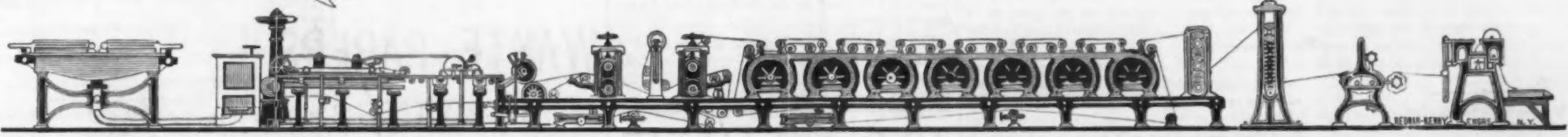


THE PAPER TRADE JOURNAL.



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

VOLUME VII.—NO. 49.

NEW YORK, DECEMBER 7, 1878.

WHOLE NUMBER 210

Trade Topics.

Electric Lighting.

The prominence which the subject of electric lighting has acquired, together with the undoubted value of the results achieved in this direction and the importance of its bearing on manufacturing interests, justifies the publication of some articles of a historical and practical character which treat upon it. The following is taken from a paper by Dr. Paget Higgs, read before the British Society of Arts and published in the *Journal of that society*:

Time was when subjects still in the domain of science were very far from industrial realization; to-day an invention or discovery is in the hands of the investigator in his laboratory; to-morrow it is universally applied, and the world wonders how it ever did without it in its absence. The railway and the telegraph are not very ancient inventions; there are still living many thousands who have traveled by stage-coach and thought ten miles an hour wonderful speed; and the telegraph is not yet a generation old. We all have heard of the telephone. We know that it can be used for five hundred miles or more on a practical telegraph line; two years ago, had we been told that we could hear our friends laughing a day's railway journey distant, we should have regarded our informant as indulging in tall talk. A few months ago many of us had never heard of the phonograph, now we know that we can effectually register speech.

With these precedents, how can we say that electricity, which is even now far removed from the rôle of a mere laboratory aid, may not, in perhaps some such short period, be a means of illumination generally adopted. At the present moment, as far as I know, there is no competition between our present means of illumination, namely, gas lighting, and electric lighting. I use the term no competition, because these two illuminating methods have, at the present time, two distinct fields. Electricity is still at a disadvantage in its application to the lighting of small spaces, or where many small lights are required. Gas is not advantageous in the lighting of large spaces. It might also be said that it is under considerable disadvantages in the lighting of public thoroughfares; and that, when it is employed for the lighting of large engineering or open-air works, it is absolutely ineffective. By its aid, also, it is impossible to distinguish colors, however brilliant or perfect its light may be. It is well known that blue and green—unless the latter be a so-called gas-light green—cannot be distinguished in gas-lighted rooms. Further, even in large inclosed spaces, the use of gas is attended with a deterioration of atmospheric purity prejudicial to health. With the electric light, on the contrary, not only does the light leave the oxygen of the air unconsumed and uncontaminated, but, by generating ozone, it might be said to act as a purifier. That this generation of ozone is not inconsiderable is known to every one who has stood within a few yards of the electric light. For this reason alone we should look forward with increased interest to the probability of electric lighting in its domestic application.

In the course of this paper I shall endeavor to show the relative economies of electric lighting and gas lighting, as applied to manufacturing industries. But electric lighting, supposing that its economy would not be less than that of gas, would still have many and important advantages over gas lighting in certain cases. For instance, the intensity of its light admits of large works of an engineering or constructive character being carried on practically as well by night as by day. No method of gas lighting has yet attained this position. In silk mills, dye works, picture galleries, stores, &c., where to distinguish colors by night as by day enables the manufacturer or vendor to labor continuously, gas lighting must again give place absolutely to electric lighting; for by the electric light scenes are painted, rooms decorated, delicate colors assorted, and looms fed as well as by day. The advantages of the electric light have also been found in ship building, and with ships themselves upon the ocean; it is unrivaled for lighthouse applications, and it promises to afford a means to the submarine diver that daylight itself has not achieved. In the fine arts, it will, undoubtedly, be used to illuminate our picture galleries, as it is now used to light portions of the Louvre at Paris. To photography it has given so much assistance that your sun-picture may be taken by this artificial sunlight at midnight. Of its use in war, in detecting the movements of attacking armies, the course of torpedo-boats, &c., it is unnecessary here to say anything.

The applications thus briefly noted are to be regarded as accomplished facts. In soliciting your attention to the description and details that follow, it is necessary to state definitely and de-

cidely that the application of the electric light to industrial purposes is no longer a commercial idea, but that in consequence of the recent rapid marked improvements in electro-magneto apparatus, electric lighting demands the attention of every manufacturer and constructor, not only as a system of lighting superior to any other in use for his purpose, but because by its results may be had that have hitherto been unattainable.

Electric lighting, as a system for lighthouse illumination and experimental purposes, has been known for some years, but from the large space occupied by the magneto-electric machines, their cost, and the high motor power required to drive them, its practical use has been limited.

Going back to first principles, we have that of magneto-electricity as discovered by Faraday. His experiment with a bar of iron surrounded by a coil or spiral of wire, and the production of electric currents in the coil by approaching to or drawing a magnet from the bar, and the correlative laws, are well known. Pixii, in 1833, constructed the first magneto-electric machine, upon which Saxton and Clarke improved. With these machines an electric current was obtained by causing permanent magnets and coils of wire to revolve with their poles in juxtaposition. Nollet, of Brussels, improved and enlarged Clarke's machine, and modifications of this machine have been constructed by Holmes, of London, and the Compagnie l'Alliance, of Paris. In 1854, Dr. Werner Siemens, of Berlin, improved the revolving coil, giving to all magneto machines with permanent magnets what may be considered, at the present time, as the final step in this description of machine. But electric machines with permanent magnets are disadvantageous in use, because increased dimensions (beyond certain limits) do not give increased electrical results.

Magneto-electric machines (with electro-magnets) of the present powerful construction are due practically to Dr. Siemens and Sir Charles Wheatstone, who, within a short period, independently discovered the principle of accumulation by mutual action. Taking advantage of the fact that iron always has a certain amount of magnetization said to be residual or remanent, these inventors cause a coil of wire to revolve between the poles of an electro-magnet which is in electrical circuit with the coil itself. Starting with the current induced in the coil by the residual magnetism, this current passes from the coil to the electro-magnets, making them more strongly magnetic, and giving rise to still more powerful currents in the coil.

Magneto-electric machines based upon this principle are now in use under two forms of construction. Of these forms, I have only one to show you, namely, the Siemens machine. The machine invented by M. Gramme, of Paris, and extensively used in France, I do not purpose to describe, as the results obtained by both machines are so similar that a description of one will afford understanding of the other. However, in dealing with the question of economy, I shall borrow largely from the published results given by M. Gramme, as aiding to show the advantages of electric lighting from the point of view of two independent sources.

In the latest form of construction of the Siemens magneto-electric machine, the armature, as the revolving coil may be called, consists of several lengths of insulated copper wire coiled in several convolutions upon a cylinder. The whole surface of the cylinder is covered with wire laid on in sections, each convolution being parallel to its longitudinal axis. For about two-thirds of its surface, the wire cylinder is surrounded by curved iron bars, there being just sufficient space left between these curved iron bars and the wire cylinder to allow of its free rotation. The curved iron bars are prolongations of the cores of large flat electro-magnets; the coils of these electro-magnets and the wire on the cylinder (from brush to brush) form a continuous electrical circuit. On revolving the cylinder (which is supported upon a longitudinal axis in suitable bearings, the axis carrying a pulley) an initially weak current is generated into its wires by their passage through the magnetic field formed by the residual magnetism of the iron cores of the electro-magnets, and the current being directed into the coils of the electro-magnets increases the magnetism of the cores, which again induces a stronger current in the wire cylinder. This mutual action may continue until the iron has attained its limit of magnetization. The maximum magnetic power acting upon each convolution is attained at every revolution of the armature when the convolution passes through the centre of both magnetic fields, and gradually falls to zero as the convolution becomes perpendicular to that position. Each convolution has, therefore, a neutral position, and a convolution leaving that position on

the one side of the axis and advancing towards the north pole of the electro-magnet would be subject to a direct induced current, and that portion of the convolution on the opposite side of the axis would be traversed by a current of opposite direction, as regards a given point, but of the same direction as regards circuit.

Each of the sections of wire coiled upon the cylinder consists of two separate coils, leaving four ends; two of these ends are connected to each of the segments of a circular commutator divided into parts. But all the coils are connected to the several segments of commutator in such a manner that the whole of the double sections form a continuous circuit, but not one continuous helix.

Two brushes, placed tangentially to the segments of the commutator, collect the electric currents; these brushes are connected one to each electro-magnet, and the two free ends of the electro-magnet coils are connected to the conducting wires leading to the lamp.

