, likely to be realized by persons who are willing to invest in the stock of the big combination.

In the last issue of THE JOURNAL some remarks quoted from the "money article" of the *London Times*, together with a reply from certain of the alkali manufacturers, were given. This was sufficient to show that English opinion does not favor the projected union. Such opposition might be naturally expected from the journals claiming to represent the paper making interest; but when coming from other sources it



AGITATOR FOR STUFF CHESTS.

must be regarded with that respect which is due to opinions probably formed without bias, and founded solely upon a review of facts and circumstances which have seemed to justify dissent.

The result of the attempt to form this chemical union is so important in its bearing upon American paper making that the views of the English papers will be read with interest. In its last issue (September 10) the *Paper Makers' Circular*, London, under the head of "The Corner in Chemicals," says:

"In our last month's issue we had to chronicle the proposed 'chemical ring,' by which it was sought to monopolize the following manufacturing chemicals: Caustic soda, bleach, soda ash, sulphate of soda, soda crystals, bicarbonate of soda and chloride of potash. We then pointed out that, even with this limitation, paper makers throughout the country would be very greatly affected.

"Since then the air has been big with all sorts and conditions of contradictory rumors relative to this proposed chemical union. One day we hear that the union is an accomplished fact, and on the morrow we are told that all negotiations have fallen through, and that the union is as dead as a door nail or a corpse on the dissecting table.

"During the past month the opponents of the ring, including, of course, the bulk of English and Scotch paper makers and many very influential daily and weekly newspapers, have been doing their best to prevent its formation. It is felt that if sufficient attention is directed to the inevitable consequences of a chemical corner, involving higher priced paper and curtailment of newspaper profits, such a corner may be crushed in its very inception, as was the case with the much talked of 'paper union,' which acted as its precursor.

"It is not generally realized what a great effect this chemical union, if it does come about, must have, not only on paper manufacturers, but upon the general public. Soda and bleach are now in very general use, and the rise in the price of chemicals, which the proposed corner would bring

about, would affect glass makers, soap makers, dyers, laundry works and various branches of the cotton industry. The consequences of this would therefore be felt in almost every household.

"Let us now consider the facts as to the chemical market in this country.

"During the last twenty years about half of the chemical works in the kingdom have been closed, leaving about fifty at work at the present time. The reason of the closing of the majority of these works has been that they were established to produce soda by what is now a moribund process—viz., the 'Leblanc' system. The adoption of the 'Solvay' or 'ammonia' process has practically put all the older works out of the field, and it is stated that it is these obsolete works that the owners have agreed to sell (at good prices) to the promoters of the syndicate. For some time the manu-

facture of soda has been carried on at a loss at many works on the 'Leblanc' process, and what profits they have earned have been made by the production of bleaching powder, the 'Solvay' process not having hitherto been applied to produce bleach so successfully as the 'Leblanc' process. Recently, however, a new plan has been developed and has already been successfully worked on a commercial scale, whereby the difficulty formerly experienced has been overcome, and by its use bleaching powder

can be economically produced from calcium chloride, the waste product from the ammonia soda process. With this explanation it is easy to understand the readiness of chemical makers to listen to the proposals of the promoters of the syndicate, and it is very doubtful whether, in the face of these facts, the public will be ready to invest in such a concern.

"It is actually said that at least one large business which it is proposed to take over has paid no dividend for some years. It is, considering the circumstances which we have stated, not a matter of great surprise that the promoters of the union experience some trouble in their 'negotiations.' The union was originally arranged to come into operation on the 20th of this month, but in spite of rumors to the effect that it is already *un fait accompli* we believe we are correct in saying that the date has been postponed till 'later on.'

"The gracious proposal which the union promoters are reported to have made, to give preference to paper makers in the allotment of shares, will no doubt be declined with thanks! On the contrary, paper makers not only in Scotland, but in Lancashire and other parts of England, are quite prepared, should it prove necessary, to start chemical works for themselves on some kind of co-operative basis.

"In the German trade, as well as in numerous other fields, the effects of syndicates have proved far from satisfactory, and there is something far more than a 'possible, probable shadow of doubt,' whether necessity will compel our paper makers to resort to the extreme measures which the more 'energetic' among them have in contemplation."

Another London journal—the *Printing Times*—adopting the same headline remarks:

"That outgrowth of nineteenth century civilization, 'cornering,' has at last found its way into the realms of paper and print, and it remains to be seen whether the paper makers of the kingdom have sufficient courage to fight against the attempt to 'corner' chemicals, and thus forever put it out of the power of greedy

capitalists to artificially raise the price of an article which is almost as necessary as our daily bread. In a mild form we have seen the effects of 'cornering' in the type founders' 'ring,' and he would be a bold man indeed who would say that anybody, beyond the few type founders interested, has benefited by the operation of the 'ring.' What we do know is this—that the 'ring' has damped enterprise, that it has kept up the price of type, that it has prevented the growth of an industry to its natural expansion, and that the Americans and the Germans share freely in the printers' orders. It is, perhaps, too much in these money grubbing days to expect that a type founder should be a patriot first and a commercial man afterward; but it must strike those who indulge in 'rings' and 'cornerers' that their success is inimical to the welfare of both the consumer and the workman.

"The chemical syndicate and the china clay union have the same aim, the artificial raising of the price of commodities necessary in the manufacture of paper, and every printer, and, indeed, every user of paper—and who is not?—will soon realize what this syndicate means if it be allowed to succeed. There is only one method of grappling with the evil which threatens us, and that method the paper makers seem inclined to adopt. By manufacturing for themselves they will deal a deadly blow at the syndicate, they can insure the success of their undertaking and contracts can be entered into without any fear of the ruinous consequences which often follow an artificial and sudden rise in prices.

"To point out the moral iniquity of 'cornering' to a man who is bent upon amassing a fortune on the ruin of his neighbors would be like pouring water on the proverbial duck's back; but while he is insensible to appeals to his moral sense, he is sensitive to a degree when hit in his pocket. Should, however, there be a lack of unanimity among the paper makers in resisting the threatened attack, they may rest assured that printers will find a means of protecting themselves from extortion. The foreign paper maker will soon be in the field, and, should he come to the rescue at a critical moment, depend upon it that he will be difficult to dislodge.

"The position of the British paper maker will then be pitiable enough: on the one hand at the mercy of the chemical syndicate and china clay union, and on the other harassed and beaten by the lower prices of his foreign rivals. This will be the inevitable outcome of the latest 'corner,' should it succeed. We say nothing of the blow which will be given to a home industry which provides work for so many thousands. The great labor problem is a long way from being solved, and those who would restrict labor by 'cornering' may be taught a sharp lesson by those who will soon feel its baneful influence—the workmen themselves. Lord Randolph Churchill once contemptuously, if not elegantly, referred to his political opponents as playing 'chuck farthing with the Constitution.' The expression, though vulgar, aptly applies to 'cornerers' in their relation to our trade. It is better that these combinations should be met vigorously by those who are assailed rather than by invoking Parliamentary aid; but, should this fail, it will become a serious question as to whether Parliament can stand idly by and see the trade of the country ruined in order that a small band of capitalists may grow inordinately rich at the expense of the nation."

An Austrian inventor proposes to utilize the waste water from paper making by neutralizing the acid which the liquid contains with a sufficient quantity of alkali. The water is then distilled for the purpose of separating the wood spirit, after which the residuary liquid is evaporated to dryness, so that the alkaline acetate may be extracted. The water is first concentrated by being used several times.

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Fox River Notes.

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., September 22, 1890.

A visit to Kimberly and the Combined Locks to-day shows that construction work upon the new mills at both places is moving along rapidly and smoothly. At Kimberly, where the new two machine news mill is going up, the foundations were put in a year ago. The superstructure is now in different stages of completion. The roof is being put upon the two story finishing building, and the walls of the machine room, engine room and storage rooms are rapidly rising. The storage capacity will be very great, two separate buildings being devoted to it, one for paper and rag stock and the other for sulphite. There will be two 106 inch machines, which have been ordered from the Pusey & Jones Company and are expected to be ready to run in January. The Kimberly & Clark Company has received nine flat cars of the best make from the Pullman people, which it is using in transporting wood and stock to its various mills.

At the Combined Locks the tail race is dry on account of the excavations for the new paper mill, and the pulp mill is consequently idle. A new wood preparing building is now contemplated, and six of the Appleton Machine Company's new noiseless screens will arrive next week and be placed in the pulp mill, so that within thirty days the mill will be running again. The boiler house and smoke chimney are the only parts of the new mill which will be finished this fall. The foundations of the rest of the establishment will be put in, so that brick laying may be commenced as early as may be in the spring. The boiler house will be 88x54 feet in dimensions, and will not contain a particle of wood about it. There will be nine boilers, each 6x16 feet. The round brick chimney will rise 158 feet above the ground. The engine room will be 126x138 feet, and there will be two machine rooms, each 60x147 feet, with a 30 feet court between them. The rooms will be connected by covered passages. The washing building for the sulphite plant will be 68x131 feet, and the digester room 50x101 feet. The foundations for all these buildings are well under way, and will be finished in ample time to escape damage from cold weather.

On the river, just above the dam and controlled by a boom, are several thousand loads of spruce for the pulp mill, brought down from Sault Ste. Marie by water. Now that the water is out of the tail race beneath the pulp mill the great fissure in the rock, caused by the so-called "earthquake" a year ago, can be plainly seen. In many places the rock is raised 6 inches and completely splintered along the fissure. The force which operated must have been of inconceivable power.

Upon the completion of the adjustment of insurance upon the Patten Paper Company's mill recently burned arrangements were immediately made to rebuild. A roof has been put over the west end of the mill, which was not too badly burned to admit of repairs, and the ruins have been entirely cleared away, so that the timbers for the new structure have risen to the height of

the first story above the foundation walls. The brick laying will commence to-morrow morning. The company will put in an additional steam boiler, making three in all; otherwise the mill will be about the same as the old one.

The walls for the washing room and power house of the new Mitscherlich sulphite plant in this city are completed and ready for the roof. The former building is said to be the largest for mill purposes in this country without interior partitions. The foundations are now being laid for the lofty acid making tower on the hill near by. Capt. R. D. Evans, who is in charge, recently made a hurried business trip to New York.

One of the workmen who was engaged near a revolving shaft operating a pump had his clothes stripped from him last week by being caught on the shaft. He saw his danger and braced himself so firmly against a wall at the side that he was not carried around on the shaft. Another workman named William Smith fell from a scaffolding and it was at first thought he would die, as his skull was fractured. He seems now to be recovering, however.

The growing interest in the new noiseless screen made by the Appleton Machine Company, of this city, has materialized in the shape of many orders, and the firm has now nearly all it can do to keep up with them. An absolutely noiseless machine, doing the same work and costing far less than other machines, cannot fail to command attention.

The J. H. Horne & Sons Company recently sold Jordan engines to the American Strawboard Company, at Anderson, Ind.; the Waterloo Paper Company, of Waterloo, Ind.; to Jensen & Glad, Christiania, Norway, third order; and two Jordans to F. Neld, of London.

Frank Steele, of this city, has received a valuable locket as a testimonial of regard from the employees of the Centralia Pulp and Water Power Company, of which he was formerly manager.

William Gilbert, of the Gilbert Paper Company, of Menasha, starts to-night for the East on business.

A. L. Smith, Jr., of this city, has returned from Alpena, Mich., where he has been engaged in the Mitscherlich sulphite mill. He will take back a crew of men in a few days to teach them the business preparatory to their employment in the new plant in this city.

Harry T. Bartow and J. H. McCormick, of New York, arrived in this city last evening.

Charles Wilson is expected to arrive to-morrow.

E. E. McCord, of the Boston Belting Company, is in town. FOX RIVER.

British Notes.

[STAFF CORRESPONDENCE OF THE JOURNAL.]

LONDON, England, September 12, 1890.

The American who has arrived in London within the past few days has been treated to what the Londoners call a spell of brilliant weather. This means that the fogs are less dense than usual and that the weather is genial, with now and then a ray of sunshine to remind one that New York has not quite a monopoly of it during the month of September.

I cannot in this letter give to the readers of THE PAPER TRADE JOURNAL any very

startling facts concerning the trade in England as represented by London houses. If there is one characteristic of the English merchant more noticeable than any other it is his reticence. In fact, it is so strongly marked that you are apt to consider it is sometimes a cloak for ignorance. There are exceptions, of course, but it is strange, to say the least, that there should be such a pronounced tendency on the part of London business men to refuse information when asked for it by an American for American consumption. Some of them, in fact, appear to hold the opinion that THE PAPER TRADE JOURNAL has sent out a correspondent especially to pry into padlocked secrets about dandy rolls and other paper mill requisites. This unnecessary coyness, however, wears off with many of the paper men, and to-day I gathered one or two points which will interest the trade of the United States.

It may be remembered that the Local Government Board some time ago issued an order prohibiting the importation into this country of foreign rags. This order went into effect yesterday and is giving some concern to the trade here. By a strange blunder, however, it is very probable that the importers of England will not be inconvenienced in the least. The order only applies to England and Wales, so that it will be readily seen that in case any shipments are destined for England and Wales they can be forwarded to any Scotch or Irish port and there landed. Once deposited on an Irish or Scotch dock there, of course, would be nothing to prevent a reshipment of the rags to any mill in England, as the order only prevents the importation of rags from "foreign" ports. This omission of the authorities has caused a good deal of quiet sarcasm and mirth among the paper trade houses. The order may, however, be amended and will remain in force until the end of the year, by which time it is thought there will be no danger of infection.

The houses here have received dispatches from India stating that the new jute crop will be very large and that the various districts which produce this product are jubilant over the outlook.

The paper trade here does not seem to be very active, but there does not appear to be any special reason for complaint. J. B.

Chicago Notes.

[FROM OUR REGULAR CORRESPONDENT.]

WESTERN OFFICE PAPER TRADE JOURNAL, 114-118 La Salle Street, CHICAGO, September 20, 1890.

Among the various phases of modern material progress there is, perhaps, none more conspicuous or more suggestive than the displacement of small industrial and mercantile establishments by large ones. So long as a pair of arms were the chief motive power and a pair of hands the chief manipulating instruments of productive agencies, the chance for a wealthy manufacturer to outdo a poorer was mainly restricted to the narrow limit of his superior advantage in buying raw materials and in marketing his goods.

Now, however, it is no longer muscle but mind which determines the measure of productive capacity and the cost of employing it.

Recent events have shown that a point

had been reached in the history of many industries in this country at which some form of co-operation would seem to be the only means for protecting the mutual interests of the members of the several industries, and so hold in check certain illegitimate excesses of competitive antagonism. When this can be done without violating or trenching on the proper freedom of industry it is undoubtedly productive of a healthier and safer condition of trade, for competition at present is frequently imprudent and needlessly hostile.

The latest aspirants for combined interest are the straw and other wrapping paper manufacturers.

It has long been known that this commodity was selling below its value in the various markets of the country, and for a year or more attempts have been made to get the individual manufacturers together and to an extent sufficient to control the whole output and command the price at which it should be sold.

To this end options were given to John B. Sherwood, of Lafayette, Ind., good until August of this year, but at a recent meeting at the Sherman House of the leading spirits of the enterprise it was stated that the late tightness in the money market in New York city had prevented Calvin S. Brice and Mr. Orr, of Piqua, Ohio, from raising the necessary capital to swing the enterprise.

After a protracted and somewhat stormy discussion the expired options above referred to were extended to January 1, 1891, by unanimous consent.

The combination, if perfected, will include the following named manufacturers: F. J. Diem, Cincinnati; W. D. Brandt, Jackson, Mich.; C. P. Hooley, Defiance, Ohio; F. C. Trebeins, Ohio; J. Little, Xenia; J. G. Little, Yellow Springs, Ohio; A. P. Brown, Fort Madison, Ia.; L. C. Wood, Plain City, Ohio; G. W. Hastings and F. J. Webb, Springfield, Ohio; J. C. Richardson, Glendale, Ohio, and others.

So much for this portion of the programme. There is still a question in the minds of some fairly astute thinkers in the trade that this incessant and prolonged manipulation of the straw wrapping interest has tended to largely disturb the market, and these people say that with a wrapping trust out of the way prices would advance from 10 to 12 per cent.

Certain it is that during the past year mill owners have frequently refused orders at a fair figure, believing that the "combination deal" would be consummated, but only to find that they were doomed to disappointment, and they were compelled to throw their accumulated production on the market at any price they could obtain.

If January 1 does not bring forth the needed funds the much talked of and long delayed straw wrapping deal will be relegated to that oblivion whence no enterprise ever returns.

From straw wrapping to strawboard is an easy transition, and here it must be stated that J. H. Swinerton has recently been made general manager in addition to his duties as secretary of the Strawboard Association, and the various clerks have been engaged during the past week in making out quarterly dividend checks to the extent of \$120,000, or 2 per cent. on the capital stock of the association.

Bentley & Gerwig, Limited, 68 Market

street, manufacturers and dealers in rope, twine and cordage, report a vastly increased demand for long line hemp and for paper mill twine. Their factory has been kept at full tension for the past year. LYSITER.

Holyoke Notes.

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., September 23, 1890.

The fall paper trade has many hopeful features. The recent shut down of the loft dried mills has, without doubt, materially helped business, as it removed many tons of this paper from the market and has stiffened prices. The outlook for continued business of a favorable nature is excellent, and manufacturers are feeling complacent over the situation. There is a steady demand for standard grades at current prices, and the product is finding its way into the hands of dealers and consumers. Large orders in any one line are not quoted, but the aggregate is very gratifying. Manufacturers do not look for any change in prices one way or the other, and very little is now heard of cut rates. The stock market has undergone very little change, although some dealers report an increased demand, both for foreign rags and domestics. As a rule the mills are well stocked and orders outside of certain grades are limited to present needs.

The manufacturers of envelopes have been holding several meetings of late to take measures to advance the price of envelopes, and it is understood that an agreement was reached late on Saturday to put prices up 20 per cent. It is the determination of some members of the combination to first kill off the small manufacturers by flooding the market with goods at such a low price that the small concerns will be obliged to quit the business. Another plan under consideration is to follow the example of the loft dried paper mills and shut down the manufactories for a time, which would shorten the supply in the market and force prices up. The small manufacturers have been bothering the big ones for some time by producing goods at a lower price than those connected with the trust were allowed to sell, and the latter will not be satisfied till the little fellows are shut off. Meanwhile wholesale dealers are buying largely at present prices in anticipation of a rise.

The Board of Trade will organize permanently at the Common Council chamber to-morrow night. An active canvass has been made since the preliminary meeting and 150 names have been secured. A constitution and by-laws have been prepared, and if the new board is governed by the second article only it will confer a lasting benefit on the city. This article provides that the object of the association shall be to unite the energies of the citizens in a common effort to promote the material interests of Holyoke, to encourage all legitimate business enterprises, to collect and disseminate through the press and otherwise information respecting Holyoke as a manufacturing city and a place of residence, to do everything to obtain such increased railroad facilities as will tend to lower freights on raw material and the products of manufacture, to aid all laudable efforts to improve the highways and to beautify the city. If the new organization sticks to this text there

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W. A. BINGHAM, Paper, Paper Bags, Flour Sacks, &c.,  
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PERKINS, GOODWIN & CO.,  
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 Have on hand and to arrive all grades of Bleached and Unbleached  
 SULPHITE AND SODA PULPS. SEND FOR SAMPLES AND PRICES.

is little doubt that it will accomplish much lasting good.

E. L. Munn, our "urbane ex-city treasurer," as some of the local papers have it, has again been nominated as State Treasurer on the Democratic ticket. History is repeating itself and many of the newspapers of the State are saying very pretty things about "Ed." But he is a sensible fellow and fully realizes that he will continue to manage the affairs of the Howe National Bank during 1891, although he will receive a handsome complimentary vote.

The active little god Hymen is entering the paper trade and claiming many good fellows in this vicinity for his own. Last evening Thomas W. Spencer and Susie M. Page, daughter of A. H. Page, of the Albion Paper Company, were married at the Second Baptist Church before a large number of persons, and a pleasant reception followed at Hotel Hamilton. Mr. and Mrs. Spencer have gone to New York, and on their return will reside at Fairfield. It is probable that the wedding of Homer J. Straton, also of the Fairfield Paper Company, and Louise D. Smith will soon take place at the same church. The wedding of E. C. Weiser, secretary of the Parsons Paper Company, and Lucy Bogg Brooks, of West Springfield, is announced to take place in that town on October 9. Fred H. Newton is expected back from Europe with his bride this week, and they will occupy a house on Chestnut street, which James H. Newton has just bought for his son.

The Fairfield Paper Company has awarded the contract for building its stock house, at Fairfield, to Doane & Williams, of this city.

T. S. Kingsland removed his family to St. Louis this week, where he has charge of the George R. Dickinson Paper Company's branch house.

A new Sunday paper, the *Star*, published by Mason & Ayer, made its bow last Sunday.

The local Press Club entertained the Springfield club last week in a royal manner. A banquet was served at the Hotel Hamilton, consisting of several courses, and covers were laid for thirty-two persons. After the menu had been gone through with a number of short, witty speeches were made by the local scribes and their guests, after which all hands went to the Opera House in response to an invitation from Manager Chase. H.

#### Boston Notes.

[FROM OUR REGULAR CORRESPONDENT.]

EASTERN OFFICE PAPER TRADE JOURNAL,  
67 Federal street,  
BOSTON, September 25, 1890.

Concerning business in local paper trade circles there is but little to say this week.

That business is good seems to be quite generally admitted by dealers and by manufacturers.

Commenting on the future of the trade a member of one of Boston's leading paper houses stated that he expected to see a good, healthy business for a year to come at least.

Notwithstanding that the production of paper is being somewhat increased, consumption is also increasing, so that the daily product seems to move without too much effort at present.

While prices still rule low there is a small profit for large mills. Small mills are having a hard time to make money.

The past week has developed a better feeling in the paper stock market. Inquiries have become more numerous and prices have stiffened a little; even small advances over last week's figures have been secured on late sales of rags. Freight rates are higher owing to the great demand for freight room from Europe to rush goods into this market before the McKinley bill becomes a law.

Paper stock imports for the past seven days include 1,591 bales of rags, 578 bales and 654 coils of manillas, 1,945 bales of paper stock, 780 bale of chemical fibre, 350 rolls of cellulose and 994 bags of sizing.

Receipts of chemicals for the week comprise 1,047 casks of bleaching powder, 1,297 drums of caustic soda, 527 casks and 1,000 bags soda ash and 140 barrels of soda crystals.

There is a little more life to the chemical market this week. Bleaching powders are quoted at 1.45@1.50c. for spot lots, while distant shipments are held at 1.52½@1.55c.

Caustic soda is quoted at 3.10@3.15c. and very scarce on spot, so little being held in store that sales are reported this week at figures as high as 3½c. Soda ash still holds at 1.45@1½c., and soda crystals at 1.02½@1.05c.

Indications seem to point to the fact that the American Strawboard Company proposes to close up its Boston branch house, as the big store on Federal street is advertised "to be let." Theodore Pinkham, late manager of the Boston branch and for so many years connected with the trade, is very much missed from Federal street by his host of business friends.

Recent trade visitors were T. E. Barnes, of Plantsville, Conn.; G. J. Moffatt, Jr., of New Haven, Conn.; John E. Waller, of Hart Lot, N. Y.; I. R. Ellston, Wm. Wilson, C. G. Mortimer, J. A. Romig, D. P. Winne and H. Atterbury, of New York; W. N. Smith, Chaplin, Conn.; B. F. Wood, of Auburn, Me.; A. C. Moore, of Bellows Falls, Vt.; H. I. Wallace, of Fitchburg, Mass.; W. N. Caldwell, of Holyoke, Mass.; Wm. Finley, of Montreal; F. J. Weeks, of Skaneateles, N. Y.

W. T. Barker and wife are doing the Berkshire Hills.

Cards are out announcing that William B. Tyler, one of Stone & Forsyth's young salesmen, will be married next month.

C. D. Brown, of the Rice-Kendall Company, returned yesterday from a visit to the grounds of the Rumford Falls Power Company, a company in which Mr. Brown is personally interested. The company owns what is claimed to be the finest water privilege in the State of Maine. A large force of men is now at work building a big dam across the Androscoggin-River, and by November 1 the company expects to have this completed, which will give 15,000 horse power. Further developments in the line of improving the company's property will be introduced. It is proposed to secure the location of pulp mills, paper mills and other

manufacturing industries. Railroad connections will be made with the falls this year.

The Boston Stationers' Association held its first meeting of the season at the Parker House yesterday evening.

L. M. Backett & Co., paper dealers, No. 74 Federal street, announce themselves to general trade through the columns of THE JOURNAL. See their advertisement.

DELESDERNIER.

#### The Paper Making Bicentennial.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., September 25, 1890.

In THE PAPER TRADE JOURNAL of last Saturday, the 20th inst., in the article on the "Paper Making Bicentennial" it was stated that the committee of the board of managers of the Rittenhouse Memorial Association which had the celebration in charge would meet on the evening of that day, the 20th, and announce the full programme. The result of that meeting appears by the following copy of a letter to the writer representing this journal:

PHILADELPHIA, 9-24-90.

DEAR SIR—In reply to your inquiry would say that at an informal meeting of our committee on bicentennial at Wissahickon on the 20th inst. it appeared that we would not be able to complete arrangements to hold the celebration at the time stated, therefore postponed it for the present. Respectfully yours,

A. RITTENHOUSE, President.

The action of the association in postponing the celebration at this late date, and after its announcement has been spread broadcast over the land, is likely to cause much criticism of the association. It is to be feared that pilgrims from the paper trade from different parts of the country, and students of history of Pennsylvania, will come here next Monday—the date announced for the celebration—and journey out to Germantown only to be disappointed. Since the publication of last week's article in THE JOURNAL, the paper trade here have begun

to be quite interested in the bicentennial, and as no announcement of the postponement has yet been published here, some of them also will doubtless lose the time in making a fruitless trip to the Wissahickon.

Those interested will naturally require a better explanation of the postponement than is contained in the meagre letter from Dr. Rittenhouse. The writer is able to state, from an official source, that it is simply the result of a factional squabble among the board of managers. To quote the expression of one of the association's most prominent members who attended the "informal" meeting on the 20th, and also the regular meeting on the 24th, at both of those meetings: "There was a monkey and parrot time." An enjoyable time perhaps for the members, but what about its result to those who may come from long distances to attend the bicentennial?

The trouble in the board showed itself at the "informal" meeting of the 20th. On the morning of that day the members of the board each received a postal card from the secretary informing them that the regular meeting would be held on the 24th, and that there "would be no meeting on the 20th." Notwithstanding this a meeting was held on the 20th, styled by Dr. Rittenhouse "informal," and there it was resolved to postpone the celebration. At this meeting the factional quarrel began, which was continued at the next meeting on the 24th.

Before making up the article in last week's JOURNAL the writer applied to the president of the Rittenhouse Memorial Association, Dr. Alvah Rittenhouse, for the necessary facts. In response the doctor sent E. Frank Carson, the chairman of the board, as one who represented the association and also its president, Dr. Rittenhouse, and who was empowered to give out for publication all of the arrangements at that time agreed upon. About what was printed in THE JOURNAL was published in many of the daily papers, and thus given an exten-

sive circulation. Even if the announcement of the postponement is published—there has been none at this writing, the 25th—it may not reach those in places outside of this city who propose coming here on the 29th.

