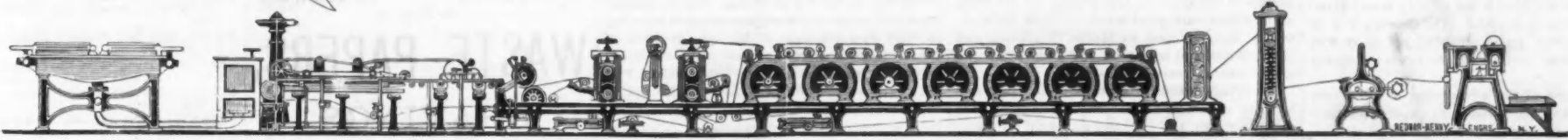


THE PAPER TRADE JOURNAL.



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

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WHOLE NUMBER 251.

Trade Topics.

Drying Paper-Board.

The drawing shows the design of a machine lately patented by J. Frederick Sheeder, of Kimberton, Pa., for drying binders' boards, junk-boards, straw-boards, leather-boards, box-boards, wood-pulp boards, or any other kind of heavy paper or pasteboard.

The invention consists in the peculiar construction and combination of parts, having reference particularly, first, to the provision of tiers of continuous pipes, each tier of the series being hinged so as to turn up or fold independently of the others, and communicating by flexible connections or rocking joints with manifolds for admitting and permitting the exit of steam; second, to the combination, with the series of continuous steam-pipes, of plates, which form tables for the reception of the boards to be dried, and serve to distribute the heat from the pipes evenly and uniformly over the boards; third, to the arrangement of the heating pipes and the plates which rest thereon in a slightly inclined position, so as to cause the water of condensation to flow off from the steam pipes and a current of air or draft to be induced between the tiers of driers; fourth, to certain details of construction and combination.

In the accompanying drawing, A indicates a floor or stand, on which the apparatus is stationed. B B are side frames, composed of base plates b b, uprights b' b', and inclined stays, b'' b''. C C are bars, pivoted in the stays b' b' at c c, so that they may be elevated or folded into an upright position and caused to rest upon one another. Each of the bars C is composed of two horizontal pieces, c' c'', the rear end of the latter being formed or provided with a block or head piece, c''', having trunnions which form the pivots c c'. The pieces c' are of slightly greater length than the pieces c'', so as to project forwardly and form handles c'', for a purpose to be described.

D D are series of continuous pipes, and E E are metallic plates, which rest on the pipes, which, with the plates, are secured, as shown, to the folding bars C C, between the pieces c' c''. Each pipe of the series D D is connected at its opposite extremities d d' with manifolds F F' for the admission and exit of the steam. G G' are the connections between the steam pipes D D and the manifolds F F', the connections being flexible pipe or gum tubing (for which suitable rocking joints may be substituted), so as to permit the elevation and lowering of the pipes D, without interfering with the circulation of the steam through them. The ends d' of the pipes D are brought as close as possible to the pivots c, so as to be within a short radius of the latter transverse pipes, d'', which form continuations of the pipes D, being employed to bring the opposite ends also as near as may be to the centres c.

The bars C of the lowest tier have feet c'', of such height that when resting upon the floor, or upon studs c'', they will incline slightly from a horizontal line downwardly and backwardly to the pivots c. The other bars C, resting thereon and on each other, as shown, have a like inclination. This inclination will cause the water of condensation in the pipes D to flow out and away through the manifold F', and will induce currents of air to pass from the back part of the drier to the front between the tiers of pipes and plates.

The operation is as follows: All of the pipes and plates or tables, except the lowest one, are turned up, standing vertical, or nearly so, the lowest one being turned down, so as to be supported forwardly by the feet c''. The boards to be dried are laid upon the lower plate E in sufficient number or quantity to cover it. The other tiers or tables are then in succession turned down and receive the boards to be dried, the boards being laid one deep on the plates E, the bars C keeping the tiers the proper distance apart, to prevent the pipes from touching the boards. The steam, constantly circulating through the pipes D, heats them, and also the plates E, the plates serving to distribute the heat uniformly both above and below the boards over their entire surface, thereby causing them to dry evenly throughout their entire extent, and preventing warping. The heat from the pipes and plates expels the moisture from the boards, and, owing to the inclination of the tiers, induces currents of air to pass from the back to the front of the drier, carrying off the moisture, while the inclination also causes the water of condensation to flow from the front to the rear of the drier and away through the manifold F'. If desired, plates similar to the plates E may be fastened below as well as above the pipes D, and either live or exhaust steam may be used as the heat medium.

The inventor says that he has used steam at thirty pounds pressure and obtained very bene-

ficial and satisfactory results in drying; but the temperature need not be confined to the limit which such pressure imports, but may be varied within the skill and judgment of the operator. Either live or exhaust steam may be employed, and where a paper board factory uses a steam boiler and engine, the exhaust from the latter will suffice for the drying apparatus here described.

In removing the boards after drying, they are taken first from the top tier or table, and then successively from those below, each tier or table being turned up when its boards are removed, so as to permit easy access to the one next below. The projecting ends c answer as handles in elevating and lowering or folding the tiers. The claims comprise: 1. The pipes D, hinged or pivoted at or near their back edges in suitable supports to permit their being raised and lowered or folded. 2. In combination with heating pipes D, metallic plates E, applied thereto, forming rests for the boards to be dried, and causing the heat from the pipes to be distributed uniformly over the boards. 3. The combination, with hinged or folding heating pipes, of heat-distributing plates, secured to and moving therewith. 4. The arrangement of the tiers composed of pipes D and plates E in a slightly-inclined position, so as to induce currents of air between the tiers and to cause the flow off of the water of condensation. 5. The combination, with pipes D and plates E, of bars C and frames B. 6. The combination, with pipes D and manifolds F F', of flexible pipes or equivalent connections G G'.

Preparing Gypsum.

An improved apparatus for agitating a mixture of dehydrated gypsum and water is intended to effect a thorough and continuous agitation of a mixture of dehydrated gypsum with about seven times its weight of water, for the purpose of recrystallizing it, by combining a centrifugal, rotary, or other pump with a spacious reservoir, so as to insure rapid and continuous circulation of the material during treatment.

The ground and dehydrated gypsum is introduced into a tank with an amount of water equal to at least seven times the weight of the gypsum employed. A pump is immediately put in motion, withdrawing the cream-like mixture rapidly from the tank through a pipe, and forcing it continuously into the tank again through a discharge-pipe. The effect of this forced circulation is to keep all the particles effectually suspended in the water until the recrystallization of the sulphate of lime is fully effected, which is the end to be reached in the process. The result of the treatment to which the gypsum is subjected is that the finely divided native sulphate of lime, which at the commencement of the treatment is an amorphous powder, represented by small fragments of coarse rhomboidal prisms, becomes entirely changed in its crystalline character. The sulphate of lime is found to have assumed the form of delicate acicular crystals of microscopic minuteness, the average diameter of which is about one-fifteen-thousandth of an inch. This crystalline form, which is entirely distinct from that of the original crystals of native gypsum, is said to be in a remarkable degree fitted for use in the manufacture of paper or of bleached cotton goods, producing an article of superior hardness, firmness, and opacity.

The crystalline particles produced by this process are said to be more minute and uniform in size than can be obtained by any other means, with the additional advantage that, owing to their acicular or needle-like form, they do not escape through the meshes of the wire-cloth used in paper machinery. Taking the ordinary material used in paper manufacture, called "terra alba," which is native gypsum reduced to an impalpable powder, and comparing it with this new product by means of the microscope, it is found that the former consists of fragmentary portions of rhomboidal prisms, exceedingly variable in size and character. The average diameter of the smaller of these particles is one-fifth-thousandth of an inch. The same material after treatment by this process is said to exhibit under the microscope slender crystals, the great length of which, as compared with their diameter, make them of essential service in the felting or matting together of the fibres employed in the manufacture of paper.

The patentee, Cornelius T. Tompkins, of Hillsborough, Canada, claims: 1. The improved

process for treating gypsum for use in paper-making, &c., consisting in subjecting it to continuous agitation in a tank with water, and to a continuous circulation. 2. As a new article of manufacture, the minutely crystalline form of sulphate of lime, suitable for use in the manufacture of paper, &c.

Cooking Wood-pulp in an Open Vessel.

Herbert M. Carpenter, of Minneapolis, Minn., has patented an improvement on the patent issued to J. T. Averill, May 30, 1876, No. 177,917. It consists in the use of chloride of lime, soda-ash, or any equivalent material, during the process of cooking the wood in an open vessel. By this addition of the materials named during the process of cooking, the color of the pulp is said to be improved and additional strength given to the fibre. The chemicals also remove the pitch and other deleterious matter from the pulp, and thereby secure an improved article.

The patentee admits that chemicals have been used during the process of cooking in closed vessels, and says that the tendency of these chemicals, during the process of cooking in a closed vessel, is rather to destroy than strengthen the fibre and to injure the color. He claims, therefore, the process of preparing wood fibre for paper-

so that there is no danger of contact with the machinery and belts. New systems by which the machines can be instantaneously thrown out of gear have been generally adopted. In no industry do we see such a succession from father to son, and no anonymous societies are formed in it. In many factories the three generations can be seen managing, or working. Divisions of profits are monthly given, saving and benefit societies are general, and co-operative stores have still further added to the material comfort of the workmen.

Treatment of Nitro-Cellulose.

An apparatus for washing paper pulp has been patented by John W. Hyatt and John George Jarvis, of Newark, N. J. This invention relates most immediately to the treatment of nitro-cellulose, or the product obtained by subjecting vegetable fibre to the action of nitric or nitric and sulphuric acids. The fibre thus converted into nitro-cellulose is used for various purposes, and when mixed with certain other ingredients, forms compounds susceptible of use in the plastic arts. Of these plastic compounds, those comprised under the now well-known designation of "celluloid" are obtained by employing the nitro-cellulose or converted fibre in a granulated state, to which state it is reduced by means of the ordinary beating or pulping engines.

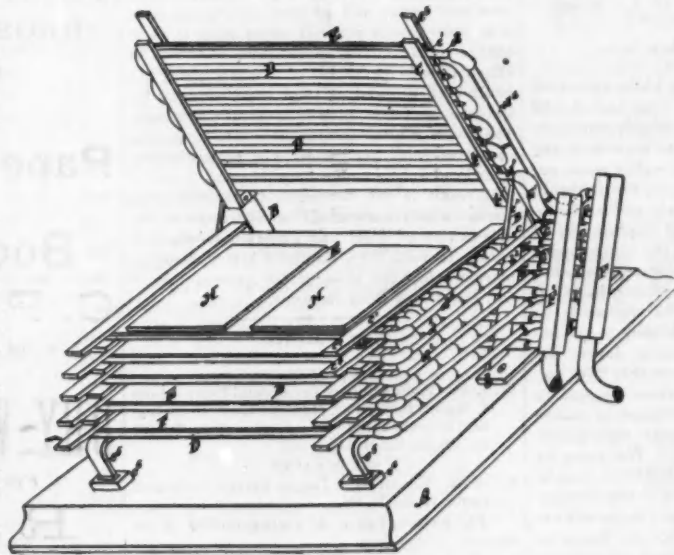
Even when the fibre to be converted has been previously bleached, it becomes more or less discolored during the converting process and the pulping process, so that, before employing it in the manufacture of celluloid, the granulated nitro-cellulose requires to be bleached again, and afterward very thoroughly washed, so as to remove all the acids or bleaching agents or salts that would otherwise be detrimental to its quality and use as soluble fibre.