The dimensions, weight, number of revolutions made by the armature, light equivalent in normal candles, and horse-power required for driving, are for three sizes of machines, as follows:

Dimensions in inches.	Weight in lbs.	Revolutions of cylinder.	Candle light.	H. P.
lgh. width. hght.				
25 21 8.8	295	1,100	1,000	1½ to 2
29 26 9.5	419	650	6,000	3½ to 4
44 38.5 12.6	1,279	450	14,500	9 to 10

The lamps which it is preferred to use with the Siemens machine are of a form in which, if the carbons be inserted in their holders, they will, on their points being separated, be brought together again by the gravitation of the top carbon and its holder. The descent of the top carbon actuates, by means of a straight rack it carries at its lower end, a large pinion, the spindle of which carries a small pinion gearing into a second neck attached to the lower carbon holder, the superior weight of the top carbon and holder in conjunction with the multiplying ratio of the two pinions producing a continual tendency of the carbons to approach each other. The large and small pinions are connected to each other and to the spindle that carries them by an arrangement of friction disks, and the object of this construction is to allow of the two racks being moved equally and simultaneously up or down for the purpose of focussing the light when required. This movement is effected by means of a beveled gearing actuated by a milled head which can be pressed into position when required. On the spindle carrying the large and small pinions and the friction disks is placed a toothed wheel connected with the spindle by a pawl and ratchet. This wheel is the first of a train of wheels and pinions driving a regulating fly in the usual way. The pawl and ratchet are provided to allow of the rapid distancing of the carbon holders when it becomes necessary to introduce fresh carbons. The spindle of the fly also carries a small finely-toothed ratchet wheel. This ratchet wheel is actuated by a spring pawl carried at the end of a lever, which lever is the continuation of the armature of the electro-magnet, in such a manner that when the armature is attracted by the electro-magnet the spring pawl engages in the teeth of the ratchet wheel and causes the wheels in gearing therewith to act upon the racks of the carbon holders to draw them apart.

[To be Continued.]

Still Another Fibre.

The *Juncus Gerardi*, a plant which grows on lands subject to the action of salt water tides, has been utilized lately for paper pulp, and its use and treatment are the subject of a patent recently issued. The plant is used in any stage of its growth, but preferably when it has arrived at full maturity, as it then has more fibre and less gum, acids, and other deleterious matters contained in it, and, being fully ripe, the seed-pods burst open and the seeds, falling to the ground, insure another crop for the next season, and also because the seeds are thus got rid of, as they are hard to subdue in the subsequent treatment of the plant for paper pulp, and their presence in the pulp is to be avoided. The *Juncus Gerardi* is put into any open or closed vessel suitable for a boiler, preferably the rotary boiler commonly used in paper mills, and the chemicals are added.

When boiled and washed the fibre is beaten to paper pulp in the usual paper-pulping engines, according to the quality of the paper desired. The pulp thus resulting may then be made into paper composed wholly of the fibres of the *Juncus Gerardi*, or combined in such proportions with any other fibres, such as wood, straw, or other fibre, as the quality desired may require.

Correspondence.

British Notes.

[FROM OUR REGULAR CORRESPONDENT.]

13 PATERNOSTER ROW, LONDON, E. C.
November 21, 1878.

"Business is very quiet." Such was the answer I received from a very extensive paper dealer yesterday. This expresses the state of our trade accurately. Though everything is very "quiet," paper-makers get along pretty comfortably somehow, and don't manage to smash up. Prices keep low, and that is the grand secret of our quietude. They are so low now that business can be done, perhaps, but nothing is to be made out of it. However, there seems to be a general impression that things will improve soon.

There can be no doubt that political influence has had great effect upon trade. People have not known what to do. In war times prices generally rise, and war being very imminent, no sales or business were pushed until the atmosphere cleared. The atmosphere, however, never cleared and hence business could scarcely get on ahead.

We have at last gone to war with Afghanistan, if the affair can be elevated to the distinction of being called a "war." It is highly ludicrous to see the varied accounts of our policy and future prospects from the different journals. Some of them have prophesied that "in the end" we should most likely capture the fort commanding the Khyber Pass! Those are the frothings of our ex-Premier and his party. However, as a matter of fact, within forty-eight hours of war being declared, we were bivouacking in the said fort. But I won't trouble you with the fearful and lamentable trash, in fact, the "hair-brained chatter" of the poor radical press. If we go on as well as we have begun, I think the Eastern question will look more hopeful and things will be better. There are many people, and I think they have some reason on their side, who consider this Afghan war a mere preliminary ruse on behalf of Russia, and that we shall really have to fight the Crimea over again. If this be the case I fear trade will not improve until such a prediction be verified or negated finally. You will therefore see our political outlook is not a very pacific one.

Strikes are the real essential cause of our bad trade. Only this week a band of agricultural ludders have paraded London with a select company of lying impostors and "hair-brained chatterers," to represent their cause. These fellows are gullied by the chairmen, secretaries and other gentry, whose salaries come from the union, and the public are harangued upon every conceivable topic, from Lord Salisbury's poor coat to the price of a policeman's hat, except the topic of the laborer's worth. Every strike is conducted upon the same principle. No sense, all braying. We are now in such a position that it is impossible to get any labor done without first agreeing as to who is master. It is the essential cause of all our trade depression, and our business has been sliding away to the continent, where workmen are more sensible and less fond of drink and laziness, for some years, until we now find our foreign customers of the past our greatest competitors of the present.

Markets—Markets are somewhat firmer this week, although prices are as yet too low to cause any serious demonstration one way or the other. The low quotations cause uncertainty among buyers, who do not want to give a penny more for goods than is necessary. Fibres keep cheap. The demand for rags is moderate, and prices are particularly steady. English rags are fairly cheap, and would pay to stock, let alone consume. Paper-makers are not at all anxious to buy, except at their own figures, which are in accordance with the prices of paper.

Esparto is steady, although prices are unchanged. The inferior qualities are dull and cannot sell even at reduced prices. There is usually a little animation expected this month, but so far there has been disappointment, and no improvement is expected this year. Figures will be found below.

All kinds of pulp are extremely dull, there being no inquiry. Prices are nominally the same, but every inducement is held out to buyers. Straw continues cheap. Both at London and Cardiff the Dutch consignments are sent at 50s. per ton. Several contracts have been effected at prices rather lower than this. Coals continue cheap, with no prospect of rising at present. Chemicals are decidedly dull and quiet. There is no great change in prices.

Mill news is scarce this week. I hear of nothing which, by any stretch of the imagination, can be called interesting.

Beyond the markets I think I can say very little. Business is so dull that there are no nice bits of news and no jokes about at all. I want,

however, to protest against the unnecessary complaints about my prices of rags, which appear in THE JOURNAL. People write me and say: "Will you be so kind as to let us know where we can buy rags at the prices you quote in THE JOURNAL?" Of course I will, and then the people don't buy. It is mean, and very disappointing. Now, once again, I get my quotations of foreign rags from indisputable sources, and indeed sometimes from invoices themselves. There is no trade journal in the world which has more accurate prices current than THE PAPER TRADE JOURNAL, and there are a great many trade journals which have prices that are not ever near the mark. I know some journals in the paper trade which afflict their readers with some ineffable bosh as to market rates every issue.

As an instance I give you, bonâ fide, the following reports specially collected for this week: No. 1 (my usual report) Hamburg rags, N. W. L. C., new white linen cuttings, 26s. 6d.; new cotton cuttings, N. C. W., 25s. 6d.; white linens, L. S. P. F. F., 26s.; do. II., S. P. F. F., 20s. 6d.; do. III., S. P. F. F., 17s. 6d.; do. IV., F. F., 15s. 3d.; white cottons, W. C., 14s. 9d.; blue linen, L. F. B. I., 15s. 6d.; do. II., L. F. B. I., 13s.; blue cotton, 13s.; grey linen, L. G. L. I., 14s. 3d.; do. G. L. II., 11s. 3d.; colored prints, C. P., 10s. 3d.; jute baggings, 7s. 6d.—f. o. b. Hamburg. No. 2 (a strange list), S. P. F. F., 25s. 9d.; S. P. F. F., 21s.; S. P. F. F., 18s.; L. F. B., 15s. 9d.; F. F., 14s. 9d.; L. F. X., 13s. 6d.; C. S. P. F. F., 13s. 6d.; C. S. P. F. F., 13s. 9d.; C. F. B., C. F. X. and F. R., mixed colored cottons, 7s.; jute wrappers, 7s. No. 3 (also strange), S. P. F. F., 26s.; S. P. F. F., 21s.; S. P. F. F., 17s. 9d. to 15s.; L. F. B., 15s. 9d.; No. 2, 13s. 3d.; L. F. X., 14s.; jute, 7s. 3d.

I leave these figures to my readers and ask whether there is any egregious error in my prices had I sent them alone this week without double confirmation.

Esparto.—Spanish, fair to good, 2710s.; best, 28; inferior, 27; new, 26; Oran, good picked, 26 10s.; fair, 25 15s. to 26; Susa, 27 to 27 10s.; 85oz and Gabes, good picked, 25 10s.; fair, 25 5s.; Tripoli, good picked, 25 10s.; fair, 24 15s. Jute cuttings—210 5s. to 211, ex-ship in Thames and Liverpool; jute threads 211, ex-steamers London; Adansonia fibre, 29 15s. to 210 5s., f. o. rail, Hull or Liverpool; palma leaves, Spanish and Algerian, 24 15s., ex-ship London or Cardiff. For shipment palm fibre 10s. per ton less.