The postponement is much to be regretted for several reasons. First, because September 29 is the proper time, being just 200 years from the date of the deed, which, it is said, is the only document in existence which officially gives a certain date connected with the erection of the first mill. Another reason is the more than probable arrival and of course disappointment of visitors. A third reason, and one which is of equal if not greater importance than the others, is that it is said that the contracts have been awarded for making the new Fairmount Park drive, which will efface the old chapel, the house where David Rittenhouse was born and the site of the first mill built in America. In the spring these historical relics, which should be preserved with the utmost care, will all be gone unless the memorial association harmonizes the differences among its members and strives to preserve them.

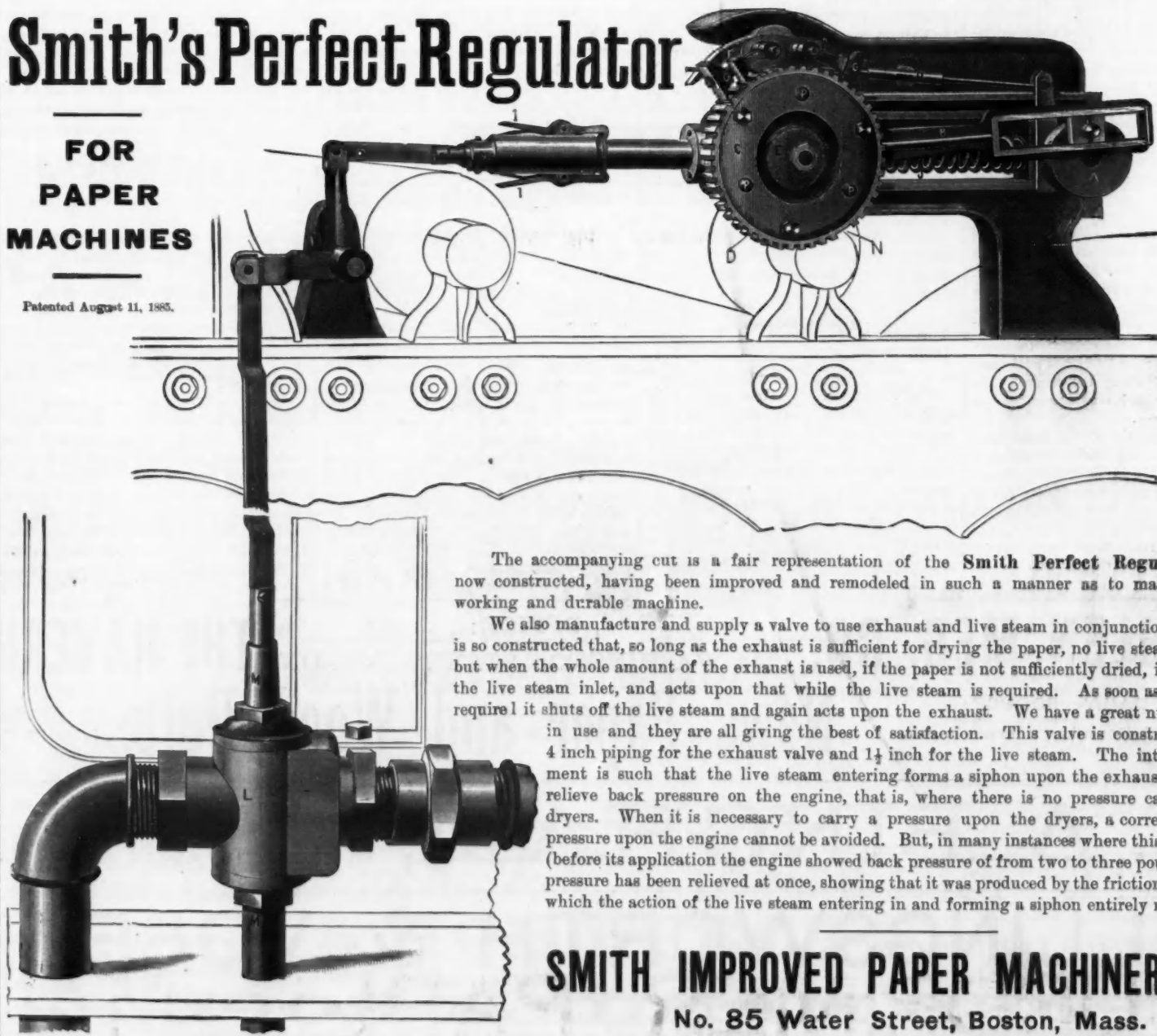
As the writer finished the foregoing and was on the point of mailing it he received a letter from Daniel K. Cassel, one of the board of managers of the association, which, after relating the facts of the postponement, goes on to say that the article in the *Inquirer*—which was substantially the same as that in THE PAPER TRADE JOURNAL of the 20th—"was not ordered by the board, it was a private article." Of this I would say—summing up the fifth paragraph of this letter printed in THE PAPER TRADE JOURNAL—the article was not "private," as the matter contained in it was given to the writer by the chairman of the board of managers, who was sent to him in answer to a request for the information by the

(Continued on page 852.)

## Smith's Perfect Regulator

FOR  
PAPER  
MACHINES

Patented August 11, 1885.



The accompanying cut is a fair representation of the Smith Perfect Regulator as it is now constructed, having been improved and remodeled in such a manner as to make it a perfect working and durable machine.

We also manufacture and supply a valve to use exhaust and live steam in conjunction. This valve is so constructed that, so long as the exhaust is sufficient for drying the paper, no live steam is admitted, but when the whole amount of the exhaust is used, if the paper is not sufficiently dried, it then operates the live steam inlet, and acts upon that while the live steam is required. As soon as it is no longer required it shuts off the live steam and again acts upon the exhaust. We have a great number of these in use and they are all giving the best of satisfaction. This valve is constructed to use a 4 inch piping for the exhaust valve and 1½ inch for the live steam. The internal arrangement is such that the live steam entering forms a siphon upon the exhaust, and tends to relieve back pressure on the engine, that is, where there is no pressure carried upon the dryers. When it is necessary to carry a pressure upon the dryers, a corresponding back pressure upon the engine cannot be avoided. But, in many instances where this has been used (before its application the engine showed back pressure of from two to three pounds), the back pressure has been relieved at once, showing that it was produced by the friction in the piping, which the action of the live steam entering in and forming a siphon entirely removed.

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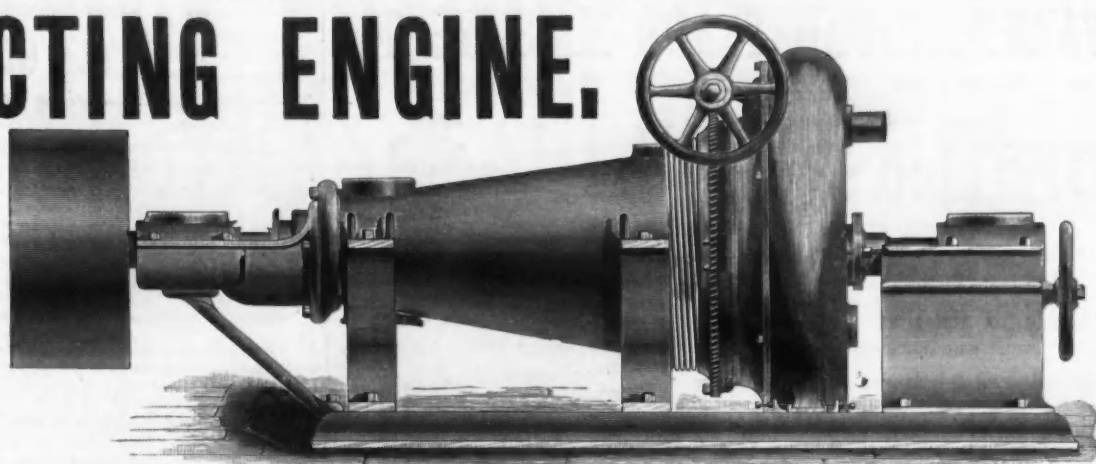
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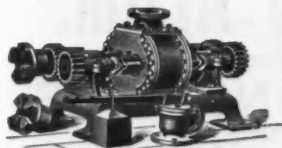
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Correspond with us before Placing  
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Have stood the test of years and are acknowledged by  
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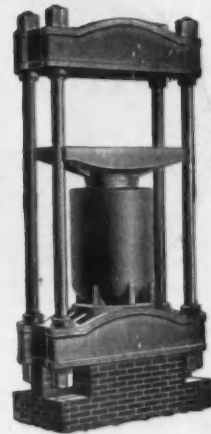
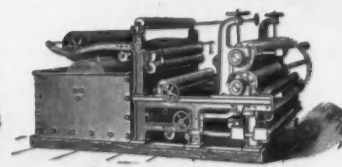
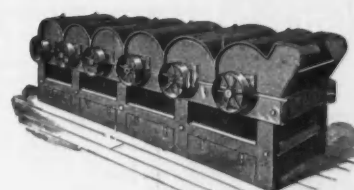
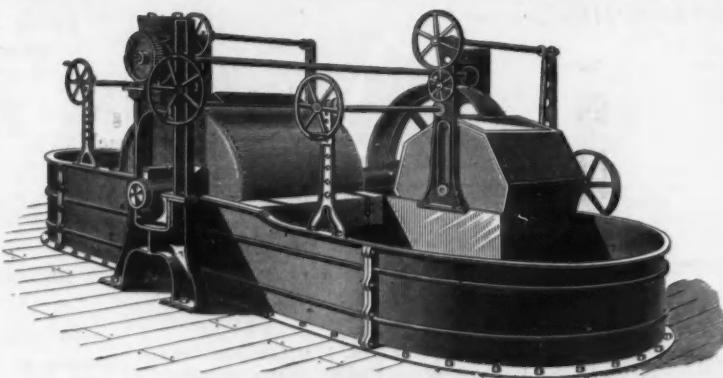
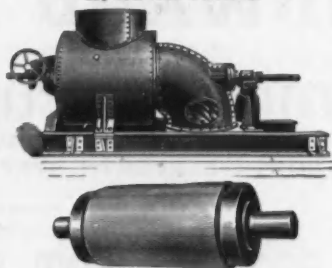
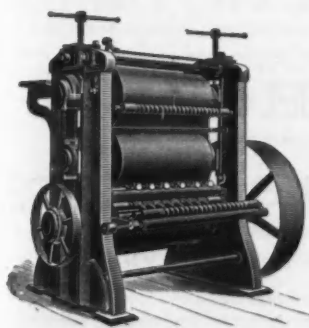
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Dusters, Engines, Turbine Wheels,  
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MANUFACTURERS OF

# FOURDRINIER PAPER MACHINES

— AND —  
PULP AND PAPER MACHINERY.

G. W. KNOWLTON, Pres. Office of THE ONTARIO PAPER CO., JOHN A. DECKER, Supt.  
THE BAGLEY & SEWALL CO.: WATERTOWN, N. Y., August 12, 1890.  
GENTLEMEN—The following is the record of the 86 inch wire Fourdrinier Machine purchased of you for the past week:  
August 4, . . . 24,335 lbs. | August 6, . . . 24,020 lbs. | August 8, . . . 23,337 lbs.  
August 5, . . . 23,390 lbs. | August 7, . . . 24,010 lbs. | August 9, . . . 24,865 lbs.  
Average per day, . . . 23,992 lbs.  
These figures are the net shipping weight of the paper, averaging 31 lbs. to the ream, 24 x 36 in.  
Yours respectfully, E. B. STERLING, Sec'y.

FRONTENAC PAPER CO.,  
DEXTER, N. Y., August 20, 1890.  
BAGLEY & SEWALL CO., WATERTOWN, N. Y.:  
GENTLEMEN—At 8:30 to-night our machine tender shut down to put on a NEW FIRST FELT. The paper was off the reel less than ELEVEN MINUTES. It cannot be done on any other make of machine than the BAGLEY & SEWALL.  
Hastily,  
F. W. SPICER, Sec'y and Treas.

**FARREL FOUNDRY AND MACHINE CO.,**

ANSONIA, CONN., U. S. A.,

THE LARGEST MANUFACTURERS OF

**Chilled Rolls**

IN THE WORLD.

ALSO MANUFACTURERS OF GRINDING MACHINES FOR ALL KINDS AND SIZES OF ROLLS.

**CHILLED AND DRY SAND ROLLS**

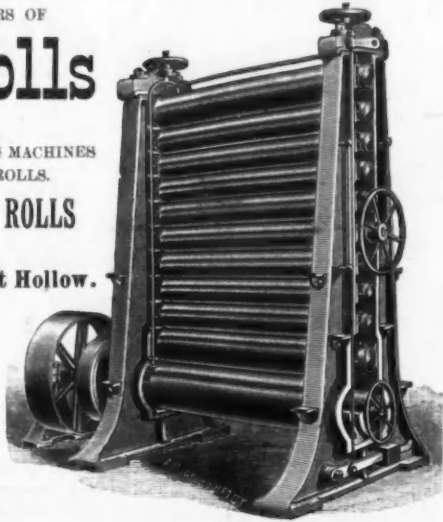
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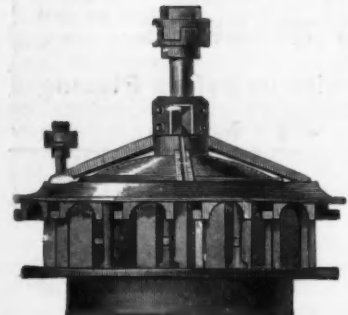
**COMPLETE CALENDERS.**

Lift Beds operated by wheels above for raising any number of the rolls. Housings so made that the rolls may be taken out endwise through frame.

OLD ROLLS RE-GROUND AT SHORT NOTICE.



**THE SUCCESS WATER WHEEL.**



This Wheel is strong and durable. Excelled all other wheels in the great trial tests. Is in use all over the nation. I also make a specialty of

**Heavy Gearing and Machinery**

FOR — PAPER, COTTON AND GRIST MILLS.

SEND FOR PAMPHLETS AND PRICES.

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**The HUMPHREY TURBINE CO.,**

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Pulleys, Hangers, Shafting, Gearing, &c. Leading Specialties: Turbines with Automatic Regulators, maintaining their Efficiency at Part Gate.

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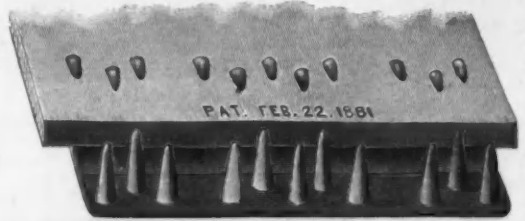
The grit of the stone from our Peninsula Quarry is particularly adapted to grinding Wood Pulp. All the Wood Pulp Manufacturers who have used these stones say they give general satisfaction, and are much superior to any imported stone. We manufacture stones for the following machines: The Warren-Curtis, Brokaw, Frambach, Valley Iron Works, Dayton Globe Iron Works Co., Lowell Iron Works Co., Frank Ditts and New England, Scott & Roberts, Eilers, and all others. In sending orders please be particular to give the exact dimension the stone must be. Give the diameter and face of stone, the diameter and depth of flange, where flanges are to be cut. State size of hole for shaft, and if round or square.

**THACHER'S**

**Patent Belt Fasteners,**

FOR Double Leather or 3 or 4 Ply Rubber.

The Claffen Mfg. Co., Cleveland, Ohio, U. S. A., Sole Manufacturers.



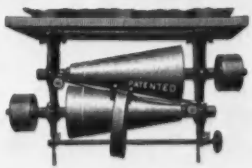
**CYPRESS** IS THE MOST DURABLE WOOD FOR TANKS, VATS, &c.

We have all thicknesses in stock, and shall be pleased to answer inquiries in regard to the same from PAPER MANUFACTURERS and others.

**THE A. T. STEARNS LUMBER CO.,**  
11 Federal Street, NEPONSET, and 470 Albany Street, BOSTON.

**THE EVANS FRICTION CONES.**

For changing and regulating the speed of machines automatically or by hand.



The speed can be quickly and easily varied while the machine is running.

Address the Evans Friction Cone Co, 85 Water St., Boston.

**IMPROVED LITTLE GIANT WATER WHEEL**



gives high results, and is acknowledged the best, most practical and efficient wheel made. For simplicity, durability and tightness of gate it has no equal. Prices reasonable per horse power.

All Wheels guaranteed, and no money required until the Wheel is fully tested. If found deficient of guarantee, after the Wheel has been set according to directions, we will refund all moneys paid out for freight and otherwise in handling the Wheel.

**WILLIAM DOLAN & CO.,**  
Logansport, Ind., U. S. A.

ESTABLISHED 1846.

**GEO. J. BURKHARDT'S SONS' CEDAR TANK FACTORY,**

2831 TO 2839 NORTH BROAD ST., PHILADELPHIA.  
Downtown Office, 321 Chestnut St.



**THE FLENNIKEN TURBINE WATER-WHEEL**

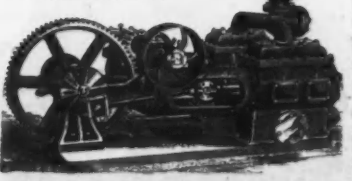


is the most Simple, Strong, Durable and Economical Wheel manufactured. Send for Circular to **UTTER MANUFACTURING CO.,** ROCKFORD, ILL.

**Steam and Power Pumps**

FOR ALL DUTIES.

The Buffalo Steam Pump Co., BUFFALO, N. Y.



**VEREINIGTE Strohstoff - Fabriken,**

(UNITED STRAW PULP MFG. CO., LIMITED.)

DRESDEN,

Works at Ingelheim, Rheindürkheim, Gengenbach, Dohna, Koetitz (Tännicht), Alt-Oels, Sattler and Hirschberg,

RECOMMEND THEIR FIRST-CLASS

**Bleached Straw Pulp.**

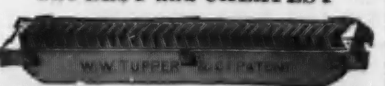
Unequaled in Whiteness and Purity; Strong and Felt. Warranted free from clays and colors, and used by the leading Paper Mills in the States and in Europe. Also Special Lines of Bleached and Unbleached Sulphites.

FOR PARTICULARS APPLY TO

**GEO. HAMILTON,**  
Agent for the Company,

74 WALL STREET, NEW YORK.  
Branch Office, Room 64, Raub Build'g, 90 Nassau St.

The BEST and CHEAPEST



**GRATE BAR**



For any kind of Fuel.

W. W. TUPPER & CO., 206 West St., New York.

SEND FOR CIRCULAR.

**ALUM**—Peerless, Concentrated, Excelsior, Eagle, Cake, Ammonia and Potash Alums.

TACONY CHEMICAL WORKS.

**CHARLES LENNIC & CO., LIMITED**  
The Oldest Alum Manufacturers in America.

OFFICE: 112 SOUTH FRONT STREET, PHILADELPHIA.

**THE UNITED STATES CHEMICAL CO.,**

No. 1 South Front Street, Philadelphia.

CORRESPONDENCE SOLICITED.

**ALUM**

U. S. Refined Alum, Neutral,  
U. S. Refined Alum, Basic,  
U. S. Refined Alum, Acid,  
and ALUM CAKE.

**AGENTS: H. C. HULBERT & CO., NEW YORK.**

HENRY MERZ, Pres.

CHAS. F. ZENTGRAF, Sec.

LOUIS DE JONGE, Treas.

**THE CONSOLIDATED ULTRAMARINE CO. LTD**

**PAPER ULTRAMARINE,**

Equal to any Imported.



No. 55 MAIDEN LANE,

**NEW YORK.**

**GLOBE ANILINE WORKS.**

HELLER & MERZ CO.

**PAPER MAKERS' COLORS.**

—AGENTS FOR—

IMPERIAL FELTS AND JACKETS.  
55 Maiden Lane, New York.

**A. KLIPSTEIN,**

BRANCH: 120 Arch St., Philadelphia.

OFFICES: 134 Milk St., Boston.

52 Cedar Street, New York.

**CONCENTRATED ALUM.**

**VENETIAN AND STRONG REDS,**

Ochres, Clays and Copperas,

MANUFACTURED EXPRESSLY FOR PAPER MAKERS' USES BY

**THE S. P. WETHERILL CO., Limited,**  
112 JOHN STREET, NEW YORK. 47 N. FRONT ST., PHILADELPHIA.

**EDWARD HORE,**

MANUFACTURER AND IMPORTER OF

**Chemically Pure Colors**

FOR PAPER STAINERS,

62-68 NORTH ELEVENTH STREET, BROOKLYN, N. Y.

CHAS. E. HORE, Superintendent.

**WM. PICKHARDT & KUTTROFF,**

98 Liberty Street, New York,

BRANCHES AT BOSTON AND PHILADELPHIA.

—IMPORTERS OF—

Aniline Colors, Carmine, Pulp Colors, Ultramarines,  
N. C. F. Concentrated Alum.

**KALLE & CO.,**

MANUFACTURERS OF

**ANILINE COLORS.**

Specialties for the Paper Trade: Fuchsine, Paper Blues, Green Crystals, Methylviolet, Paper Yellows, Croceine Scarlets, Paper Oranges, Eosine, &c.

77 JOHN STREET, NEW YORK.

**FERRIC CHEMICAL AND COLOR CO.,**

—MANUFACTURERS OF—

**Pillar Copperas, Venetian Red and Oxides of Iron,**  
WORCESTER, MASS.

DE-OXIDIZED BRONZE DIGESTERS FOR MAKING SULPHITE FIBRE

MADE BY THE ORIGINAL INVENTORS OF THE ONE-METAL DIGESTERS

(COVERED BY PATENTS, UNITED STATES AND EUROPE)

THE DE-OXIDIZED METAL CO., OF BRIDGEPORT, CONN.



TRADE MARK.

We have the BEST METAL in existence.

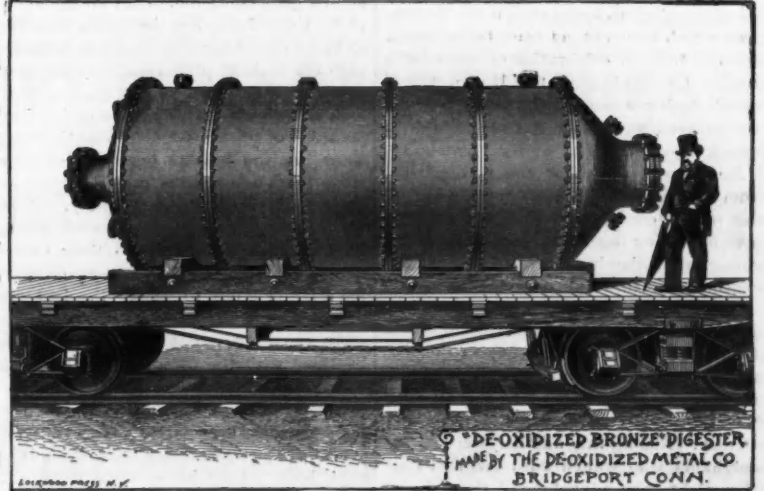
We do the BEST CASTING possible and give PERFECT FINISHING, and all at REASONABLE PRICES.

We have NO MIDDLEMEN, and only charge MANUFACTURERS' PRICES.

We furnish also, when desired, THE ACID PLANT, for making the LIQUOR, of the latest and most improved kind. (Covered by our own patents.)

We can furnish also, when required, the most EXPERT MECHANICS and CHEMISTS to put all in operation, in perfect working condition. No fancy prices charged.

We refer to ATLAS PAPER COMPANY, KIMBERLY & CLARK COMPANY, GEO. H. FRIEND PAPER COMPANY, EASTERN MFG. COMPANY, REMINGTON PAPER CO., ORONO PULP AND PAPER CO., AND OTHERS



DE-OXIDIZED BRONZE DIGESTER MADE BY THE DE-OXIDIZED METAL CO. BRIDGEPORT CONN.

TRADE MARK.

Correspondence or personal interviews with those who propose going into the manufacture of SULPHITE FIBRE solicited. N. B.—Infringers on any of our Patents for Metal or Construction will be prosecuted vigorously, Makers, Sellers and Users.

THE DE-OXIDIZED METAL CO., BRIDGEPORT, CONN.

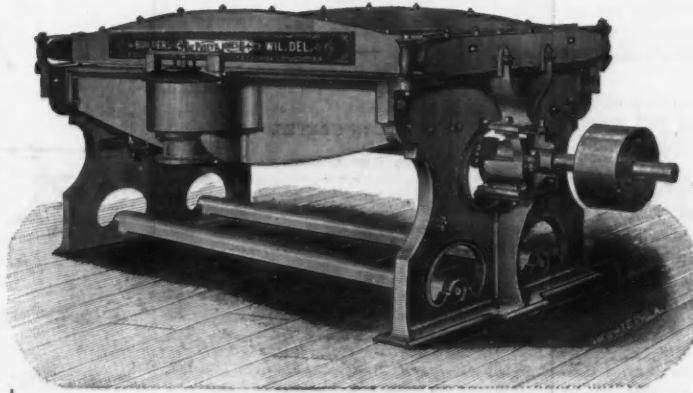
PATENTED

GOULD

SCREEN.

PURCHASERS.

Table listing various paper companies and their locations, such as GEBB, HOESCH, FREIBERGER P. PIERFABRIK, 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.

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 the 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 various paper companies and their locations, such as BEEBE & HOLBROOK CO., G. W. WHEELWRIGHT PAPER CO., WILDER & CO., etc.

(Continued from page 848.)

president of the Rittenhouse Memorial Association, Dr. Alvah Rittenhouse, who is the highest officer in the association. Therefore the blame for the blunders and disappointments must rest with the association and not with the newspapers which published announcements made to them by the association's official representative.

FOUNTAIN PEN.

**San Francisco Notes.**

[FROM OUR REGULAR CORRESPONDENT.]

SAN FRANCISCO, CAL., September 20, 1900.

The largest celebration in the annals of California has passed and the members of the Native Sons of the Golden West and their friends have dispersed and returned to their homes in the different cities and towns of the State. Nothing remains visible of the glorious event save a few decorations which have not yet been taken down. Yet the fortieth celebration of the admission of California into the Union, which lasted during a week's time, will long be remembered and its results cannot fail to have a beneficial effect on the community. It has brought together the young blood from all parts of the State and the festivities of the occasion have served the purpose of joining together the interests of the young generation in their efforts for the advancement of this State and coast.

During the celebration San Francisco was so crowded with visitors that it was a difficult matter for the sight seers to "locomote" themselves through the dense throngs. It is estimated that at least 100,000 strangers were in the city from the country. Among this number were many merchants who waited until this time that they might take advantage of the reduced railroad rates in making their regular trips to the city for the purpose of purchasing their fall and winter stocks.

These country dealers kept the paper and stationery houses busy taking their orders. The paper dealers have been largely patronized and report greatly increased sales. The reduction made in paper bags by the two largest dealers in this line has been an incentive for the retailers and merchants to lay in large supplies in anticipation of future increases in prices.