It has been found that the ordinary processes of washing converted fibre in the form in which it had usually been made are not adapted to the proper washing of granulated nitro-cellulose, as it was liable to waste in considerable quantities by passing off on the surface of the water or through the bottom of the washing-tank, and liable to pack and become lumpy under the pressure of water passed down through it. It is accordingly the object of this improvement to thoroughly remove from the granulated nitro-cellulose all chemical impurities by simple washing in water, without drawing off or floating off the fibre, and without packing or matting it; and to these ends the invention consists in providing the washing-tank or vat with a false bottom, consisting of flannel, cloth or other similar material pervious to water, but not open enough for the granules of fibre to pass through it, and maintaining a circulation of water from below upward a. d from above downward through this false bottom and through the granulated fibre in the tank, so as to hold the granules suspended in the vertical currents, maintaining a circulation so active as to not only thoroughly agitate and wash the granulated fibre, but also to thoroughly cleanse the pores of the filtering-bottom and prevent it from clogging, without permitting the granules of the fibre to escape or to be carried off.

This invention is available for washing various substances; and the claims are not confined to the treatment of granulated nitro-cellulose, although this improvement is specially adapted to this use.

The patentees claim: 1. The method of washing granulated fibre in induced upward and downward currents flowing through a porous filtering bottom. 2. The combination of a tightly closed washing tank, a false bottom of porous filtering material, an inlet-pipe below the filtering-bottom, and an outlet-pipe, also below the filtering bottom.

CHLORINE IN WOOD.—"Babu" wood, a tree growing in the East Indies, has recently been the subject of trial in that country as fuel for locomotives. It contains, however, a minute quantity of chlorine. The action of this, during combustion, converts the copper fire-boxes into an oxidized scale containing about 3 per cent. of chlorine. It is calculated that one hundred and fifteen tons of the wood contains chlorine equivalent to that required to convert a half-ton fire-box into scale. In one instance a copper spark-catcher one-eighth inch thick was two-thirds eaten away in fourteen trips.



MACHINE FOR DRYING PAPER-BOARD.

pulp by the use of chloride of lime, soda-ash, or any equivalent material, during the process of cooking the fibre in an open vessel.

Report of the Commission on the Paper Exhibits at the Paris Exposition.

[Concluded.]

The report shows that while the average value of papers manufactured in France was 75 fr. 33c. per 100 kilos. in 1873, it was only 64 fr. 77c. in 1875. The total value of papers in that year was 97,701,664 fr. The exports of paper show a satisfactory increase—in 1867 their value was only 7,883,206 fr., but in 1875 they had reached 14,601,186 fr., and in 1876 13,357,501 fr. The export trade is chiefly with Russia, Scandinavia, Germany, England, and, in fact, all over the world. The value of papers imported was, in 1876, 1,964,600 fr. The exporting countries were Germany, the Netherlands, Belgium, Italy, Spain, Switzerland.

The cause in the difference in the average value of the papers is simply to be attributed to the fact that the public are obliged to make use of cheaper kinds of paper, owing in a great measure to the paper tax.

Among the improvements made in the last ten years are: the larger sizes of the machines, the cloths are longer, and there are more drying apparatus. More than double the weight is turned out now than in 1867. A great decrease in the quantity of waste has been obtained by having more and better-arranged stuff catchers; by having a finer grade of metallic cloths; and by substituting hollow and perforated bricks for wire cloths in draining chests; by substituting washing drums or cylinder washers for washing frames. The adoption of special apparatus for preliminary washings requires less water and does not allow any fibres to escape. Continuity of work is much facilitated by having different operations performed on different floors, which does away with pumps, &c.

One of the greatest improvements is that of the new calendars, which lay the paper by the simple pressure of the cylinders. This gives three times more work than under the old system. More security is given to workmen by longitudinal shafts and underground transmissions,

Correspondence.

British Notes.

[FROM OUR REGULAR CORRESPONDENT.]

15 PATERNOSTER ROW, LONDON, E. C. 1.

February 8, 1879.

You will pardon the omission of my usual letter for the past fortnight, when you know that I have been confined to bed by a severe sprain. I found it necessary to go into the country, away from the bustle and din of this great city, and I have therefore, to a great extent, been out of business altogether, and don't know what has been going on.

From a few hurried questions and a few snatches of correspondence, I learn that things are still quiet. The only piece of information which has interested me at all has been the fact of esparto going up. How much I can't say. It seems very strange to be in a position of helpless ignorance regarding prices, but, as yet, I have had no time to look about me.

I have a report before me from a friend, who says that there are a few decent orders moving in the raw material market. Especially were middle classed linen rags in good demand during the week, although the finer brands were in great measure neglected. If esparto gets up, my friend thinks that manufacturers will return again to rags. I very much question whether any rag users forsook rags for esparto because the latter was cheap. The treatment of esparto is so different to the manipulation of rags that I can scarcely fancy a rag mill taking to cheap esparto. Cotton rags of all descriptions are slack and prices are shifty, buyers having the better of it. Ropes and gunny, however, are very active. There is a constant demand for this stock for your side and it keeps our market tolerably active. Dealers here are paying stiff prices for anything in this line that is to be found. Wastepapers are decidedly dull and very few sales have taken place lately of any magnitude. Some heavy shipments have been made though to your side.

Chemicals are still in a lamentable predicament and I wonder when things will alter there. At the beginning of the year prices are generally supposed to be a bit firm, but the market seems "anyhow" at present.

I need hardly say I have heard no mill news of any consequence. The Scotch paper mills seem to be going on as per usual, the tank smash having made no difference but a change of name of ownership.

The Glasgow Bank directors have received their sentence—a matter of a few months' imprisonment. There is a great amount of public indignation at the force of a trial which let off these thieves so cheaply. Burglars get ten years' penal servitude; bank directors eight months' imprisonment. When we consider the misery, want, starvation, and maybe death, which the rascality of these directors occasioned, it is exasperating to dwell on the fact that before the year is out they will be loose and at large again.

Now, when I am very hard up for anything to say, isn't it quite allowable to "tell a tale?" As this is a true yarn, and about a great paper-maker, perhaps it will be interesting to your paper-makers and others. Once upon a time there was a very rich paper-maker who had a London traveler. The traveler was not rich and he hunted up orders with great diligence. Now it happened that the L. T. came across, in the far West End, a customer who refused to give an order to a traveler because he was getting paper direct from the mill. (It so happened that the mill was the opposition mill to the rich paper-maker's.) Thereupon the L. T., who was a very cunning man, told his rich employer that if he would come with him to see the customer, perhaps there might be some business, as the buyer would then deal direct. The rich paper-maker immediately complied with the L. T.'s plan and told the latter to meet him at the Royal Exchange at 12.30 noon. Accordingly the appointment was kept, and the L. T. proposed a cab to the West End, but the R. P. thought a bus would do. Having to walk a few yards, our friends came to Birch's, a depot for soup and luncheons. The rich man stopped and said, "Ah! we'll get something here, I think," and walked in, the L. T. following, rubbing his hands, and preparing his inner man, by gentle strokes, for the coming feast. But what means this! "Two penny biscuits in a bag, please, miss." Scarcely had these words smote the ear and stomach of the L. T. and filled him with misgiving, when he heard in his ear, "Now, then, we can eat these outside the bus, you know." The L. T. followed the rich P. M. to the bus top and mournfully munched his penn'orth. They got an order.

The two morals of this tale are so different—at least those propounded by the L. T. and the

rich P. M.—that it will be best to leave the moral out altogether. Next week I shall have something else for you. W. F. C.

Chicago Notes.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, February 17, 1879. A manufacturer recently gave it as his opinion that in less than one year from date print paper would sell in the Chicago market for five cents. It is said that it has already been offered for five and seven-eighths. The reason given for this unpleasant prognostication is, of course, overproduction and no efforts made to remedy the evil.

The subject of the advantages or disadvantages which the West offers to paper manufacturers is interesting. It is the universal opinion among manufacturers that for the manufacture of coarse papers, particularly straw wrapping and straw board, the West has peculiar facilities, particularly in the price and quality of straw, over the East. For the manufacture of fine paper the West has few points where it is possible to secure water of sufficient purity. One gentleman, who is himself a manufacturer of fine paper, asserted to your correspondent that he doubted if the finest qualities, such as are manufactured at Holyoke and other Eastern points, could ever be produced in the West; at the furthest not west of Ohio. The Ohio manufacturers are, moreover, dependent upon the New York dealers for their linen rags. It is said they can be bought cheaper in the New York market than at any point nearer.

A gentleman from New York, who is well acquainted with the condition of Eastern trade, was in the city recently looking somewhat into the condition of business here. He says he believes competition in the paper trade is stronger here than in New York. He thinks the day is not far distant when New York will be doing a large export trade in paper, but cannot see how the West can compete with the East in this line of manufactures. Western manufacturers will be confined to the trade of the Western country. There is undoubtedly some truth in this, but the population of the States and Territories west of the Mississippi is increasing very rapidly. British Columbia and Manitoba and other points of the British Possessions are being settled more rapidly than ever before. These will be supplied from Western mills, so that the advantage of the Eastern mills over the West is not so very great. If New York and the East controlled the paper export trade it would be quite another thing, but they have English and European makers to compete with.

The paper manufacturers and dealers are somewhat interested in the proposed Stationers' Board of Trade which is now under consideration in this city. It is possible the agitation of this proposed organization among stationers will stir the paper men into forming a much needed, and long talked of, association of their own.

SAWTELLE.

Holyoke Notes.

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, February 19, 1879. It is too early to make any predictions regarding the opening of the spring campaign of the paper trade, but the indications seem to point to a season of unusual activity. Many of the mills have a larger number of orders on hand than at any one time for three years; prices remain firm, and no one has any cause to find fault. Several rag drummers have been in town within a week, and some of the manufacturers have made heavy purchases.

Since my last letter a decision has been rendered by Judge Lowell, in the United States Circuit Court at Boston, in favor of the Whiting Paper Company of this city, Morgan Envelope and Powers Paper Companies of Springfield, for alleged infringement of patents by Henry D. Cone, of Stockbridge, Mass. The suit was brought against the above named companies for manufacturing corrugated or "rep" paper, so popular a few years ago. It was a hard-fought battle, and has been of great interest to the paper-makers in this vicinity.

The removal of the American Phototype Company from your city to Holyoke is again being agitated. This city was on the tip of expectation a year or more ago over the proposed removal of this company, and now the subject excites no little interest. The company was awarded the contract for printing the postal cards for the Government. It occupies a portion of the Tribune building at present, and if it removes to this city new quarters will be furnished at the South End. The site selected is at the corner of Race and Cross streets. The building will be 50x100 feet and one story high, the power being furnished by a 12-horse power engine. The company employs fifty hands, one-half being females. Both the Parsons and Phototype Companies will be benefited by the change; the former saving the freight on the paper to New York, and the latter gaining better accommodations at a much less price. Third Assistant Postmaster-General Hazen and Postal Card Agent George N. Tyner have been in the city looking over the ground, and are said to be in favor of the proposed transfer.

The newspapers in this vicinity have recently contained complimentary articles upon the business career of J. C. Parsons of this city. Mr. Parsons started in life as a druggist, but becoming interested in the manufacture of paper he was for some time connected with mills in Northampton and Suffield, Conn. He built the first paper mill in this city in 1854 and has managed it ever since.

One of the latest industries to locate in this city was Buchanan, Bolt & Co.'s Fourdrinier wire works. Coming to this city in the latter part of March, 1878, the company located in the north end of the building formerly occupied by the Union Bone Company, where it shortly afterwards began the manufacture of Fourdrin-

ier cloths, washers, cylinder and dandy rolls. The firm now has two looms in operation on wide goods. A smaller loom upon which laid dandies are made is kept locked up in a small room safe from prying eyes. There are only three of these looms in the country, it is claimed, and the process of manufacturing this kind of goods is a profound secret. The length of the cloths varies from 32 to 40 feet and from 84 to 92 inches in width, the values being from \$90 to \$120 each, and consuming from four to six days in weaving. There are some half dozen experienced workmen in the employ of the firm, all of whom earn good wages. Cloths have recently been shipped to Maine, Vermont, and other States, and nearly all the local mills use goods manufactured by this firm.

The proposed test of water-wheels which was to have occurred in this city on April 1 has fallen through, the "American" and "Swain" having withdrawn from the contest.