Pulp.—Dry pine, 29 to 210; moist pine, 50 per cent., 24 15s., ex-ship Hull or London; dry aspen, 211 10s.; moist aspen, 50 per cent., 25 10s., ex-ship Hull or London.

Chemicals.—At Liverpool delivered into steamer in Mersey: White caustic, 70 to 74 per cent., 212; ditto, 60 to 63 per cent., 29 10s.; cream caustic soda, 60 to 62 per cent., 29; soda ash, 48 to 52 per cent., 1½d., per unit, or 20 less 5 per cent.; bleaching powder, 35 per cent., in hard wood casks, 24 15s.; lump alum, 26; aluminous cake, 23 10s. to 24.

Rosin.—C. D. E. grades American, 25 5s. to 26, ex-ship London; F. G. H. grades, 10s. a ton more.

China clay—Best quality, K. B. mark, 24s. per ton, f. o. b. Cornwall; medium, 20s.; common, 15s.

Ultramarines—50s. to 100s.; blue paste 5½d. per lb.; ochre, 55s.; amber, 70s. per ton in London; aniline dyes, 2s. 6d. to 35s. per lb., according to quality. W. F. C.

Chicago Notes.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, December 2, 1878.

It may seem a little presumptuous for Western paper manufacturers to talk about an export trade with Europe before Eastern manufacturers have fairly considered the matter, but some of them believe the day is not very far distant when they will have an export business. "Instead of shutting down our mills one-sixth of the time," said one, "we ought to find some other markets for our production. There are countries in South America, as well as in Europe and other quarters of the world, with which a trade can be worked up." The West will not wait long for the East to take the initiatory steps in the matter. It already sends paper to New York dealers, and some quite large foreign orders, it is known, have been filled from the products of Western mills.

A visit to the magnificent stores of some of the Western mills in this city impresses one with the extent of their business and the success which they have attained. The balance sheet of 1878, which will soon be struck, will be a very satisfactory one in most cases, showing a considerable increase of business, notwithstanding the national depression of the trade. THE PAPER TRADE JOURNAL had a short time ago illustrated articles on several Eastern paper mills, and I

think its readers will be favored before long with a similar description of some of the prominent Western mills, or their stores in this city.

No marked change is noticeable in the state of trade over that of last week, and it still continues very fair. The paper-bag manufacturers are unusually busy, as are also the paper-box manufacturers.

Retailers report an improvement in their trade in all grades of paper. Wrapping paper especially is in good demand.

A little higher price rules in rags and paper stock, and stock dealers who have held on for a rise are more cheerful than they have been for some time. They claim that in the sales they have made this fall there has been no money, and they have barely been able to hold their own against loss.

Massachusetts Notes.

[FROM OUR REGULAR CORRESPONDENT.]

SPRINGFIELD, MASS., December 6, 1878.

The fine writing paper mills which suspended production by agreement all started up on Monday, and have been busy manufacturing as well as filling orders. The gentlemen who operate mills in this part of the State, and who either reside or have offices in this city, are confident that the movement was a good one. They certainly have not been so confident for months as at present concerning future business. The upward tendency of rags has been checked, and they claim prices will go down.

The price of paper has been materially stiffened, and prices generally are more uniform. Perhaps I should say, to put the thing as it is, the manufacturers' backbones have been stiffened. There was about as much demoralization among them as could get into any branch of business without producing a panic. The buyers had bulldozed the whole crowd, and no one had the least confidence. A sale, not the price, was what they all seemed guided by, and the buyer understood it. The stocks on hand are finding a market, and from time to time will be worked off.

The ownership of the new mill now building in Holyoke by the Newtons is still a mystery. It will be picked up before completed, if it is not now engaged, and will add to the product of lock and super-calendered papers.

I was talking the other day with an old manufacturer concerning the profit of the paper business, and his reply to my inquiry, it struck me, had at least a campaign speech in its belly. I said: "Now, after all, notwithstanding the hard times and the cry of hard times, are not the paper manufacturers making just as much money now as is made in other kinds of business? Does not, in a measure, the small profits now made, brought in comparison with the large prices of years ago, help the manufacturer to believe that he is on the verge of the poorhouse?"

To this the manufacturer replied: "Yes, to a considerable extent. Our feelings and opinions depend largely upon how we figure. If we call our mills worth just as much as we did in flush times, and what they then cost us, the profits are exceedingly small; but when we reduce the value of the mill to present standards of other property, the return is moderately fair, as good as from any other kind of manufacturing. A mill that cost us \$300,000 a few years ago, could now be built for \$200,000. That should be the estimated amount of capital employed, and you will see that would make a difference in the percentage of profits. We should cut our capital down to present value, and consider that we had made a loss by a shrinkage of values in general."

In there not a little good sense in the above? It is not an easy matter to harmonize all the differences that have arisen from the falling off of business. Old-time profits are the feeble shadows of the past; and now is the time to look at things as they are to-day. The new yard stick is not so long. We have struck a new condition—one that will last through the long years that are to come.

Paper is king up here, after all; so much so that all our mayors are in the paper business. Holyoke on Tuesday re-elected Hon. William Whiting Mayor, and Springfield has elected Lewis J. Powers by a handsome majority. Mr. Whiting is an able and popular man in Holyoke, and, further, makes splendid paper. Mr. Powers is the largest dealer in this region. He is thoroughly wide awake and means business. He commenced twenty years ago as a newsboy on the Connecticut River Railroad. To-day he is doing a business of considerably over a half million dollars.

Holyoke Notes.

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, December 4, 1878.

The first half of the shutting-down period expired on Saturday night, and the fine writing paper mills all started up again on Monday morning, according to the terms of the agreement. That all lived up to the letter of the agreement there is not the least doubt. One of our local papers recently made the assertion "that the hard times had at last touched Holyoke, and that the merchants were feeling blue in consequence." The truth of the matter is, that the merchants have felt nothing of the kind. The manufacturers have taken good care that none of their help should suffer through their enforced idleness, and many of the hands have been kept busy at their old wages. Some of the mills have taken advantage of the vacation to make needed repairs, and when the two periods of suspension shall have expired the help will be prepared to enter upon their avocations with earnest purpose.

There exists a large amount of curiosity in this city as to who the future proprietors of the new paper mill, which the Newtons are building on Dwight street, are to be. It was first rumored that Dickinson & Mayo, of Springfield, were to guide the destinies of the new concern, but as these gentlemen disclaim any connection

whatever with the matter the honors are divided between James H. and D. H. & J. C. Newton. Meanwhile work is being rapidly pushed upon the new building and the walls are mounting upward. It has been said, in a joking way, that the mill would be ready for occupancy by the first of January, as the Newtons are apt to push their work along in a lively manner. They have erected one nine-tenement block and twenty cottages this fall.

It is said that Northampton still hopes to retain the Vernon Paper Company within her borders. The plans for the building of the new mill have been forwarded to the company's New York office, but the mill will not be built before next spring.

The Springfield Republican plumes itself on having discovered that THE JOURNAL'S "hints" of three or four new paper mills to go up in this city in the near future, arose from the fact that four plans for a paper mill were in existence in a local architect's office which proved to be for the Newtons' new mill, as they were determined to "get the best." The writer knew of those plans weeks ago, and was also well aware for whom they were intended.

Samuel Snell & Co. are furnishing the new drainer-bottoms for the Massasoit Paper Mill. Snell & Co. are meeting with considerable success in the sale of their goods.

Business has been very brisk of late at Coghlan's Steam Boiler Works. A 50-horse power boiler was lately put into the Franklin Paper Mill. Two digester boilers were recently shipped to A. Hill & Sons, the pulp manufacturers, at Middletown, Ohio. They were 8 feet in diameter, 24 feet long and built of 3/4-inch plate iron, and were the heaviest of the kind in the country. Three large steam boilers and two rotary bleach boilers, of four and five tons capacity each, are being built at these works for D. H. & J. C. Newton, probably intended for the new mill.

The Newtons demolished their lumber mill on Dwight street yesterday to make room for the new building now going up.

This has been a pretty dull week for news, as the annual city election has been under way, and it culminated yesterday in the re-election of Mayor William Whiting, of the Whiting Paper Company, for a second term. Mr. Whiting's majority over his opponent was 920. Mr. Whiting has served the city well during the past year, and his second election is a handsome compliment. I also understand that L. J. Powers, of the Powers Paper Company, was elected Mayor of Springfield yesterday by 300 majority.

C. A. LENDER.

Manufacturing News.

EASTERN STATES.

George Robertson & Son, Hinsdale, N. H., have put in a new 500-lb. engine at their mill.

The Valley Paper Mill, at Franconstown, N. H., has been sold at auction to David F. Grover and Henry J. Perkins, of East Walpole, Mass., for \$5,000. It is said to have cost originally \$50,000.

The work of rebuilding the paper mill of Wilkinson Bros. & Co., at Birmingham, Conn., was begun on Thanksgiving Day by laying the corner-stone on the site of the mill lately destroyed by fire. The projected mill will be more substantial and on a much more extended scale than the old one. The product will be augmented without any material increase in the size of the machines. The firm has taken great care in getting up the specifications and drawings for the mill, and expects to build one of the most complete structures adapted to the manufacture of its special grades of paper to be found in the country, and to continue to maintain the reputation it has acquired.