There is at the present time a state of affairs in paper trade circles of this city which loudly calls for rectification. Although it has existed for a considerable period, the time is fast approaching when human forbearance will cease to be a virtue; but as yet it cannot be ascertained in what manner the climax will be reached. There are always between three and seven so-called agents of Eastern paper mills going the rounds selling goods on samples. How these personages ever succeed in securing the agencies of the Eastern firms, taking it for granted that they have to first establish their responsibility, is a matter of mystery to the trade in this city. But in howsoever a manner they accomplish their end, they certainly are in the field and no endeavors on the part of the legitimate dealers have been able to dislodge them. As soon as one proves his irresponsibility another "bobs up serenely" to take the vacated place.

It is inferred that these "brokers" secure the agencies in the following manner: Firstly, they buy or borrow a copy of Lockwood's Directory of the Stationery and Paper Trades; secondly, they write on to leading paper houses in the East for samples and prices, and thirdly, they visit the local dealers and sell goods on the samples obtained. This seems to be the sum and total of becoming agents for paper mills, for it is beyond discernment on the part of the San Francisco merchants how any careful inquiry into the status of some individuals here can ever have been made by the Eastern houses. According to the statements of leading San Francisco dealers this is the mode of procedure of the "agents." They exhibit samples and quote prices of inferior grades, thus catching unwary purchasers by the tempting bait of superior goods at much lower rates than they can be bought in the city, many of the dealers thinking the goods are thus offered as a leader by the broker to secure further orders. It appears that the agents do not order the quality of goods they are expected to. At any rate, when the paper arrives the consignees refuse to accept it as not being up to the standard of the goods ordered, and in reality being an inferior quality of the same class of goods. However, this cuts only a small figure with the representative, who has long since pocketed his commission on this order and on many others of the same class.

As a natural consequence, the goods not being accepted by the consignee and the Eastern people not caring to pay the return freight, they are thrown upon the market at low rates. This is a large sized stumbling block to the legitimate dealers, who consider that the competition is already

close enough and who cannot sell at any living profit with a drug of this character on the market. One case in point is the recent arrival of two carloads of flat papers which did not come up to the standard and which were subsequently sold at a loss of about \$500 per car. Another case is that experienced by A. Zellerbach & Sons, who ordered a large invoice on samples. They refused to accept it and the Eastern house sold it at 2½ cents per pound less than price rather than pay the return freight. In all cases of this kind the Eastern dealers or mills necessarily are the losers. This is comparatively a small market, and when goods for which there is no demand reach here they either have to be sold at the purchaser's own price or stored in warehouses, which is a source of much expense and trouble, until a demand is created.

Blake, Moffitt & Towne report business to be in a good condition. They are the agents of the Union Paper Bag Company, and owing to their recent increase in the discounts on bags are making proportionately increased sales.

A. Zellerbach & Sons are receiving large invoices of straw paper from Germany. They are the leading importers of paper from foreign countries on this coast and their trade is increasing rapidly. About two years ago they were compelled through lack of room to move into their present quarters. Owing to the necessity of carrying a larger stock to supply the increased demands, they now require considerable more room. Negotiations are being made by them with the owner of the adjoining building to rent the lower floor.

Bonestell & Co. report largely increased sales of all kinds of paper. They state that trade is as good as, if not better than, it has ever been. They have made some good sized purchases of new straw paper from M. B. Kinney's new mill at Antioch, and state that the quality is good and sells well in the market.

The California Paper Company is running its mill at Stockton to its full capacity. The large extra editions published by the *Examiner*, *Chronicle* and *Post* each of the three important days of the "Native Son" celebration increased the demand for the newspaper manufactured by this company. William P. Johnson, the general manager, is still in Oregon City, Ore., superintending the construction of the new mill being erected at that place.

The Willamette Pulp and Paper Company, of Oregon City, Ore., expects to have its mill running to its full product in a short time. The new sulphite mill, which has been in course of construction during the last seven or eight months, is nearly completed. The machinery is all in, and both digesters are being run with success.

S. P. Taylor & Co. report good sales of paper bags and wrapping paper. They have recently reduced the prices on paper bags, and state that the reduction has increased trade to a marked degree. They are running their mill at Taylorsville at its regular rate, and the steady demands prevent the accumulation of any surplus. The firm has recently purchased 10,000 reams of the new straw wrapping from Kinney's mill at Antioch, Cal.

The Pacific Roll Paper Company reports large sales of paper holders and cutters and of roll paper. Their Southern trade is improving rapidly, and all their advices from the North—Oregon and Washington—state an unusually brisk trade. One of the members has been in this section during the past two weeks and will return to day.

M. B. Kinney's straw paper mill, at Antioch, Cal., has commenced operations again. Owing to the fact that the first samples of paper manufactured were not of as good a quality as it was intended to put upon this market, the mill was shut down. A new rotary has been put in and the general opinion among the dealers is that the paper now being manufactured is of a very good quality, on which the ground for improvement is slight.

S. B. Leavitt & Co. are doing well with their lines of flat papers. As this firm carries the largest stock of cardboard in the city, its sales are proportionately good.

William G. Richardson, the resident agent of the Graham Paper Company, states that business has improved in a measure during the past month. Mr. Richardson favors the early extermination of the "street corner brokers" referred to at the beginning of this letter, and thinks it is decidedly unfair to be compelled to compete with such irresponsible persons.

The new mill now in course of construction at Lebanon, Ore., is rapidly being completed and will be called the Lebanon Paper Mill. O'Neill Brothers & Callahan are the owners. These gentlemen are also the proprietors of the South Coast Paper Mill, of Soquel, Cal. Frank O'Neill has been at Lebanon during the past two months superintending the work. The machinery was manufactured in Lee, Mass. The greater part of it has arrived and is now on the ground ready to be placed in position as soon as the wood work is finished. E. P.

**The New Jute Crop.**

This year we (writes a correspondent of the *Calcutta Englishman*) have been receiving very favorable reports about the new crop from the various jute producing districts, and it is generally believed that the crop will be a very large one. In the beginning it was said that rain fell in almost all the places, and sowings were almost equal to, and in some places even more than, those of last year. Prices of old jute were low, and a large stock at Calcutta and foreign ports has kept the market down. That the last year's crop was a very big one nobody can deny; and it was only the middlemen, and not the ryots, who suffered heavy losses after the fall in prices. The ryots cultivated about the same areas as in previous years; but this time they have not been so sanguine as to neglect paddy altogether.

Seasonable rain and sun favored the growth of the early plants, but in many places rain was wanted very badly, and side by side plants of various heights were to be seen. After weeding was finished rain continued to fall incessantly and in torrents, to the great injury of the healthy growth of plants, and insects destroyed the tops of the plants in various places. Rivers did not rise as usual at first, but rose suddenly, and ryots could not help cutting kutchas and immature plants. At present almost the whole of Eastern Bengal is flooded, and we are sure that a good number of fields will be left uncut. By the time the water will subside the roots will have become rotten. Thus, taking all the circumstances into consideration, I am of opinion that the crop will turn out about two to three annas less, and that the quality after September will be very poor and dirty.

**Employers' Liability.**

The liability of employers for accidents to workmen has been a frequent question in the courts. Each new accident presents a different phase of circumstances, but the difficulty of showing that the employer is not responsible for the causes which led to the injury results in almost every instance in a judgment which requires him to pay damages.

Insurance has come to the aid of the employer and by this means the losses which may result from accidents are prevented from becoming a burden upon him. This system of liability is making great progress, but it is curious to note that concerns which by reason of limited capital would find it a serious inconvenience to be called on to pay damages for injuries received by their employees rarely take advantage of the benefit which liability insurance affords, while richer concerns with ample capital seek to protect themselves.

Liability insurance covers, it may be said, all lines of trade where accidents may possibly occur, and the relief which it affords when the unexpected happens can only be measured when the bill for damages is presented for settlement.

**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.]

EASTERN STATES.	
Mortgages.	Amount.
Charles F. Libbie, Jr., Boston, Mass.	\$2,000
MIDDLE STATES.	
C. B. Mosher & Co. (The Acme Lithographing Company), Hornellsville, N. Y.	2,811
John Hurd, Altoona, Pa.	206
WESTERN STATES.	
John Trowsnell, Escondido, Cal. (Real)	600
Mrs. M. L. Jones, Oakland, Cal. (Real)	300
Lee & Ward, Pomona, Cal.	2,000
John H. Lee (Lee & Ward), Pomona, Cal. (Real)	1,000
F. Malloye et al. (Malloye & Broder), San Francisco, Cal.	2,000
Business Publishing Company, Chicago, Ill. (B. S.)	2,500
Charles W. Dunkley & Co., Chicago, Ill. (B. S.)	7,000
Kittridge & Friott, Chicago, Ill.	4,000
Rufus J. Kittridge (Kittridge & Friott), Chicago, Ill.	4,081
R. R. McCabe & Co. (company nominal), Chicago, Ill.	6,244
George W. Burns, Indianapolis, Ind.	300
N. Kolfenbach, Dubuque, Ia.	2,500
C. E. & S. Horr, Knoxville, Ia.	200
J. P. Campbell (Campbell & Valentone), Clay Centre, Kan. (Real)	3,000
Sun Publishing Company, Leavenworth, Kan.	1,068
Courier-Herald Company, Saginaw, Mich. (R.)	16,300
Gottlieb Fox, Saginaw, Mich.	400
H. W. Roll, Kerkhoven, Minn.	181
Louis Rubenstein, Kansas City, Mo.	968
Beatrice Paper Company, Beatrice, Neb. (Real)	25,000
Eric Johnson & Son, Holdrege, Neb. (B. S.)	208
Kephart & Diltz, Okadale, Neb.	425
L. H. Archerd, Odell, Neb.	250
Caxton Printing Company, Cincinnati, Ohio	3,979
Hennegan & Co., Cincinnati, Ohio (R.)	1,500
Ellery W. Ellis, Milwaukee, Wis.	1,500
CANADA.	
Mason & Reynolds, Ottawa, Ont. (R.)	1,162
LIENS DISCHARGED.	
Walter Deakin (Deakin Brothers & Co.), San Francisco, Cal.	10,000
E. L. Colnon et al. (Colnon & Nunan), Stockton, Cal.	1,400
Aug. Ruetty (Aug. Ruetty & Brother), Columbus, Ohio (Real)	1,300
W. R. Greenwood, Chippewa Falls, Wis.	500

**BROOKLYN COOPERAGE CO.,**

181 Front Street, New York,

Handle all the Sugar Bags emptied by the Sugar Refineries of New York, Brooklyn and Jersey City, and have always on hand

Good Second-Hand Sugar Bags,

—ALSO—

**JUTE AND COTTON BAG STOCK,**

For Paper Making.

ALL MATERIAL KILN DRIED.

E. BUERGER.

**Unbleached \*****\* Soda Pulp,**

IMPORTED BY

G. RAU, Times Building, Rooms 112 &amp; 113. New York.

Cumberland Mfg Co.  
**Warren Filter**  
220 Devonshire St Boston.

**"AMMONIN."**

A SUBSTITUTE FOR BOILING.

For washing and cleaning Rags, Straw, Paper Stock, &c., the effect of AMMONIN is UNEXCELLED.

THE FIBRE IS NOT AFFECTED IN THE LEAST, BUT RETAINS ITS ORIGINAL CHARACTER.

FOR SAMPLES, PRICES, ETC., APPLY TO

**KITZ & GREMLER,**

Fourth and Jefferson Streets, Hoboken, N. J.

General Agents for the United States and Canada.

**NORWEGIAN WOOD PULP CO., LIMITED**

IMPORTERS,

41 Broad Street, New York.

AGENTS FOR

**CHR. CHRISTOPHERSEN,**

CHRISTIANIA, NORWAY,

MANUFACTURERS OF

Sulfite, Soda and Sulfate

**WOOD \* PULP.**



Imports and Exports.

IMPORTS AT NEW YORK.

FOR THE WEEK ENDED SEPTEMBER 19, 1890.

Table with columns for various goods like Colors, Paper, Steel Pens, Stationery, Slate Pencils, Clay, Jute Butts, P. Hangings, Paper Stock, Terra Alba, Waste, Wood Pulp, and Totals.

Imports General Merchandise for the week ended September 19, 1890, \$8,377,719

IMPORTS OF PAPER STOCK AT NEW YORK.

JANUARY 1 TO SEPTEMBER 23, 1890.

Table with columns for 'Whence Imported', 'Bales', 'Tons', and 'Mozilla Stock' for various locations like Alexandria, Amsterdam, Antwerp, etc.

a. Including 67 bs. cotton waste. b. Including 113 bs. cotton waste. c. Including 761 bs. cotton waste. d. Including 114 bs. flax waste. e. Including 165 bs. cotton waste and 850 bs. flax waste. f. Including 39 bs. flax waste and 35 bs. cotton waste. g. Including 444 bs. flax waste.

NEW YORK IMPORTS.

FROM SEPTEMBER 16 TO SEPTEMBER 23, 1890.

Paper Stock. A. Wertheim & Co., Amelia, Genoa, 543 bs. bagging. J. Libmann & Co., State of Pennsylvania, Glasgow, 34 bs. rags. Lewy Brothers, Ida, Hamburg, 159 bs. bagging, 45 bs. rags. G. Rau, Buffalo, Hull, 261 bs. manillas. J. Libmann & Co., by same, 86 bs. rags. Burgass & Co., Spain, Liverpool, 194 bs. bagging. W. A. Avis & Co., City of Berlin, Liverpool, 125 bs. papers. Burgass & Co., Egyptian Monarch, London, 134 bs. bagging. Darmstadt & Scott, by same, 87 bs. papers. Atterbury Brothers, by same, 80 bs. rags. J. Libmann & Co., by same, 48 bs. rags. E. Kern & Co., Greece, London, 16 bs. rags. Atterbury Brothers, by same, 32 bs. papers. R. H. Overton, by same, 77 bs. papers. Darmstadt & Scott, by same, 14 bs. papers. Leon Gottheil, Rotterdam, Rotterdam, 100 tons chemical fibre. Burgass & Co., Norge, Stettin, 190 bs. rags, 100 bs. bagging. Norwegian Wood Pulp Company, by same, 170 tons chemical fibre, 200 tons ground wood. C. B. Richard & Co., by same, 75 tons chemical fibre.

Fred. H. Wight, by same, 50 tons chemical fibre. G. Rau, by same, 36 tons chemical fibre. J. W. Mason & Co., by same, 15 coils rope.

Paper. Metz & Meyer, Rhynland, Antwerp, 2 cs. L. De Jonge & Co., Greece, London, 4 cs. Theo. Wiecker, Rotterdam, Rotterdam, 6 bs. Dingelstedt & Co., Russia, Hamburg, 8 cs. L. De Jonge & Co., by same, 6 cs. Metz & Meyer, by same, 4 bs. G. Gennert, by same, 1 cs. E. & H. T. Anthony & Co., by same, 17 cs. Barber, Ellis & Co., by same, 2 cs. E. Fougere & Co., La Bourgogne, Havre, 39 cs. Coombs, Crosby & Eddy, by same, 2 cs. L. Wulff, by same, 1 cs. Richard & Co., by same, 6 cs. L. Marcotte & Co., by same, 2 cs. Regenhard, Shevill & Co., by same, 6 cs. L. Sherry, by same, 5 cs. Nevius & Haviland, Umbria, Liverpool, 13 cs. hangings. J. Marsching & Co., by same, 4 cs. Sommers & Co., Rhaetia, Hamburg, 4 cs.

BOSTON IMPORTS.

FROM SEPTEMBER 17 TO SEPTEMBER 23, 1890, INCLUSIVE.

Paper, &c. Hooper, Lewis & Co., Hermann, Antwerp, 13 cs. paper. Dennison Manufacturing Company, by same, 1 cs. paper. Carter, Rice & Co., by same, 4 cs. paper. J. A. Glass & Co., Nestorian, Glasgow, 1 cs. paper hangings. Wm. Gould & Co., Samaria, Liverpool, 5 bs. periodicals. Harvard College, by same, 1 cs. stationery. Dennison Manufacturing Company, Michigan, Liverpool, 50 bs. paper. Dennison Manufacturing Company, Norseman, Liverpool, 11 bs. paper. Louis Wolf & Co., Martello, Hull, 11 cs. albums. White, Sons & Co., by same, 1 cs. paper. Louis Wolf & Co., Lochmore, Hamburg, 45 cs. albums. Horace Partridge & Co., by same, 98 cs. albums. Thorp & Adams Manufacturing Company, by same, 73 cs. albums.

Paper Stock.

Train, Smith & Co., Thanemore, London, 228 bs. rags. Russell Paper Company, by same, 94 bs. rags. Horace Dutton & Co., by same, 25 bs. and 503 coils manillas. Train, Smith & Co., Lochmore, Hamburg, 178 bs. rags. Train, Smith & Co., Martello, Hull, 236 bs. rags. Crocker, Burbank & Co., by same, 100 bs. waste paper. Horace Dutton & Co., by same, 105 bs. rags, 425 bs. waste paper. Springfield Waste Company, by same, 112 bs. rags. Train, Smith & Co., Milanese, London, 256 bs. rags. Crocker, Burbank & Co., by same, 100 bs. waste paper. Order, by same, 167 bs. waste paper. Train, Smith & Co., Norseman, Liverpool, 43 bs. rags, 41 coils manillas, 224 bs. waste paper. W. F. Corne, by same, 73 bs. waste paper. C. A. Cheney, by same, 65 bs. rags, 244 bs. manillas. Horace Dutton & Co., by same, 27 bs. and 55 coils manillas, 106 bs. waste paper. True & McClellan, by same, 70 bs. waste paper. Robert Bishop, by same, 83 bs. waste paper. Springfield Waste Company, by same, 78 bs. waste paper. Stone & Downer, by same, 13 bs. waste paper. Train, Smith & Co., Michigan, Liverpool, 128 bs. rags, 87 bs. waste paper. C. A. Cheney, by same, 82 bs. rags, 195 bs. manillas. Horace Dutton & Co., by same, 15 bs. and 55 coils manillas. True & McClellan, by same, 246 bs. waste paper. Train, Smith & Co., Nestorian, Glasgow, 144 bs. rags, 173 bs. waste paper. Horace Dutton & Co., by same, 81 bs. manillas.

Wood Fibre.

Gill & Lutz, Hermann, Antwerp, 300 bs. Gill & Lutz, Martello, Hull, 480 bs. George Hamilton, Lochmore, Hamburg, 350 rolls.

Bleaching Powders.

Mason, Chapin & Co., Virginian, Liverpool, 85 cks. Linder & Meyer, by same, 187 cks. Train, Smith & Co., by same, 83 cks. Order, by same, 82 cks. Warren & Co., Norseman, Liverpool, 300 cks. Warren & Co., Michigan, Liverpool, 137 cks. E. & F. King & Co., by same, 80 cks. Mason, Chapin & Co., Samaria, Liverpool, 98 cks.

Caustic Soda.

Warren & Co., Michigan, Liverpool, 897 drums. Warren & Co., Norseman, Liverpool, 400 drums.

Soda Ash.

Warren & Co., Norseman, Liverpool, 377 cks. and 300 bags. Warren & Co., Michigan, Liverpool, 18 cks. Morey & Co., Virginian, Liverpool, 75 cks. Linder & Meyer, by same, 55 cks. Linder & Meyer, Samaria, Liverpool, 800 bags.

Soda Crystals.

Jerome Marble, Norseman, Liverpool, 140 bbls.

Sizing.

Train, Smith & Co., Michigan, Liverpool, 328 bags. W. A. Castle, by same, 140 bags. W. A. Castle, Norseman, Liverpool, 135 bags. Thomas Groom & Co., by same, 95 bags. W. A. Castle, Martello, Hull, 295 bags.

PHILADELPHIA IMPORTS.

FOR THE WEEK ENDED SEPTEMBER 20, 1890.

Books. J. B. Lippincott Company, British Princess, Liverpool, 1 pkg., 4 cs. O. G. Hempstead & Sons, by same, 6 cs. Porter & Coates, by same, 4 cs.

Paper. F. Weber & Co., British Princess, Liverpool, 2 cs.

Paper Stock.

Order, Barbara Preve, Genoa, 174 bs. old bagging, 473 bs. cotton waste, 2 bs. jute waste. Same, North Gwalla, Hamburg, 72 bs. rags. Jessup & Moore Paper Company, Maryland, London, 26 bs. waste paper, 78 bs. thread waste, 6 bs. rags. Brown Brothers & Co., by same, 221 bs. waste paper.

Soda Ash.

Order, British Princess, Liverpool, 461 tcs. Brown Brothers & Co., by same, 117 cks.

Caustic Soda.

Order, British Princess, Liverpool, 190 drums. E. Varnall & Co., by same, 100 drums. Pennsylvania Salt Manufacturing Company, by same, 135 bbls.

Soda Crystals.

Jos. J. Keefe, British Princess, Liverpool, 748 kegs, 167 bbls.

Bleaching Powder.

Order, British Princess, Liverpool, 55 cks. Brown Brothers & Co., by same, 116 bbls. Baring Brothers & Co., by same, 84 cks.

EXPORTS of Paper, &c., from New York for the Week Ended September 23, 1890.

BOOKS, cases, to British West Indies, 6; to Cuba, 1; to Chili, 3; to United States of Colombia, 3; to British Australasia, 6; to Central America, 47; to London, 28; to Leipzig, 1; to Argentine Republic, 1; to Bremen, 6; to Brazil, 11; to Glasgow, 5; to Liverpool, 25; to Liberia, 1; to Mexico, 3; to Rome, 4; to Venezuela, 1. PAPER, to British West Indies, 416 bbls., 1 pkg.; to Hamburg, 30 pkgs.; to Chili, 10 cs.; to Cuba, 560 cs.; to Central America, 99 cs.; to Dutch West Indies, 70 rms., 2 cs.; to Hayti, 5 bs.; to Mexico, 2,089 pkgs.; to British Australasia, 45 cs.; to London, 100 cs., 24 bs.; to United States of Colombia, 43 bbls.; to China, 5 cs.; to Ecuador, 1 cs.; to French West Indies, 1 bale; to Glasgow, 40 bbls.; to Gateshead, 3 cs.; to Japan, 10 pkgs.; to Liverpool, 9 cs., 44 bbls.; to New Zealand, 2 cs.; to Porto Rico, 400 bbls.; to Rotterdam, 20 pkgs.; to Spanish possessions in Africa, 3 pkgs.; to Venezuela, 12 rms., 35 cs. STATIONERY, cases, to Hamburg, 7; to British West Indies, 10 bs.; to Central America, 20; to Hayti, 2; to Mexico, 20; to Venezuela, 24; to British Australasia, 8; to Cuba, 8; to Ecuador, 2; to London, 2; to United States of Colombia, 8; to Bremen, 2; to Chili, 5; to Glasgow, 1; to Havre, 1; to Liverpool, 19; to New Zealand, 1.

AGGREGATES AND VALUES.

Table with columns for Paper, reams, Paper, pkgs, Paper, cases, Books, cases, Stationery, cases, Rosin, bbls, and Totals.

Exports General Merchandise for the week ending September 23, 1890, \$8,180,648

1890-1.

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# The Paper Trade Journal.

DEVOTED EXCLUSIVELY TO THE INTERESTS OF

## The American Paper Trade.

Weekly, \$4.00 per Annum.

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HOWARD LOCKWOOD & CO.,  
Publishers.

HOWARD LOCKWOOD. WILLIAM F. HAMILTON.

NEW YORK: SATURDAY, SEPTEMBER 27, 1890.

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.

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HOWARD LOCKWOOD & CO.,

126 & 128 DUANE ST., NEW YORK.

AN agitator for use in stuff chests is the subject of first page illustration in this issue. It is claimed that this device is more effective than the ordinary form of agitator in mixing the stuff.

REFERENCE was made last week to what seemed to be an urgent demand for more currency to meet the daily requirements of domestic exchanges. The tendency of money under our present industrial system is toward financial centres, leaving rural populations and communities too little with which to meet the exigencies of life. The cry of suffering comes from this class almost altogether, and it is reasonable to suppose that the agitation could neither be so general nor so long sustained if there were no substantial grounds for complaint. The decline of the agricultural interests of the country, that is, the decrease in the value of farm lands and the insufficient return yielded by farms for the labor expended, and the ubiquitous and numbing farm mortgage are unpardonable truths which it would be gratifying to deny were it possible to do so.

THE farming classes appear to be desperately in earnest, and, as has too often happened with other classes in a like condition, are neither too well informed, too wisely advised nor too prudently led. The Farmers' Alliance has grown into a powerful organization, fairly well united in aims and methods, and in many States holding the balance of power. It is noticeable that at every meeting or convention held under its auspices there are reiterations regarding the deplorable condition of the average agriculturist, and appeals for relief. It is in the plans brought forward for the professed purpose of meeting these demands that the general public is most keenly interested. The pressing need of the rank and file of Alliance membership is a spur for setting in motion all sorts of crazy financial schemes, conspicuous among which

is the Sub-Treasury system, advocated in Congress by Leland Stanford and others, which provides for building Government storage warehouses in every township in the Union and the loaning of Treasury funds to farmers on farm produce. In other words applying the silver certificate system to agricultural products. The Alliance, not illogically, says: "The value of the products we represent far exceeds those of the silver producers, and a system which applies to them should, in all fairness, include us."

ANOTHER and more stupendous project comes from the southern wing of the Alliance. This proposes the issue of \$1,000,000,000 in Treasury notes, to be loaned to anyone who will pay 3 per cent. per annum for its use. The notes are to be similar in style to "greenbacks," are to be full legal tender, and are to be loaned by the United States Treasurer to the States at 1 per cent., by the States to the counties at 1½ per cent., and by the counties to individuals at 3 per cent. The measure provides that "satisfactory security" shall be given by the borrower; but that may prove a snag, as many Alliance people oppose it. Another provision of the measure is that persons in debt "who apply for loans promptly" shall be preferred. The money thus loaned is to be repaid in twenty annual instalments, and will be immediately put out again by the Government in the shape of expenditures for internal improvements, including railway construction and equipment. States which do not apply for their share of the loan shall have an agent sent to them direct from the Treasury, whose business it shall be to make loans at a 3 per cent. rate to the people applying. That such a wild-cat scheme, by which the United States Treasury is to be converted into a money lending institution, should be soberly brought forward is not as surprising now as it would have been twenty-five years ago. By degrees the finances of the country have reached that state of dependence on the Treasury which is a continually increasing element of weakness, and from being a simple disburser of funds according to constitutional provisions the Treasurer has become the centre of the financial interests of the country, toward whom all eyes are turned as soon as the least cloud appears on the commercial horizon. For this he is in no way to blame, it being the logical results of the system; but it has been the means of persuading large numbers of our people that they are as much entitled to its assistance in times of pressure as are the speculators of Wall Street. It may be that they are right in principle, but if they are, does it not show that the principle is bad in whatever direction it may be applied, and that if carried out with no limitation it is practically demoralization and national bankruptcy?

WE are surprised and regret to announce that the bicentennial celebration of paper making in this country which was proposed to be held on Monday next, September 29, has been declared off. The Philadelphia *Ledger* of the 26th inst. has the following to say on this subject:

The managers of the Rittenhouse Memorial Association were informed, at their meeting on Wednesday evening, that Lewis H. Rittenhouse, a brother of Mr. Alvah Rittenhouse, president of the association, had just died, and that his funeral would take place at Rosemont, Hunterton County, N. J., on Monday, the day set by the association for the celebration of the bicentennial of the erection of the first paper mill in America. They resolved to postpone the celebration for the present.