O. H. Black, formerly of the firm of Robertson, Black & Co., manilla paper manufacturers in this city, died at Bellows Falls, Vt., January 20, of consumption.

The Powers Paper Company, of Springfield, has issued a neat memorandum book and illuminated calendar combined, which is a marvel of neatness and artistic workmanship.

The New England Card and Paper Company, of Springfield, is full of orders. It employs twenty-five hands, and the goods manufactured are glazed paper, Bristol and railroad card board. The Messrs. Swan are the proprietors of this mill, and the goods are sold in New York, Pennsylvania, and the far West.

The water in the Mill River district is so low that the manufacturing companies situated on the stream are obliged to resort to steam power in order to keep their machinery in motion.

A large party from this city and Westfield visited Superintendent F. A. Crane, of the Crane Brothers Paper Company last week, and enjoyed themselves in a thorough manner.

The Brookside Paper Company at Mill River has repaired the west wing of its dam in a thorough manner. Over 300 loads of gravel have been drawn from a neighboring pit and placed on the dam, greatly strengthening it.

A. G. Wiethauper, foreman at the Brookside Mill, was the victim of a runaway accident one day recently, but escaped any serious injury.

News of interest has been rather scarce in this vicinity late, but with the advent of spring, which is close upon us, I am in hopes to furnish you with something more readable.

C. A. LENDER.

The Position of Chemicals.

The steady depression of the heavy chemicals during the past three or four years has resulted in a series of disasters to the manufacturers on the other side, and in no small measure to the dealers in importing markets, which, measured by the extent of the capital lost, has probably never been equaled in any single mercantile interest. The manufacture and importation of the heavy chemicals require the employment of immense capital, and there is scarcely another industry, unless it be sugar refining, in which the failure of a manufacturer represents so large financial losses. In addition to the numerous failures of large concerns during the past few years, the losses of those that have succeeded in pulling through without suspending must be considered, and the amount of sunken capital, if it could be definitely ascertained, would be something startling. The losses by dealers here have mainly resulted from speculation, and the number of failures in this country attributable to this cause is not large, nor are the amounts involved considerable. So far as this market is concerned, we recall no insolvencies that are directly traceable to the shrinkage in values on these goods, and the losses from their depreciation has been borne chiefly by the manufacturers. It is clear, however, that the misfortunes of the latter have largely grown out of their connections with the markets of this country.

At the time when our commercial and industrial affairs were in the condition of exaggerated prosperity which followed the war, the American market was the chief and the most profitable outlet for foreign chemicals, and until the era of inflation in the United States ended with the panic of 1873, this market was looked to as the unfailing outlet for an unlimited production of everything except bicarbonate of soda, the manufacture of which had latterly assumed such proportions here as to gradually crowd the foreign product from the market. The following table we have compiled as showing the growth of our imports of chemicals from 1850, representing our normal takings before the political troubles which began in 1860 had been felt upon trade. We also give the arrivals in 1878 for the purpose of showing the course consumption here has taken since the depression of trade which followed the panic:

Table with 4 columns: Year (1878, 1873, 1850), and rows for Soda Ash, Caustic, Sal, Bicarb, Bleaching Powder.

The years following 1859 showed a falling off

until about 1863, when there was a gradual increase in the imports up to 1873. The figures for that year show receipts of 29,488 packages of caustic soda, which, as long before as 1859, had not appeared in this market. Bicarb. had fallen off greatly, owing to the increased production here, but on all other articles there was a heavy increase. Since 1873 there has been a considerable increase in the arrivals of ash and caustic, with a further falling off in bicarb. and no material change in sal soda and bleaching powder.

Upon the whole, however, our consumption of chemicals is steadily growing. The disappointment of the foreign manufacturers has been due to their over-estimate of the requirements of the American market, based upon the rapid growth of our imports from 1863 to 1870. This led to the establishment of new works and to the extension of old ones, until the production had far distanced the consumption. About the same time the demand from this country received a check, and although there has been a recovery of trade here since, it has fallen far short of the steadily growing production. With the shrinkage in prices manufacturers began to adopt means for reducing the cost of their product, and these means have chiefly consisted in extending facilities or improving the methods of manufacture for the purpose of increasing their yield. Under this process matters have naturally gone from bad to worse, and prices have been steadily depressed by a constantly increasing surplus stock. The course of prices since 1873 is illustrated by the following statement:

Table with 4 columns: Item (Soda ash, Soda caustic, Soda sal, Soda bicarb, Bleaching powder), and rows for Feb. 12, Feb. 14, Decline, 1873, 1873, per ct.

This table carries with it the explanation of the failure of so many manufacturers; but the stoppage of their works was necessary for the relief of the chemical industry, and the evil has gradually worked out its own remedy. There are, perhaps, other failures yet to come which have been temporarily stayed off by the financial concerns that have come to the support of some of the weak establishments, and as soon as this backing is withdrawn their downfall is probable. The strong establishments that have had sufficient capital to carry them through the adverse period of the past few years can now regard the outlook with more encouragement.

The consumption of chemicals is to-day greater than ever before, and so soon as the production is by some means reduced to its limits there is chance for a recovery in the prices sufficient to afford a profit, as the cost of manufacturing has lately been reduced in most establishments by the introduction of more economical machinery. The course of affairs on the other side during the past fortnight has indicated a better feeling there, and unless the first improvement in prices shall result in the re-opening of the suspended works—which can scarcely be regarded as probable in view of their past experiences—there is reason to look for a decidedly better chemical market before the close of the present year.—Oil, Paint and Drug Reporter.

New Patents.

REISSUES. No. 8,943. Manufacture of Ornamental Paper.—John F. Marsh, Springfield, Mass., assignor to Springfield Glazed Paper Company, same place. Patent No. 203,474, dated May 7, 1878.

TRADE MARKS.

No. 4,962. Record and Ledger Papers.—Jessup & Laffin, Westfield, Mass. "The picture, figure or representation of an Indian." No. 4,963. Record and Ledger Papers.—Jessup & Laffin, Westfield, Mass. "The arbitrarily-selected word 'Woronoco.'" No. 7,003. Writing Paper.—Crane & Company, Dalton, Mass. "The word-symbol 'Electric.'"

Personals.

Sylvester S. May, Jr., late of the firm of May, Hard & Co., of this city has connected himself with the paper house of Henry Lindenmeyr, where he will be glad to see all of his old friends.

Manufacturing News.

EASTERN STATES. The mill of the Adams Paper Company, South Adams, Mass., is still running short time, turning out 2,500 lbs. fine writings daily.

A wire on which 255 tons of paper had been run was recently taken off the machine at the Albion paper mill, Holyoke. This wire was made by Buchanan & Co.

MIDDLE STATES. D. A. Bullard & Sons' mill, at Schuylerville, N. Y., is in working order again, the repairs to the boiler having been completed.

FOREIGN. The Harefield Paper Mill, at Harefield, near Rickmansworth, Middlesex, England, was to have been sold at auction on Wednesday last, with all its plant. It is a leasehold property, with an unexpired term of forty-four years.

HORSFORD'S ANTI-CHLORINE. SUPERIOR to any other Anti-Chlore in use. It is a very fine white powder, wholly objectionable to the most fastidious manufacturer. Adapted to fine Ledger and Writing Papers, Common Book or News, sized or unsized. For Particulars, send to the Manufacturers for Descriptive Circular. MANUFACTURED BY THE RUMFORD CHEMICAL WORKS, - - Providence, R. I.

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

Table listing various books and their prices, including titles like AUERBACH—Anthracen: Its Constitution, Properties, Manufacture and Derivatives, BAIRD—Standard Wages Computing Tables, BENSON—Principles of the Science of Color, etc.

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Paper-Makers' Chemicals and Colors.

- HELLER & MERZ, Ultramarine, 55 Maiden lane, N. Y. HOFFMANN, W. & CO., Ultramarine, 74 Pine st. RIKER, J. L. & D. S., 45 Cedar st. KLIPSTEIN, A., Elephant Brand Alumina Cake, 32 Platt street, N. Y. LEVINSTEIN, L. J., & SONS, 42 Duane st., N. Y.

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- EMERSON, J. T., Patent Cone Washer, Clarendon, N. H. HOLYOKE MACHINE CO., Holyoke, Mass. SMITH, WINCHESTER & CO., South Windham, Ct.

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- ELLIOT, A. G., Paper & Paper Stock, 36 S. Seventh st., Philadelphia. MARKER, JOHN D., & SONS, Wholesale Dealers in Rags, 413 Commerce St., Philadelphia. WALSH, D. J., & CO., 6 South Front st., Philadelphia. All kinds of Woolen Rags Bought for Cash. SIMMONS, JOHN, Wholesale Dealer in Paper and Rags, 30 & 32 Decatur st., Philadelphia.

Rags, Paper and Paper Stock—(Continued).

- SHOCK & POLLAK, Paper Stock, 306 to 326 West Third st., and 39 to 57 McFarland st., Cincinnati, O. BUTLER, THOMAS, Dealer in Paper Stock, Woolen Rags, &c., 244 Causeway st., Boston, Mass. FRANZEN, WM., Wholesale Paper, Paper Stock and Woolen Rags, 60 Oneida st., Milwaukee, Wis. GARRETT & BUCHANAN, General Paper Dealers and Mfrs., 3, 5 and 7 Decatur st., Philadelphia. GILBERT, WM., & CO., Paper and Woolen Mfrs' Materials, 11 & 13 Market st., Chicago, Ill. GRAHAM & BRO., H. B., Paper Warehouse and Stock Dealers, St. Louis, Mo. LOEWENTHAL BROS., Woolen Rags, Paper Stock, &c., 64 South Jefferson st., Chicago. McARDLE & HART, Cotton and Woolen Rags and Paper Stock, Newburg, N. Y. MARKLE, C. P. & SONS, Mfrs. of Printing and Glazed Hardware, 125 Second av., Pittsburg, Pa. MAYER, A. B., Rags and Paper Stock Dealer, 1014, 1020 & 1022 N. Twelfth st., St. Louis, Mo. SNIDERS, LOUIS' SONS, Manufacturers and Wholesale Paper Dealers, 121 Walnut st., Cincinnati, O. WINKLER, ISAAC, Wholesale Dealer, 18 & 20 Main st., Cincinnati, O. LANEY, JAMES, Dealer in Paper and Paper Stock, Cotton and Woolen Rags, Rochester, N. Y. HARRIS, M. & BROS., 403 & 405 Fifth ave., Chicago, Ill. Branch Houses: Dubuque, Ia.; Burlington, Ia. B. FELSETHAL & BROS., Paper, Bags, Twine, Woolen & Cotton Rags, 156-160 S. Desplaines st., Chicago. RYAN, MICHAEL J., Dealer in Rags and Paper Stock, 859 Dean st., Brooklyn, N. Y. RICHMOND & CO., F. H., Paper and Paper Stock Warehouse, Cotton Waste Dealers, Providence, R. I. DORAN, A., Wholesale Dealer in Paper and Paper Stock, 6 & 8 Union st., Bridgeport, Conn.

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IMPORTATIONS OF PAPER STOCK, PAPER, BOOKS, CHEMICALS, &c.

IMPORTS of Paper and Paper Materials, Books &c., at the Port of New York, for the week ended Feb. 14, 1879. Quantity given in packages when not otherwise specified.

Table with columns: Aniline Colors, Alum, Alumina Cake, Bleaching Powders, Soda Ash, Soda, Bicarb., Soda, Caustic., Soda, Sal., Ultramarine, Books, Newspapers, Engravings, Ink, Lead Pencils, Paper, Steel Pens, Stationery, Clay, Jute Butts, Jute Rejects, Paper Hangings, Paper Stock, Waste, Total. Values in dollars and cents.

TOTAL IMPORTS.