WESTERN STATES.

The Kalamazoo Paper Company, Kalamazoo, Mich., has reset a 5 foot tubular boiler with the Jarvis furnace, and will burn cheap fuel.

A. Hill & Son, Middletown, O., have ordered from Holyoke two rotary boilers, each 8 feet in diameter and 24 feet long, made of 3/4-inch plate iron. These are said to be the heaviest of the kind in the country.

FOREIGN.

The Stock Company paper mills, at Dettingen, Germany, made a clear profit during the year of 164,629 marks, and a dividend of 15.51 per cent. was declared.

The Dresden Paper Manufactory has declared a dividend on the year of 7 per cent.

Herr Behrend has sold his mill at Cöthen to a company, and will personally conduct his Varszin mill in future.

The paper mill at Puentes Grandes, Cuba, has two 62-inch cylinder machines and a board machine of 36-inch face, four 250-lb. and six 400 lb. engines. They are run by water power, supplied through one 62-inch and two 18-inch "Bodine Jonval" turbines. The larger wheel is used for the engines, and not giving power enough for the purpose is to be supplemented by another, which will probably be a 52-inch Leffel. The total daily output of the mill is about 5,000 lbs. The foreman at this mill is Walter F. Crowson.

General Notes.

The proposals for furnishing a distinctive paper for United States notes and bonds and National Bank notes, and for a distinctive device to be exclusively used in the preparation of such notes and securities were opened at Washington on Thursday. The Secretary of the Treasury designated Comptroller Knox, Treasurer Gillilan, Col. Irish, Chief of the Bureau of Engraving and Printing, Ward Morgan and A. L. Sturtevant as a committee to open and examine the proposals.

J. H. Van Kirk, of 29 Beekman street, this city, who compromised with his creditors one year ago at 75 cents on the dollar, with interest, completed his last payment on December 1.

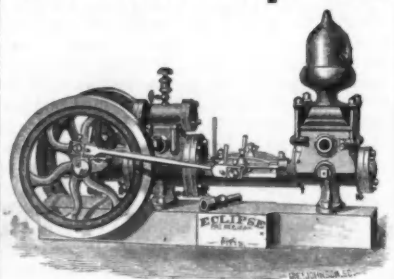
Such an uncommon settlement for these times, and successfully carried out, deserves notice. Mr. Van Kirk represents in this city the celebrated Keith Paper Company, of Turner's Falls, Mass., whose papers have attained a world-wide reputation, and he states that he has received during the last ten days orders for upward of a thousand reams of these papers for export.

The next regular monthly meeting of the Stationers' Board of Trade will occur on Wednesday next, December 11.

Phosphorescent paper, writing or print on which can be read in the dark, is a late invention in Europe.

The Brazilian Government has granted a privilege to Severino Lourenço da Costa Leite for the manufacture of paper from the wild fig-tree.

ECLIPSE Steam Pumps



FOR Paper Mills, Water Works, Boiler Feed or Fire Pumps.

Fifteen Years Experience. Best Workmanship and Finish. Strong Recommendations from Paper Mills now using.

Send for a Catalogue to H. D. MCKNIGHT & CO., 77 First Ave., Pittsburg, Pa.

THE PAPER MAKERS' Monthly Journal.

ORGAN OF THE ENGLISH TRADE. Imperial Octavo.

SUBSCRIPTION AND POSTAGE FOR THE UNITED STATES AND CANADA, SEVEN SHILLINGS PER ANNUM IN ADVANCE.

THE PAPER MAKERS' MONTHLY JOURNAL is the only recognized representative of the Paper Trade in Great Britain; is published under the auspices of the Paper Makers' Club in London, and is the acknowledged means of intercommunication for the Association of Paper Manufacturers of the United Kingdom. It contains authentic particulars of Markets, Trade Matters, Export and Import Returns, Meetings, Deputations, and the affairs of the Trade generally.

MERCHANT, SINGER & CO., PUBLISHERS, 1 and 2 Ingram Court, London, England.

ADVERTISEMENTS. 1 insertion, 12 insertions. One page..... £2 2 0 £2 10 0 Half page..... 1 5 0 13 10 0 Quarter page..... 15 0 8 0 0

TISSUE PAPERS

of the CELEBRATED ENGLISH MAKE Trade Mark, "Mill No. 685," White, Colored and Silver Tissue, manufactured expressly for Jewellers' and Silver-Platers' use; guaranteed not to tarnish or discolor the goods.

Sole Agent, FRED'K W. SMITH, 351 Canal St. N. Y.

F. N. DAVIS, BELOIT, WIS., MANUFACTURER OF PATENT

Paper Barrels & Paper Barrel Machinery, BUILDING PAPER, Heavy Compressed Paper Boards,

Of any thickness, perfectly water-proof, finished and decorated in any size and style to order.

GEARING

HAVING AT GREAT EXPENSE PROVIDED THE MOST COMPLETE APPARATUS

IN THIS COUNTRY WITH PERFECT DIVIDING WHEELS, UP TO 16 FEET DIAMETER. WE ARE PREPARED TO FURNISH

MACHINE MOULDED MILL GEARING,

AS ACCURATE AS CUT GEARING AND MORE DURABLE IN USE,

POOLE & HUNT, BALTIMORE

PAPER STOCK.

FRANCIS DAY,

19, 20 and 21 Prince's Street,

Stamford Street, LONDON, S. E.

EXPORTER OF

WASTE PAPERS, SHAVINGS,

Books and Pamphlets, Rags and Jute Waste,

MANILLA ROPE, BAGGING, &c., &c.

WRITE FOR DAY'S MONTHLY PRICE CURRENT.

Grosvenor, Chater & Co.

68 CANNON ST.,

LONDON, E. C.,

PAPER MAKERS,

Wholesale & Export

STATIONERS.

Superfine Hand-made WRITINGS, DRAWINGS, ACCOUNT BOOK PAPERS,

MACHINE-MADE WRITINGS, Tub-Sized and Loft-Dried, BANK NOTE & LOAN

Printings, Charts and Blottings.

JOHN WHITE,

152 Upper Thames Street, LONDON, E. C.

Paper Makers' CHEMICALS,

Caustic Soda, Alum Cakes, Soda Ash, Mineral White, Soda Crystals, China Clay, Bleaching Powders, Colors, &c.

LATEST MARKET QUOTATIONS.

THE GOTHENBURG COMMERCIAL CO., (LIMITED),

Market Buildings, 29 Mining Lane, LONDON, E. C.

WOOD PULP AND WOOD PULP BOARDS

OF EVERY DESCRIPTION.

FRANK GREEN & CO.,

193 Upper Thames Street, LONDON, E. C.

BRITISH PAPER MAKERS' AGENTS.

Superfine Hand-Made ACCOUNT BOOK, BANK NOTE, AND CHEQUE PAPERS.

Machine-Made Writings, Drawings, Bank Posts, Cartridges, Printings, And all the Best Marks of Paper.

Paper Making and Its Accessories.

BOOKS OF REFERENCE.

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

Table listing various books of reference with authors and prices, including titles like 'Auerbach's Anthracite: Its Constitution, Properties, Manufacture and Derivatives', 'Bairstow's Standard Wages Computing Tables', 'Benson's Principles of the Science of Color', etc.

SEND ORDERS TO HOWARD LOCKWOOD, Box 3893 P. O., New York.

OWEN WARD, Dealer in

Cotton & Woolen Rags

And all sorts of Paper Makers' Materials. Warehouse, No. 448 and 450 West 39th St., New York, Between 9th and 10th avenues.

DIRECTORY.

Cards under this heading will be charged for at rate of \$10 per annum for each card.

NEW YORK HOUSES.

Paper and Paper-Makers' Supplies. ANDERSON, J. F., Jr., & Co., 84 Beekman st. BEEBE, IRA L., 60 Duane st., cor. Elm.

Rags and Paper Stock.

ATTERBURY BROS., 353 & 255 Front st. BRIGGS & TAYLOR, 60 Duane st. BUCHANAN & CO., 38 Rose st.

Paper-Makers' Chemicals and Colors.

HELLER & MERZ, 55 Maiden lane, N. Y. HOFFMANN, W. & CO., Ultramarine, 74 Pine st. RIKER, J. L. & D. S., 45 Cedar st.

Paper-Makers.

ORRS & CO., Printing and Hanging Mills at Troy, Office, 39 Park Row, New York.

Jute Butt Brokers.

CABOT, BOWLES & CO., 85 Beaver st.

Straw Boards.

BUTTERFIELD, H. A., 548 Pearl st., near Broadway. HAYES, JAMES E. & CO., 75 Duane st.

OUT OF TOWN HOUSES.

Belt Hooks.

TALCOTT, WALTER O., Box 680, Providence, R. I.

Binders' Boards.

SHEEDER, J. FRED., Mfr. of Album, Binders', Trunk and Button Boards, Kimberlin, Pa.

Paper Bags and Flour Sacks.

RAYMOND BAG CO., Mfg. Raymond Pat. Machine-made Paper Flour Sacks, Cincinnati, O., Dubuque, Ia.