This does not seem to agree with the reasons for the postponement given by our Philadelphia correspondent in his letter published in this issue of THE JOURNAL. But our correspondent telegraphs to us affirming that his statement is correct and that it was acquired from an official source. The reason for the postponement set forth by Dr. Rittenhouse in the paragraph from the *Ledger* is not the same as that given by him to our correspondent, in his own writing and over his own signature, in a letter dated September 24, two days before the foregoing paragraph was published. In this letter—the original of which we have—he says that it was decided to postpone the celebration at

an "informal" meeting held on the 20th inst., whereas the *Ledger* states that the managers were informed on Wednesday evening, the 24th inst., that the president's brother had just died, and that this was the reason. As the decision was made on Saturday, the 20th, for the reason that they "would not be able to complete arrangements," the announcement of the decision arrived at four days later seems to indicate that there is a lack of harmony among the members of the board of managers, and that our correspondent covers the facts.

THE conferees on the tariff bill have agreed and it is expected that the act will become a law by October 1. We believe that the paper schedule, as it passed the Senate, will remain unaltered, and for the information of those interested we give it as follows:

### SCHEDULE M.

#### PULP, PAPER AND BOOKS.

PULP AND PAPER.—401. Mechanically ground wood pulp, two dollars and fifty cents per ton dry weight; chemical wood pulp, unbleached, six dollars per ton dry weight; bleached, seven dollars per ton dry weight.

402. Sheathing paper, ten per centum ad valorem.

403. Printing paper, unsized, suitable only for books and newspapers, fifteen per centum ad valorem.

404. Printing paper, sized or glued, suitable only for printing books and newspapers, twenty per centum ad valorem.

405. Papers known commercially as surface coated papers, and manufactures thereof, cardboards, lithographic prints from either stone or zinc, bound or unbound (except illustrations when forming a part of a periodical, newspaper, or in printed books accompanying the same), and all articles produced either in whole or in part by lithographic process, and photograph, autograph and scrap albums, wholly or partially manufactured, thirty-five per centum ad valorem.

MANUFACTURES OF PAPER.—406. Paper envelopes, twenty-five cents per thousand.

407. Paper hangings and paper for screens or fire boards, writing paper, drawing paper, filtering paper and letter press copying paper, albumenized and sensitized papers, and all other paper not specially provided for in this act, twenty-five per centum ad valorem.

408. Books, including blank books of all kinds, pamphlets and engravings, bound or unbound, photographs, etchings, maps, charts, and all printed matter not specially provided for in this act, twenty-five per centum ad valorem.

409. Playing cards, fifty cents per pack.

410. Manufactures of paper, or of which paper is the component material of chief value, not specially provided for in this act, twenty-five per centum ad valorem.

Comparison of the foregoing with the present tariff may be made from the following statement of existing duties: Pulp (401), 10 per cent. ad valorem; surface coated papers, &c. (405), 15 per cent. ad valorem; envelopes (406), 25 per cent. ad valorem; playing cards (409), 100 per cent. ad valorem; manufactures of paper (410), 25 per cent. ad valorem. The changes from an ad valorem to a specific duty will be noted in paragraphs 401, 406, 409 and 410. The classification of the new tariff is more minute and extended than that of the old, lithographs, decorated papers, cardboard and albums being specially mentioned and advanced to 35 per cent., which duty is to be levied whether the goods are imported wholly or partially manufactured.

### THE PRODUCTION OF BOOK AND NEWS PAPER.

The daily output of book and news papers increased 8 4-7 per cent. during the last year. This was not as great an increase, comparatively, as in some other lines of paper manufacture, but it means a great deal. It is an addition to the outturn of 121¼ tons daily, or 36,525 tons in the twelvemonth, and the consumption which admits of a full demand for such papers is consequently enormous and increasing. It is rather strange that of the thirty-three paper making States and Territories, there are seven in which not a pound of book or news paper is manufactured. The following is a summary of the

DAILY PRODUCING CAPACITY—BOOK AND NEWS MILLS, 1890-1.

States.	Pounds.	States.	Pounds.
California.....	40,000	North Carolina.....	5,000
Colorado.....	7,000	Ohio.....	187,500
Connecticut.....	104,750	Pennsylvania.....	350,000
Delaware.....	71,000	Rhode Island.....	8,000
Georgia.....	15,500	South Carolina.....	3,000
Illinois.....	29,000	Tennessee.....	7,000
Indiana.....	55,000	Utah.....	4,000
Kentucky.....	34,000	Vermont.....	108,000
Maine.....	177,000	Virginia.....	18,000
Maryland.....	94,000	Washington.....	4,000
Massachusetts.....	466,500	West Virginia.....	6,000
Michigan.....	87,000	Wisconsin.....	289,000
Minnesota.....	10,000		
New Hampshire.....	185,500	Total.....	3,081,350
New York.....	708,700		

The gain in production of these grades of paper has been 121¼ per cent. in ten years. This is certainly a proof of the increase in the demand for reading matter during that period.

### Watermarks.

By DANNY.

The figures given in last week's JOURNAL and relating to the production of chemical fibre are very interesting. The great advance in this line of manufacture will, however, be better understood by comparison of the product ten years ago and now. In 1881 the total daily capacity of the chemical fibre mills was close on to 130 tons, but to-day it is equal to 556 tons, the gain in the ten years being 328½ per cent.

Some of the papers devoted to steam engineering are protesting against lead lined digesters for fibre making. They assert that no proper inspection of the shell of a boiler lined with lead can be had.

That settles it, I suppose. The lead lined digester must go.

I observe that an old suggestion as to mixing chloride of zinc with pulp for the purpose of toughening paper is going the rounds of some of the technical papers. This suggestion is getting to be a regular traveler, and promises to be as sure a thing as "death and taxes" in its visits.

The Pechiney Works, at Salindres, France, are said to prepare caustic soda for the market in leaves or flakes. This is effected by allowing the hot supersaturated liquor to flow from a funnel between hollow rollers, which latter are kept cool down to a low point by the circulation of cold water within them.

A printers' paper says that experiment has shown that in 60,000 impressions, by using super sized and calendered paper only two-fifths of the amount of printing ink was used than for 60,000 impressions on ordinary book paper. The question then is whether the ink is worth more than the paper. Let us say that it is.

The cable brings the intelligence that the prospectus of the new English chemical union has been issued and that it calls for a capital of £8,500,000, of which £7,000,000 will be issued against the works, &c., and the remainder against the stocks of chemicals and for a working capital.

The scheme does not appear to make the most marvelous headway and it remains to be seen whether it is going to be the most flattering success.

Caustic soda took another step upward this week, owing to the short supplies here and in the primary markets.

This week has witnessed the revival of the importation of ground wood. For a long time this article has been shut out of the American market, except of such lots as came from Canada, but with a large part of the domestic product diverted from its former channels there is now a call for the foreign article.

The domestic supply is not thrown on the market to the extent it formerly was. Very many pulp makers have put in paper machines, and are directly consuming all of the pulp they make.

This is particularly noticeable in some sections of the country where in former times the pulp machine held undisputed sway, its glory being now shared by the paper machine.

A paper stock man, who was away on a fishing trip this week, submits paper patterns of the fish he caught. He says that they are small mouth bass, but they look to me more like young whales.

This angler also tells of how he and a relative caught a pickerel. The fish was landed, but, as he endeavored to get away, one of the anglers grabbed him in both hands while the other cut the throat of the fish. If an angler is to be judged by results only, then this is angling.

To that large contingent of the paper trade which enjoys itself in the surf at Manhattan Beach I commend the following lines:

"Oh, where are you going, my pretty maid?"

"I'm just going down to bathe," she said.

"And where are you going?" in turn asked she.

"Oh, I am going to see," said he.

A well-known paper dealer dropped into reminiscences a few days ago, and, after bewailing the low prices and close margins of the present day, sighed for the days of '64 and '65, and said: "Why, in those days we used to sell news for 25 cents a pound and Tunxis Mills writing for 80 cents a pound, getting a commission of 10 per cent. for effecting the sales. I tell you a case of paper cost something in those days." Such reminiscences ought to be painful.

### Trade Talks.

E. Storey Smith, of Train, Smith & Co., Boston, Mass.—Trade in Boston has been very fair, and we always have something to do. Still it has not been active, and from what I see here I think the New York paper stock market has been pretty quiet. But we have no reason to complain. As to rags I do not see how it is possible for them to go any lower, and yet it would not surprise me to see prices go either up or down about the first of January. Paper is selling freely and the mills are busy, which fact, of course, has been the salvation of the stock trade. Manufacturers of paper can console themselves that they are to-day getting stock cheap, for the value of the finished paper has not declined anywhere near as much as that of the raw material. As to jute butts I do not think that the removal of the duty will make much of a decrease in the price. It is pretty certain that the whole duty will not be taken off the market price, for I believe that the effect of the proposed action has already been discounted.

### Changes, Removals and New Firm.

E. P. McCormick, printer, Oakdale, Neb., has sold out.

F. Karman, bookbinder, Cincinnati, Ohio, has sold out.

W. L. Beidler, bookseller and stationer, Sedalia, Mo., has sold out.

Norman Ross, bookseller and stationer, Schuyler, Neb., has sold out.

Fless & Ridge, printers, New York, N. Y., have dissolved partnership.

John S. Trares, bookseller and stationer, Edwardsville, Ill., has sold out.

W. D. Harnist, bookseller and stationer, Edwardsville, Ill., has sold out.

S. D. Cooper, bookseller and stationer, Hot Springs, Ark., has sold out.

The Kearney Enterprise Company, publisher, Kearney, Neb., has sold out.

E. J. Taylor & Co., booksellers and stationers, Vassar, Mich., have sold out.

Roderick Ernest has succeeded Harford & Co., publishers of the *Courier*, Hannibal, Mo.

The firm of W. K. & C. S. Fowler, publishers, North Bend, Neb., has been dissolved.

F. E. Pratt & Co., dealers in paper hangings, Norwalk, Conn., have dissolved partnership.

P. K. Bonbrake, stationer and newsdealer, Knoxville, Ia., has been succeeded by C. E. & S. Horr.

A company with \$6,000 capital stock has been formed to publish the *Pulaski News*, at Pulaski City, Va.

Hume & Parker, booksellers and stationers, Norfolk, Va., have dissolved partnership. E. P. Parker retiring. The firm has been succeeded by Hume & Bilsoly.

The firm of Megargee & De Cernea, paper dealers, &c., Philadelphia, Pa., will be dissolved on October 1. Each of the partners will continue in business on his separate account.

The Union Paper Mill Company, Pittsburg, Pa., has removed its office from Pittsburg to its mill at Monongahela City, Pa., 30 miles south, on the Pennsylvania Railroad.

The Advertiser Company has been organized at Pulaski City, Va., to publish the *Pulaski Advertiser*. W. F. Nicholson is president and J. E. Kabrich secretary of the company.

D. W. Sloan, G. L. Wellington, A. H. Dowden and others, of Cumberland, Md., have incorporated the *Republican Publishing Company* for the purpose of publishing a newspaper.

George H. Richter & Co. have succeeded R. R. Watson & Co., manufacturers of metal end filing cases, document envelopes and stationers' specialties, at 16 and 18 Reade street, New York.

The Photo Color Printing and Engraving Company, of Brooklyn, N. Y., has just filed its certificate of incorporation. Capital, \$20,000, and incorporators Charles T. Rocksbrah, Edward D. Hohnan, Wm. W. Davis, James J. Keenan, John Lahrum and Philip Schoenhard.

### Failures.

E. Hicks & Co., bookbinders, San Francisco, Cal., have filed a petition in insolvency.

A meeting of the creditors of the Bufford's Sons Lithographic Company will be held at 67 Federal street, Boston, Mass., to-day, at 11 A. M.

### In Town.

E. Storey Smith, Boston, Mass.; F. L. Stevens, North Hoosick, N. Y.; A. D. Remington and G. W. Knowlton, Watertown, N. Y.; James H. Newton, Holyoke, Mass.;

James Townsend, Newburg, N. Y.; W. N. Sprague, Middle Falls, N. Y.; H. B. May, Lee, Mass.; G. W. Russell, Lawrence, Mass.; F. W. Curtis, Newark, Del.; George N. Friend, Franklin, Ohio; C. G. Weeks, Skaneateles, N. Y.

Personals.

John L. Taylor returned on Thursday from a fishing trip in Wisconsin.

J. F. Anderson, Jr., and W. M. Crane, who have been on a six weeks' trip to Europe, arrived home last Wednesday on the Majestic.

John B. Hart, of Holyoke, Mass., has removed his family to Fair Hill, where he is to have charge of the Record Paper Mill, owned by William M. Slingerly.

Alexander Annandale, of the Beltonford Paper Works, Dunbar, Scotland, arrived on Friday of last week on the Bothnia, accompanied by his two sons, one of whom is to remain in this country as a student in the Boston School of Technology.

Michael Carey, an employee in the paper mill of the Hudson River Pulp and Paper Company, Palmer's Falls, N. Y., was badly hurt recently by having his arm caught and drawn between two rolls.

Walter G. Berlin, of the Berlin & Jones Envelope Company, was married at high noon on Wednesday, September 24, to Louise S. Oakley, daughter of Mr. and Mrs. W. H. Oakley, in the Church of the Holy Communion, at Norwood, N. J., by the Rev. Brockholst Morgan, of St. Mark's Church, New York, assisted by the Rev. Dr. A. H. Profitt, the rector of the church.

Fires.

Dodge Brothers, printers, Hanford, Cal., have been burned out.

T. S. Applegate, publisher of the Times, Adrian, Mich., has suffered a loss of \$1,200 by fire. Insured.

E. J. Smith, publisher, Whitehall, Mich., has been burned out, with a loss of \$1,500, which is partly covered by insurance.

Just before the thirty girls employed in Barnum & Co.'s envelope factory, on the third floor at the rear of 120 William street, New York, got ready to go home on the evening of Tuesday, September 23, they were startled by cries of fire.

The Jeffrey Manufacturing Company, Columbus, Ohio, manufacturer of roller and detachable chain belting, recently filled several large orders for conveyors for foreign shipment, while its order book shows a large number of orders for shipment to different parts of this country.

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 248-250 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., 327 WEST 8TH STREET, NEW YORK.

Market Review.

Office of THE PAPER TRADE JOURNAL, FRIDAY, September 28, 1900.

THE MONEY MARKET.—The stock market is dull and irregular. The loan market was without change, call loans on stock collateral continuing upon a basis of 3 per cent. Time loans were freely offered at 6 per cent. for sixty days to six months. Commercial paper was quoted as follows:

Table with columns for 'Double named', 'First class', 'Good', 'Single named', 'First class', 'Good', 'Not so well known' and rows for 'Sixty days', 'Four months'.

steady. Posted rates closed at \$4.81@4.81 1/2 for sixty days' and \$4.85 1/2 for demand. Rates for actual business were as follows: Sixty days' sight, \$4.80 1/4; demand, \$4.85; cables, \$4.85 1/4@4.86; commercial, \$4.79@4.79 1/4. Continental bills were quoted as follows: Francs, 5.23 3/4 and 5.21 1/4; reichsmarks, 94 1/2 and 95 1/2; guilders, 40 and 40 1/4. Government bonds are steady but quiet.

THE PAPER TRADE.—There is very little complaint heard nowadays as to the volume of trade in the paper market, and in most cases it is reported as satisfactory. Mills in all branches are turning out product promptly, and the greater part of it is in direct response to orders. Prime grades in all lines hold prices very well, and Book and Writings of well-known makers are firm, but there is no tendency to a higher range of figures. The demand for News is large and the consumption keeps up with the production very closely. Manillas are in very good demand, and Straw Wrappings are having a steady movement, but prices are low.

JUTE BUTTS.—The market for Jute Butts remains quiet and unchanged, values being as they have been for some little time past.

WOOD PULP.—This week a shipment of foreign ground wood was noted, this being the first in several months. The importation of ground wood has been revived, owing to the short supply of domestic, a great deal of the home product which was formerly thrown on the market being now put into paper directly by pulp makers. During the week 125 tons foreign ground wood, dry, were sold, ex store, at 1.20c., at which other lots of both domestic and foreign are being quoted. The imports comprised 200 tons of ground wood, all from Stettin, and more is reported to be on the way.

WOOD FIBRE.—Chemical Fibre is in very fair demand. Domestic makers of soda are having a good business and values range as heretofore at 3 1/2@3 3/4c. Foreign grades are quoted as follows: Unbleached Pine, soda process, 2.70@3.30c.; Bleached, same process, 3 1/2@4.22c.; Unbleached, sulphite process, 2.75@3.70c.; Bleached, do., 4 1/4@5c.; Bleached Straw Pulp, 4 1/2@4 3/4c. There were imported this week 431 tons, being 100 tons from Rotterdam and 331 tons from Stettin.

FOREIGN RAGS AND PAPER STOCK.—The market is quiet for the most part, but there is a very fair movement in the way of deliveries. New business, however, is not active. Higher freights are now in force and this is making higher figures on stock, while primary markets are reported firm. We note sale of 25 bales S. P. F.'s at 2.90c., and 60 tons Baltic Blue Cottons at 1.60c., four months. Imports for the week aggregated 2,056 bales and 731 tons, being 404 bbs. rags, 235 bs. papers, 431 tons chemical fibre, 200 tons ground wood and 1,417 bs. manillas. Ports of shipment and quantities are as follows: Genoa, 543 bs. manillas; Glasgow, 79 bs. rags, 159 bs. manillas; Hull, 86 bs. rags, 281 bs. manillas; Liverpool, 25 bs. papers, 194 bs. manillas; London, 119 bs. rags, 210 bs. papers, 124 bs. manillas; Rotterdam, 100 tons chemical fibre; Stettin, 120 bs. rags, 331 tons chemical fibre, 200 tons ground wood and 116 bs. manillas.

DOMESTIC RAGS.—There is a very steady call for Whites, which are quoted at 3.50@3.55c., and Soiled Whites, which range from 2.50@2.55c.

BAGGING, &c.—There is almost no demand at all for Gunny and prices keep at a very low range. Early in the week there was sale of 50 tons at 1.45c., but quotations now range from 1.40@1.45c. We note sale 70 bales No. 1 Hessians at 1 1/2c. In Jute Ropes and Threads we note sales as follows: 15 tons Dundee Selected Threads at 2.05c.; 30 tons Continental Jute Threads at 1 1/2c.; 30 tons Continental Jute Rope at 1 1/2c. In Manilla Rope there have been sales 25 tons Domestic at 2 1/2c. 90 days, and 25 tons English at 2.45c. Manilla imports for the week aggregated 1,417 bales, being 543 bs. from Genoa, 159 bs. from Glasgow, 281 bs. from Hull, 194 bs. from Liverpool, 124 bs. from London and 116 bs. from Stettin.

OLD PAPERS.—There is a moderate call for Shavings. Folded News is in better inquiry and has been neglected so long that supplies are not plentiful. 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@1.45c.; No. 1 Manillas, 1.60@1 1/2c.; Light Book Stock, 3/4@.77 1/2c.; Folded News, .60@.75c.; Commons, 55@65c.; Bogus Manillas, 60@90c.; Straw Clippings, 75c.; Binders' do., 65c.

STRAW.—There is a moderate business, with prime lots leading in demand. We quote: No. 1 Rye at 75@85c.; Medium at 60@70c.; Short Rye at 40@50c.; Oat at 35@45c.

ROSINS.—The market is regular on most grades on moderate demands. We quote in

lots from the yard: Common to Good Strained, \$1.65@1.70; E, \$1.85; F, \$2; G, \$2.05; H, \$2.20; I, \$2.35; K, \$2.45; M, \$2.60; N, \$3.20@3.30, and W. G., \$3.95.

CHEMICALS.—Nearly all paper makers' chemicals have shown a little more activity during the past week. Under date of September 10 J. P. Brunner & Co. say of the Liverpool market: "There are a number of inquiries from the States, and in several cases manufacturers have had to refuse orders, being unable to deliver this month. Business is also reported for October-December delivery. We quote nearest spot values to-day for Caustic 1 1/4@1 1/2d., Carbonated, 1 5-16@1 1/2d., according to brands. Caustic Soda is almost unobtainable for this month, and any resale parcels put on the market are picked up at once. In 70 per cent. sales have been made up to £11, and there are buyers at this price to-day, while sellers ask 5@10s. per ton more money. Business is reported at 70 per cent. for quantity, October delivery, at £11. There is an order in the market this afternoon for 650 drums, which cannot be filled, as there are no sellers at the close. Prices are: Sixty per cent., £10 5s.@10 10s.; 74 per cent., £12@12 5s.; 76 per cent., £12 10@13." Two days later Peter R. McQuie & Son spoke of the same market as follows: "We have to report a strong market for chemicals, partly owing to light supplies and good demand, and partly in anticipation of the proposed chemical union being ultimately carried through. An important gathering of all the manufacturers has taken place this day, and, although no particulars have yet transpired, it is conjectured that the meeting was in every way satisfactory to those present and that the prospects of the union were thereby further improved. Bleaching Powder has, apparently, improved its position; offerings of hardwood are quite limited, and for this month's delivery £6 is quoted. For October makers quote £6 5s. to £6 10 per ton. Caustic Soda continues very scarce, the market being almost bare for September shipment. Resellers may come out later, but meantime nominal values are: £10 5s. for 60 per cent., £11 5s. for 70 per cent., £12 5s. to £12 10s. for 74 per cent., and £12 10s. to £13 for 76 per cent. 'October' might be bought 5s. per ton less. Soda Ash firmer, at 1 3-16d. to 1 1/2d. per cent., according to brand and test. Soda Crystals are steady at £3 5s. per ton." In the local market there is an easier feeling in the Bleaching Powder market owing to the arrival of supplies. Values, however, are maintained at the former range. Caustic Soda is scarce, both here and abroad, and values here have gone up another notch. Caustic Soda Ash is in fair request and figures are firm, as also for Carbonated Soda Ash. Sal Soda has moved upward, and spot lots closed quoted at 1.15c., and shipments at 1.08@1.10c. During the week there have been sales of 500 cks. Bleaching Powder, spot, at 1.60c.; 300 cks. Bleaching Powder, to arrive, at 1.55c.; 200 tons Soda Ash, 1.50@1.65c.; 450 drums Caustic Soda, on spot, at 3.35@3.40c.; 300 bbls. Natrona Porous Alum at 2 1/2c.; 300 bbls. Pearl Alum at 2 1/2c.; 150 bbls. Ground Alum at 1.80c.; 100 bbls. Lump Alum at 1.70c.; 200 bbls. Keystone Alum at 1 1/2c.; 15 cks. German Ultramarine at 17c.; 10 bbls. American Ultramarine at 12 1/2c.; 10 cks. Brown Sugar of Lead at 7 3/4c.; 150 tons 58 per cent. Alkali, 1.50@1.55c.; 10 cks. Yellow Prussiate of Potash at 27c.

CHINA CLAY.—There is a full supply on spot, the recent arrivals having amply stocked the market. The demand has been fair and strictly of a jobbing character. While values as yet show no change, dealers continue to anticipate that event abroad, which has been fully referred to in previous issues, and may cause an appreciation in prices toward the end of the year.

TWINES.—There is a satisfactory volume of trade, but prices on some lines have declined considerably. We quote as follows: Cordage—Manilla Rope, half inch, 14 1/4c.; Sisal Rope, half inch, 10 1/4c.; New Zealand Rope, half inch, 9c.; Jute Rope, half inch, 7c.; Sisal Hay Rope, 9c.; Sisal Lath Yarn, fine, 7 1/2c., and medium, 7c.; Jute Lines, 7 1/2c.; Jute Ready, 7 1/2c.; New Zealand Hay Rope, 8c.; New Zealand Lath Yarn, fine, 7c., medium, 6 1/2c. Twines—Hemp, 4 1/2 and 6 B Russia, 13c.; 4 1/2 and 6 D Jute, 11c.; 4 1/2 and 6 L Jute, 10 1/2c.; Hemp Ball, 18 B C, 18c.; 18 C, 17c. Russian Hemp Hay Rope, 10c.

COAL.—There has been no change of moment in the hard coal trade since last week, and business has been quiet at most of the centres of trade. The fact remains that there is a great deal of coal in first hands (dealers wholesale and retail) and that they are not moving very much; to this may be added the further fact that coal so held did not cost anything like the present prices which are asked, and there is everywhere the same story of large

transactions at the lowest price of the year. Boston reports a quiet trade, with receipts now nearly on a par with those of last year; this is probably the proper proportion in view of the mild winter of 1899-90. At Philadelphia it is said that buyers are not now so much engaged in shopping for coal as they were during the past month or two, and with the advance of the season there is less disposition shown on the part of sellers to shade from the circular prices to effect sales. On the New York market there has been a steady trade, but this cannot be spoken of as active; in fact the September activity does not develop and it is now expected that October will be the brisk month of the year. At the Northwest there is some activity as compared with the former condition of affairs; there is no doubt that the demand for hard coal is likely to be strong for the next sixty days; it will largely represent the desire to get forward the coal which has been purchased and is now on the way, or should be; dealers complain bitterly of the inability to get cars in sufficient number to take care of their trade at this time; there is a heavy traffic in all commodities just at present and the railroad companies treat the coal traffic as of very subordinate value to them. Chicago advises are that many large dealers cannot fill their orders promptly and in some cases are a week behind; shippers complain of the supply of cars to load at their docks, consequently they will be backward in shipping coal already ordered by their country trade; prices are stronger this month and shippers are predicting further advances for October and November. Soft coal is in full request at most of the trade centres; there is no scarcity of this fuel, for the districts supplying it are many and the competition for orders is lively, so that prices do not rally to any perceptible extent from the range at which they have been for some time.

EDWIN BUTTERWORTH & CO. MANCHESTER, ENGLAND. PACKERS OF ALL KINDS OF Paper Stock, Cotton Waste and Buffalo Sizing, Wood Pulp, Moist and Air Dry Pulp, Soda and Ground Pulp. 88 GUNNY BAGGING, &c., OFFICE IN NEW YORK: TRACT HOUSE, 150 NASSAU ST., near Tribune Office, JAMES PIERIE, Manager.

WATERBURY FELTS AND JACKETS MANUFACTURED BY H. WATERBURY & SONS CO., ORISKANY, N. Y.

Adapted to every grade of paper, from the finest to the coarsest. Our wet machine or pulp felts are unequalled for durability. Every felt guaranteed to give satisfaction or may be returned.

ESTABLISHED 1845. MARTIN ROURKE & CO., MANCHESTER, PACKERS AND SHIPPERS OF MANCHESTER GUNNY BAGGINGS, Cotton Wastes and Paper Stock, Trencham Street Mills, Chester Road, Manchester, Eng.

PRICES CURRENT. NEW YORK MARKET.

Table with columns for 'Paper Market', 'DEALERS' SELLING PRICES', and 'Leghorn Rags'. Lists various paper products and their prices.

Table listing prices for Straw Wrapping, Cigarette Straw Tissue, Tea Papers, Card Middles, Card Middles, long fibre wood, Colored Mittles, rag and wood, Wood Fibre, bleached, Wood Fibre, unbleached.