Table with columns: General Merchandise, for the week ending Feb. 14, Paper, Paper Stock, &c., For the year ending May 23, 1878, For the year ending May 23, 1879, For the year ending May 23, 1876, For the year ending May 23, 1877, For the year ending May 24, 1878, For the year ending Aug. 27, 1878, For quarter ending Nov. 28, 1878, For the week ending Dec. 6, 1878, For the week ending Dec. 13, 1878, For the week ending Dec. 20, 1878, For the week ending Dec. 27, 1878, For the week ending Jan. 3, 1879, For the week ending Jan. 10, 1879, For the week ending Jan. 17, 1879, For the week ending Jan. 24, 1879, For the week ending Jan. 31, 1879, For the week ending Feb. 7, 1879.

IMPORTS of Rags and Paper Stock at the Port of New York, since Jan. 1, 1879, from the following Ports, showing quantities from each Port.

Table with columns: Rags, Paper Stock, Manila Stock, Bales, Bales. Ports: Bremen, Dundee, Glasgow, Halifax, Hamburg, Havana, Hong Kong, Hull, Kingston, Koenigsberg, Leghorn, Liverpool, London, New Castle, Palermo, Pillau, Rio Janeiro, St. John's, Stettin, Trieste.

EXPORTS of Paper, Books, &c., from the Port of New York to Foreign Ports, for the week ended Feb. 14, 1879, with Aggregates and Values.

BOOKS, cases, to Hamburg, 2; to Bremen, 5; to Liverpool, 36; to London, 3; to Glasgow, 13; to British Australia, 17; to Cuba, 12; to Venezuela, 1; to Hayti, 2.

PAPER, to Hamburg, 5 cs.; to Rotterdam, 2 cs.; to Liverpool, 31 pkgs.; to London, 1 cs.; to Glasgow, 9 cs.; to British Guiana, 500 rns.; 1 pkg.; to British Australia, 7 cs.; to British West Indies, 243 pkgs.; to Mexico, 1,002 rns.; to Porto Rico, 1,400 rns., 656 pkgs.; to Brazil, 2,000 rns.; to United States of Colombia, 9 pkgs.; to Venezuela, 43 pkgs.; to British Honduras, 25 rns.; to Cuba, 11,655 rns., 11 pkgs.; to Hayti, 735 rns., 29 pkgs.

STATIONERY, cases, to Bremen, 1; to Liverpool, 2; to British West Indies, 5; to Brazil, 1; to United States of Colombia, 34; to Venezuela, 2; to Cuba, 4; to Hayti, 13.

Table with columns: Paper, reams, Paper, pkgs., Paper, cases, Books, cases, Rosin, bbis., Stationery, cases, Totals. Values in dollars and cents.

TOTAL EXPORTS.

Table with columns: General Merchandise, for the week ended Feb. 14, 1879, Paper, &c., for the year ended May 23, 1874, Paper, &c., for the year ended May 23, 1875, Paper, &c., for the year ended May 23, 1876, Paper, &c., for the year ended May 23, 1877, Paper, &c., for the year ended May 23, 1878, Paper, &c., for the year ended May 23, 1879, Paper, &c., for the quarter ended Aug. 27, 78, Paper, &c., for the quarter ended Nov. 26, 78, Paper, &c., for the week ended Dec. 3, 1878, Paper, &c., for the week ended Dec. 10, 78, Paper, &c., for the week ended Dec. 17, 78, Paper, &c., for the week ended Dec. 24, 1878, Paper, &c., for the week ended Dec. 31, 1878, Paper, &c., for the week ended Jan. 7, 1879, Paper, &c., for the week ended Jan. 14, 1879, Paper, &c., for the week ended Jan. 21, 1879, Paper, &c., for the week ended Jan. 28, 1879, Paper, &c., for the week ended Feb. 4, 1879, Paper, &c., for the week ended Aug. 11, 1878.

NEW YORK IMPORTS.

FROM FEB. 15, 1879, TO FEB. 21, 1879, INCLUSIVE.

Table with columns: Recknagel & Co., Silas Fish, Hong Kong, 100 bs. rags, Lawrence, Johnson & Co., E. Sherman, Havana, 40 bs. paper stock, Jonas Phillips, Chas. A. Sparks, Leghorn, 105 bs. rags, N. Semoni, by same, 120 bs. rags, Briggs & Taylor, Constantinople, London, 88 bs. rags, Campbell, Wall & Co., by same, 164 bs. rags, W. O. Davey & Sons, by same, 65 bs. paper waste, Jessup & Moore, by same, 83 bs. paper waste, E. Storey Smith, by same, 143 bs. gunny rags; 25 bs. linen and cotton rags; 25 bs. old rope, Lee & Sturges, by same, 101 bs. rags, Cummings & Lockwood, Donau, Bremen, 5 bs. gunny rags, W. Irving Clark, J. Foster, Jr., Liverpool, 178 bs. paper stock, Recknagel & Co., Greece, London, 57 bs. paper stock, E. Storey Smith, Circassia, Glasgow, 18 bs. old paper; 230 bs. gunny rags, Fett & Sengstak, Sakato, Hamburg, 156 bs. rags, Levy Bros., Rialto, Hull, 44 bs. linen rags; 20 bs. jute, W. Irving Clark, by same, 16 bs. paper stock, John W. Mason & Co., Hamilton Fish, Liverpool, 60 bs. gunny rags; 132 coils old rope, Paper, C. A. Haynes, The Queen, Liverpool, 4 bs. H. Bainbridge & Co., Batavia, Liverpool, 4 cs. H. Bainbridge & Co., Greece, London, 2 cs. Roth & Lips, Wieland, Hamburg, 1 cs. E. & H. T. Anthony & Co., by same, 3 cs. L. de Jonge & Co., by same, 5 cs. colored, R. Gledhill, Adriatic, Liverpool, 7 cs. hangings, B. L. Solomon & Sons, by same, 47 cs. hangings, Fuchs & Lang, Donau, Bremen, 1 cs. Chas. Joerg, by same, 1 cs. Banatt Bros., by same, 2 cs. colored, McCarthy & H., by same, 4 cs.

BOSTON IMPORTS.

FROM FEB. 14, 1879, TO FEB. 20, 1879, INCLUSIVE.

Table with columns: Books, Little, Brown & Co., Atlas, Liverpool, 10 cs. Ginn & Heath, by same, 1 cs. C. A. Wellington, by same, 1 cs. C. Schoenhof, by same, 1 cs. Wellesley College, by same, 1 cs. Estes & Lauriat, Brazilian, Liverpool, 4 cs. Paper, L. P. Ober, Samaria, Liverpool, 1 cs. manufacture, C. Ried, Atlas, Liverpool, 1 cs. Frost & Adams, by same, 1 cs. J. H. Daniels, by same, 1 cs. Roberts Bros., by same, 2 cs. printed sheets, O. Ditson & Co., by same, 3 cs. music, Ross, Turner & Co., Caneosus, 4 cs. Paper Stock, H. M. Knowles, Atlas, Liverpool, 380 bs. rags, S. D. Warren & Co., by same, 122 bs. rags; 150 bs. paper stock, Warren & Co., Brazilian, Liverpool, 126 bs. paper stock, Crocker, Burbank & Co., by same, 28 bs. paper stock, A. H. Hardy, Anna Oneto, Syria, 55 bs. rags, Bleaching Powder, Warren & Co., Brazilian, Liverpool, 291 cs. Caustic Soda, E. & F. King & Co., Brazilian, Liverpool, 175 drums, Warren & Co., by same, 100 drums, Soda Ash, Linder & Meyer, Atlas, Liverpool, 45 cs., Warren & Co., Brazilian, Liverpool, 168 cs., Sal Soda, Warren & Co., Brazilian, Liverpool, 280 bbis.

P. W. GALLAUDET, Banker & Dealer in Commercial Paper, Nos 3 and 5 WALL STREET. Stocks and Bonds Bought and Sold on Commission. Advances made on Business Paper and other Securities.

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ANDERSON & STANTON. 152 Broadway

NEW YORK, Jan. 1, 1879. GENTLEMEN: Having given the subject of Paper Mill Insurance special attention, we would ask paper-makers to consider the following questions: First—Should not well and carefully managed paper mills be insured on better terms than others? Second—Will not insurance of this character receive better attention and so a just and careful consideration of the part of insurance officers when brought to their notice by parties doing a large business than if sent through some small agent who cannot personally represent the facts to his companies? Third—Are your policies correctly worded, so that you are positively insured? Fourth—Are you sure all the companies in which you hold policies are sound and solvent? These questions and many others of like character are such as are being asked us constantly by paper-makers. Worthless insurance is worse than none. Badly worded policies lead to litigation. Business centers of course have the largest number of insurance companies, hence, better facilities for placing large lines of insurance. We now have property valued at some (forty millions of dollars 40,000,000) including some of the largest and best known paper mills in the United States, and have yet to learn of any paper-maker who has become dissatisfied with our way of doing business. Should be pleased to send you a Paper Mill Survey, and to hear from you regarding any insurance which you may desire for your mill property, and you can rest assured that it will receive careful attention at our hands. Please write us before renewing any of your policies. Very truly yours, ANDERSON & STANTON

ANDERSON & STANTON, INSURANCE AGENTS, AND BROKERS, 152 Broadway New York.

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The Paper Trade Journal.

DEVOTED EXCLUSIVELY TO THE INTERESTS OF

The American Paper Trade.

Weekly, \$4.00 per annum.

Single Copies, 10 Cents

NEW YORK: SATURDAY, FEB. 22, 1879.

Advertisements cannot be received for insertion in the current week later than 9 A. M. on Friday. The charge for advertising is 25 cents a line, each insertion. Special terms for standing and displayed advertisements to be had on application. Card in Directory Column and one copy of paper, \$10 a year.

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

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

Subscription and postage for Great Britain, per annum, £1
 Subscription and postage for France, per annum, 25 francs
 Subscription and postage for Germany, per annum, 8 thalers
 Foreign subscribers may address our New York office.

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

All communications must be addressed to

HOWARD LOCKWOOD,
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 No. 74 Duane street, N. Y.

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TO CORRESPONDENTS.

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

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

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

MILL news has been rather scanty of late. Have the trade settled down into the rut or do they need awakening?

AN explosion, which lately occurred at Jackson, Mich., is reported in another column. The conditions under which it occurred are not suggestive of care. There may be other cases where such a calamity is likely to occur, and this instance ought to be a warning.

A CHANGE in the straw board market is noted this week. The demand has increased and prices are firm as established. The Straw Board organization seems to be pretty solidly founded, and its plan of association, if results continue as now, is something for the trade at large to consider. "Blest is the tie that binds," is a quotation that rather fits the straw board men. Cannot the other branches of the trade follow the example? The district organizations, provided for at the Saratoga

Convention, are not all doing their duty. If there should be another meeting next summer, a sorry report will be had from some quarters.

A NEW plan for drying all kinds of paper boards is illustrated and described on our first page. Besides this we give accounts of several other new processes. A number of new ideas in paper-making have been patented lately, and we have a series of illustrations in preparation which we will give in due order with their descriptions. In this respect we are trying to keep THE JOURNAL abreast of everything that is of value or interest to the trade.

A CORRESPONDENT asks a question in another column as to the consumption of coal per ton of paper. It is an interesting suggestion, and we hope that our readers will give the results of their observation and experience in reply. We are told that there is an astonishing difference in the figures given to inquiries on the subject. Under present conditions of manufacture and the prevailing prices of paper, the cost of coal is an item worth reviewing. We have had this subject up in these columns before, but just now it seems to be a good idea to renew it.

THE Canadians are determined, it would seem, to enter on an era of protection. The temptation of becoming a great manufacturing country is very dazzling, but, nowadays there are certain conditions involved in success that cannot be ignored. Many branches of manufacture require a world-wide trade, in order to give them their elemental conditions of being. Canada is, as yet, a country—we will not say too small, but having too sparse a population and too imperfect a trade machinery to give support to prosperous factories of all kinds. The duties will come out of the pockets of the Canadians themselves. So far as our paper manufacturers are concerned, they can find other and larger fields for their export trade, although the proposed Canadian tariff will interfere with considerable business from this side. The proposed duty on envelopes and writing papers is 35 per cent. ad valorem, and on paper hangings 35 per cent. Many of the taxes are altogether prohibitive.