Paper Makers' Chemicals and Colors.

BLANCHARD, J. HENRY, Chemicals and Wood Pulp, 36 Battery March st., Boston, Mass.

Paper-Making Machinery.

HOLYOKE MACHINE CO., Holyoke, Mass. SMITH, WINCHESTER & CO., South Windham, Ct.

Paper Manufacturers.

JERSEY CITY PAPER CO., White and Colored Tissue and Manila Paper, 285 Wayne st., Jersey City, N. J.

Paper Plates and Oyster Pails.

AULABAUGH, CRUME & CO., Dayton, Ohio, Make a Specialty of Paper Oyster Pails.

Rags, Paper and Paper Stock.

ELLIOT, A. G., Paper & Paper Stock, 26 S. Seventh st., Philadelphia. MALL, WM., & CO., Wool Stock & Mfg. of Shoddy, 25 No. Front st., Philadelphia.

MARKER, JOHN D. & SONS, Wholesale Dealers in Rags, 413 Commerce St., Philadelphia. WALSH, D. J., & CO., 6 South Front st., Philadelphia.

SIMMONS, JOHN, Wholesale Dealer in Paper and Rags, 30 & 32 Decatur st., Philadelphia. BAKEWELL, ALLAN C. & CO., Printers' Supplies and Paper Warehouse, 59 Wood st., Pittsburgh, Pa.

BLOCK & POLLAK, Paper Stock, 206 to 208 West Third st., and 39 to 57 McFarland st., Cincinnati, O. BUTLER, THOMAS, Dealer in Paper Stock, Woolen Rags, &c., 349 Causeway st., Boston, Mass.

FRANZEN, WM., Wholesale Paper, Paper Stock and Woolen Rags, 60 Oneida st., Milwaukee, Wis. 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, 61 & 63 South Jefferson st., Chicago.

MCARDLE & HART, Cotton and Woolen Rags and Paper Stock, Newburg, N. Y.

Rags, Paper and Paper Stock—(Continued).

MARKLE, C. P. & SONS, Mfrs. of Printing and Glazed Hardware, 126 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. LANEY, JAMES, Dealer in Paper and Paper Stock, Cotton and Woolen Rags, Rochester, N. Y.

HARRIS, M. & BROS., 493 & 495 Fifth av., Chicago, Ill. Branch Houses: Dubuque, Ia.; Burlington, Ia. B. FELSETHAL & BROS., Paper, Rags, 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.

Straw Boards and Straw Wrapping.

TUCKER, E., SONS, Straw Boards, Paper and Paper-Box Machy, 100 Trumbull st., Hartford, Ct.

Wire-Cloth Manufacturers.

STANDARD WIRE WORKS, Belleville, N. J.

Wood Pulp Board.

McCANN, FITCH & CONVERSE, Chicago, Ill. Sole Agents for "Androscochia Wood Pulp Board."

FOREIGN HOUSES.

Wood Pulp and Wood Pulp Boards.

THE GOTHENBURG COMMERCIAL CO. (Limited) Market Buildings, 29 Mincing Lane, London, Eng.

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 Nov. 29, 1878. Quantity given in packages when not otherwise specified.

Table with columns for item name, quantity, and value. Includes Aniline Colors, Alum, Alumious Cake, Bleaching Powders, Soda Ash, Soda, Soda, Scl., Ultramarine, Books, Newspapers, Engravings, Ink, Lead Pencils, Paper, Steel Pens, Stationery, Clay, Jute Butts, Jute Rejects, Paper Hangings, Paper Stock, Waste.

TOTAL IMPORTS.

Table showing total imports for General Merchandise, Paper, Paper Stock, &c. for various periods from Nov. 29, 1878, to Nov. 22, 1878.

Special List of Imports of Paper Stock at the Port of New York for the month ended Nov. 30, 1878.

Table listing specific paper stock imports from various manufacturers like Briggs & Taylor, Bulkley, Dunton & Co., Clark, W. L., etc., with columns for quantity and value.

IMPORTS of Rags and Paper Stock at the Port of New York, since Jan. 1, 1878, from the following Ports, showing quantities from each Port.

Table showing import quantities of Rags, Paper Stock, Manila Stock, Bales, and other items from various ports like Alexandria, Antwerp, Bremen, and Bristol.

Rags, Paper Stock Manila Stk

Table listing import quantities for Rags, Paper Stock, and Manila Stk from various ports like Calcutta, Cardiff, Catania, Copenhagen, etc.

EXPORTS of Paper, Books, &c., from the Port of New York to Foreign Ports, for the week ended Dec. 3, 1878, with Aggregates and Values.

BOOKS, cases, to Bremen, 1; to Liverpool, 15; to London, 4; to Honduras, 4; to Australia, 44; to United States of Colombia, 16; to Mexico, 6; to China, 4.

PAPER, to Bremen, 25 cs.; to London, 49 pkgs.; to Guiana, 1,000 rms.; to British West Indies, 871 rms.; to Honduras, 135 rms.; to Australia, 8 cs.; to Cuba, 15,000 rms.; to Hamburg, 3 cs.; to Brazil, 910 pkgs.; to Porto Rico, 4,430 rms.; to United States of Colombia, 130 rms., 63 pkgs.; to Mexico, 32 cs.

AGGREGATES AND VALUES.

Table showing aggregate values for Paper, Paper cases, Books, Stationery, etc., with totals.

TOTAL EXPORTS.

Table showing total exports for General Merchandise, Paper, Paper Stock, &c. for various periods from Dec. 3, 1878, to Nov. 26, 1878.

NEW YORK IMPORTS.

FROM NOV. 29, 1878, TO DEC. 6, 1878, INCLUSIVE.

Geo. Stratford, E. W. Stetson, London, 104 bs. old rope junk. Briggs & Taylor, by same, 264 bs. cotton rags. W. O. Davey & Son, by same, 68 bs. paper waste. W. I. Clark, Holland, London, 33 bs. paper stock. Briggs & Taylor, by same, 108 bs. cotton rags. W. H. Parsons & Co. by same, 43 bs. paper stock. Briggs & Taylor, State of Pennsylvania, Glasgow, 141 bs. rags; 30 bs. old rope. John W. Mason & Co., D. Steinmann, Antwerp, 56 coils old rope. W. H. Parsons & Co., New World, London, 104 bs. paper stock. W. O. Davey & Son, by same, 34 bs. rags. W. H. Parsons & Co. by same, 34 bs. rags; 303 bs. paper stock. Jos. Libmann, Rhein, Bremen, 70 bs. paper stock. Hy. Eggers, Hansa, Bremen, 38 bs. rags. Lewy Bros., by same, 7 bs. jute rags. Cohn, Lazarus & Co., Otranto, Hull, 222 bs. cotton rags. S. Webber Parker, by same, 69 bs. linen rags. Lewy Bros., by same, 311 bs. linen rags; 110 bs. jute rags. Fett & Sengstak, by same, 90 bs. rags. Hagemeyer & Brunn, by same, 26 bs. cotton rags. Recknagel & Co., H. G. Johnston, Hong Kong, 104 bs. rags. S. Webber Parker, Wyoming, Liverpool, 28 bs. manilla. M. A. Ring & Son, State of Nevada, Glasgow, 45 bs. paper stock. J. W. Mason & Co., Bothnia, Liverpool, 321 bs. old rope. Paper. B. Ilfelder, Rhein, Bremen, 1 cs. P. Fanelly, by same, 1 cs. Porter & Bainbridge, Wisconsin, Liverpool, 1 cs. L. de Jonge & Co., City of New York, Liverpool, 4 cs. Fischer & Keller, Abyssinia, Liverpool, 1 cs. hangings. J. A. Roy & Co., Republic, Liverpool, 1 cs. Boorun & Pease, Herder, Hamburg, 10 cs. B. L. Solomon & Co., by same, 4 cs. hangings. May Bros, by same, 4 cs. hangings. H. Bainbridge & Co., Canada, Havre, 5 cs. F. J. Emerich, by same, 1 cs. A. Haug & Co., Bothnia, Liverpool, 11 cs.

PHILADELPHIA IMPORTS.

Books. T. & J. W. Johnson & Co., Indiana, Liverpool, 2 cs. J. B. Lippincott & Co., by same, 2 cs. Claxton, Rensen & Haffelfinger, Juniata, Savannah, 1 cs. Paper. J. C. Copper & Co., Vaderland, Antwerp, 2 cs. T. S. Scott, Juniata, Savannah, 1 roll.

Paper Stock.

Ashworth & Coates, Juniata, Savannah, 15 bs. Cowen & Son, by same, 1 bs. Burr Bros., by same, 7 bs. rags.

Soda Ash.

Order, Gustave, Newcastle, 254 cks. Order, Ranovola, Newcastle, 122 cs. Order, Indiana, Liverpool, 99 cks.

Soda Crystals.

Order, Gustave, Newcastle, 1,334 cks. Order, Ranovola, Newcastle, 1,190 cks.

Caustic Soda.

Geo. T. Lewis & Menzel & Co., Indiana, Liverpool, 100 drums. Order, by same, 100 drums.

BOSTON IMPORTS.