Table listing prices for Woolsen Rags, including Comforter Stock, White Woolsen, Blue Gray Stockings, White Stockings, Blue Flannels, Reds, old, New Shirt Clippings, Mixed Softs, free of Carpets, Seamed Cloth, Skirted Cloth, New Cloth Clippings, New Satinets, clean stock, Satinets, old, Seams, Stripped for extract, Blankets, Woolen, Wool carpets, Mixed carpets, White Linseys, Mixed Linseys.

Table listing prices for Rags, Rope and Bagging, including White Shirt Cuttings, Unbleached Muslins, City Whites, No. 1, New Seconds, light, New Seconds, dark, No. 2, Whites, Cottons, No. 1, Canvas, No. 1, Linen Canvas, No. 1, Country White Rags, Country Mixed, free of Woolsen, Seconds (City), Colored 100 lbs, Manila Rope, Manila Rope, tarred, Gunny Bagging, No. 1, Gunny Bagging, No. 2, Burlap Bagging, No. 1, Kentucky Hemp Bagging, Tar Shavings, Hemp Twine Stock, Jute Waste.

Table listing prices for Shavings and Old Paper, including White Collar Cuttings, White Envelope Cuttings, Hard White Shavings, No. 1, Soft White Shavings, No. 2, Mixed Shavings, part white, Ledger and Writing, Solid Stock, No. 1, light, Old Newspapers, Imperfections, Colored Papers, Manillas, No. 1, Hardwares, No. 1, Bogus Manillas, Commons, Binders' Board Cuttings, Strawboard Cuttings.

Table listing prices for English Rags, &c., including New Cuttings, cotton, London Fines, cotton, Outshots, cotton, Second Hand Shavings, New Print Tabs, Checks and Blues, Light Prints, Damp Fustians, Black Calicoes, First Canvas Linen, Second Canvas Linen, Gunny Bagging, No. 1, Gunny Bagging, No. 2, Burlaps Bagging, No. 1, Rope, Manila, Rope, Manila, tarred, Clean Jute Ropes, Mixed Rope, Flax Tow.

Table listing prices for English Old Papers and Shavings, including Hard Shavings, No. 1, Soft Shavings, No. 1, White and Colored Shavings, No. 1, Paper Collar Cuttings, Briefs and Letters, Newspapers and Pamphlets, extra, Old Newspapers, Book News and Letters, Old Blank Books, Old Printed Books, White and Buff Railway Sheets.

Table listing prices for Hamburg Rags, &c., including N S C, New Shirt Cuttings, S P F F, No. 1 Linens, S P F F, No. 2 Linens, S F, No. 3 Linens, S F, No. 4 Linens, F F, No. 5 Linens, Extra Fine Blue Linen, light color, L F B, Blue Linens, Gunny Bagging, No. 1, Light Gunny Bagging, No. 2, C S P F F, No. 1 Cottons, C S P F F, No. 2 Cottons, C S P F F, No. 3 Cottons, C S F, Colored Cottons, C F X, Low grade Cottons, Extra Fine Blue Cottons.

Table listing prices for Leghorn Rags, including P P, No. 1 White Linens, S S, No. 2 White Linens, T R, Linen Stripes, P R C, No. 1 White Cottons, S C, No. 2 White Cottons, S C, No. 3 White Cottons, Cotton Stripes, C C, Colored Cottons.

Table listing prices for Alexandria Rags, including Whites, Blues, Colors.

Table listing prices for Japanese Rags, including Whites, ordinary, Blues, selected.

Table listing prices for Chemicals, Coloring Materials, &c., including Alkali, 48 per cent, Alum, lump, Alum, ground, Alum, keystone, Alum, Diamond, Alum, pear, Alum, porous, Aluminous Cake, Anti-Chlorine, Bichromate Potash, American, Bleaching Powders, spot and to arrive, Cambridge Ochre, Caustic Soda, 60 per cent, Clay, China, English, per ton, Clay, China, Star, Clay, China, Keystone, Clay, South Carolina, per ton, Clay, Terra Alba, French, per ton, Orange Mineral, Corn Starch, Copperas, American, Extract Logwood, Mineral Pulp, Orange Mineral, Potato Starch, Prussian Blue, dry, Prussian Blue, steam dried, XXX, per ton, Strawboards, steam dried, XX, per ton, Strawboards, steam dried, X, per ton, Strawboards, air dried, Penn., per ton, Strawboards, air dried, State, per ton, Straw Wrapping, basis, 15 x 30, 15 1/2 lbs., 30 sheets, 30 x 40, from 38 to 42 lbs., per rm., 30 x 40, from 24 to 36 lbs., per rm., 22 x 32, from 24 to 36 lbs., per rm., 20 x 30, 21 lbs., per rm., 20 x 30, from 14 to 17 lbs., per rm., 18 x 28, from 12 to 13 lbs., per rm., 18 x 28, 15 x 20, 10 lbs., per rm., 15 x 20, from 7 to 8 1/2 lbs., per rm., 14 x 18, 12 x 18, 11 x 15.

Sulphate of Alumina.....	2 1/2
Sulphuric Acid, 66% cent.....	1 1/2
Ultramarine, blue.....	7 1/2
Venetian Red.....	1 1/2
Vitriol, blue.....	3 1/2
Yellow Ochre, Rochelle.....	1.35 @ 1.50

BOSTON MARKET.

New Papers.	
Superfine Book.....	7 @ 8
Fine Book.....	6 @ 7
News, rag and wood.....	5 1/2 @ 6
News, No. 1, all rag.....	6 @ 6 1/2
Manilla, Cream Rope.....	9 1/2 @ 10
Manilla, No. 1, Rope.....	8 1/2 @ 9
Manilla, Extra Jute.....	6 @ 6 1/2
Manilla, Jute and Gunny.....	5 1/2 @ 6
Manilla, No. 2.....	5 @ 5 1/2
Manilla, Bogus.....	4 @ 5
Hardware, No. 1, tarred.....	7 1/2 @ 8 1/2
Hardware, No. 2.....	7 @ 8
Hardware, red.....	5 @ 6
Strawboards, air dried, 1/2 ton.....	50.00 @ 60.00
Strawboards, steam dried, 1/2 ton.....	30.00 @ 40.00
Straw Wrapping, heavy.....	1.90 @ 2 1/4
Straw Wrapping, light.....	1.50 @ 2 1/2
Binders' Boards, 1/2 ton.....	55.00 @ 60.00
Leather Board, Common, 1/2 lb.....	3 @ 4
Leather Board, counter.....	5 @ 8
Leather Board, extra.....	8 @ 10
Tar Boards, 1/2 ton.....	100.00 @ 110.00

Paper Stock.	
Mill Assorted Whites.....	4 1/2 @ 4 3/4
Cotton Canvas.....	4 1/2 @ 4 3/4
Cotton Carvas, No. 2.....	2 1/2 @ 3
Gunny Bagging, No. 2.....	1 1/2 @ 2
Gunny Bagging, No. 1.....	1 1/2 @ 2
Shivey Bagging.....	1 1/2 @ 2
Waste Woolens.....	3 @ 4
Jute Butts.....	15 @ 20
White Collar Cuttings.....	2 1/2 @ 3 1/2
White Envelope Cuttings.....	3 @ 4
Hard White Shavings, No. 1.....	3 @ 3 1/2
Soft White Shavings, No. 1.....	2 1/2 @ 3 1/2
White Shirt Cuttings.....	3 1/2 @ 4 1/2
Country White Rags.....	1 1/2 @ 2
Country Mixed Rags.....	1 1/2 @ 2
City Whites, No. 2.....	3 1/2 @ 4 1/2
Seconds, Country.....	3 @ 3 1/2
White Shavings, No. 2.....	1 1/2 @ 2
Mixed Shavings (1/2 white).....	1 1/2 @ 2
Imperfections.....	1 1/2 @ 2
Book Stocks.....	1 1/2 @ 2
Light Prints.....	1 @ 1 1/2
Manilla Papers, old.....	2 1/2 @ 3
Hardware and Manilla.....	12.00 @ 15.00
Strawboard Cuttings.....	3 1/2 @ 4 1/2
Linen Canvas.....	3 1/2 @ 4 1/2
Colors.....	1 @ 1 1/2
Manilla Rope.....	2 1/2 @ 3 1/2
Binders' or Tar Board Cuttings.....	1 1/2 @ 2
Common Papers.....	1 1/2 @ 2
Oakum Junk.....	2 1/2 @ 3 1/2
Hemp Rope, Tarred.....	2 1/2 @ 3 1/2
Rigging.....	4 1/2 @ 5 1/2

English Rags, &c.	
Fines.....	3 1/2 @ 3 3/4
Outshots, cotton.....	3 @ 3 1/2
Seconds.....	1 1/2 @ 2
Seconds, extra.....	2 @ 2 1/2
Thirds.....	1 1/2 @ 2
New Print Tabs.....	2 1/2 @ 3
Checks and Blues.....	2 @ 2 1/2
Light Prints.....	1 1/2 @ 2
Dark Fustians.....	1 1/2 @ 2
Black Calicoes.....	1 1/2 @ 2
Gunny Bagging, No. 1.....	1 1/2 @ 2
Gunny Bagging, No. 2.....	1 1/2 @ 2
Mixed Bagging.....	1 1/2 @ 2
Rope Manilla.....	2 1/2 @ 3 1/2
Rope Manilla, tarred.....	2 1/2 @ 3 1/2
Jute Ropes.....	2 1/2 @ 3 1/2
Jute Threads.....	2 1/2 @ 3 1/2

English Old Papers and Shavings.	
Soft Shavings, No. 1.....	2 1/2 @ 3
White and Colored Shavings, No. 1.....	1 1/2 @ 2
White and Colored Shavings, No. 2.....	1 1/2 @ 2
Cream Post Shavings.....	2 1/2 @ 3
Paper Collar Cuttings.....	2 1/2 @ 3
Ledgers.....	1 1/2 @ 2
Books and Pamphlets, extra.....	1 1/2 @ 2
Old Newspapers and Pamphlets.....	1 1/2 @ 2
Broken News and Letters.....	1 @ 1 1/2
New Books, scolded folios.....	1 @ 1 1/2
Old Blank Books.....	1 @ 1 1/2
Old Printed Books.....	1 @ 1 1/2
Buff Railway Sheets.....	1 1/2 @ 2
Railway Tickets.....	1 1/2 @ 2

Lignin Rags.	
P. P. No. 1 Lignin.....	1 @ 1 1/2
S. S. No. 2 Lignin.....	1 @ 1 1/2
P. No. 1 Cottons.....	1 @ 1 1/2
S. No. 2 Cottons.....	1 @ 1 1/2
T. No. 3 Cottons.....	1 @ 1 1/2

Alexandria Rags.	
Whites.....	1 1/2 @ 1 3/4
Blues.....	1 1/2 @ 1 3/4
Colors.....	1 1/2 @ 1 3/4

Smyrna Rags.	
Whites.....	1 1/2 @ 1 3/4
Blues.....	1 1/2 @ 1 3/4
Reds.....	1 1/2 @ 1 3/4

Chemicals.	
Alkali.....	1.40 @ 1.45
Aluminous Cake, currency.....	1 1/2 @ 1 3/4
Alum, American ground.....	1 1/2 @ 1 3/4
Alum, American lump.....	1 1/2 @ 1 3/4
Anti-Chlorine.....	8 @ 8 1/2
Bi-Chromate Potash, American.....	10 1/2 @ 11
Bleaching Powders.....	1.45 @ 1.55
Blackley Blue.....	2.00 @ 2.00
Caustic Soda, 70% cent. (for 60% cent.).....	3.10 @ 3.15
Clay, English, 1/2 ton.....	14.00 @ 18.00
Clay, American, 1/2 ton.....	13.00 @ 14.00
Copperas, 1/2 lb.....	5 1/2 @ 6
Extract Logwood.....	7 1/2 @ 8 1/2
Lime, Rockland, 1/2 bbl.....	95 @ 1.00
Prussian Blue, 1/2 lb.....	50 @ 60
Prussiate Potash, American, yellow.....	51 @ 52
Prussiate Potash, red.....	51 @ 52
Rosin, common strained, 1/2 bbl.....	1.05 @ 1.05
Rosin, E.....	1.45 @ 1.45
Rosin, F.....	1.50 @ 1.50
Rosin, G.....	1.55 @ 1.55
Rosin, extra pale.....	1.05 @ 1.05
Sai Soda, English, 1/2 lb.....	1.05 @ 1.05
Soda Ash, 48% cent. caustic.....	1.45 @ 1.45
Soda Ash, 48% cent. carbonated.....	1.50 @ 1.50
Soluble Blue.....	55 @ 65
Sugar Lead, white.....	12 1/2 @ 13
Sugar Lead, brown.....	7 1/2 @ 8 1/2
Sulphuric Acid, 66%.....	1 1/2 @ 1 1/2
Terra Alba, 1/2 ton.....	15.00 @ 30.00
Ultramarine, 1/2 lb.....	12 1/2 @ 16
Venetian Red, 1/2 lb.....	1 1/2 @ 1 1/2
Vitriol, Blue.....	3 1/2 @ 5 1/2
Yellow Ochre.....	2 @ 2

**A MANUFACTURER OF LEDGER, WRITING, A** book and news, or of any good specialty in paper, can be placed in communication with an active, reliable and well-known salesman, who will shortly be open to an engagement, by addressing ADJUM, care of Paper Trade Journal.

**WANTED—A PAPER MILL SUPERINTENDENT** of wide experience desires a situation; is an expert in the manufacture of book, envelope, flats, news, colors, &c. Address P. O. Box No. 376, Turner's Falls, Mass.

**FOR THE REASON THAT I HAVE MADE** all the money I want, I will, on January 1, 1891, sell my book, stationery and fancy goods business, and give long lease on store. For particulars address STATIONER, 734 Main street, Dallas, Tex.

**FOR SALE—Three second-hand Jordan engines,** warranted as good as new; these Jordans have been taken from the mills and replaced by those of our manufacture; price low. Emerson Mfg. Co., Lawrence, Mass.

**We LEAD, but Never Follow.** All steel fly bars must go! Lead fly bars and bed plates made with natural gas are much better and practically as cheap as all steel. Our Paper Trimming, Stop Cutter and Bar Knives guaranteed superior in make and temper to all others by **ANDERSON KNIFE AND BAR WORKS, Anderson, Ind.** Write for special information.

**FOR SALE.** A new, five ton per day capacity, print paper mill, located upon four of the principal lines of railway running west from Chicago. Low freights, cheap fuel, good market. Abundance of pure water supplied by flowing artesian well on the premises. Particulars furnished on application. Address **G. O. WILLIAMS, Rockford, Ill.**

**STEAM PUMPS FOR SALE.** One each Nos. 2, 5 and 7 Knowles Pumps. One each Nos. 4 and 6 Blake Pumps. One each Nos. 0, 3, and 6 Woodward Pumps. One each Nos. 2 and 3 Earl Pumps. One No. 7 Valley Machine Company Pump. One 6 x 4 x 6 Worthington Duplex Pump. Engines and Boilers (Upright and Horizontal) from 2 H. P. to 150 H. P. **D. B. CRICKSHANK, 243 Dyer Street, Providence, R. I.**

**FOR SALE.** A 72 inch Fourdrinier machine with gun metal couch and press rolls, ten dryers, 28 inches diameter, two stacks of calenders, nine rolls in each stack, reels and cutter, all in good condition; can be seen running in our mill until April 1, 1890. For further particulars address the **W. B. OGLESBY PAPER CO., Middletown, Ohio.**

**FOR SALE.** Two Hammond Cutters, 76 in. One Hammond Cutter, 46 in. All in good order and ready to run. **ALBION PAPER CO., Holyoke, Mass.**

**WANTED,** MANUFACTURERS OF **Manilla, Express, Hardware, Bogus, Straw and Tissue Papers** To send samples and cash prices of their products **PITTSBURG PAPER CO., 93 Third Avenue, Pittsburg, Pa.**

**AT A BARGAIN.** **Straw Wrapping Mill** In New York State; well located in fine village; plenty of straw, good water power; can make light manilla also; has made money during present owner's occupancy; the latter retiring from age and infirmity; will exchange for No. 1 city real estate. Address HALCYON care of Paper Trade Journal.

**FOR SALE.** One stack—One 14 inch, five 6 inch and one 12 x 74 inch Chilled Calenders with heavy stands, &c., complete, now running, and for sale cheap. One stack—Two 14 inch and one 12 x 72 inch Chilled Calenders, with heavy stands, &c., complete; rolls to be ground on Morton Poole Grinder. One 90 inch Fourdrinier part, for 40 foot wire, 12 x 92 inch copper breast roll. Forty 2 1/2 inch table rolls, 6 inches under wire rolls, dandy; three all composition-section boxes, deckel frames; Hutton wire guide, horizontal slake; all brass water pipes; bottom couch roll, 16 x 92 inches; top roll, 15 x 92 inches, both of gun metal; modern in every particular, complete in all its parts and nearly new. One 74 inch stop cutter, with or without slitters. Two 44 inch stop cutters, with or without slitters. One set of three upright reels, 72 inches wide. Cutters and reels of modern make and in complete working order. All of above can be seen by applying to **RICE, BARTON & FALES M. & I. CO., Worcester, Mass.**

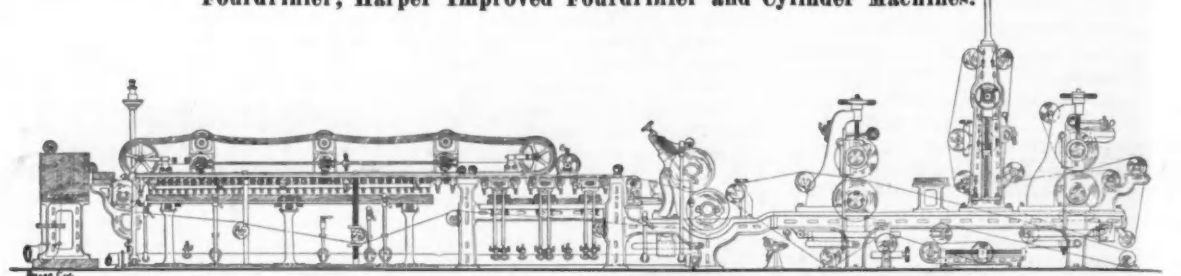
**FOR SALE.** **The Southford, Conn., PAPER MILL.** This magnificent piece of mill property, located in Southford, Conn., on the line of the New York and New England Railroad, twelve miles west of Waterbury, must be sold at once, to settle the estate of the late Alfred Wells, of the firm of White & Wells, of Waterbury, Conn. It consists of eighty acres of land, one of the finest brick mills in this country, two large storehouses, six tenement houses, barn, stables, &c.; one 72 inch four cylinder machine, with sixteen 36 inch dryers; two Jordan engines; one 1,200 and three 600 pound beating engines; two steam engines, self clamping cutter, rag cutter, rotary, machine shop, &c.; a perfect mill in all its appointments and in thorough repair; unending water power, with 94 feet fall; property built in 1882 at a cost of \$180,000; can be purchased at a great bargain. Property can be inspected at any time by applying to undersigned. Address **WHITE & WELLS, Waterbury, Conn.**

**THE KEYSTONE LUBRICANT COM-** FOUND, for use on paper mill machinery, is the safest, purest, cleanest and most economical form of lubricant ever discovered. One pound of Keystone Lubricant will do the work of two gallons of lard, neat's foot, castor or any known oil. It is absolutely free from acid and grit, will not run or gum, and reduces friction over other oils from 50 to 80 per cent. **KEYSTONE LUBRICATING CO., Office, No. 109 North Front Street, Philadelphia, Pa.**

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## PAPER MILL MACHINERY,



**JORDAN ENGINES. | JORDAN ENGINES REFILLED.** Screens, Calenders, Rag Cutters, Cylinder Molds, Deckel Straps, Paper Cutters, Screen Plates, Dandy Rolls, Stuff Box Trucks, Iron and Brass Castings **REVOLVING REELS AND STACK REELS. MANUFACTURERS OF THE KOEGEL SLITTER.** FOR PARTICULARS, ADDRESS

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**BARGAINS IN MACHINERY.**

One 86 inch Fourdrinier Machine, with ten 36 inch Iron Dryers, Chilled Calenders, Cutter and Reel. One 72 inch Cylinder Machine, ten Iron Dryers. One 68 inch Fourdrinier Machine, now running. One 62 inch Fourdrinier Machine, ten Iron Dryers, Chilled Calenders, Cone Pulley, Cutter, Reel, Driving Train, now running, \$1,500. One 62 inch Double Cylinder Machine, ten Iron Dryers, two stacks Chilled Rolls, first class. One Jordan Engine. Lot Heating Engines, from 500 to 2,000 pounds capacity, with wood or iron tube. Water Wheels, all sizes, best makes. Two Appleton Pulp Grinders, good condition. Ten Iron Dryers, 30x46 inch face; four 28x48 inch face. Two new 200 horse power Porter-Hamilton High Speed Engines. Rotary Bleachers and Steam Boilers.

Send for catalogue and prices. Several first-class complete plants for Book, Manilla or Straw. **F. H. DAVIS & CO., 101 Milk Street, Boston.**

**CHEMICAL PULP.** A FIRST-CLASS ARTICLE.

Clean, strong and good colors, in Unbleached and Bleached. We make Pulp to suit Paper for which it is required. Samples and prices furnished.

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**MAURICE O'MEARA,** 448 Pearl Street, Established 1865. NEW YORK. **PAPER OF ALL KINDS.** PACKER AND DEALER IN ALL GRADES OF **PAPER STOCK.** Samples of all grades of Paper desired with bottom cash prices. Am prepared to receive paper on consignment.

Potter Building, 38 PARK ROW, NEW YORK. THE undersigned (formerly HOWSON & SONS) continue the practice of the Law of Patents, Trade Marks and Copyrights before the Courts, as well as the Soliciting of Patents before the Patent Office. In addition to their offices in Philadelphia (established 1855) and Washington, they have offices, as above, in New York, in charge of Mr. HUBERT HOWSON, a resident partner. **HOWSON and HOWSON, Counsellors-at-Law & Solicitors of Patents.**

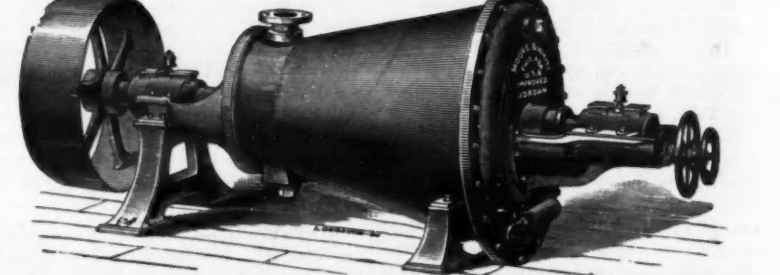
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Send us Samples of their Stock OF PAPER ON HAND, WITH BOTTOM TEN DAY CASH PRICES. We buy large lots and sell all grades of **Paper, Rags and Paper Stock.** We trade Stock or Cash for Paper.

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Builders of Paper Mill Machinery of Every Description.



Frieton Clutch Pulleys and Cut-off Couplings, Cylinders, Fourdrinier and Harper Improved Paper Machines; White's Patent Stop Cutters; Cone Pulley Cutters. **ALL MACHINERY of the HEAVIEST and LATEST IMPROVED PATTERNS.**

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**FOR PUMPING PULP, ETC., IN PAPER MILLS** SEND FOR ILLUSTRATED CATALOGUE "C" OF THE

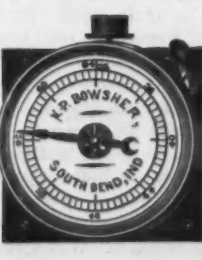
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**IMPROVED FOURDRINIER WIRES.** Wire Cloth of Every Description.

**DANDY ROLLS AND CYLINDERS.** Factory, 135 Howard Ave., NEW HAVEN, CONN. Write to us for Prices.

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**WANTED—SITUATION AS A FIRST-CLASS** backtender; used to fast running; four years' experience; good references. Address **M. R. F., care of Paper Trade Journal.**

**WANTED—A MAN TO OPERATE A PAPER** cutter; one familiar with the cutting and wrapping of toilet paper preferred. Address, giving experience and wages expected, **Drawer 963, Albany, N. Y.**

**MILLWRIGHT WANTED FOR THE FRANK** R. WALKER PAPER MILLS, BRIDGEPORT, CONN.

**WANTED—A PART IN THE MANAGEMENT** of a modern news mill, with a small interest in same, by a young man of good business capacity and training, and experienced both in the manufacture and marketing of print paper. Address **LAMBERTON, care of Paper Trade Journal.**

**SITUATION WANTED BY A SOBER, MAR-** ried machine tender with good references; can run on news or manilla. Address **M. F., care Paper Trade Journal.**

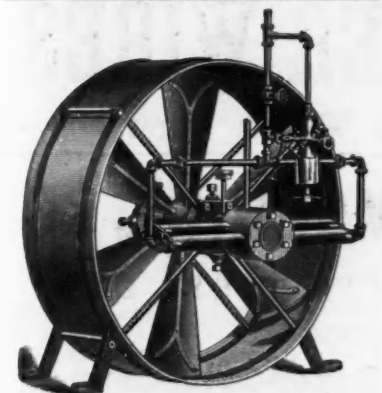
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**SCREEN PLATES**  
—OF—  
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—OR—  
**CAST METAL.**  
  
REPAIRING  
**OLD SCREEN PLATES**  
A SPECIALTY.

**SCREEN PLATES.**  
New and Repaired.  
Closed and Resealed.  
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**VENTILATE! VENTILATE!**

—YOUR—  
Machine Rooms, Rag  
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WITH  
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LIGHT RUNNING  
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Adjustable Blades,  
Self Oiling Bearings, with  
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30 days trial. Fan Catalogue free.  
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**DISK FAN OR EXHAUSTER**  
—AND—  
**JOHNSON HIGH SPEED ENGINE,**  
For Drying and Ventilating, Removing  
Steam, Dust, &c.  
Specially adapted for use in Paper Mills.

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**ANDREWS & JOHNSON,**  
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**THE MORRISON & HERRON**  
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**IMPROVED**  
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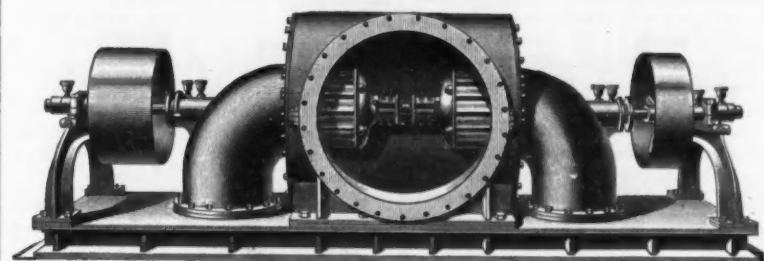
Three Different Machines  
—FOR—  
**Strength, Thickness and Weight**

A NEW PRINCIPLE APPLIED IN  
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Thickness shown to the sixteen-thousandth part  
of an inch.  
Used in the GOVERNMENT PRINTING OFFICE  
and the DEPARTMENTS at Washington.  
Price, complete, \$150.00  
Or Strength Indicator, 75.00  
Thickness Gauge, 75.00  
Paper Scale, 20.00

ADDRESS ALL ORDERS TO  
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**CAUTION.**  
All persons are liable to prosecution who make, buy  
or use Paper Testers that confine and break paper  
within its edges, as my Patents cover that method.