THE British paper trade were to have had a meeting on Tuesday of last week to consider matters of general interest and to consult on measures for improving the condition of trade. We can imagine what the meeting was, for we have had similar experience here, and it has probably been only a first step towards practical relief. It is strange that in all business concerns of this sort those interested should go with slow and faltering step, like that of childhood. Resolution is wanting, and it is only when at length driven to the wall, and other relief seems hopeless, that paper-makers adopt measures which their knowledge and sense should have induced them to adopt before. In action the paper trade are singularly at odds to those qualities which are valuable in the goods they produce. They don't "felt" well. But recurring to the British trade, we find an English contemporary remarking that trade "has never been worse," and that "energetic action" must be taken to reduce the cost of manufacture. Whatever saving can be effected in this way will do little toward the relief desired. The output in England, as here and everywhere, is too large, and the great necessity is to limit it to the requirements of consumption. It is certainly difficult to apply this rule to the case of the British paper-maker. He cannot avoid competition, and for this reason we expect to find him changing front and urging protection for his manufacture. This is the tendency of the day in Europe, and free trade is losing its prestige in the face of adversity.

Obituary.

O. H. BLACK.

O. H. Black, one of the members of the firm of Robertson, Black & Co., Holyoke, Mass., died on January 25, at his home in Bellows Falls, Vermont. Mr. Black was a man who had been

an active paper manufacturer all his life until within a few months of his death. He was highly esteemed for his integrity of character and business ability. He built the Rockingham paper mill at Bellows Falls, Vermont, and it is called the best arranged manilla mill in the country.

Communications.

[Communications are solicited from everyone who has anything of value or interest to impart. Items of news, trade gossip, and personal information will be gladly received. Correspondents are requested to write only on one side of the paper. No responsibility for the opinions of correspondents attaches to this paper. Communications must be sent to reach this office by Wednesday night or Thursday morning, of each week, to insure insertion.]

Coal Average.

To the Editor of The Journal:
 I would like to inquire through your paper, what is the average amount of coal used per pound of paper? I find a great difference among manufacturers. I have heard as high as 4,500 pounds of grate coal to 2,000 pounds of paper, and as low as 1,100 pounds of coal screenings to 2,000 pounds of paper. What is considered a good result on the best of coal? Will some of the trade answer?
 INQUIRER.

Question of Interest.

To the Editor of The Journal:
 Seeing that Messrs. Scribner, Hedges, Greenhorn, &c. have wound up their discussion on the beauties and shortcomings of commissions, straw wrapping, &c., it might be worth while for readers of THE JOURNAL to consider if it would not be a gain if the producer and manufacturer were brought into more direct relations with the consumer.

Straw wrapping is not the only article on which the value is enhanced from 25 to 100 per cent. from the time it leaves the manufacturer until it reaches the consumer. The fact is, and will remain so until the consumer can be brought to see that it is for his interest to buy as near as possible direct from the manufacturer.

Yours,
 POPULL.

Association.

NEW LONDON, CONN., February 19, 1879.

To the Editor of The Journal:
 I noticed in THE JOURNAL of February 15, your comments on the successful formation of the Stationers' Board of Trade, and can easily imagine the immense benefit it might be to the trade if conducted on "business principles," and I also notice the query, proposing to paper-makers to go and do likewise. Now I believe that a mutual benefit association of paper-makers, so to speak, will be in one year's time of more practical value to the fraternity than a stoppage of all the mills on any or all of the plans that have thus far been proposed, and the article before alluded to tempts me to offer a suggestion or rather an idea that may appear to some of the readers of THE JOURNAL, as it has to me, a sensible, business basis of organization, for such an association or Board of Trade.

The idea is this: Let the association be considered a joint stock company of all the paper manufacturers (or as many of them as will) in the country, or in any portion of it, as New England for instance, the capital stock of which shall be the good will of its members and the interest they have in their own and each other's welfare, the same to be divided into as many equal parts as there are thousand dollars of capital invested and represented by the manufacturers in the section in which the association is located; each person or corporation to hold one share for every one thousand dollars he or the corporation represent, and be entitled to one vote for every share in the doings of the association. Thus will each mill be represented (if it wants to be) and will have a voice in proportion as it has interests involved. He that hath little ought not to expect to have as much to say as those that have much. That is not according to Scripture, and yet every one will have his or their proportional say, and would also have an opportunity for contributing a proportionate share of the expenses.

Such an organization, I think, might be effected with satisfactory details so as to be equal and just without being arbitrary, and if among other plans that may be suggested, this or any of them shall be successful in accomplishing the desired end, an expression of my views may not be altogether thrown away. Yours truly,
 H. O. W.

Changes, Removals and New Firms.

Corth Bros., dealers in paper and card board, St. Louis, Mo., have dissolved partnership.

Moore & Warren, printers, &c., this city, have taken the entire building, No. 57 John street.

Reynolds & Reynolds, printers, Dayton, O., have dissolved partnership, D. D. Reynolds continues.

The New York Photo-plate Company succeeds the Photo-plate Company at 63 Duane street, this city.

John Robertson has bought the interest of the late O. H. Black, in the firm of Robertson, Black & Co., paper manufacturers, Holyoke, Mass., and will carry on the business under the same firm name.

The firm of L. J. Levinstein & Sons (Gustav, Alexander and Ivan Levinstein), 42 Duane street, New York, has been dissolved—Ivan Levinstein continuing. Mr. Levinstein has taken into partnership John Campbell, late representative of the firm, and in future they will trade under the style of L. Levinstein, Campbell & Co.

The firm of May, Hard & Co., of this city, has been dissolved by the withdrawal of S. S. May,

Jr. The business will in the future be confined exclusively to the manufacture and sale of fine stationery, the firm giving up the business of flat, news and book papers which it had previously been engaged in. The remaining members of the firm have formed a new partnership under the style of Brown, Hard & Co., and will continue at the present location until May 1.

Failures.

The creditors of D. N. Neylan, Nashville, Tenn., have accepted a compromise of 25 cents on the dollar.

W. P. White, Washington, has paid through the Stationers' Board of Trade a dividend of 20 per cent. to his creditors.

Albin Orberg, stationer, of Rome, Ga., has been asking for an extension, and it is said is seeking a compromise with his creditors.

E. P. Compton, stationer, Seward, Neb., has made an assignment to Luke Agur.

S. G. Boyd, stationer, Glen's Falls, N. Y., has made an assignment.

The Stationers' Board of Trade within the past few days paid a dividend of 20 per cent. of the balance due to the creditors of W. B. Keene, Cooke & Co., Chicago. The former dividend amounted to 50 per cent. of the debt, and the 20 per cent. now paid of the remaining 50 makes a total of 60 per cent. paid to the creditors.

Henry L. Legien, dealer in cards and fancy papers, this city, made an assignment on Wednesday to Joseph Mowius. His liabilities are about \$55,000, of which about \$45,000 is for merchandise. He owns a fine residence in Hoboken, which is said to be heavily mortgaged. His other assets consist of stock, machinery and outstanding accounts, the value of which cannot be correctly given at present.

A meeting of the creditors of Cooke & Cobb took place at the office of the firm, 10 Broadway, on Monday last. Ninety per cent. of the firm's indebtedness was represented at the meeting. J. H. Van Kirk was chosen chairman and Mr. Townley, attorney for S. R. Cobb, Sen., acted as Secretary. A committee consisting of Mr. Flemming, George Dunham, and J. H. Van Kirk, the Chairman, was appointed to investigate the affairs of the firm and report to the meeting. This committee, composed of the principal creditors of the firm, after mature deliberation with all the parties in interest, recommended that, inasmuch as the firm was believed to have sufficient assets to pay in full if reasonable time were granted it to do so, advised an extension of six, twelve and eighteen months, with interest, and that the firm's notes be accepted on that basis. This proposition was accepted with a single exception.

Chattel Mortgages.

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

NEW YORK CITY.

Mortgagor.	Amount.
H. Cheronney & Co. (R.)	\$4,620
W. J. Penrose	1,000
D. H. Glidderleeve	10,000

EASTERN STATES.

John N. Near, Bridgeport, Conn.	4,000
Syms & Mack, Springfield, Mass.	175

WESTERN STATES.

John Collins & Co., Chicago, Ill.	254
C. Huber, Chicago, Ill.	250
O. H. Phillips, Dodge Centre, Minn.	546
A. R. Fleming, St. Louis, Mo.	950
A. C. Tuttle, Baraboo, Wis.	240
B. G. Landman, Cincinnati, O. (R.)	400

SOUTHERN STATES.

A. Wilson, Covington, Ky.	55
David F. Orr, Baltimore, Md. b. a.	175

Fires.

T. E. Morgan's "Liberty Book store," at Liberty, N. Y., was burned on Sunday morning last. Most of the stock was saved, but very badly damaged. Partially insured.

The buildings 536 and 538 Pearl street are in part occupied by Wemple & Kronheim as a factory. On the night of the 16th inst. a fire broke out in an adjacent building, and becoming destructive threatened Nos. 536 and 538, which were only saved by the indefatigable efforts of the firemen. They were, however, much damaged by water and heat. Wemple and Kronheim lost, by damage to lithographic stones, machinery and stock, the latter being in process of manufacture.

In Town.

E. S. May, Lee, Mass.; S. S. May, Lee, Mass.; L. C. Woodruff, Niagara Falls; Byron Weston, Dalton, Mass.; B. F. Hosford, T. H. & Co., Boston; G. W. Knowlton, Watertown, N. Y.; C. S. Wheelwright, Providence, R. I.; D. Alexander, Ashley Falls, Mass.; S. S. Parks, Glen's Falls, N. Y.

Terrible Explosion.

A correspondent forwards an account of the explosion of a restoring furnace, which occurred at the Jackson Pulp Mills, Jackson, Michigan, on the morning of February 13. The report is taken from the columns of a local paper, and is as follows: Yesterday morning at fifteen minutes past seven o'clock an explosion took place in the regenerating house at the Chemical works which destroyed the structure, and caused the solid earth and the buildings in that part of town to vibrate and shake as if rocked by an earthquake. The laborers and workmen employed about the works were for an instant stunned by the terrific concussion. But they quickly regained their senses, and gathered at the scene of the catastrophe, where they found Henry Kruger, the man who was in charge of the demolished building, in a semi-conscious state, and very badly injured. He had been blown out of the building, and clear of the roof and timbers which came

down with a crash, or no doubt he would have been killed by the falling mass.

The explosion was caused by the workman carelessly allowing an oven to get intensely hot and then charging it with caustic soda—a compound of protoxide of sodium and water. Of course, a gas of a highly combustible and explosive nature was generated, and disaster was inevitable. Above this oven or heated chamber, into which a large volume of the liquor was so injudiciously introduced, was a big steel pan, 12 feet long by 10 broad and 2 feet deep. It was composed of sheets of metal as thick as boiler iron, and would hold 240 cubic feet of liquid. It was full to the brim with caustic soda. Notwithstanding its weight with its contents could not have been less than 25,000 pounds, it was blown upward, and so peculiar was the application of the force which lifted it from its place that its ends were completely reversed. And although it came down right side up its contents were showered in all directions by the force of the explosion, and it was found well nigh empty by the workmen. There were three other similar pans in the building, all filled with the same solution, but they were also emptied, twisted and hurled from their positions. The sides of the building were blown outward and the roof came down crumpled and broken; the furnaces and ovens were wholly destroyed and present only an indistinguishable mass of brick and mortar; the pipes connecting the building with the pulp mill are twisted asunder, and the piles of debris, crumpled arches and displaced and half buried apparatus and appliances peculiar to the regenerating room, comprise altogether a picture of complete ruin.

The loss is roughly estimated at from four to five thousand dollars. The steel pans, which are of Pittsburg manufacture, are so badly damaged as to necessitate taking them to a boiler shop for repair, and as they weigh five or six tons each, moving them is much more a matter of labor than haste. However, the work of restoration will be vigorously pushed, and it is thought that this feature of the works will be in operation again inside a couple of weeks.