FROM NOV. 28, 1878, TO DEC. 5, 1878, INCLUSIVE.

Books.

W. G. Farlow, Bavarian, Liverpool, 1 cs. Harvard College, Brazilian, Liverpool, 1 cs. E. A. Snow, Victoria, Liverpool, 1 cs. N. J. Bartlett, Massachusetts, Liverpool, 1 cs. C. Schoenhof, by same, 1 cs. E. A. Snow, Pembroke, Liverpool, 1 cs. pamphlets.

Paper Stock.

H. M. Knowles, Pembroke, Liverpool, 50 bs. paper stock; 118 coils rope. J. A. Bacon, Bavarian, Liverpool, 23 bs. paper stock. S. D. Warren & Co., Massachusetts, Liverpool, 210 bs. rags. Warren & Co., by same, 87 bs. paper stock. Train, Hosford & Co., by same, 286 bs. rags. S. D. Warren & Co., Livadia, Lehigh, 100 bs. rags. E. T. Russell & Co., Ida May, Argyle, 3 cwt. rope. S. A. Conroy, Carrol, Halifax, 70 cwt. paper stock.

Soda Ash.

Warren & Co., Massachusetts, Liverpool, 140 cks. J. L. & D. S. Riker, Illyrian, Liverpool, 35 cks. refined alkali.

Caustic Soda.

Warren & Co., Massachusetts, Liverpool, 100 drums. Linder & Meyer, Illyrian, Liverpool, 50 drums.

Bleaching Powder.

Morey & Co., Bavarian, Liverpool, 148 cks. Warren & Co., Massachusetts, Liverpool, 436 cks. J. D. & L. S. Riker, Illyrian, Liverpool, 53 cks.

Salt Soda.

Warren & Co., Massachusetts, Liverpool, 280 bbls. Train, Hosford & Co., Illyrian, Liverpool, 526 bs.

Hide Cuttings.

Train, Hosford & Co., Illyrian, Liverpool, 526 bs.

OHIO FELTS.

FOURDRINER AND CYLINDER WET FELTS,

Press Felts and Jackets,

MANUFACTURED BY SHULER & BENNINGHOVEN,

Hamilton, Ohio.

STEAM PUMPS

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

SMITH, WINCHESTER & CO.,

South Windham, Conn., MANUFACTURERS OF

PAPER MACHINERY

CONSISTING OF FOURDRINER AND CYLINDER MACHINES,

Washing and Beating Engines.

AIR-DRYING MACHINERY

FOR DRYING SIZED PAPERS.

Sole Manufacturers of the

JORDAN PATENT BEATING ENGINE,

Which has no rival for clearing the stock for fine papers.

CHILLED IRON & PAPER ROLL SUPER CALENDERS.

Plate Calenders. Chilled Stack Calenders, Rag Cutters, Hand and Power Cutting Presses, Stop Cutters.

THE HATCH PATENT Stop Cutter,

The only Cutter that can be regulated to cut between water marks of writing papers.

SCREENS,

BRASS AND NICKEL PLATED. The latter warranted to wear twice as long as brass.

BED PLATES, ROLL BARS, FAN AND PLUNGER PUMPS.

Gun Metal Covered Rolls.

FOR SIZE AND PRESS ROLLS. STEVENSON

WATER WHEELS.

Shafting and Mill Gearing Generally.

JERSEY CITY PAPER CO.

Manufacturers of WHITE AND COLORED TISSUES.

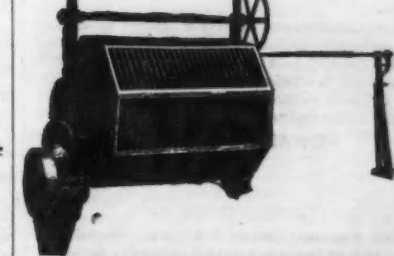
Grass Bleached Silver Tissue A SPECIALTY.

Warranted not to tarnish silver. ALSO Manufacturers of MANILLA and ROPE PAPER. Office and Mill, 285 WAYNE ST., JERSEY CITY, N. J.

HARRIS-CORLISS ENGINE.

Built by WM. A. HARRIS, PROVIDENCE, R. I. The best and most workmanlike form of the CorliSS Engine now in the market, substantially built of the best materials, and in both Condensing and Non-Condensing forms. The Condensing Engine will save from 25 to 35 per cent. of fuel, or add a like amount to the power and consume no more fuel. Small parts are made in quantities and interchangeable, and kept in stock for the convenience of repairs and to be placed on new work ordered at short notice. No other engine builder has authority to state that he can furnish this engine. The Only Works where this engine can be obtained are at Providence, R. I., no outside parties being licensed. Send for pamphlet containing full details, also list of sizes, with a P. For the convenience of Western parties meaning business, and wishing to confer with me at any stated time at their mill or works, I will visit them, by receiving notice, and giving me latitude of two to four weeks. Those visiting New York and wishing to confer with me there by appointment, will find me or my agent every Wednesday (or Thursday if so stated in appointment), at H. T. Brewster's office, 37 Liberty St.

WM. A. HARRIS, Prop'r.



THE PATENT CONE WASHER

Patented March 30, 1877.

ITS ADVANTAGES:

It will wash faster than any other washer ever put before the public and 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 pinion 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, and warranted to do all that is claimed for them. The Washers, or further information, with testimonials, will be furnished by the sole manufacturer, J. T. EMERSON, Claremont, N. H.

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, DEC. 7, 1878.

Advertisements cannot be received for insertion in the current week later than 9 A. M. on Friday.

This 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.

Communications on matters of interest to the trade are earnestly solicited from all quarters, and if used will be liberally paid for.

HOWARD LOCKWOOD, Publisher and Proprietor, No. 74 Duane street, N. Y.

BRANCH OFFICES.

New England Office: J. F. RIDAY, General Manager, 28 & 29 BROWNFIELD STREET (Wesleyan Building), Boston, Mass.

FOREIGN GENERAL AGENTS.

W. F. Catchside, 11 Paternoster row, London. P. D. Orris, 29 rue Tronchet, Paris.

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.

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.

THE Papier Zeitung has been following up a project for making the ream of paper contain 1,000 sheets, instead of, as hitherto, 480, 500, or any other number between those figures.

If "the consumption of paper is the measure of a people's culture," we may say that the choice of paper-makers for public office is indicative of electoral intelligence.

of Holyoke, and the selection of L. J. Powers as Mayor of Springfield. These are two prominent instances of the advantages of intelligence, honesty and business capacity happily placed.

In deference to the request of several of our subscribers, we have taken up the subject of the electric light, and begin in this issue one of a series of articles by persons who have considered it.

THE EAST INDIAN Government is devoting some attention to the encouragement of the cultivation of the agave plant, which is very easily converted into paper pulp.

CONFUSION of authorities leads to uncertainties, and another instance of the diversity of legal opinion on a subject of quite common interest is given to us.

THE American Stationer is sustaining its well-earned reputation as a first-class trade newspaper. It contains correspondence every week from all the chief centres of trade, and is by far the most widely circulated journal in its line.

The Stationer its rates for advertising are very moderate.

PAPER STOCK IMPORTS.

The total imports of rags and paper stocks at the port of New York during the month ended November 30, as reported, were 11,564 bales, a decrease from the corresponding month of last year of 2,775 bales, and an increase compared with November, 1876, of 3,965 bales.

Table with 3 columns: Item, 1878, 1877, 1876. Rows include Rags, Old Papers, Manila Stocks, and Totals.

The arrivals from the different ports were as follows: London, 565 bales rags, 2,619 bales old papers, 2,106 bales Manila stocks; Liverpool, 505 bales rags, 600 bales paper stock, 625 bales Manila stocks; Hull, 579 bales rags, 62 bales paper stock, 327 bales Manila stocks; Bremen, 38 bales rags, 87 bales paper stock, 144 bales Manillas; Glasgow, 184 bales rags, 183 bales paper stock, 254 bales Manillas; Hamburg, 212 bales rags, 74 bales paper stock, 111 bales Manillas; Calcutta, 602 bales rags; Bristol, 230 bales Manillas; Hong Kong, 7 bales rags; Konigsberg, 1,394 bales rags, and Antwerp, 56 bales Manillas.

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.]

The Electric Light.

Boston, December 5, 1878. To the Editor of The Journal: I have noticed your remarks on the electric light, and will give you some results of my observations of how it is working in this vicinity.

Table with 4 columns: Machine, Lights, Cost, H. P. Required. Rows include 1,000 candle power, 2,000 do., 4,000 do., 12,000 do., 21,000 do.

Carbon cost 2 cents per inch. The machines may be run by a belt from the shafting, requiring a speed of from 800 to 900 revolutions per minute.

Wm. Wallace & Sons, Ansonia, Conn., manufacture the electro-magneto machines, as also the special lamps, all the wire needed for the circuits, &c., and, to reduce the cost of their power, have decided, after a trial, to set their boilers over with the Jarvis furnace, now in use in many paper mills.

Wm. Wallace & Sons, Ansonia, Conn.; Merrimac Manufacturing Company, Lowell, Mass.; Washburn & Moen Iron Works, Worcester, Mass.; Boston Music Hall; Freeland, Loomis & Co., Clothing House, Boston; Farwell Foundry, Ansonia, Conn.; Conant Thread Company, Pawtucket, R. I.; Waltham Cotton Mill, Waltham, Mass. READER.