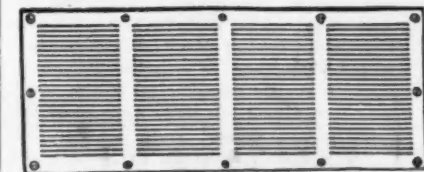
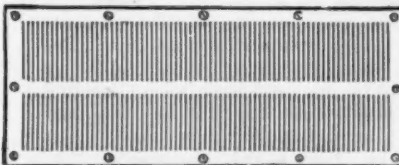
**THE VICTOR TURBINE.**



THE above engraving represents a pair of 12 inch **VICTOR TURBINES** arranged on a horizontal shaft, with Cast Iron Flume, Draft Tubes, End Bearings for Shaft, and Driving Pulleys complete, all mounted upon a substantial cast iron bed plate. The entire arrangement is very complete and strictly first class in every particular. We are now prepared to furnish Victor Turbines either single or in pairs on horizontal shafts and where the situation admits of their use we recommend them.

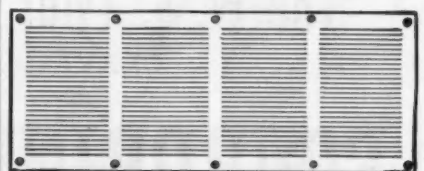
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**SCREEN PLATES.**

Our new Plates are made of the  
**VERY BEST METAL,**  
and for price and durability cannot be  
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**OLD PLATES RE-CLOSED.**



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OF BRASS OR CAST METAL,  
At Prices that Cannot be Surpassed.  
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**AMERICAN**  
**STRAW BOARD COMPANY,**

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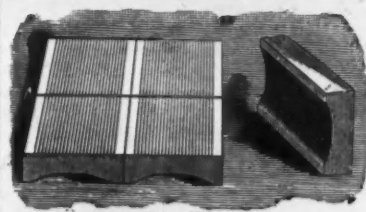
Straw Boards, Lined Straw Boards,  
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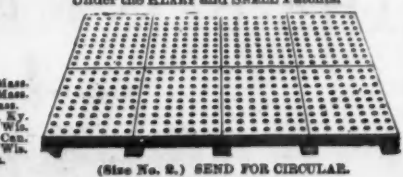
GENERAL OFFICE: PULLMAN BUILDING, CHICAGO.

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BOSTON AGENCY, 46 Federal Street.  
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Under the KLAY and SNELL Patents.

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SEND FOR THIS BOOK  
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MANUFACTURERS IN UNITED STATES, SCOTLAND, FRANCE, GERMANY & AUSTRIA.

AWARDED THE GRAND PRIZE AT LATE PARIS EXPOSITION.

**UPRIGHT OR HORIZONTAL.**

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

Possesses more than Double the Capacity of ordi-  
nary Water Wheels of same Diameter, and has  
produced the Best Results on Record,  
as shown in the following tests  
at Holyoke Testing Flume:  
WITH PROPORTIONATELY HIGH EFFICIENCY AT FAST GATE.

SIZE WHEEL.	HEAD IN FEET.	HORSE POWER.	PER CENT. OF USEFUL EFFECT.
15 inch.	18.00	30.17	.8632
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30 inch.	11.65	32.54	.8676
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Such results, together with its nicely working gate and simple, strong and durable construction, should favorably commend it to the attention of all discriminating purchasers.

THESE WHEELS ARE OF VERY SUPERIOR WORKMANSHIP AND FINISH.  
THE VICTOR WHEEL HORIZONTAL SHAFT, DISPENSING ENTIRELY WITH GEARS,  
is particularly adapted to setting on

STATE YOUR REQUIREMENTS AND SEND FOR CATALOGUE TO THE  
**STILWELL & BIERCE MFG. CO., DAYTON, OHIO,**  
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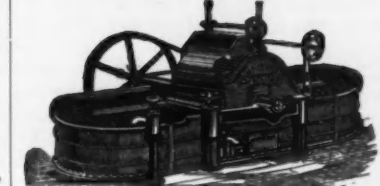
**THOMPSON & CAMPBELL**

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**W. H. RUSSELL'S SAND WASHER,**  
An improvement in Washing Engines.

**MACHINISTS AND MILLWRIGHTS.**  
Manufacturers of Beating and Washing En-  
gines, Pumps, Rag Dusters, and Paper  
Mill Works in General.

**MILLWRIGHT WORK A SPECIALTY.**  
ALSO, MAKERS OF



**Improved Cylinder and Fourdrinier Machines.**

**RAWSON**  
ABSOLUTELY  
ACCURATE.  
**PEARCE**  
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**RICE, BARTON & FALES MACHINE AND IRON CO.**

(At Old Stand of Rice, Barton & Co.)

**WORCESTER, MASS.,**

**PAPER MACHINERY**

OF EVERY DESIRABLE VARIETY,

Iron and Brass Castings, Chilled Iron and Paper Calender Rolls, Rag Engines,  
Rag Cutters, Steam Pressure Regulators, &c.

**HYDRAULIC PRESSES, FROM 5 TO 14 INCH PISTON.**

**DE-OXIDIZED BRONZE, COPPER AND BABBITT METALS.**

**BRONZE** any mixture of *Copper* and *Tin* desired—Stronger, Tougher,  
Purer and Denser than any Copper and Bronze not de-oxidized. Best "*Journal*  
*Bearing Metal*" in existence; record 200,000 miles and still running. Resists  
*Acid* and *Acid Waters* perfectly in *Pumps, Valves, &c.* *Babbitt Metals*,  
all grades, guaranteed from 10,000 to 200 speed.

**THE DE-OXIDIZED METAL CO., Bridgeport, Conn.**

**THE "UNDERCUT"**  
**Paper Cutting Machine.**

Specially Adapted to Paper Mill Work.

IN USE IN THE LARGEST AND BEST MILLS IN THE COUNTRY  
SEND FOR CIRCULAR.

**CRANSTON & CO., 57, 59, 61 Park St., New York.**

**RUBBER COVERED COUCH ROLLS**  
—FOR—  
**HARPER FOURDRINIERS CYLINDERS AND WET MACHINES.**  
EIGHT YEARS IN SERVICE.  
SATISFACTION GUARANTEED.  
IN WRITING FOR PRICES STATE LENGTH OF CYLINDER FACE.  
WE ALSO MANUFACTURE A SUPERIOR LINE OF  
**BELTING, HOSE, GASKETS, PACKING, ETC.**  
CORRESPONDENCE SOLICITED.  
**THE B. F. GOODRICH CO.,**  
AKRON, OHIO.

## Manufacturing News.

## EASTERN STATES.

The mill of the Carrabasset Pulp Company, Skowhegan, Me., which was shut down temporarily on account of financial embarrassment, has again started up.

The projected pulp mill at Madison Bridge will be of gigantic proportions. The contract calls for the laying of 50,000 brick per day for forty consecutive days, commencing about the middle of October and completing the building ere December 1. At last accounts the contract had not been taken. The conditions are such that contractors are seemingly afraid to take hold of the job.

The irresponsible statement that the Housatonic Mill belonging to the Smith Paper Company, Lee, Mass., was to be sold and then go on to the manufacture of wall papers was unwarranted and is denied by the company.

The appraisers of the damage to the pulp mill at Brewer, Me., have completed their work. The loss to the building was placed at \$7,119.18 and the loss to the machinery was set at \$5,137.21. The total insurance at the time of the fire was \$50,000. The plant was valued at \$107,378.72. The appraisers of the loss to the building were J. M. Davis and William Cutter, and on the machinery, E. S. Winchester, of Boston, and W. S. Whitman.

The Scott & Roberts Company, of Bennington, Vt., recently shipped four "New England" wood pulp grinders to the Winnipisogee Paper Company, of Franklin, N. H., to be placed in the new pulp mill, which it is erecting on its upper privilege, this being the company's fourth order for the "New England" grinder.

The Glen Manufacturing Company, Berlin Falls, N. H., recently purchased of the Scott & Roberts Company, Bennington, Vt., two "New England" wood pulp grinders, to be placed in its upper mill, instead of the four machines formerly in use, this being its third order for the "New England" grinder, nine of which have displaced fourteen formerly used.

There appeared in THE JOURNAL of August 2 an item in which it was stated that at the mills of the Piscataquis Falls Pulp and Paper Company, at Enfield, Me., the extraordinary amount of 84,105 pounds of wood pulp, dry weight, has been ground in one day. It is believed by many that this is the largest output of pulp ever made with like amount of machinery in a single day, and THE JOURNAL has obtained the following information in regard to it: The pulp ground was from spruce wood and was of good quality, suitable for news paper. The pulp was ground by eleven "New England" wood pulp grinders, furnished by the Scott & Roberts Company, of Bennington, Vt., the grinders being driven by eleven pairs of 30 inch Victor turbine water wheels, manufactured by the Stilwell & Bierce Manufacturing Company, of Dayton, Ohio, the turbines operating on a horizontal shaft under 18½ feet head, each pair of wheels being rated by the makers to give 212 horse power under that head, and the result showing a production of 7,646 pounds for each grinder, or 3,608 pounds per 100 horse power used. The president of the company writes: "These machines have been running in our mill for nearly a year and this run was made without any preparation whatever. The day before we made a comparatively large run of some 40 tons, and the men were simply told if they could beat the record that the company would give them a good dinner, which we did." Who will be the next to break this record?

## MIDDLE STATES.

The Herkimer Paper Company recently put two "New England" wood pulp grinders in its mills at Lyons Falls, N. Y.

The Barclay Fibre Company, Saugerties, N. Y., is reported to be running its mill full time, and having hard work to keep up with orders.

The new force pump at the paper mill of Franklin T. Ray, Fayetteville, N. Y., was lately started up to test the capacity of three wells recently drilled for water supply. The pump throws a steady stream 3 inches in diameter and no failure of water was reported. Mr. Fox, the superintendent, is confident that the wells cannot be exhausted.

William C. Hamilton & Sons are having several large additions to their paper mills erected near Lafayette station, on the Norristown branch of the Philadelphia and Reading Railroad, near Philadelphia. The additions are to the west and southwest of the present buildings, and include a "chipper house," 50 feet 8 inches by 142 feet, and a wood pulp department 242 feet 4 inches by 100 feet. These two buildings will be connected by an underground tunnel running under a railroad siding, the floor of the pulp department being 4 feet lower than that of the chipper house. There will also

be a machine and engine house, 112½x163 feet. The pulp department will include bleach, filter, evaporating, incinerator and boiler rooms. The buildings will be from one to three stories high, and will be substantially built of selected Conshohocken stone, the walls of the pulp department being 32 inches thick, and of the other buildings 30 inches. The jambs, arches and cornices will be of brick. A large stack, with stone base 14 feet 4 inches square, will be built of hard brick at the east end of the boiler house, and will be about 125 feet high. The work is being done by J. W. Fritzing, of Roxborough, Pa., who expects to have it completed by the end of the present year.

## WESTERN STATES.

The Ohio Paper Bag Company, Middletown, Ohio, is now located in its new and commodious building recently built, and is turning out a larger product, having added several new bag machines. The new factory is under the management of Ed. Thompson, an old paper and bag maker of experience.

The Gardner Paper Company, Middletown, Ohio, is adding three new dryers to its machine.

The Wrenn Paper Company, Middletown, Ohio, is now running rolls weighing 1,500 pounds each for the Cincinnati *Inquirer*, and it is a very unusual thing for this mill to have any breaks in its rolls, as the paper frequently runs for days at a time without a break on the machine. The mill has been recently fitted up with an electric light plant.

William Barber has taken charge of the Amanda paper mill of the Middletown Strawboard Company, of Middletown, Ohio, which recently changed its product from strawboard to manillas, but so far with unsatisfactory results. It is expected that Mr. Barber will make it a success.

The large driving belt in the Tytus Paper Company's mill, Middletown, Ohio, broke on Saturday morning, September 20, causing a shut down for two days.

The large new machine built by the Black & Clawson Company for the W. B. Oglesby Paper Company, Middletown, Ohio, is running very smoothly on book paper. It is said to be a model machine in many respects.

It is rumored that the Middletown Machine Company, Middletown, Ohio, very recently incorporated, will soon begin the manufacture of paper machines of a superior pattern.

The Menasha Wood Split Pulley Company, Menasha, Wis., reports orders received last week for hickory pulleys from the Black River Wood Pulp Company, the Warren Lumber Company, F. Halock & Co., Birmingham, Conn., and Wm. Kerr, Downingtown, Pa.

F. R. Lewis, proprietor of the Lewis Strawboard Mills, Flint, Mich., has come to the conclusion that the Flint water works, which get their supply from the river, has been the cause of his spending a large amount of money for fuel to run his mill, and has accordingly begun suit to restrain the company from taking water from above his mill dam. The suit will be hotly contested.

Sulphite fibre is being made at Alpena, Mich., from tamarack wood, and the experiment is reported to be a success. The fibre will be used for making manilla paper.

## SOUTHERN STATES.

Lenoir City, Tenn., is to have a wood fibre mill. Philadelphia capitalists will erect mills there, to cost \$500,000 and employ 600 hands. The work is to commence at once, as all details have been arranged, even to freight rates.

A \$50,000 stock company has, it is reported, been organized by New York parties for the purpose of erecting a pulp mill at Huntsville, Ala.

It is reported that Boston parties organized a \$250,000 stock company to erect the paper mill at Fort Worth, Tex.

The Southern Soda Works will start a soda manufactory at Nashville, Tenn.

## Using Electricity in Making Iron.

The most recent discovery made by Dr. Stephen H. Emmens is a process of making wrought iron from pig metal without puddling. This is done by electricity, and the principal factor in its production is a dynamo.

The method is very simple. The pig iron is placed in vats or baths which are nearly filled with a chemical solution, and which are also provided with a series of plates of thin sheet iron. These plates are connected with the negative pole of a dynamo, and the pig iron is connected with the positive pole. The effect of this arrangement is that when a current of electricity is generated by the dynamo it gradually causes the iron of the pig iron to become separated from its as-

sociated carbon, silicon, sulphur, phosphorus and other impurities, and to appear in a pure condition in the form of a deposit on the sheet iron plates.

When the deposit attains a sufficient thickness it is taken from the plates and forged or rolled into any desired form. The quality of this wrought iron is superior to that of the best Swedish or Russian iron in the market. This iron can be bent, rolled or twisted into any shape cold. The superintendent said that he could take a horseshoe nail, fasten the head of it in a vise, and twist it into an almost perfect screw without breaking. Blacksmiths have used the iron and pronounced it of the best quality. The specimens the doctor has at his laboratory appear to possess all the points of superiority he claims for them.

The doctor has filed his papers for a patent both in the United States and in England, and he expects in a short time to make the iron on a much larger scale than the experimental one. He has received inquiries concerning his process from nearly all parts of the world. A few days ago he received a letter from L. Imperatori, a large manufacturer of iron in Italy, and the inventor of a patent process for the production of steel and iron, informing him that he had heard of the Emmens process, and would arrive in this country about October 1 to see it. It is also probable that some of the members of the English Iron and Steel Association, which will be in Pittsburg in October, will visit the Emmens works.—*Pittsburg Post.*

## General Notes.

Elsewhere in this issue will be found an advertisement of a party seeking an interest in the management of a modern news mill. It is stated that high recommendations as to character, ability and standing in the trade can be furnished by this advertiser.

The Pulsometer Steam Pump Company has secured a judgment in its favor at the Special Term of the Supreme Court of the State of New York against parties who, it was claimed, had been using the name "Pulsator" for the purpose of misleading buyers of steam pumps. The court granted an injunction against the use of the word "pul-

sator" or any word resembling "pulsometer."

On Sunday last the postmaster at Washington, D. C., refused to accept copies of the *Sunday Chronicle* of that city for transmission by mail because it contained lottery advertisements, and on Thursday the post office authorities at Montgomery and Birmingham, Ala., seized all copies of the *Age-Herald*, of Birmingham, and the *Weekly Constitution*, of Atlanta, on the ground that these papers were likely guilty of violating the law.

The Rodney Hunt Machine Company, Orange, Mass., reports the following assortment of the sales made by it during the month of August: Two 30 inch right and left hand wheels on horizontal shaft in boiler iron flume, for Case Brothers, Highland Park, Conn.; one 24 inch right hand vertical wheel and mortise gears, for Farnsworth & Co., Saxton's River, Vt.; two pairs of 39 inch wheels on horizontal shafts in boiler iron cases, for Graves Electric Company, Oswego, N. Y., for electric lighting plant; one 21 inch wheel on vertical shaft, for the Rochester Paper Company, Rochester, N. Y.; one 42 inch left hand wheel on vertical shaft, for the Fisk Paper Company, Hinsdale, N. H.; one 39 inch right hand wheel vertical shaft, for the Van Alen Cotton Company, Stuyvesant Falls, N. Y.; one 18 inch left hand wheel on horizontal shaft in cast iron case, for the Nonotuck Silk Company, Leeds, Mass.; one 36 inch left hand wheel, vertical shaft, for E. Phillips & Son, South Hanover, Mass.; four 45 inch right and left hand wheels, vertical shaft, in boiler iron cases, with mortise gears, bridgework and

large amount of iron work, for the Fort Wayne Water Power Company, Fort Wayne, Ind., for electric lighting plant; one 36 inch right hand wheel on horizontal shaft on a cast iron quarter turn, to set in wood flume, for F. A. Kimball & Co., Ashland, N. H., and several other jobs not mentioned and a large increase in inquiries on prospective work.

## Obituary.

John Hubbard Woodbury, assistant editor of the *Youth's Companion*, died on Sunday at the residence of his son-in-law, William E. Wilson, in Cambridge, Mass. Mr. Woodbury was sixty-four years old. He was born in Barre, Mass., went to Boston thirty years ago and had been connected with the *Youth's Companion* for sixteen years. His death was caused by cancer. He leaves a wife, two sons, two daughters, a brother and a sister.

Dr. P. T. Kempson, proprietor and editor of the *Insurance*, New York, died at his home at Metuchen, N. J., on September 25.

O. W. Dodson, publisher and printer, Henderson, Tex., is dead.

John B. Clement, of Plumley & Clement, lithographic printers, Philadelphia, Pa., is dead.

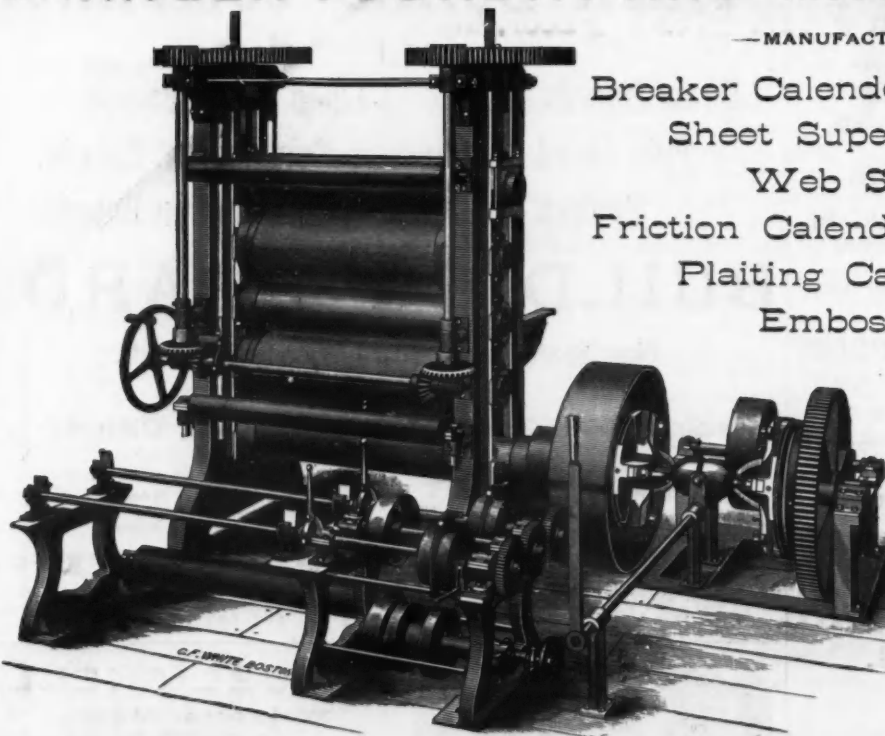
## Patent Law Reform.

In the movement for procuring patent law reform it becomes an important consideration whether an examination for novelty should be retained, or whether its entire abolition should be advocated. If

The W. S. Tyler Wire Works Co.,  
CLEVELAND, OHIO,  
MANUFACTURERS OF  
**FOURDRINIER WIRES,**  
Cylinder Faces and Washer Wires.

## GRANGER FOUNDRY AND MACHINE CO.

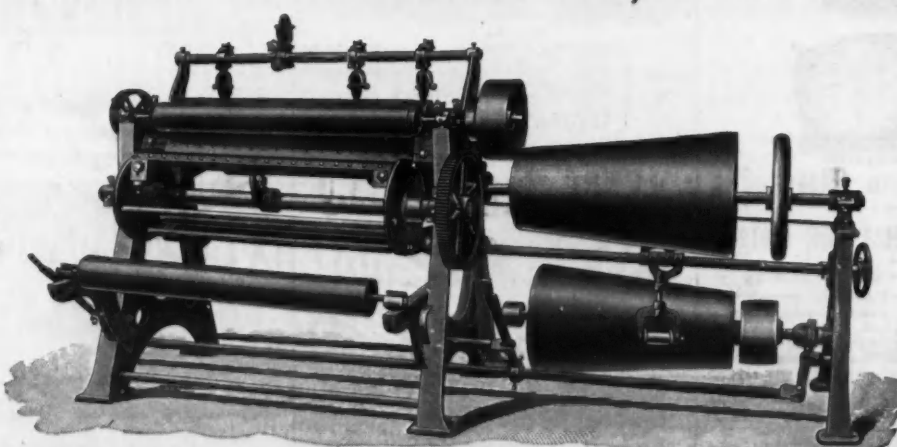
MANUFACTURERS OF



Breaker Calenders,  
Sheet Super-Calenders,  
Web Super-Calenders,  
Friction Calenders,  
Plaiting Calenders,  
Embossing Calenders,  
AYERS'  
PATENT WINDER,  
HYDRAULIC  
PRESSES and PUMPS,  
Chilled-Iron Rolls,  
Cotton Rolls,  
Paper Rolls.

PROVIDENCE, R. I.

## THE BESS MACHINE CO., MANUFACTURERS OF PAPER MILL SPECIALTIES.



## BESS PATENT SLITTERS.

Cutters, Rewinders, Cutter Knives, Blades, Etc., Etc.

SEND FOR CIRCULARS AND PRICES.

HAMILTON, OHIO.

we are to have reform, let us have it as thorough going as it is possible. Nothing is likely to be obtained except what is pressed for and strongly advocated, but we believe it will be as easy to obtain whole reforms as half reforms. If a new act is passed it should be such a one that further tinkering on it should be unnecessary for many years to come, and we think that what is not obtained then will not be gotten for many years after.

Shall examinations for novelty be retained? It is a curious fact that notwithstanding the many loud and well founded complaints of injustice to inventors through

over rigorous, mistaken or erroneous rejections of application in part or in whole for want of novelty, everybody (almost) seems to take it for granted that the system, as such, must be retained—the talk is only for improving it, *i. e.*, making it more rigorous still. Certain it is, that if it be retained it must at least be improved, but we are far from being sure of the desirability of its retention. England and nearly all of her colonies, France, Belgium, Italy, Spain and, in fact, most of the patent law countries (most of them being modeled on the French law) have practically nothing more than a system of registration. The United States,

Canada, Germany, Sweden and one or two other countries alone carry out examination for novelty. Germany, who guarantees her patents, has an absolute right to it, yet it is more than likely that there, too, it will soon be abolished and a modified system of registration adopted, when guarantee by the Government must of course fall with it.

We are far from saying that examination for novelty has not its good points, we simply wish it considered whether its drawbacks do not outweigh its advantages. The principle of examination is perfect in theory, but can never be so in practice.

Examiners are only human and as liable to err as any other. And they do, as amply proved by experience. If the principle could be practically carried out with an approach to perfection, no law court could set aside a patent, yet the number of patents that are declared void for want of novelty by the law courts is as large in the United States as in England, and probably larger.

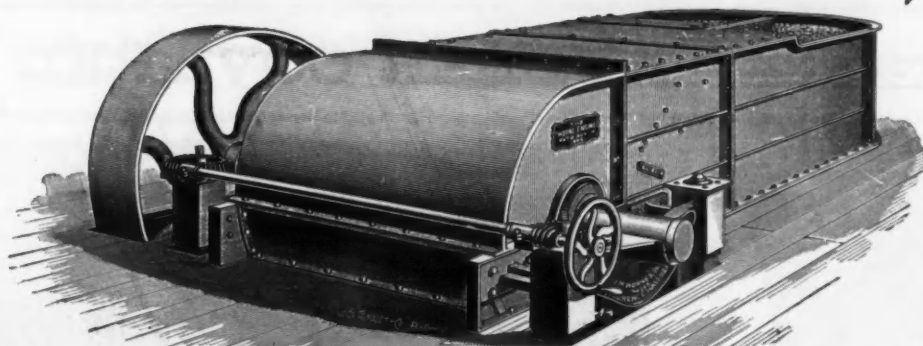
The sole difference is this: Under examination the patentee relies on the Patent Office that grants him his patent, or in other words, on the expert which the Patent Office employs; without it he relies on his own expert, *i. e.*, the expert of his own

choice. His own expert he would most likely choose for merit, while the Patent Office expert has most likely been chosen because he was a supporter or favorite of the party in power. If the patentee has to go into court he had far better go with the whole of his claims, instead of having them shorn and thinned out first by the more or less arbitrary action of an official examiner.

One of the most serious drawbacks is the delay to which examinations subject the application. The avoidance of these great and serious delays would alone be a most important consideration.—*Patent Review.*

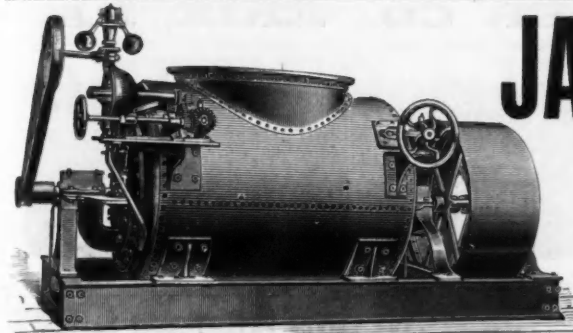
# THE J. H. HORNE & SONS CO., LAWRENCE, MASS.

WESTMORELAND PAPER CO.,	2
MORRISON & CASS,	3
P. H. GLATFELTER,	2
INGHAM & CO.,	2
CHEMICAL PAPER CO., First Order,	1
CHEMICAL PAPER CO., Second Order,	4
FALL MOUNTAIN PAPER CO., First Order,	2
FALL MOUNTAIN PAPER CO., Second Order,	1
GEO. H. FRIEND PAPER CO.,	1
CLARION PAPER CO.,	4
YORK HAVEN PAPER CO., First Order,	1
YORK HAVEN PAPER CO., Second Order,	1
POLAND PAPER CO.,	1
IVANHOE PAPER CO.,	2
DETROIT SULPHITE FIBRE CO.,	3



THE "HORNE" PATENT ENGINE.