It is feared that Henry Kruger, the only man in the building at the time of its demolition, will die. His face, neck, ears, eyes and hands were both burned by the ignited gas and scalded by the hot contents of the pans, which were showered in all directions. The steaming liquor also saturated his clothing, fairly cooking the flesh of some parts of his body. The unfortunate man was burned in a similar manner, but less severely, of course, last fall, and as a result he was incapacitated for duty several weeks. He had been often cautioned to keep the oven "charged," as explained, but it seems he grew careless and failed to exercise the vigilance which the exigencies of his position demanded. A fellow workman escaped the danger by failing to appear at the usual time of beginning work. He was nearing the building, and when the explosion took place was not a hundred feet distant. In another minute he would have been inside, and could hardly have escaped injury or death. Fortunately, too, the teams which delivered coal at this building every morning at about the time the explosion occurred had been notified the evening before that the supply was sufficient for the ensuing twenty-four hours, and therefore what might have added to the horror of the casualty was averted.

Extraction of Cellulose with Bisulphite of Lime.

Professor A. Mitscherlich has patented the following process, which consists essentially in the action of the bisulphite of lime upon vegetable matter, such as coarsely comminuted wood. A solution of the bisulphite is prepared by a peculiar process, which renders it easy to prepare other sulphites, if required. Carbonate of lime is decomposed in suitable apparatus by the sulphurous acid evolved by the combustion of sulphur or of pyrites. The bisulphite of lime is already extensively used in fermentation on the one hand to check the formation of acetic acid, and on the other hand to regulate the speed at which fermentation shall proceed. If shavings or chips of wood, or other vegetable matter is acted on at elevated temperatures by the bisulphite of lime, the cellulose is set at liberty, and the various bodies in which it is entangled are rendered soluble. In this manner cellulose is easily obtained in the condition in which it exists in the plant. It is freed from all soluble matter by washing, and may then be at once utilized in paper-making, &c. The soluble matter consists of a variety of bodies, according to the nature of the vegetable refuse, or the wood operated upon. Among the principal are substances useful in tanning, in the manufacture of gum, and in the preparation of acetic acid and alcohol.

Keeping the production of cellulose alone in view, this patent offers decided advantages. In the ordinary process, where wood or other vegetable matter is treated with soda-lye, a great destruction of cellulose takes place, and what remains loses strength, turns brown and gives a bad yield. The cellulose prepared by the action of the bisulphite of lime has a longer and stronger fibre, and retains its original whiteness. If it is desired to be snow white it is bleached with a little chloride of lime, but this is requisite only for very superior qualities of paper. Treatment with chlorine or chloride of lime should be avoided wherever practicable, since however carefully it is managed the fibre loses in strength, and consequently in value.—*Chemiker Zeitung*.

E. P. Fellet, United States Consul at Barranquilla, United States of Colombia, desirous of helping to enlarge the foreign trade of this country, invites manufacturers to send him their catalogues and price lists, which he will place on file for the inspection of merchants in that country. Mr. Fellet carries on a well conducted printing business at Barranquilla. He also publishes a newspaper, and has the agency for THE PAPER TRADE JOURNAL and other journals emanating from the same publication office.

General Notes.

Thomas Bennett is still confined in the Tombs awaiting trial upon the number of indictments against him in default of the \$5,000 bail required for his appearance.

For the analytical separation of nickel from zinc, Bailstein has proposed the employment of citric acid, because he found that in presence of citric acid and citrates zinc is completely precipitated by hydrogen sulphide, while all the nickel remains in the solution.

To ELECTRO-PLATE PAPER.—This is done by first rendering the paper a good conductor of electricity, without coating it with any material that will peel off. One of the easiest methods is to take a solution of nitrate of silver, pour in liquid ammonia until the precipitate at first formed is again dissolved, then place the paper, or any other fibrous substance or woven tissue used, for one or two hours in this solution.

TREATING OLD BOOKS WITH OZONE.—It is known that ozone, when properly applied, is a most effective and convenient agent for restoring books or prints which have become brown by age, or been smeared or soiled with coloring matter, only a short time being required to render them perfectly white, as if just from the press, and this without injuring in the least the blackness of the ink.

I have the misfortune to have a manuscript before me at this moment that would fill thirty of these pages; and yet, from beginning to end, there is no indication that it is not to be read at a single breath. The paragraph ought to be, and in all good writers it is, as real and as sensible a division as the sentence.

The posted rates to-day are: Sterling 60 days, \$4.86; sterling, sight, \$4.80; cable transfers, \$4.80 to \$4.90; commercial sterling, prime long, \$4.85 1/2 to \$4.84 1/2; commercial sterling, good long, \$4.84 1/2 to \$4.84 1/4; Paris, bankers', 60 days, \$5.16 1/2 to \$5.16 1/4; do, sight, \$5.13 1/2 to \$5.14 1/4; Antwerp, bankers', 60 days, 5.16 1/2 to 5.16 1/4; do, sight, 5.14 1/2 to 5.13 1/2; Swiss, bankers', 60 days, 5.16 1/2 to 5.16 1/4; do, sight, 5.13 1/2 to 5.14 1/4; Reichsmarks (4), bankers', 60 days, 95 1/2 to 95 1/4; do, sight, 96 1/2 to 96 1/4; Guilders', bankers', 60 days, 40 1/2 to 40 1/4; do, sight, 40 1/2 to 40 1/4; and Paris dispatches quote exchange on London at 25 fr. 36 1/2 c.

The foreign advices reported no change in the Bank of England discount rate at the regular weekly court of the Directors on Thursday. The bank gained £801,000 bullion during the past fiscal week, the proportion of reserve to liabilities being 46 1/2 per cent., against 43 1/2 per cent. last week. British consols were steady at 96 1/2 to 96 3/4 for both money and the account. United States 10-40's advanced from 104 1/2 to 105, and reacted to 104 1/2.

THE PAPER TRADE.—The market is unchanged in any important particular since the date of our last review. Fine Writings continue in about the same demand and line of prices. A city dealer received an export order from the Cuban market during the week for a small lot, consisting of 100 to 150 reams of Fines, at 14c. Book papers are also unchanged, either in extent of call or prices. The agent of an out-of-town mill shipped 150 reams No. 1 Book, to Cuba, during the past week, the price paid being 9c. The market for News remains steady, and the quotations are on the basis of 6c. to 6 1/2 c. for Ordinary and 6 1/2 c. to 7c. for Rag. We lately reported that the contract for paper for the Boston Herald had been given to the Montague

than now to select the right books to read. He argued at considerable length on the absolute necessity of confining our ordinary reading to the very best authors, whose books, he complained, were sadly neglected in these days. He indorsed in general a proposal which had been put forth for the guidance of the more thoughtful in the choice of books for constant use, not dwelling on the theory of education underlying it, but simply specifying the method on which it was framed. The authors comprised would not number more than between 100 and 200, representing poetry, history, science and religion. The first thing was to attempt to get together what was best in all the great departments of human thought, so that no part of culture might be wholly neglected or wanting. The next was to gather into one collection the greatest and best books in each department, and such only. Thirdly, the test of the value of the books to be what they say, not the manner of saying it. Save in the highest kinds of poetry, grace of form should not count. Lastly, the verdict to be given by the common voice of mankind.—Printing Times.

SPECIAL NOTICES.

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

FIFTH EDITION. IN PRESS. LOCKWOOD'S DIRECTORY OF THE Paper Trade.

This Directory contains a full and detailed description of every Paper Mill in the United States and Canada.

This Directory is octavo in form, is printed on the finest book paper, handsomely bound in cloth, and as a work of reference is indispensable to every Paper-maker, Paper and Paper Stock Dealer, Stationer, or any one connected with the trade.

LOCKWOOD'S DIRECTORY is the only STANDARD authority of the kind, and is constantly consulted by the Trade in all parts of the country.

PRICE, - - - - \$2.00.

HOWARD LOCKWOOD, Publisher. 74 DUANE STREET, N. Y.

Market Review.

OFFICE OF THE PAPER TRADE JOURNAL, FRIDAY EVENING, Feb. 21, 1879.

THE MONEY MARKET.—The local money market continues to work with great ease, the natural consequence of an excess of loanable funds over the demand. At the close the market was fairly active, and although call loans were done as high as 5 to 6 per cent., the majority of transactions were effected at 2 to 3 per cent. Prime mercantile paper continues in good demand. The best sixty to ninety days indorsed bills receivable are quoted at banks and discount houses 3 to 4 per cent., and four to six months acceptances 4 to 5 per cent., while call loans range from 2 to 3 per cent.

Government bonds were firm, and the demand continues active. Currency 6's advanced to 122. The subscriptions to the four per cent. loan at Washington on Thursday reached a total of \$1,700,000. Private bond dealers report an increased inquiry for 5's and 6's of 1881, which have been notably strong the past week. The Sterling Exchange market at the close was feverish, and sales at anything like reasonable rates were effected with great difficulty. Actual business was at \$4.85 to \$4.85 1/2 for bankers' 60-day bills, \$4.88 for demand, \$4.88 1/2 to \$4.89 1/2 for cables, and \$4.83 to \$4.83 1/2 for commercial.

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Paper Company and William Russell & Sons. The company mentioned took an order for a quantity of paper, but this was a single transaction, and Rice, Kendall & Co., who have held this order for years, have made a time contract for the future supply of paper to the Herald. Wrapping Manillas are no lower, nor is there any improvement in their request. No. 1 still range at 7 to 7 1/2 c., wood as 5c., and bogus from 2 1/2 c. to 3 1/2 c. Straw wrappings continue very much depressed. Large supplies continue to be brought into the market, the only outlet being a limited local demand and a comparatively light export trade. A few small lots were shipped to the Havana market during the week at prices understood to be lower than before quoted in this market for many years. Quite an impetus has been given to the demand for Straw Boards during the past week, and the transactions that have taken place indicate quite an increased activity, and a better feeling among the dealers. The prices ruling range within the line of our quotations. There is no particular change in Binders' Boards, the demand for which continues fair, and prices are tolerably steady.

JUTE BUTTS.—We have to note a quiet Butt market, with sales the past week of about 700 to 800 bales at 2 1/2 c. The general asking price for small lots is 2 1/2 c. to 2 3/4 c., as to quality, with probabilities of shading 2 1/2 c. for a very large parcel of paper quality Butts. Arrivals have been quite free the past week, embracing the Winona, a Boston, 4,500 bales; Kinross, at New York, 3,417 bales; Star of Italy, at New York, 7,857 bales. The bulk of these Butts were bought by manufacturers to arrive, but some parcels may come upon the market.

WOOD PULP.—There is still a fair demand for this class of stock, and business is without any new feature. Prices for Combination and Pulp made by outside parties have undergone no particular change, so far as we have been able to learn, and our former quotations continue.

FOREIGN RAGS AND PAPER STOCK.—The firmness and active condition of business in this market noted in our previous report has been fairly maintained throughout the present week, although generally speaking there has been no further advance in prices. The tendency, however, is towards a further rise. Sales are reported of 50 bales Extra Fine Blue Cottons to arrive at 3 1/2 c.; 50 tons S. P. F. Bremens on private terms; 10 tons London Seconds at 2 1/2 c.; 230 tons Smyrna, Turkey, and Beyrout Rags at 2 1/2 c. to 2 3/4 c.; 25 tons L. Hamburg Papers, and 18 tons H. L. do. both on private terms, and 25 tons L. F. B. to arrive at 4c.

DOMESTIC RAGS.—The market continues very active with a good demand, and stiffening prices. The sales include 25 bales City Seconds at 2c., last week's prices for the same class of stock being 1 1/2 c. to 1 3/4 c.; 25 tons extra City Seconds at 2 1/2 c., and 100 bales No. 2 City Whites at 3c.