Straw Wrapping Again.

New York, December 2, 1878. To the Editor of The Journal: In an article of Mr. Scribner's, published in THE JOURNAL a few weeks ago, he averred that he understood logic as well as paper-making.

assertion to that effect; for in all his articles published in your journal, I have failed to find anything amounting to a sensible discussion of a very important subject, viz., What will best subserve the interests of the straw-wrapping manufacturers and the straw-wrapping trade?

I hoped to find in his reply to a recent letter of mine some exhibition of the boasted ability of his "cultivated brain," but, as yet, his "skilled fingers" have failed to record it.

In place of argument I observe a feeble attempt at ridicule, a rehash of the thousand-times told tale of Rip Van Winkle, with which every six-year old girl and boy in the land is as familiar as they are with their A B C; an attempt which seems as dull as his perception of what is the best and most practical way of profitably disposing of the product of the straw-wrapping mills, and only serves to make the assumed logician more ridiculous than he was before.

I am confident a "fast-ripening world"—(is our friend a spiritualist?)—will find Mr. Scribner dropping from its stem ere he shall succeed in getting proselytes enough to adopt his impracticable schemes to make them at all formidable to the commission dealers.

These ambitious "cheap Johnnies" are thus enabled to destroy all the retail profit (a very important one) on paper by the aid of the few thoughtless hawkers of their own products who stupidly think they have done a smart thing in selling the wholesale grocer a carload of paper for eighteen cents per ream that the commission men would easily have obtained twenty cents per ream for if the manufacturer had been at home at work in his mill instead of hovering around New York cutting his own and his neighbor's throat financially.

Such action can lead to but one result, the constant cutting down and keeping down of prices, almost or quite ruining the maker, and so curtailing the profits of the commission-man that it is next to impossible for him to secure a decent subsistence by his most arduous exertions.

The paper-maker, however ambitious he may be to do so, cannot individually sell promiscuously to con-uners and others all his product, unless it is some maker like Mr. Scribner, whose whole yield is insignificant, and, if he cannot sell all, he should studiously avoid selling any.

Makers must study more carefully the wants of the paper market, must be sure not to shove along supplies that will overtake demand and consequently continually weaken prices.

A few more words for Mr. Scribner from this "newly-awaked writer." His consistency is as invisible as is his logic. He says: "My sales now net me more than 30 per cent over my last returns on commission," and yet begs H. L. K. to give him orders for the "very brightest and best, well dried and gilt-edged, overlaid and underlaid with native gilt" (ye gods what a flight on logical wings is that) "for \$1.75 per 100 lbs."

Of him I can only say, in conclusion, "Ephraim is joined to his idols, let him alone." But I will relate a little story of Ephraim for his further benefit. A clergyman (I don't mean you, friend Scribner) found himself severely criticised by his old sexton, who told him his sermons were dull, lacked unction and zeal, were failing to interest and awaken his parishioners to conviction and conversion, and he should change his course at once.

The sexton contended that he could draw as good an inference as his reverence, and defied him to test him. The clergyman gave him the following text: "Ephraim feedeth on the wind and runneth after the east wind," and triumphantly demanded the listening sexton's inference from such a passage.

Changes, Removals, and New Firms.

S. M. Wherry, publisher of the American Volunteer, Carlisle, Pa., has sold out. Torrey Bros., paper manufacturers, West Cummington, Mass., have sold out.

Failures.

Azline Hubbell, paper dealer, New York city, has made an assignment. Wm. Everdell's Sons, printers, New York city, have made an assignment.

A dividend has been paid this week to the creditors of Adams, Mansur & Co., Indianapolis, Ind. A dividend is expected to be paid this week by John R. Walsh, the assignee of W. B. Kean, Cook & Co., of Chicago. It is estimated that the assets will realize about 30 per cent of the original second fifty cents upon which they defaulted.

Chattel Mortgages.

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

Table with 3 columns: Mortgagee, Amount, Location. Rows include J. Goodenough, W. J. Johnston, A. F. Hunt, J. S. Weller, F. W. McClintock, J. S. Stanger, I. A. J. Lukins, M. J. & P. C. Brown, J. B. Jeup.

Fires.

Alois Podrasnik, stationer, Chicago, Ill., has been burned out.

Personals.

A. F. Blair, late proprietor of the Gavit Paper Machine Works, of Philadelphia, Pa., died in that city last Tuesday morning, of pneumonia.

In Town.

John Keith, Turner's Falls, Mass.; Murray Crane, Dalton, Mass.; Geo. W. Knowlton, Jr., Watertown, N. Y.; L. C. Woodruff, Buffalo, N. Y.; P. W. Hudson, North Manchester, Conn.; S. Q. Porter, Unionville, Conn.; C. E. Wheelwright, Providence, R. I.; Geo. W. Wheelwright, Jr., Boston, Mass.; Chas. Benton, Lee, Mass.; H. B. May, Lee, Mass.; Danl. Alexander, Mill River, Mass.; Geo. L. Wright, Jr., Mittineque, Mass.; O. Woodworth, New London, Conn.; H. Woodworth, New London, Conn.

A Visit to a Japanese Paper Mill.

The street of Aotabi was lined with innumerable boards on which fresh-made paper was hung to dry, or cocoons were ready for reeling. The inquisitive villagers followed us to the house of the paper-manufacturer, to study our behavior on being received by the important man of business.

brought in by a young girl of some thirteen years, and she, after placing a small lacquered vessel with burning coal on a stand, also kneel down. In a few moments she returned with small cups of tea and a small tray on which was a white sheet of paper with preserves. Our host was a fat, loquacious Japanese. His ancestors for six hundred years had lived in the same village and carried on paper making from father to son.

We next had to visit the paper mill, which interested me before everything else. On the other side of the house was a large yard in which a dozen of boys and girls were seated round large heaps of the branches of the paper mulberry tree (Broussonetia papyrifera), from which most Japanese paper is made, and which is found growing on every hill. The tree does not grow over six or eight feet in height, and is, therefore, more a bush than a tree.

New Patents.

No. 209,394. Wall Paper Trimmers.—Russell S. Hill, Maquon, Ill., assignor of one-half his right to John P. Randall, same place.

ANOTHER TRADE-MARK DECISION.—In a trade-mark case decided by Judge Trigg in the United States Circuit Court, at Knoxville, on Wednesday, the A. Q. Simmons Liver Medicine Company were perpetually enjoined from using the name "Simmons" or "A. Q. Simmons" on any label or trade-mark.

R. F. Newcomb, the enterprising owner of the Gem City paper mills, at Quincy, Ill., has issued a photograph and show card of his mill. This is handsomely framed in walnut, and is only another illustration of the energy and enterprise which Mr. Newcomb lately exhibited in overhauling his mill and bringing it up to the best standard for the manufacture of his well-known specialties of straw board, wrapping papers and building felts.

Pure alumina dissolved nearly to saturation before the blowpipe in an acid flux, such as a bead of phosphoric acid, invariably causes that to assume a pale but beautiful sky blue on cooling. In an alkaline flux, such as a bead of boric acid containing sufficient soda to dissolve it to saturation, alumina causes the bead to assume a pale red color on cooling.

SPECIAL NOTICES.

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

Fourth Edition---Now Ready

LOCKWOOD'S DIRECTORY OF THE Paper Trade. 1878.

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

Market Review.

OFFICE OF THE PAPER TRADE JOURNAL, FRIDAY EVENING, Dec. 6, 1878.

THE MONEY MARKET.—The monetary situation is little changed. The rates on call loans during the greater part of the week were three to four per cent., but toward the close the market manifested somewhat of a hardening tendency, and as high as 6 per cent was paid, but subsequently at the close when the requirements of borrowers were supplied the market again became easy.

Government bonds were very strong during the greater part of the week, and advanced 1/4 to 1/2 per cent., the issues of 1881 appearing to be the favorites. The market closed rather dull, but generally steady. The marketing of the popular 4 per cent. loan progressed very favorably, and enabled the Secretary of the Treasury to issue a call for another \$5,000,000 of the 5-20s for redemption, the interest on which will cease February 27, 1879.

Gold was run up to 100 1/2 on Saturday by the "bear" clique, who had been manipulating the gold market during the week preceding, in the expectation of unsettling confidence in permanent resumption, and with the object of making money artificially stringent so that the stock market might be unfavorably influenced, and falling in its design the premium resumed its former steady position, the range of which has since ruled at 100 1/2 to 100 3/4. The highest and lowest prices of gold during the corresponding week last year were 103 and 102 1/2. The following are the quotations for the week:

Table with 5 columns: Opening, Highest, Lowest, Closing, and a date column. Rows for Nov. 30 and Dec. 2.

The Sterling Exchange market was dull and without any special feature of interest. The scarcity of cash gold the latter part of the preceding week, and the flurry also in this article on Saturday, had a slight tendency to weaken sterling, but the week closed with a very steady market, neither of these causes producing any effect upon it.