HALL & CO., ENGLAND,	1
ELKIN PAPER CO., ENGLAND,	1
LYNCHBURG PAPER CO.,	2
CATAWISSA FIBRE CO.,	1
FARLEY PAPER CO.,	1
LISBON FALLS FIBRE CO.,	2
HUDSON RIVER PAPER CO.,	1
EASTERN MFG. CO.,	1
H. P. RAMSDELL,	2
RUSSELL PAPER CO.,	1
RUSSELL PAPER CO., Second Order,	1
RUSSELL PAPER CO., Third Order,	1
S. D. WARREN & CO.,	1
S. D. WARREN & CO., Second Order,	6
S. D. WARREN & CO., Third Order,	2



## JAMES LEFFEL TURBINE WATER WHEELS.

Sizes in Operation: SIX inches to NINETY-SIX inches diameter, under heads ranging from 2 to 350 feet, in many of the finest paper mills of this country, one company using Fourteen and another Twenty seven Leffel Wheels.

MANY STYLES AND VARIETIES ON HORIZONTAL SHAFTS.

The Company are now in better condition than ever before to supply these justly celebrated wheels with dispatch and promptness.

Send for their fine catalogue, nicely illustrated, and write them your wants fully. Address

THE James Leffel & Co., Springfield, Ohio, U. S. A., or 110 Liberty St., N. Y. C.

### G. L. BOSWORTH & CO.,

Whiting Street Building, HOLYOKE, MASS.

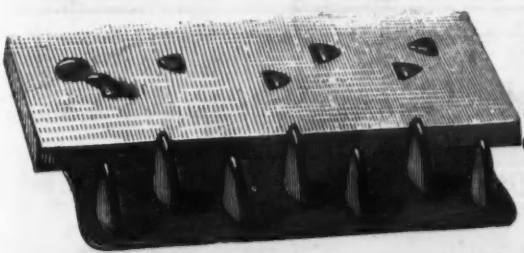
#### NORTH RIVER BLUE STONE FLOORING.

Especially adapted for *Dye Houses* and *Paper Mills*, where it is wet, as the Stone does not absorb water and chemicals or acids do not affect it, as it has been thoroughly tested in the many mills where it is used at present. It does not become slippery with wear; it is always clean. Another feature is its crushing strength; where heavy trucking is done the *Blue Stone* shows its superiority over any other material. We have floors laid where trucks weighing from one to three tons are constantly going over them and no perceptible wear is noticed, and we *never* had a stone break.

The following parties are using these stones, to whom we respectfully refer:

WHITING PAPER CO., Nos. 1 and 2, Holyoke, Mass.	WORCESTER B. AND D. WORKS, Worcester, Mass.
PARSONS PAPER CO., Nos. 1 and 2, Holyoke, Mass.	PACIFIC MILLS, Lawrence, Mass.
ALBION PAPER CO., 2 Orders, Holyoke, Mass.	HUDSON RIVER PULP AND PAPER CO., Palmer Falls, N. Y.
SYMS & DUDLEY PAPER CO., Holyoke, Mass.	REMINGTON PAPER CO., Watertown, N. Y.
MASSAHOIT PAPER CO., Holyoke, Mass.	SUGAR RIVER PAPER MILL CO., Clermont, N. H.
FARR ALPACA CO., Holyoke, Mass.	WILLAMETTE PULP AND PAPER CO., Oregon City, Oregon.
AGAWAM PAPER CO., Mittineague, Mass.	AND OTHERS.
WORTHY PAPER CO., Mittineague, Mass.	
BYRON WESTON PAPER MILL CO., Dalton, Mass.	

### POTTER'S PATENT BELT HOOKS.



EVERY HOOK WARRANTED

MANUFACTURED BY JEWELL BELT HOOK CO.

SUCCESSORS TO Novelty Belt Hook Co., HARTFORD, CONN.

### FOSTER & BROWN, SACCARAPPA, MAINE,

MACHINISTS AND IRON FOUNDERS.

SPECIALTIES:

Improved Paper-Coating Machines; Hanging Machines, and Power Reels for Coated Paper; the Merrill-Foster Noiseless Pulp Screens; Paper Slitting and Trimming Machines; Hardened and Ground Slitters; Automatic Elevators.

BUILT UNDER OUR OWN SUPERVISION.

### THE LAWRENCE MACHINE CO., LAWRENCE, MASS.,

MANUFACTURERS OF

Centrifugal Pumps.

STEAM ENGINES,

GENERAL MACHINERY,

Phosphor Bronze and Composition

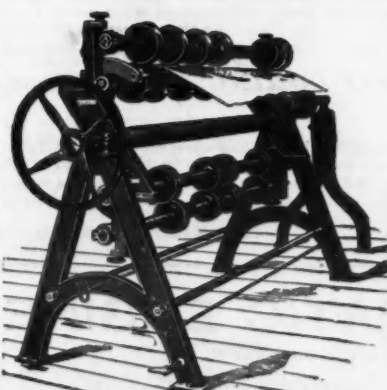
PUMPS and VALVES

For Pulp and Paper Mills.

Send for Catalogue D and Discounts.

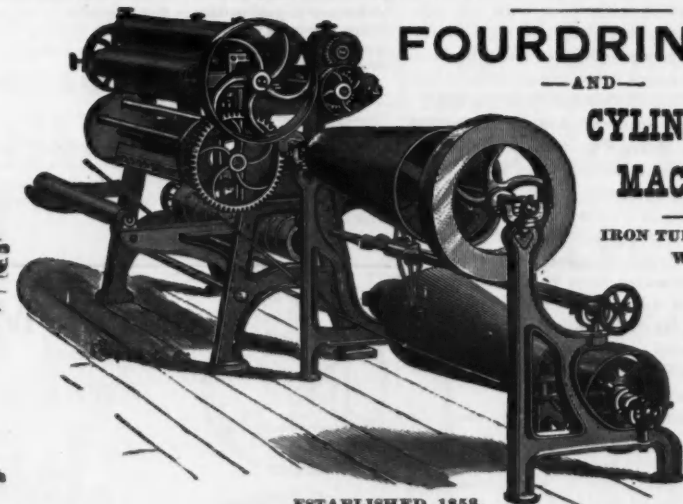


## PAPER MILL MACHINERY.



CROSBY PATENT REVERSIBLE SLITTER.

TIME AND PAPER SAVED. Lower Slitters at rest while upper are working, which can be so for next order or sharpened.



FOURDRINIER

—AND— CYLINDER MACHINES.

IRON TUB and WOOD TUB

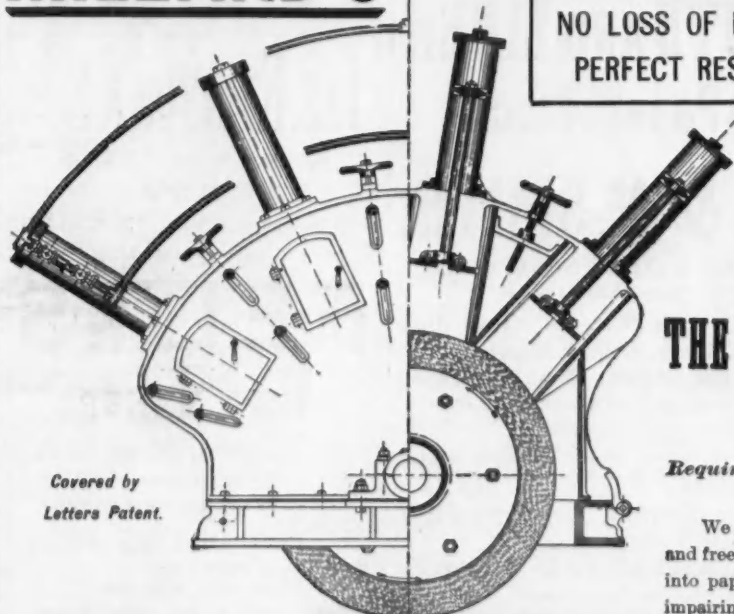
BEATING ENGINES

WET MACHINES, Rag Cutters, Water and Stuff Pumps, &c., &c.

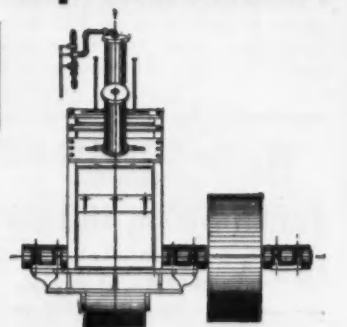
ESTABLISHED 1858.

BELOIT IRON WORKS, Beloit, Wis., U. S. A.

## MILLARD'S Hydraulic Wood Pulp Machine.



NO LOSS OF POWER. PERFECT RESULTS.



### THE PERFECT WOOD GRINDER.

PACKING BOXES ENTIRELY DONE AWAY WITH.

Requires only 15 to 20 lbs. pressure per square inch on a 6 inch cylinder.

We guarantee this machine to make an even pulp, fine and free, of which from 15 to 20 per cent. more can be put into paper than that made by any other machine without impairing its quality of strength or finish.

MANUFACTURED BY MILLARD, ROGERS & CO., Office, 6315 Station St., East End, PITTSBURGH, PA.

**Limitations of Electricity.**

A prominent railway financier has recently been reported as saying that in five years every railroad in this country will be run by electricity, and there will be no further use for the thousands of locomotives now in service. This calls out from the *Popular Science News* some very interesting reflections on the limitations of electricity. The authority thinks that if the said financier ever did hazard any such rash prediction, it only illustrates the old proverb about the shoemaker sticking to his last, for there is a wide gulf fixed between the financial reorganization of a railroad and the practical operation of its trains.

We do not believe that it is practically possible to operate an ordinary railroad by electric power. It would require the erection of immense power houses every few miles, fitted with costly steam engines and dynamos, which must be arranged to develop many hundred times the power required to operate the street railways of a city, and the expense would be much greater than that of the locomotives now in use. The uncertainty of this form of power would also be an objection; stoppages of the entire traffic for periods varying from five minutes to several hours are not uncommon on electric street railways at the present time, and, while this is a comparatively unimportant affair on a short local line, it would be a very serious matter in case of a great railroad with its hundreds of trains.

The economy of electricity as applied to street railways is found in the fact that it displaces the much more costly form of power in the shape of horses previously in use. Electric power is produced by burning coal; horse power by burning hay and grain. If the conditions were such that locomotives could be used in the streets of a crowded city, and the cars run in long trains instead of separately and at frequent intervals, as at present, the electric form of power could not be used in competition with that produced directly in the boiler of the locomotive. It is a matter of convenience and especial adaptability to the conditions required in operating a street railway that renders electricity so successful and not any particular economy of this form of energy.

The editor of the *Popular Science News* insists that the great error almost invariably made by persons unfamiliar with the subject is in considering electricity as a source of unlimited power in itself, when, in reality, it is only one of the many manifestations of energy and a convenient way of applying power previously produced. A current of electricity is like a current of water. It gives out power in falling from a higher to a lower potential, just as the water turns the mill wheel as it falls from a higher to a lower level, but neither has any power in itself. The radiant energy of the sun has lifted the water from the ocean to the hills, and the same radiant energy has been stored up in the coal plants of previous ages, and is liberated and transformed into power in the furnaces and boilers of our modern steam engines.

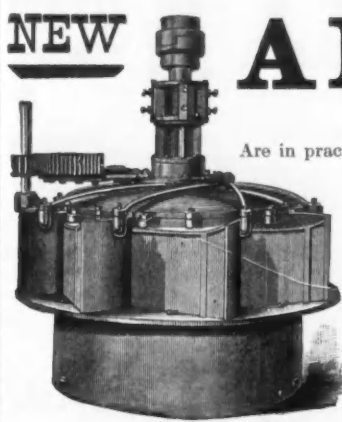
Whether this power shall be used directly, as in a locomotive engine, or passed through the intermediate form of electricity, as in the street railway motors, is a question to be decided by special conditions, and these conditions, in the case of a long line of railroad, are such that we have no hesitation in saying that it will always remain impracticable to operate such trains by electric motors, and there will probably be no radical change in the present type of steam locomotive for many years to come. Electricity is a very convenient means of applying a limited amount of power, but it is only a manifestation or form of energy, and in no sense a source of energy or power in itself.—*Western Machinist.*

**G. A. CHENEY,**  
—IMPORTER OF—  
**PAPER STOCK AND SIZING,**  
58 & 60 Federal Street,  
**BOSTON.**

**AUGUSTINE SMITH & CO.**  
**PAPER WAREHOUSE,**  
Nos. 110 & 112 NASSAU ST., NEW YORK.  
—AGENTS FOR—

**The Chelsea Paper Mfg. Co.,**  
**Tileston & Hollingsworth and**  
**J. & R. Kingsland.**

**NEW AMERICAN TURBINE,**

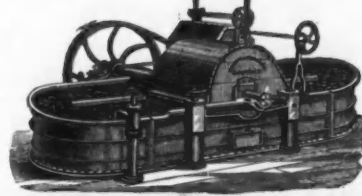


FROM SIX TO SIXTY-SIX INCHES DIAMETER.  
Are in practical operation under heads from 4 to 100 feet head; are strong, durable, and give high efficiency

**BEATING ENGINES,**

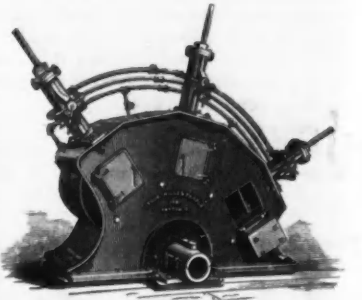
Cast Iron or Wood Tubs,  
Made heavy and strong, double lightered, with well made Cone Washers.

DESCRIPTIVE CATALOGUE SENT FREE.



**D. T. MILLS' Wood Pulp Grinder**

Superior in construction to any made. Capacity, 4,000 to 5,500 pounds extra good pulp per day, dry weight, per each grinder. Hydraulic feeds, fine adjustments; strong and reliable in every way. Two and three pocket machines.



**DAYTON GLOBE IRON WORKS CO., Dayton, Ohio, U. S. A.**

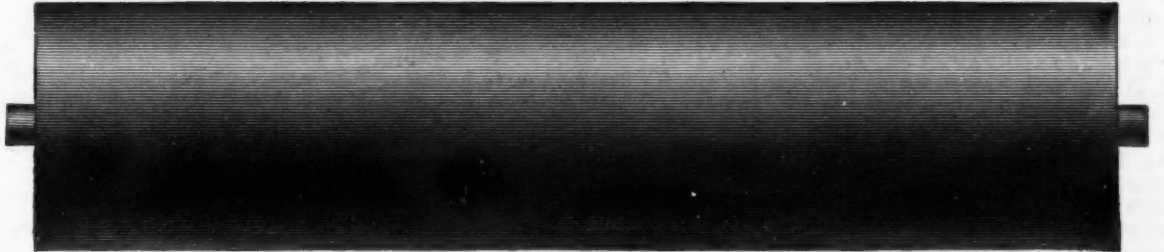
Successor to STOUT, MILLS & TEMPLE.

**KEYSTONE MILLS RUBBER COVERED COUCH ROLLS.**

Highest Grade Rubber Belting. Celebrated Sutton Ring Packing, specially adapted to Dryers on Paper Machines. India Rubber Goods of every description adapted to mechanical purposes.



TRADE MARK.



IN ORDERING COUCH ROLLS GIVE ACCURATE MEASUREMENTS. } **ERIE RUBBER CO., ERIE, PA.**  
Send for Prices. Manufactured by

**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.

**HARRISON LORING.**

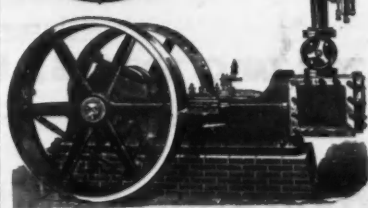


**AUTOMATIC ENGINE**

(CENTRE CHANK),

With **WHEEL GOVERNOR,**

Giving Economy, Perfect Regulation of Speed, Simplicity and Rigidity of Parts.



These Engines have Single Flat Slide Valves, perfectly balanced with Cover Plate, so arranged that water may escape from cylinder without accident to Engine. We have adopted the Straight Line Engine Co. Wheel Governor as being the most simple, perfect and powerful Governor yet made, giving perfectly uniform speed under varying load and steam pressure.

We also make the Porter Heavy Duty Engine, and a Complete line of Portable and Stationary Engines and Boilers.

Write for full Descriptive Catalogues and Prices before buying.

**PORTER MFG. CO., Limited, Syracuse, N. Y.**

**JUTE AND LINEN Paper Stock.**

**J. & W. SMITH, DUNDEE, Scotland,**

Factors and Shippers of

Clean Jute Threads, Clean Jute Ropes, Gunny Bagging, Manilla Ropes, Bleached Linen Cuttings and Bleached Linen Threads.

Colored Wastes, Engine Cleaning Wastes, Felting Wastes and Carded Jute Tows.

Offices: **CALCUTTA BUILDINGS.**

Works: **COMMERCIAL COURT.**

Warehouses: **EXCHANGE STREET, DUNDEE, Scotland.**

**JAS. KENYON & SON**

Derby Street Mills,

**BURY,**

Lancashire, ENGLAND,

MANUFACTURERS OF

**FELTS**

—FOR—

**PAPER MAKERS,**

Couch Roll Covers, Wet and Dry Felts

—OF ALL KINDS.—

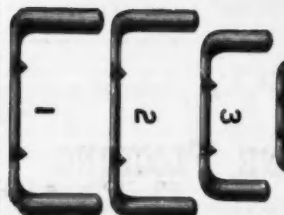
MAKERS OF THE NEW PATENT

**COTTON DRYING FELT.**

Agent in the United States:

**S. G. TRAIN, BOSTON.**

**The Dow Positive Piston Pump**  
AN IMPROVED SYSTEM - GREAT ECONOMY - LARGE CAPACITY - HIGH OR LOW SPEED.  
**Kensington Engine Works, Ltd.**  
Beach and Vienna Streets. **PHILADELPHIA, PENNA.**



**THE SMITHS PATENT BELT FASTENER.**

BEST FOR PAPER MILLS. Never tears out and makes joint like an endless belt. **THE MOST EASILY APPLIED** And the cheapest and most satisfactory fastener ever produced. No say all who have used them. GENERAL NEW ENGLAND AGENCY.

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ORIGINATORS OF THE ONE-METAL DIGESTER.

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WE REFER TO THE FOLLOWING PARTIES WHO ARE LICENSEES OF THIS COMPANY ONLY:

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FOR INFORMATION ADDRESS GARRET SOHENOK, TREASURER OF

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The attention of Paper Manufacturers and others is directed to the Superior Quality and Strength of our Fibre.

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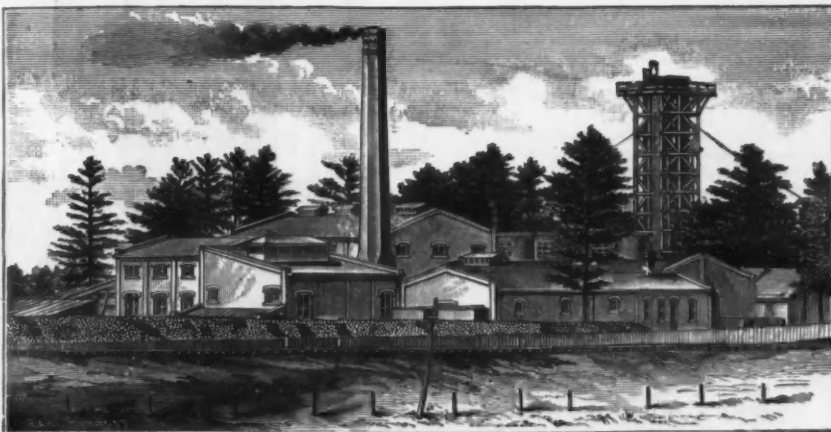
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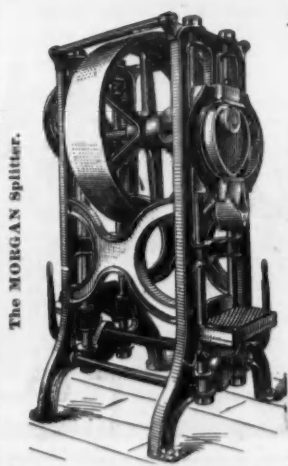
Factory at Port Huron, Mich.

✉ WRITE FOR SAMPLES.

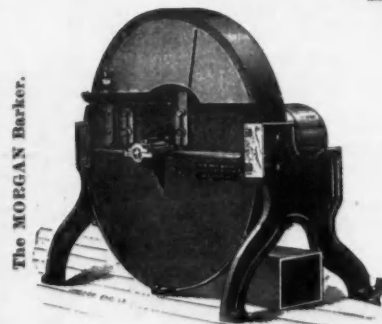


## APPLETON MACHINE COMPANY, APPLETON, WIS.,

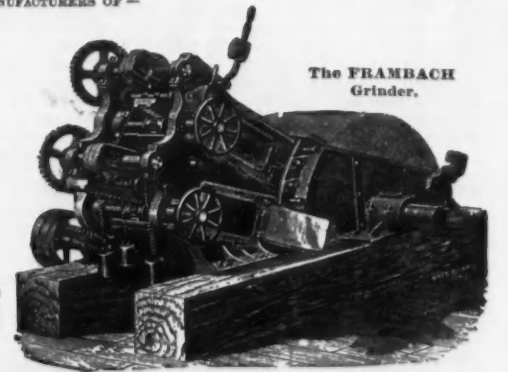
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Embodying many marked IMPROVEMENTS, Resulting in the production of the MOST EFFICIENT and ECONOMICAL POWER in the World!



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Has the indorsement of many of the leading Manufacturers and great Corporations of the United States, as well as high Testimonials from eminent Engineers. Also Boilers, Shafting, Pulleys and everything necessary for a complete Steam Power Plant.

CATALOGUE FOR 1900 NOW READY

### Orono, Me.—Its Paper Making Prospects.

In a recent issue the *Industrial Journal*, of Bangor, Me., gives a description of Orono and its industries from which the following is extracted:

The town of Orono is 8 miles north of Bangor on the west side of the Penobscot River. It formerly comprised within its limits what is now known as Oldtown, which was set off in 1840. Orono derived its name from a famous Indian chief of that name. Orono was chief of the Penobscot Indians during the Revolutionary War, and if tradition is correct was an intelligent and somewhat remarkable man. The territory of the two towns was formerly known as Stillwater Plantation, but was incorporated as a town under the name of Orono in 1806.

When Oldtown was set off it left Orono geographically small, but it has perhaps more water power than any other area of the same extent in the State. The main river washes the eastern side of the town, while the Stillwater River flows through the town and enters the Penobscot near the southeastern point of Marsh Island. It leaves the Penobscot about 4 miles above the village of Oldtown and flows back into it at Orono, thus forming Marsh Island. It is reinforced by Pushaw Stream, the outlet of Pushaw Lake, also by several other streams.

Near its junction with the Penobscot at Orono it passes over some falls descending from the upper dam to the main river about 22 feet, making one of the best water powers of the State. No accurate survey has ever been made to ascertain the extent of this power, but it has never been a quarter part utilized, and it might be increased almost indefinitely by constructing a dam on Pushaw Stream and thus storing water in Pushaw Lake. There is one especially fine privilege on this stream at Orono village not now occupied, and there would be ample power for a pulp or any other kind of a mill.

We find five large mills near these falls.

Years ago a canal was built from above the falls to the basin in the main river, and the lumber from the mills at Upper Stillwater was all floated through this canal.

At Basin Mills so-called is a remarkable water power, which might, if great industries demanded it, be made the greatest in New England. A dam extending from the head of Ayer's Island to the eastern bank of the Penobscot forces the current through the channel lying between the island and the western shore, and by means of flush boards the whole mighty river could be thrown through this channel. The head of water so obtained is about 10 feet and the volume is enormous. A canal extending along the right bank for 2 miles or more would enable this water to be used for mills or factories the whole distance, so that it is not extravagant to say that all of the cotton mills in New England could be run by the water power in the town of Orono, and then there would be power to spare.

The magnificent water power of this town has hitherto only been used for lumber mills, but the great pulp and paper industries are being planted here, and the outlook for the future is perhaps brighter than it ever has been. Lumber has been manufactured here ever since the town was settled, and it probably will be as long as lumber is cut. The average amount yearly has been more than 50,000,000 feet long lumber, beside shingles, clapboards and laths, but these lumber mills shut down in winter and labor must be sought elsewhere. The pulp and paper mills will run the year round, giving permanent employment, and distributing large sums of money in the way of wages, twice a month, which will find its way into the avenues of trade.

#### RAILROAD FACILITIES.

The Maine Central Railroad runs along the right bank of the Penobscot entirely through the town. There are three stations, one at Basin Mills, one at Orono Village south of the Stillwater River and one on the north bank of that river, which has been named Webster in honor of the family

of that name. A branch from Orono to Upper Stillwater for freight only gives an outlet for the lumber of that village.

#### THE NEW PAPER MILL.

No family has been more identified with settlement, growth and prosperity of the town of Orono than the Webster family. Referring to the late Israel Washburn's centennial address, we find that Andrew Webster settled in Orono in 1795 and died there in 1807. One of his sons, Eben Webster, settled in the town and carried on the lumbering business with varying success during his life. He is spoken of in the address referred to as one of nature's noblemen. He died in 1855, respected by all who knew him. His son Eben Webster succeeded to the business and for fifty years was engaged in the lumber business.

A partnership was formed with his son J. Fred. under the title of E. & J. F. Webster, and this title continues to the present day. The firm was successful in its transactions, and did a large business, giving employment to many operatives and contributing its part in building up the town. Col. Eben Webster erected the finest dwelling house in Eastern Maine, and all the houses built by the Websters have been tasty and comfortable structures. All that part of Marsh Island embraced within the limits of the town of Orono is called Webster, and here along the banks of the Stillwater River the large white houses, with pleasant walks, tasty grounds and elegant shade trees make a very attractive and beautiful picture. Col. Eben Webster, who died in 1883, left three sons and two daughters. Two of the sons, J. Fred. and Eben C. Webster, had been associated with their father in the lumber business, and after his death the sons still continued the business.

Last April their lumber mill at Orono was destroyed by fire, and instead of rebuilding, the brothers, after considering the matter in all its bearings, came to the conclusion that the locality is specially adapted for the establishment of a paper mill.

An expert paper manufacturer says that the water of the Penobscot River is perfect-

ly adapted to the manufacture of paper, being soft, clear and free from lime and other impurities. The Webster Paper Company is organized as follows: President, J. Fred Webster; treasurer, Eben C. Webster; manager, Garret Schenck. Work on the building was commenced about July 1, and is being pushed rapidly forward. The building will be of brick. It will be 260 feet long, 72 feet wide, with an L 50 feet wide. In height there will be a basement extending some distance above the ground, and an upper story. The foundations rest on the solid ledge, and the plant is being constructed in the most thorough and substantial manner; sixty men are at work on the building. Payments are made once a fortnight, and the semi-monthly payments amount to about \$2,000. It is expected that the plant will be ready for the manufacture of paper in December. The paper will be made wholly of pulp, the material consisting of 80 per cent. of ground pulp and 20 per cent. of sulphite pulp.