BAGGING, &c.—The market continues very steady and firm, and is without any notable change since our last writing. Late foreign advices report a further advance abroad, and a firmer tendency in that market. The sales during the week embrace 15 tons No. 1 Gunny at 2 3/4 c.; 25 tons do. at 2 1/2 c.; 40 tons do. at 2 1/2 c.; 20 tons Mixed Bagging at 2 1/2 c.; 20 tons good No. 2 Gunny at 2c.; 7 tons T Gunny at 2 1/2 c., and 32 tons Manila Rope at 2 1/2 c.; 50 tons No. 1 Gunny at 2 1/2 c.; 20 tons No. 2 do. at 1 1/2 c. to 1 3/4 c., and 15 tons Manila Rope at 2 1/2 c.

OLD PAPERS.—Owing to their scarcity these continue to be held firmly. The transactions reported last week were on a larger scale than during the week previous, and there is considerable inquiry for this class of stock. The sales embrace 30 tons Ledger Stock at 3 1/2 c., 25 tons do. at 3 1/2 c.; two lots, aggregating 55 tons, Book at 3 1/2 c.; and 80 tons Writing on private terms, but believed to have been at about 3 1/2 c.; 30 tons extra Book at 2 80 c.; 15 tons Newspapers at 2 1/2 c.; 25 tons soft white Shavings at 4c.; 20 tons hard do. at 4 1/2 c., and 10 tons Mixed at 3c.

STRAW.—There is a fair demand for good straw, but the recent receipts have been largely of inferior qualities, which are slow to move. The range of price at mills is \$5 to \$6 per ton. New York quotations remain 50 to 60c. for Long Rye, 40 to 45c. for Short do., and 35 to 45c. for Oat, cash.

ROSIN.—Strained is a trifle unsettled, but not quotations changed, with a limited movement. Medium qualities and fine grades continue firm, but there is not so much demand for them. The following are the quotations: C Strained at \$1.55; D Good Strained at \$1.60; E at \$1.70; F Good No. 2 at \$1.80; G Low No. 1 at \$1.90; H No. 1 at \$2.10; I Good No. 1 at \$2.30; K Low Pale at \$2.55; M Pale at \$3; N Extra Pale at \$3.25.

CHEMICALS.—There has been a fair amount of business done during the past week. The market continues very firm, under light stocks. The sales as compared with the previous week show an advance from 1 1/2 c. to 1.45-10c. in Bleaching Powders, a decline of 1/2 c. in Concentrated Alum, and of 5c. in Aluminous Cake; Lump Alum is firm at 2 1-16c., and ground do. at 2 3-16c. Sales occurred within the past week as follows: 100 cks. Bleaching Powders, at 1.45c.; 50 tons Soda Ash, at 1.67 1/2 c.; 50 drums Caustic Soda, 60 per cent., at \$3.75; 30 tons Sal Soda, at 1 1-16c.; 100 barrels Lump Alum, at 2 1-16c.; 50 barrels Ground Alum, at 2 3-16c.; 50 barrels Potash Alum, at 3 3-16c.; 75 barrels Natrona Porous Alum, at 2 1/2 c.; 40 barrels Concentrated Alum at 2 1/2 c.; 25 tons Aluminous Cake, at 1.65c.; 5 cks. Yellow Prussiate, at 22c.; and 5 cks. Scotch Bichromate, at 14c.

COAL.—Since the date of our last there has been an exceedingly quiet market for Anthracite. Seward's Coal Trade Journal says: "Prices are no lower, but the demand appears to have fallen off. It is to be hoped this is only temporary, and that something may be done during the next thirty days to bring the business out of the slough into which it has fallen and give every one concerned in the mining,

carrying and sale, a more stable foundation upon which to conduct their affairs, so that something like a fair profit on the investments made may ensue. The Philadelphia and Reading Company have now perfected all their connections with this harbor, and the coal coming from the region tributary to their lines, is shipped at South Amboy, Elizabethport and Port Johnson. This is moving upon the market which has this city as its centre, with force, and the company have it in their power to make or break prices. Representatives of the company here claim that they are not cutting rates, and merely keep their trade. We notice in a news item the fact that this company has contracted for a large quantity of coal to be delivered at the West, to go in return freight cars. Beyond question the enterprise shown by the management deserves success, and is worthy of imitation. Increase the circle within which Anthracite may be profitably used, and there will soon cease to be a surplus. The dearth of Chestnut here is due to the large trade developed in that size to Western points. There are constant rumors of labor troubles about to be precipitated upon the several Anthracite coal producing regions. Reports from the Eastward show that the retail trade is good; the stocks carried are light. Dealers expect heavy receipts so soon as navigation is open, and freights decline. Considerable coal will be wanted upon the start, and this will take the arrivals for a time, but if the shipments are kept above an average run, the shippers will suffer." Quotations at Hoboken, N. J., are: Lump, \$2.45; Broken, \$2.45; Egg, \$2.45; Stove, \$2.85; and Chestnut, \$2.75. Quotations for Broad-Top semi-Bituminous Coals are: \$3 at Philadelphia and \$4 at South Amboy, N. J. Cumberland Coal is quoted at: Baltimore, \$2.80 to \$3; South Amboy, \$4.25; New York, \$4.35. Clearfield is nominally quoted at \$2.80 at Baltimore, \$3 at Philadelphia, \$4 at South Amboy, and \$4.25 at New York (alongside).

PRICES CURRENT. NEW YORK MARKET.

Table listing various paper products and their prices. Includes sections for Paper Market, Dealers Selling Prices, and Woolen Rags.

Table listing various paper products and their prices. Includes sections for Shavings and Old Paper, English Rags, English Old Papers and Shavings, Hamburg Rags, Old Papers, Leghorn and Genoa Rags, Alexandria Rags, Memel Rags, Trieste Rags, Königsberg Rags, Japanese Rags, Chemicals, Coloring Materials, &c., and BOSTON MARKET.

Rags in this market, and in whites even dealers are beginning to act independent since the failure of the fine paper manufacturers' combination. During the past week there have been arrivals of only 179 bales of paper stock. The longshoremen's strike on the other side of the water is likely to compel our manufacturers to a reliance, for some weeks at least, exclusively on domestics. No. 1 white is held at 44c, for well selected; Boston seconds are held at 34c, and are also scarce. Print papers are in good demand at 13c, and books in large lots sell at 3 1/2c.

Table with columns for Paper Stock, Mill Assorted Whites, Cotton Canvas, Gunny Bagging, etc. Includes prices for various types of paper and rags.

Table with columns for Leghorn Rags, Whites, Blues, Colors, Smyrna Rags, Constantino Rags, etc. Lists prices for different grades of rags and colored papers.

Table with columns for New Papers, Superfine Book, Fine Book, News, Straw, etc. Lists prices for various types of newsprint and book paper.

Table with columns for Chemicals, Alum, English lump, Alum, English ground, etc. Lists prices for various chemical products used in papermaking.

Table with columns for Philadelphia Market, Paper Market, Tlleston Plate, Plate, Super-Calendered, etc. Lists prices for various types of paper and printing materials.

Table with columns for Newspaper Stock, No. 1 Prints, Ordinary Print, Manila Envelope Cuttings, etc. Lists prices for various types of newspaper and printing stock.

Table with columns for Paper Stock, City, No. 1 Whites, Mill Assorted Whites, etc. Lists prices for various types of paper stock.

Table with columns for Chicago Market, Whites, No. 1, No. 2, No. 3, etc. Lists prices for various types of paper and rags.

Table with columns for Foreign Markets, London Market Report, There is again a fair amount of business to be reported for this week, etc. Provides market reports and news for various international locations.

WANTED—BY AN OLD ESTABLISHED HOUSE a salesman conversant with the paper and paper stock trade. To a thoroughly competent and reliable man a good position is offered. Address HOWARD LOCKWOOD, P. O. Box 2,892, New York.

WANTED—A SALESMAN THOROUGHLY well posted in foreign rags and paper stock and an acquaintance with the paper manufacturers. Address P. O. Box 2,897.

A COMPETENT AND EXPERIENCED PAPER-maker who has had long experience in the management of mills, solicits correspondence from responsible parties desiring a capable superintendent. Address, care this office, A. B. C.

A PRACTICAL PAPER-MAKER WHO HAS twenty-five years' experience, including ten years as manager, and who is familiar with the most improved machinery and processes for the manufacture of paper, desires to buy a small interest in a first class paper mill, where his knowledge and experience could be advantageously used as manager or agent. The mill must be unincumbered, well located, modernly constructed, and of sufficient capacity to justify the employment of a thorough practical and business man; the best of reference given. Address MANAGER, Care Paper Trade Journal.

FOR SALE.—PAPER MACHINERY. Two sets Press Rolls, one Stack Calenders, Reels and Continuous Feed Cutter, for a 42-inch Paper Machine. One Making Cylinder, 3' x 6'; one Head & Sisco No. 5 Horizontal Pump, nearly new. Also four Engine Locomotives, 27x30 inches, with stands and lighters complete. Will be sold cheap for cash or approved paper. Apply to ADAMS & CO., Chagrin Falls, Ohio.

FOR SALE. The one-third interest in the Manila flour sack paper mill of Wm. H. Harvey, deceased, will be offered at public sale May 7, 1877. Object of sale to close up the estate. Terms easy and made known on application. Mill running and full of orders. WM. H. HARVEY, Jr., Wellsburg, W. Va. Executor of Wm. H. Harvey, deceased.

PAPER MILLS WANTED. The undersigned is prepared to negotiate for the purchase of the entire machinery, tools and appurtenances of a First-class Cap Paper Mill, a Straw Wrapping, and of a Book and News Mill, but without the land and buildings. Must be in excellent running order, and great bargains. Only principals need communicate with WM. H. DOYLE (OF JAPAN), 168 East Sixty-first St., New York.

PUBLIC SALE OF A LARGE PAPER MILL AND DWELLING HOUSES, At Funkstown, Maryland. THE undersigned will offer at public sale, on the premises, on THURSDAY, APRIL 10, 1877, at from 10 to 3 o'clock, the following valuable property, namely, the large Print Paper-mill property, situated on the Antietam Creek, at Funkstown, Washington County, Maryland, together with six comfortable dwelling houses. THE PAPER MILL is a large four-story brick building, recently erected. The dimensions of the main building are 56x104 feet, with a one-story wing 32x120 feet, all under slate roof. THE MACHINERY—There is one 62-inch Fourdrinier Machine, Gavitt's make; five Rag Engines, Rag Cutter, Duster Vats, Draiser, Stuff Chests, &c., complete; Rotary Boiler and Tube, three Steam Boilers, one 20-horse Steam Engine and one 15-horse Engine. The Machinery can be driven nine months in the year by two large James Leffel's Water Wheels, which are now in running order. The Machinery has only been running a few years, and is all of the most improved patterns and of the first class. THE POWER consists of the Antietam Creek, which runs the water wheels. This creek is one of the finest water powers in this section of country, and the location of this Paper Mill is one of the best on the stream. Whenever the water in the creek gets low the Steam Engines furnish ample power. THE LOCATION of the mill is on the National turnpike, two miles from Hagerstown, which is a railroad center, from which runs competing lines to Baltimore, New York, Philadelphia, and all important points East and West. The Mill is also within a half mile of the Washington County Branch of the Baltimore and Ohio Railroad. THE CAPACITY OF THE MILL is 5,000 pounds a day. The fine buildings and magnificent power render this property well suited for adaptation to many other manufacturing purposes besides a paper mill. In Washington County, in which this mill is situated, wages and the cost of living are far lower than the average. There are also SIX COMFORTABLE DWELLING HOUSES suitable for employees, situated in the town of Funkstown.

THE TERMS—One-fourth of the purchase money to be cash, and the remainder in three equal annual installments, with 6 per cent. interest thereon, payable 6, 12 and 18 months after the sale, the deferred payments to be secured to the satisfaction of the undersigned. GEORGE W. POLE, Treasurer of the Funkstown Manufacturing Company, Hagerstown, Maryland.