The company expects to manufacture a superior quality of paper for newspapers. There will be two of the largest and most improved of Rice, Barton & Fales Machine and Iron Company's paper machines. These will have a 75 horse power Atlas steam engine to drive them. The beating engines will come from J. Morton Poole & Co., Delaware. These will be Umpherston engines. There will be two Marshall refining engines from the Marshall Engine Company, Turner's Falls, Mass. The beating and refining engines will be driven by two Hercules water wheels of 200 horse power each. There will be a battery of three boilers of 125 horse power each, built by the Roberts Iron Company, Cambridgeport, Mass. Fuel for these boilers will be taken from the lumber mill of Adams & Co., near by, by means of a conveyor and will require no other handling than to place it in the furnaces. The paper machines will be capable of running out paper at the rate of 250 feet, 106 inches wide, a minute. Twenty tons of paper will be manufactured daily. Charles E. Pope, late of the Pope Manufacturing Company, of Eau Claire, Wis., mechanical engineer and

inventor of paper machinery, is to be the superintendent of the new paper mill.

L. T. Libby, of Lisbon Falls, is superintendent of construction on this mill. Charles A. Severance, of East Orrington, has charge of the mason work.

#### THE NEW PULP MILL.

The officers of the Orono Pulp and Paper Company are: B. B. Thatcher, president; B. B. Thatcher, L. J. Morse, Edward Stetson, Wm. H. Rollins, directors; R. W. Sawyer, treasurer and secretary; C. H. Sawyer, superintendent. The mill is situated on Ayer's Island, near the great lumber mill of James Walker & Co. It is what is known as a sulphite mill, and will use the waste of the saw mill for material as far as it goes.

The wood preparing building is 91x120 feet, one story in height. The digester house is 83x30, and about 40 feet high. Three bronze digesters are placed in this building. The wet machine building is 129x50 feet and two stories in height. A battery of five boilers of 125 horse power each is already in position. The chimney is 118 feet in height. The engines will be of various powers, one 150 horse power, one 300 horse power and others smaller according to use. About seventy-five men are employed on the plant, and it is expected to be at work early in the next year. A paper mill at this point is also in contemplation, and the prospect now is that a most important industry has been inaugurated here, that will furnish steady employment to a large number of hands the year round.

Twenty-five business firms in various lines of trade in Chicago, headed by Henry W. King & Co., who heretofore protested against the passage of the Torrey bankruptcy bill, have withdrawn their names from the protest, and have requested the immediate enactment of the bill.

**WANTED—A COMPETENT SALESMAN** TO take charge of the selling department for the product of eight machines making book, news and manilla papers. Address at once NEWS, care of Paper Trade Journal.

**WANTED—POSITION AS FOREMAN** IN mill making book, lithograph, envelope and all grades of engine sized writings; first-class references. Address A., care Paper Trade Journal.

## "The Mill Will Never Grind with the Water that has Passed."

THE LOW WATER SEASON BEING NOW UPON US, WE REPRINT THIS ADVERTISEMENT AND COMMEND IT TO YOUR CAREFUL READING.

### Low Water and Relay Steam Power.

THE season thus far has been only moderately favorable as regards abundance of water power upon our manufacturing streams, and we have no positive insurance against still lower 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.

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 point of the application of steam power as relay to water:

That engine is best applied to this service which possesses certain qualities:

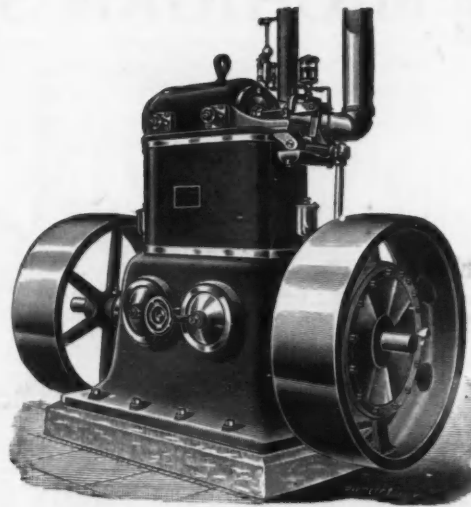
- It must not suffer deterioration by standing idle.
- It must not get out of line by unnoticed settlement of foundation.
- It must not require to be dismantled or slushed when stopped for the season.
- It must not need overhauling and reconnecting before starting up.
- It must be of such a design that 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, determine 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.

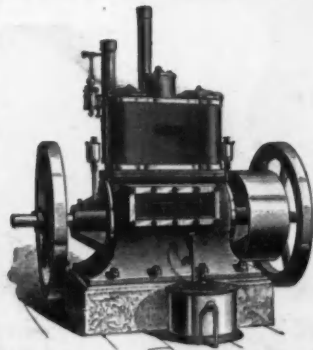
There are probably more mistakes made in the application of relay steam power than in any other branch of steam engineering, due chiefly to the following causes:

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

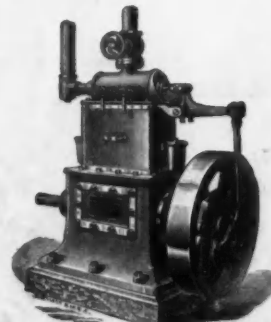
whence it frequently follows that a shaft which was properly proportioned to transmit the power from the wheel may be entirely misproportioned for transmitting the same



THE WESTINGHOUSE COMPOUND ENGINE.



THE WESTINGHOUSE STANDARD ENGINE.



THE WESTINGHOUSE JUNIOR ENGINE.

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.

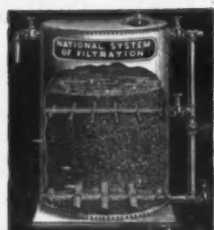
When minimum low water is sufficient to run a part of the mill at all times, subdivision of steam power becomes applicable to relay. That is to say, it is often advisable to divide the power between two or more engines placed at the most convenient points and carry the steam to them. Any section of the 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 grimeiest 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 mill owners 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 *ne 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, KEHN & Co., Engineers,  
17 Cortlandt street, New York.  
620 Atlantic Avenue, Boston, Mass.  
156 and 158 Lake Street, Chicago.  
511 North Fourth Street, St. Louis, Mo.  
Westinghouse Building, Pittsburgh.  
608 Chestnut Street, Philadelphia.



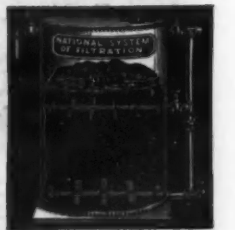
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MAIN FEATURES: SIMPLICITY, ECONOMY AND SURFACE WASHING.

We are now altering over to our NATIONAL System Filters of the ROBSKE, 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.



TRANSMISSION OF POWER  
BY MEANS OF THE

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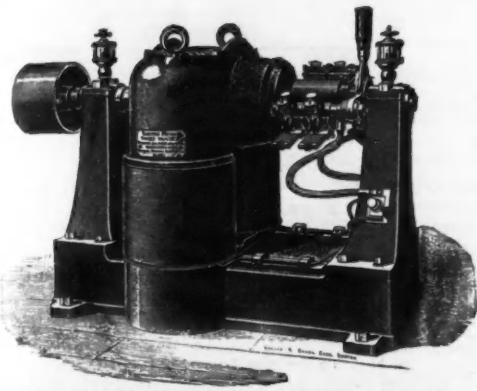
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**ECONOMICAL, SAFE AND RELIABLE!**

It permits a Concentration of Steam Plants.  
Electric Mill Tramways, Electric Hoists and Elevators.

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## THE "NEW ENGLAND" WOOD PULP GRINDER.

With Valuable Improvements and Prices Reduced for the Trade of 1890.

Guaranteed to produce a much larger output than any other machine on the market. No pay required until machines shall fully perform all that is stipulated.

**THE LATEST.  
THE STRONGEST.  
THE MOST SIMPLE.  
THE MOST DURABLE.  
THE MOST EFFECTIVE.**

KIMBERLY & CLARK COMPANY, MANUFACTURERS OF PAPER.  
NEENAH, WIS., December 12, 1889.  
GENTLEMEN—We have made a test of the "New England" Pulp Grinders furnished by you for our new mill at Kimberly, under contract dated January 2, 1889, which contract embodied a warranty that the machines should be capable of making 3,000 pounds good quality air dry spruce pulp in twenty-four hours with 100 horse power. We ran six of the twelve machines for twenty-four hours ending Wednesday, December 11, 1889, at 10 o'clock A. M., and made during the twenty-four hours 24,726 pounds good air dry pulp, such as we use in the manufacture of news paper, the same being an average of 4,121 pounds for each machine. Mr. C. A. Rice, Mechanical Engineer and Superintendent of the Stillwell & Bierce Manufacturing Co., of Dayton, Ohio, who was present for the purpose, computed the power from 104 to 105 horse power for each grinder. We believe the machine capable of making pulp in excess of the amount guaranteed, and the same are hereby accepted as being satisfactory under contract.  
KIMBERLY & CLARK CO.,  
By J. A. KIMBERLY, President.

Will substitute them for ANY OTHER MACHINE, guaranteeing a much larger production with the same power.  
Will furnish New England Grinders at our expense to be put in place of other Grinders, to be run on a royalty equal to half the net earnings of our machine in excess of the net earnings of the machine displaced.  
Machines on hand for immediate delivery.

**THE SCOTT & ROBERTS COMPANY, Bennington, Vt.**

## EILERS HYDRAULIC PULP MACHINE.

**TAKE NOTICE.**

In reference to the testimonial published by the Scott & Roberts Co. in their advertisement, over our signature, we would add that shortly thereafter we tested the Eilers Hydraulic Machine with the same wheel, at the same gate, under less head and consequently with less power, and produced nearly 10 per cent. more pulp of a better quality than that made by the New England Grinder.

ROCHESTER PAPER CO.

The Newest and Best Grinder on the Market.

CAPACITY: 2,500 Lbs. to 4,000 Lbs. PULP, DRY WEIGHT, IN 24 HOURS, WITH 100 HORSE POWER.

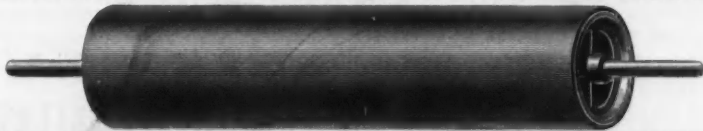
ALL pockets operated and controlled by one Hydraulic Cylinder. Two pockets always grinding while the other two are being refilled. No time lost nor any variation of speed by reversing Hydraulic Feed. By the arrangement of pockets, friction is reduced to the minimum.

Fifteen of these Machines can be seen in operation in our mills here.

FOR FULL PARTICULARS ADDRESS

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BOSTON. Established 1828. NEW YORK.  
ORIGINAL MANUFACTURERS OF RUBBER GOODS.



RUBBER COVERED COUCH ROLLERS FOR FOURDRINER, CYLINDER AND WET MACHINES.  
(Warranty given with each Roller).

Also make Rubber Covered Press and Sizing Rollers, Rubber Belting, Hose, Packing, Deckel Straps and all kinds of Rubber Goods for Mechanical Purposes.

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Manufacturers of Corliss Engines, high class heavy Slide-valve Engines, Saw Mills, steam and hydraulic Elevators, Shafting, Hangers, Pulleys and Boilers.

Complete Steam Plants  
A Specialty!

For circulars address The Lane and Bodley Co., Cincinnati, O.

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Extra Large Sizes.

**ACME FELT CO.,**  
ALBANY, N. Y.

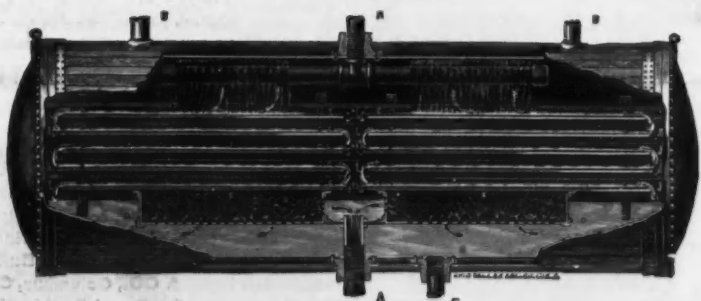
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Cylinder,  
Fourdriner,  
Wet and Press Felts,  
Pulp and Piece Felts,  
Jackets.

Satisfaction Guaranteed.

IF YOU WANT  
New Linen Clippings  
— or New Cotton Clippings

Apply to W. F. CORNE,  
104 State Street, BOSTON.

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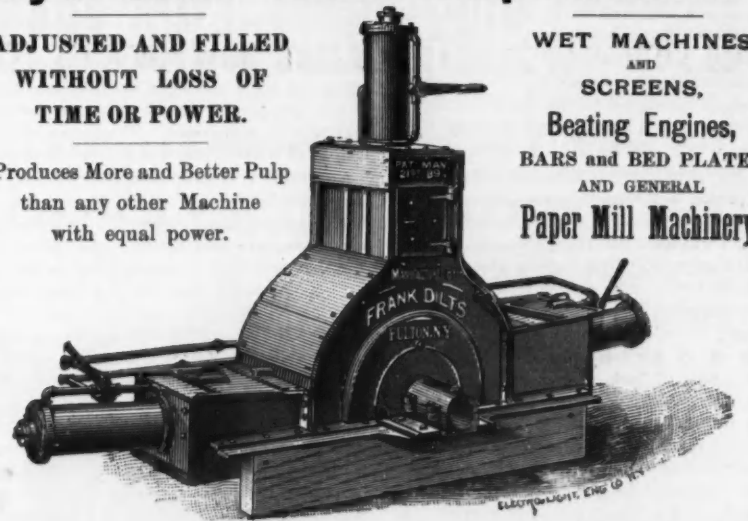
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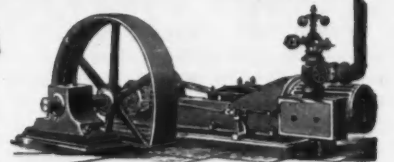
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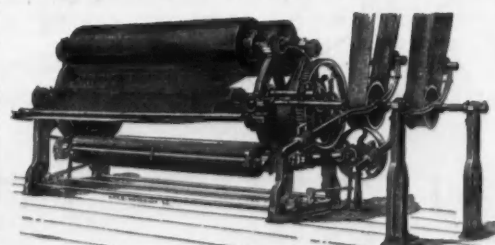
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And it is being placed on nearly every new machine now being built.  
**POPE MANUFACTURING CO., Eau Claire, Wis.**

**How to Manage a Steam Engine.**

(Continued.)  
FIRING.

In firing to keep steady steam and up to the proper pressure I watch the steam gauge, and when the pointer ceases to move I know the fire is about spent; then I put in more fuel, and by the time the fire is burning bright the steam has fallen but little. I always avoid having any bare spots on the grate, as cold air going through these will hinder steam making.

The first boiler I ever fired I had for fuel the screenings around the coal yard, and I had to use a fan blower under the grate to give draught. Sometimes the fire would go out in spots, and it will be found difficult to start it again in that place. I have succeeded in doing so with the aid of pieces of boiler plate 10 or 12 inches square. I throw one of these on the dead spot and work fire on it until it is thick and burning good, then I carefully draw the plate out. If nearly the close of day I leave it until fresh fire is started.

With good fuel I prefer using the ash pit door for regulating draught. I think it better than damper in chimney. To check the draught still more, and especially in cleaning the fire, I open the flue door so that no ashes will go in the tubes. In banking fire I use the flue door. By avoiding opening the furnace door as much as possible, cold air is kept away from boiler shell and tubes. Cold air and cold water in and around the boilers do more harm than long usage. I pay attention to the ash pit and by keeping it clean I have no trouble with the grates. I ran one boiler that had some grate bars in for ten years. A boiler that has to be forced to make steam necessarily has to be run with thin fires, and the grates become pretty hot, but more are warped by not putting plenty of air under them. I keep all water away from every part of the boiler, and more particularly if burning wood, as water with ashes will make lye, and that will destroy iron very rapidly.

Perhaps it may be thought that I would do wonderful things, but I have had charge of an engine and boiler in a sawmill (which is the worst place they are found, generally), and I had, in spite of sawdust, shavings and twenty to thirty persons running in and out of boiler and engine room every hour in the day, as nice a rig as could be found in many miles. The engine ran smooth and still, I had no trouble with boiler, and joints all around were tight, so that by closing all valves Saturday night a vacuum would show plainly Monday morning.

For steady and economical boiler feeding I prefer a plunger pump driver. I have used nearly every form of boiler feeders, but I will take the plunger pump, as these have only two valves to look after, and one stuffing box, and should it fail to work I would open the air cock that is between pump and check valve near the heater. If air is in suction, this cock will show it. Next, I look at the stuffing around plunger. This, when the pump is working, should drip a very little, as it keeps the plunger lubricated. It is also a seal against air working down, so if there is an air leak the water will be gone. It is no trouble to take out the pump valves to remove anything that may get under them. It takes but little to stop a pump working, especially if the pump has to lift water over 10 or 12 feet. I want a foot valve placed on the extreme end of the suction pipe. This keeps the pipe full of water all the time, so that the pump valve is relieved of the weight of water somewhat.

If nothing is found under these valves, I will look throughout the entire length of the suction until I find the leak which I know exists if the valves and pump are all right. By having a foot valve on, it will keep pipe full, and this will help to locate the leak, but I want drips at the lowest point of suction to drain in cold weather. By having stop valve in the suction pipe I regulate the

flow and keep a steady supply in the boiler at all times.

I want three full gauges at quitting time, as steam is condensed in the pipes, taking that away from the water, and the water will contract in cooling.

For independent feed I prefer the inspirator injector, which is practically the same, as the water will go to the boiler warm. Any steam pump will send it in cold, but it has to go in.

THE ENGINE.

The engine has to receive some attention. I would have drip in the steam pipe near the throttle, so as to empty the pipe without running through steam chest and cylinder. I would start the engine by first opening all drips, and warm the cylinder well before giving steam enough to turn over, then by watching it a little while I could tell if it was to suit me. If I thought the valve or the piston leaked I would turn the wheel until the valve covered the three parts, which it should do just before the piston is at end of stroke, then I would open the throttle and go where I could see the end of the exhaust pipe, and if steam showed there it would indicate the valve was leaking, and if no steam showed it was tight. So I would try the piston in this manner: Place crank half way between points of travel, put a stick in the fly wheel and against the pillow blocks. I would be sure that it was placed so it could slip.

If this was an engine over 60 or 75 horse power I would not do this way, but I have found no trouble by opening wide cylinder drips and letting in steam very gently, and by standing at the throttle and having someone to watch the exhaust I find in this way whether there is any leak or not. If the exhaust is big and short I can tell by the sound about what shape the piston is in. The puffs should be distinct, with no blowing between them. If the valve and piston are tight the engine indicator will show this, but for all they have been on the market so long only few are used. The average engineer doesn't seem to feel able to put \$100 into them, and I have never known an owner (excepting a manufacturer of engines) to own one. They are worth the price to anyone that has an engine of any size.

I want to keep the piston in centre of cylinder; this can be done by callipers. If necessary, put in pieces of sheet iron between ring and piston head. With the old way of making rings, set out by flat springs on a bolt with nut on either side, one could make flat springs hold the piston up; but many are made now with very light rings, either sprung over a solid piston or put on and held by a follower. The spring of the ring is all that holds it out to the cylinder. I can keep the cross head up to its place by use of the level.

The guides are supposed to be parallel with the centre line through the cylinder, and they will keep so, unless they are badly worn at the outer ends, and this would happen only by accident or neglect to oil.

When the piston has been put in the centre of cylinder, compare level on rod to guides and correct the rods by guides, and it is pretty close to original position. I want the brasses in the straps to touch, no pieces of wood or leather or space between. If the edges touch they will not work loose in straps. It pays to give particular attention to the packing around the piston rod and valve stem. I never use raw hemp unless I am obliged to. I think it is rougher than any other material on a rod. I tried some on a 6 horse engine and I found that I could stop it under a pressure of 80 pounds steam. I have used hemp soaked with plumbago and tallow, and on one engine which I used twenty-two months the rod was smoothed and polished, but I think the plumbago and a very deep stuffing box was the chief reason. I oil the rods many times a day.

A drop of oil is not wasted on the rods. Should the eccentric slip, I would turn the fly wheel in the direction the engine runs until the crank was to the extreme end of the stroke, then I would open the

cylinder drips, give little steam through throttle, and turn the eccentric on the shaft until the cylinder drip nearest the piston should steam faster, and the eccentric is set.

There may be many rules in theory, but this I know will work, provided the valve is made properly. If the valve should slip on the stem I would set it again equally by the steam ports, so that the opening would be the same on either end of the stroke. I turn the wheel so that the crank will be at the end of the stroke, and make a mark on the cross head and corresponding ones on the guides. As the brasses near you bring the cross head and crank pin nearer, but by always keeping these marks together (this can be done by putting in sheet iron between rod and brass), the clearance between the piston and cylinder heads will be the same. Hot boxes come from being out of line, too tight, or from dirt getting in, or from not being properly oiled.

The shaft should be level at all times. It may be necessary to put a thin piece of iron under the box to bring it to place. And to get the crank to travel straight with the cylinder, I take out the piston and cross head, and the connecting off, and bolt a piece of wood on the flange of the eye that will reach to about the centre of the whittle, this end down, then with the divider I can get the exact centre of the counterbore; using the wood for one leg of dividers, I make a fine hole. I run a fine fish line through this hole, having a knot to hold the end of line, and run the other end out beyond the circle described by crank. Nail up a stick and draw the string taut on stick, and where the line goes through the stuffing box, centre it on the stuffing box by moving the line on the outer stick until it becomes central, then turn the wheel until the crank pin nearly touches the line. Mark carefully and turn the crank over to the other side. Notice how the mark compares with the line. If it does not show straight, the shaft must be moved at the outer end until the mark will touch the line on either side.

If the brasses get hot so as to get cut with grooves, I scrape them as smooth as I can with scraper and put plenty of black lead in; this will fill up deep scratches and help to wear smooth. I never use sand paper nor emery cloth around any part of engine, as it is hard to get out when once ground in.

I have used water on crank pins where they were too small and the load on the engine heavy. I attached a hose to the little pipe usually found in oil cups, and kept a stream of soapy water on. It made rather a nasty mess; but I could find nothing better, and by having a big pan it caught nearly all of the water.—*Saw Mill Gazette.*

(To be continued.)

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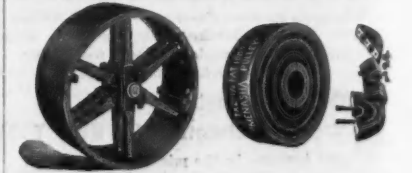
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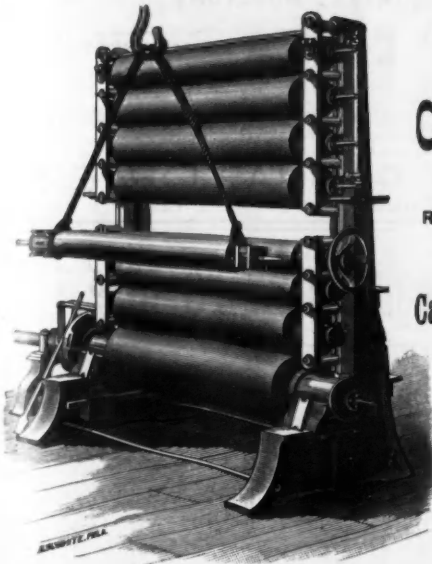
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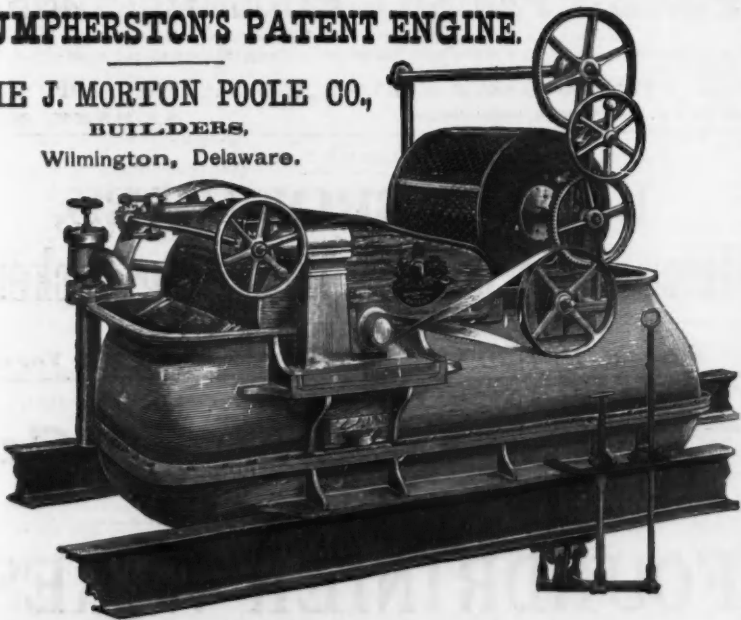
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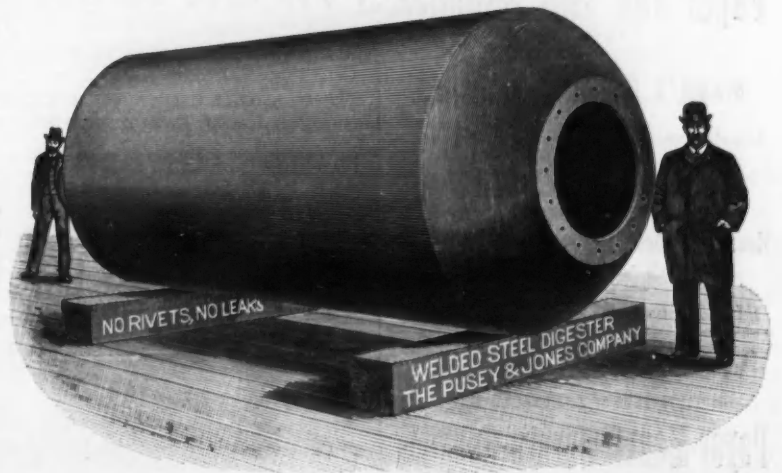


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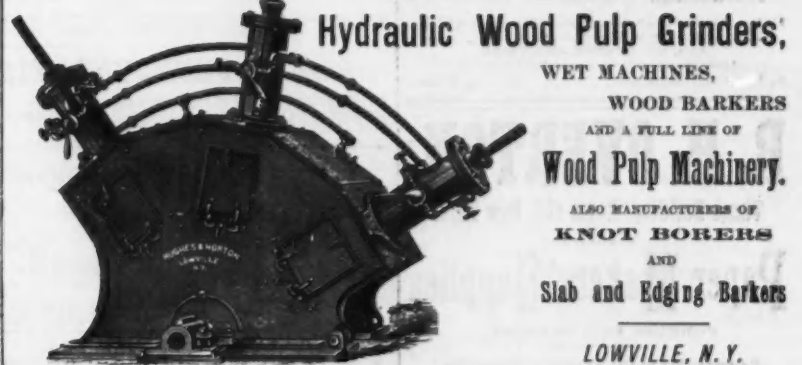
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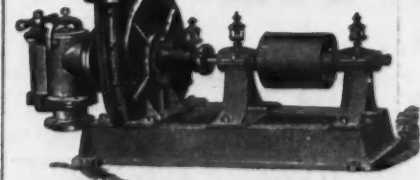
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