MANUFACTURED BY STEAM Crane Bros. PUMPS Mfg. Co., CHICAGO.

Paper Trade Journal - JOB - PRINTING OFFICE, No. 74 Duane Street, NEW YORK.

Estimates Furnished for First-Class Work. PRICE-LISTS, CIRCULARS, LABELS AND ALL KINDS OF JOB WORK Done in Best Style and at Reasonable Prices.

Advertisements. WANTED.—BY A GENTLEMAN OF EXPERIENCE in the paper and paper stock trades, desirous of making a change, a position as salesman with some good house where strict attention to business would be appreciated. Would accept a buying and selling agency for a first-class mill. Undoubted references as to integrity, &c. Address W. care of Paper Trade Journal. SUPERINTENDENT WANTED.—FOR A Manila paper mill near Boston. Must be thoroughly competent, and with good references as to character, capacity and temperate habits. Address P. O. Box 1,101, Boston, Mass.

JARVIS PATENT FURNACE



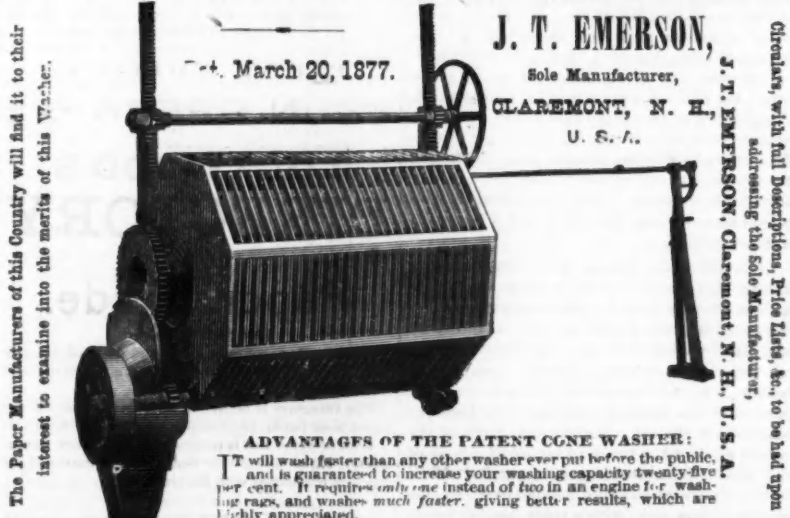
FOR SETTING Steam Boilers.



Economy in Fuel and Increased Capacity. Burns all kinds of cheap fuel without blast.

REFERENCES. Montague Paper Co., Tileston & Hollingsworth, Otsego Paper Co., William Russell & Son, Holyoke Paper Co., F. E. Walker. Send for Circular. A. F. UPTON, Agent, No. 48 Congress St., Boston.

THE PATENT CONE WASHER



ADVANTAGES OF THE PATENT CONE WASHER: It will wash faster than any other washer ever put before the public, and is guaranteed to increase your washing capacity twenty-five per cent. It requires only one instead of two in an engine for washing rags, and washes much faster, giving better results, which are highly appreciated. The water is discharged in a solid, unbroken stream, into a cast-iron spout made in connection with the boxes for driving shaft and drip for pinion gear, all of which are bolted to the side of the Engine, making a very neat and compact arrangement. It reduces expense of wire covering one-half. It can be adjusted to the amount of water at the hydrant. It will wash papers as fast as two common washers, and with two in an engine they are invaluable. It is the best arrangement for washing any kind of stock ever introduced. These Washers are made complete in the most substantial manner, as shown in the cut, and warranted to do all it is claimed for them. They are universal satisfaction.

The testimonials from the leading paper manufacturers of this country are numerous, a sample of which we insert from the well-known manufacturers, CROCKER, BURBANK & CO., of Fitchburg, John T. Emerson, Esq., Claremont, N. H. DEAR SIR—We have got our 500 lbs. or 42 inch Wash Engine started, with one of your Cylinder Washers. We could not pump water enough for it, so closed up the outlet a little. Before the Fire we had this engine and a 30-inch one, with two Phelps Cylinder Washers in each. We can now, with this one 42-inch Engine, make as much paper as we did with both engines before. Truly no paper-maker can afford to be without your Cylinder Washer. Yours Truly, CROCKER, BURBANK & CO., CLAREMONT MFG. CO.

MACHINE MOULDED MILL GEARING, AS ACCURATE AS CUT GEARING AND MORE DURABLE IN USE. Saves Time and Expensive Patterns, SHAFTING, PULLEYS AND HANGERS, A SPECIALTY, LEFFEL TURBINE WATER WHEELS, STEAM ENGINES AND BOILERS, MIXERS FOR FERTILIZERS AND CHEMICALS. POOLE & HUNT, Baltimore.

SCALES AND FOAMING. LYE & ZIMMERLE'S Improved Anti-Incrustation Compound will prevent or remove Scales, and prevent Foaming in steam boilers. It never falls when directions are followed. It will save its cost in repairs, and more than its cost in cleaning, as the scales will dissolve or drop off, and are thus easily removed. It will save more than its cost in fuel. In writing us give number, kind and size of boilers, kind of water and mineral. Send for Circular and Price to LYE & ZIMMERLE, Props. and Mfrs., DELPHOS, OHIO.

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Manufacturers of the Improved IXL Turbine

WATER WHEEL, Guaranteeing Economy and Excellence Unequaled. SHAFING, GEARING AND MILL WORK, FORCE PUMPS, HYDRANTS, &c. Also General and Special Machinery.

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Marble Lime
The best bleaching Lime known for
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Paper.

Especially attention is invited to
our **FOURDRINIER FELTS** for
FAST RUNNING ON NEWS,
which are unsurpassed.

ALSO, TO OUR
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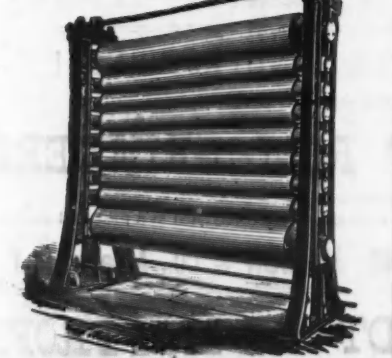
For Fast Running on Cylinder Machines

Which we have perfected within the last few months,
and which is rapidly gaining favor with Paper Makers,
wherever it is used.

EXTRA HEAVY CANVAS DRYER FELTS,
all widths, cut to any length, at Manufacturers' Prices.
WE WARRANT EVERY FELT to work well,
and if it does not, it can be returned.

We also manufacture Blankets, Flannels, Stocking
Yarns of all Colors, and Men's Heavy Wool Socks.
Also, an Extra Heavy 6-4 Scarlet and White
Flannel for underwear, which we guarantee not to
Shrink. All the above we offer to Paper Makers at
the Lowest Wholesale Prices, in quantities to suit.

Very respectfully,
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Germania Ultramarine Works

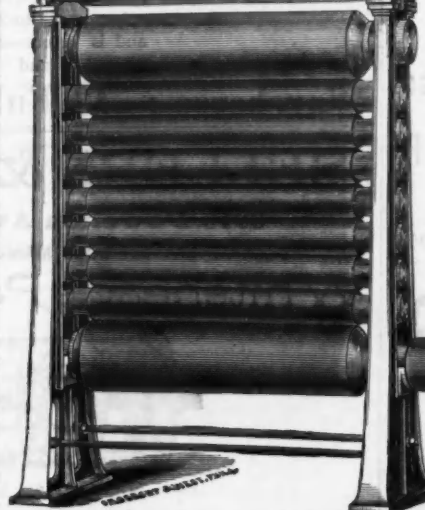
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The undersigned having examined the product herein described respectfully recom-
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This exhibit contains a stack of calender-
ing rolls intended to be part of a complete
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the exceptional merit that the rolls are
not only **GROUND** true but **CAST** by
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(Signed) **JAMES M. WILCOX,**
Signature of the Judge.

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

The vast quantity of iron used daily in the business of this establishment permits the very best selection
for the composition of **CHILLED ROLLS.** The long experience of Mr. Geo. G. Lobdell in making chilled
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CHILLED ROLLS UNEQUALLED IN QUALITY AND GROUND AS PERFECTLY AS ANY OTHERS
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Very Strong,
Works Easy, and
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Send for Catalogues and
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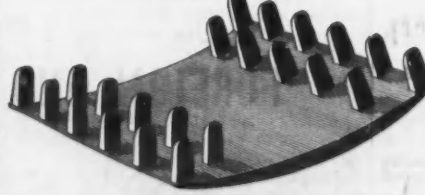


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MINERS AND MANUFACTURERS OF WHITE CHINA CLAY,
Especially adapted to Paper Makers' use.

BELT HOOKS.
The Best Metallic Belt Hook in the
Market for
LEATHER or RUBBER BELTS

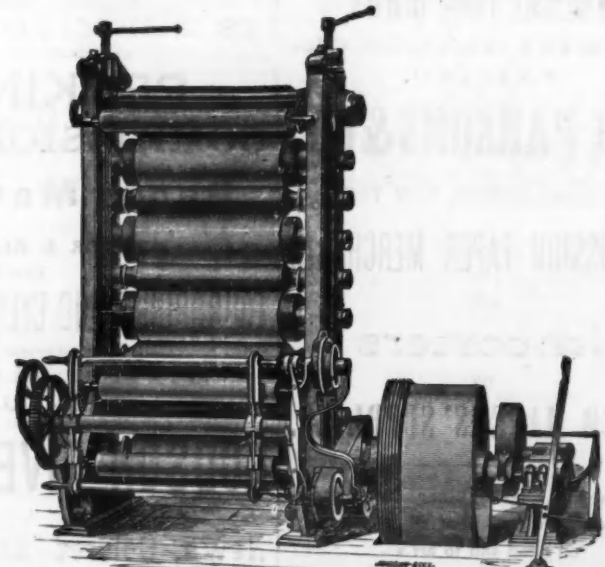


These Hooks have been thoroughly tried for
eight years in all places—in Machine Shops,
Cotton, Woolen and Paper Mills, and all who
use them admit that they are the best and
cheapest fastening in use, taking into account
the Durability of the Hook, wear and tear, and
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MANUFACTURERS OF

IMPROVED PAPER MACHINERY

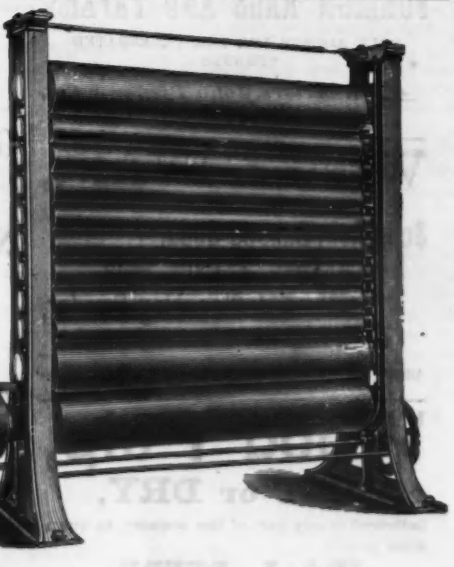


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Our Improved Web Super-Calender is a very complete Machine, heavy and substantial in all its parts,
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Improved Apparatus for Driving Fire-Pumps, Friction Pulleys and
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Rotary Boilers, the journals of which
are turned AFTER the heads have
been riveted in, thus insuring paral-
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portant matter.



The undersigned also call attention to their **CHILLED IRON CALENDER ROLLS,**
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FOREIGN RAGS AND PAPERS.
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Wood Pulp,
WET or DRY,
Delivered in any part of the country, in quantities to suit.
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BRIGGS & TAYLOR,
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HAVE ALWAYS ON HAND AND TO ARRIVE
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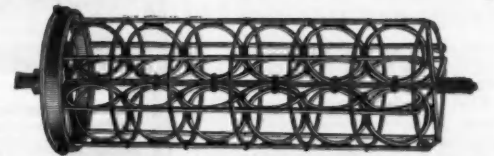
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