THE PAPER TRADE.—There is no very great animation noticeable in the market at the present time, nor is there on the other hand any stagnation. This is a period of the year when neither manufacturers nor dealers look for any large amount of activity.

OLD PAPERS.—There is nothing new to record in this market. The transactions are not quite so numerous, yet there is a fair amount of business doing. We hear of a sale of 15 tons Solid Book Stock at 2 1/2 c.

SPECIAL NOTICES.

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

Fourth Edition---Now Ready

LOCKWOOD'S DIRECTORY OF THE Paper Trade. 1878.

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

payment being the same. This being the case to a great extent, little inducement is offered to large buyers, and in consequence many of the large consumers, among the number our principal dailies, do not contract as much as formerly, but buy more frequently at the current rates. Manila Papers do not move with any great amount of spirit for any grade, but pure Manillas are most in demand.

JUTE BUTTS.—Sales during November, on spot and to arrive, foot up 12,000 bales. The sales on spot were at 2 1/2 c. to 2 3/4 c. currency. Sales to arrive were at 2 1/2 c. to 2 5/8 c. gold, bond, for merchantable quality, and 2 11-16 c. to 2 1/2 c. gold, for bagging quality.

WOOD PULP.—The movement is not quite so active, and stock is less freely called for, as the mills generally have been buying in such large quantities that it has accumulated to some extent, and many have now an over-supply for present consumption.

FOREIGN RAGS AND PAPER STOCK.—There has been little change in this market since our last. There is some inquiry for Extra Fine Blues, Checks and Blues, London Seconds and Large Prints are in fair demand.

DOMESTIC RAGS.—The market is steady, but the demand is very light as compared with its buoyancy a few weeks ago. No great improvement is looked for until after the beginning of the new year, unless prices should recede very much from the present line.

BAGGING, &c.—The market has become a little steadier, yet the new transactions are few, and continue to favor purchasers. Most of the deliveries now being made are upon contracts entered into some weeks ago.

STRAW.—The market is steady, and prices are unchanged. The quotations are: Long Rye, 35c. to 45c.; short do., 30c. to 35c., and Oat, 30c. to 40c., cash.

ROSINS.—The market is dull, with only trifling sales, and prices held unchanged. We continue to quote as follows: 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.—The market is somewhat firmer, the advance in steamer freight rates having increased the cost of importation, and prices advanced correspondingly. Sales occurred within the past week as follows: 100 cks. Bleaching Powders, at \$1.30 currency; 50 tons Caustic Soda Ash, at \$1.67 1/2 gold; 37 drums Caustic Soda, at 3.70c. gold, for 60 per cent.; 50 tons Sal Soda, at 1 3/16 c. gold; 100 barrels Lump Alum at 2 1/16 c. currency; 100 barrels Ground Alum at 2 3/16 c. currency; 100 barrels Potash Alum at 2 1/2 c. currency; 50 barrels Concentrated Alum at 2 3/4 c. currency; 200 barrels Natrona Porous Alum at 2 3/4 c. currency; 25 tons Aluminous Cake at 1 1/2 c. currency; 30 casks Yellow Prussiate at 22c. currency; and 10 casks Bichromate at 14c. currency.

COAL.—The condition of the Anthracite coal market can hardly be said to have shown signs of improvement during the period under review. A meeting of the Board of Control of the combination was held on Thursday, at which it was decided to increase the December allotment, so as to make the total out-put for the year 18,000,000 tons. This extra allotment is 1,000,000 tons for the month. After the meeting an informal conference was held to consider the formation of a new combination for 1879.

in order to prevent, if possible, a more disastrous condition of trade, is the very near future. Should there be delays in adjusting the proportions for the coming year until that period is upon us, it will be most unfortunate.

There are, no doubt, persons who still believe it possible to make up a new combination for next year. This should be the desire of all, for with an open market and free-fight for trade there will be prices that will prove financially disastrous to all engaged in the mining and carrying of Anthracite coal. In any event, the market will no doubt take a largely increased quantity of coal during the year 1879 than has been forwarded this year, and this fact should be borne in mind in making up the proportions.

PRICES CURRENT.

NEW YORK MARKET.

Table of market prices for various goods including Paper Market, Woolen Rags, and Rags, Rope and Bagging.

Table of market prices for Ledger and Writing, Book Stock, and other stationery items.

Table of market prices for English Bags, such as New Cuttings, Essex Fines, and London Fines.

Table of market prices for English Old Papers and Shavings, including Hard Shavings, Soft Shavings, and White and Colored Shavings.

Table of market prices for Hamburg Rags, such as L F B square bale, S P F F long bale, and S P F F square bale.

Table of market prices for Cottons, including Shirt Cuttings, S P F F square bale, and S P F F long bale.

Table of market prices for Ropes, including T R (tarred), W R (white), and M R (manilla).

Table of market prices for Old Papers, including Old Book Paper, Old Printed Books, and Imperfections.

Table of market prices for Leghorn and Genoa Rags, including P P No. 1 Linens, S S No. 2 Linens, and T T No. 3 Linens.

Table of market prices for Alexandria Rags, including Whites, Blues, and Colors.

Table of market prices for Memel Rags, including S P F F, S P F, and F F.

Table of market prices for Trieste Rags, including S P F F, S P F, and F F.

Table of market prices for Königsberg Rags, including S P F F, S P F, and F F.

Table of market prices for Japanese Rags, including Whites, Blues, and Colors.

Table of market prices for Chemicals, Coloring Materials, &c., including Alum lump, Alum ground, and Alum porous.

Table of market prices for BOSTON MARKET, including various goods and their prices.

Trade is rather more quiet than at time of our last report. This can readily be accounted for as it is nearing the time of taking account of stock and balancing accounts in order to find out the immense profits that paper-makers have made during the past year.

air profit. Although at present demand is rather light, yet there is one good evidence of a better state of affairs...

Table with columns for Paper Stock, Leghorn Rags, and Alexandria Rags, listing various paper types and their prices.

Table with columns for Constantinople Rags, Smyrna Rags, and New Papers, listing various paper types and their prices.

Table with columns for Paper Market, listing various paper types and their prices.

Table with columns for Chemicals, listing various chemical products and their prices.

Table with columns for Philadelphia Market, listing various paper types and their prices.

Table with columns for Paper Stock, listing various paper types and their prices.

Table with columns for Straw Board Cuttings, Binders Board Cuttings, and Leghorn Rags.

Table with columns for Leghorn Rags, listing various paper types and their prices.

Table with columns for Russian Rags, listing various paper types and their prices.

Table with columns for Chemicals, listing various chemical products and their prices.

Table with columns for Paper Stock, listing various paper types and their prices.

Table with columns for Rags and Paper Stock, listing various paper types and their prices.

Table with columns for Foreign Markets, listing various paper types and their prices.

Table with columns for The French Market, listing various paper types and their prices.

Table with columns for Paper Stock, listing various paper types and their prices.

PAPER MILL FOR SALE OR LEASE, SITUATED in the town of Griswold, Conn., known as the 'GRISWOLD PAPER MILL'...

REMOVAL. JOHN D. MARKER & SONS, Philadelphia, removed from No. 515 and 517 Commerce St. to their Old Store, 413 Commerce Street.

PURE, NATURAL Lubricating Oil FOR PAPER MILLS. This oil has been extensively used by Paper Manufacturers throughout the United States...

CONLEY'S Mill and Machinery Agency, FOR THE PURCHASE, SALE, OR EXCHANGE OF PAPER, COTTON, WOOL-EN, GRIST AND OTHER MILLS...

CHICAGO MARKET. Whites, N. 1. 3 1/2 @ 3 3/4. Print Papers. 1 1/2 @ 1 3/4. Manila Papers. 1 1/2 @ 1 3/4...

FOREIGN MARKETS. London Market Report. LONDON, November 23, 1878. Although trade during this week showed a rather quiet aspect, it continued to be steady...

PHILADELPHIA MARKET. The French Market. PARIS, November 20, 1878. PAPER AND PAPER STOCK.—Although a revival of the sale of made paper is announced...

Advertisements. WANTED.—BY AN AMERICAN A SITUATION as foreman of a Paper Mill. Has had large experience in the paper business...

EDWARD CONLEY, 5 BECKMAN ST. N. Y., Room 8. Paper Mills and Privileges. 21.—A good Paper Mill, containing 4 engines and a 58-inch Rice, Barton & Fales cylinder machine...

BELT HOOKS. The Best Metallic Belt Hook in the Market for LEATHER OR RUBBER BELTS. WALTER O. TALCOTT, Successor to GREENLEAF WILSON, Box 630, Providence, R. I.

LOBDELL CAR WHEEL COMPANY, WILMINGTON, DEL. The Oldest and Most Extensive Manufacturers of Chilled Car Wheels in this or any other Country. EXTRACT OF AWARD ON CHILLED ROLLS. Also Manufacturers of CHILLED ROLLS For Paper Machines, Rubber, Brass, Copper, Rolling Mills, &c.

TO PAPER MANUFACTURERS. We beg leave to call your attention to our system of reclosing Screen Plates, under Alexander Annandale's patent...

STAR CLAY COMPANY. OFFICE: LIMITED. WORKS: No. 220 South Second St., Philadelphia, Pa. Mertztown, Berks County, Pennsylvania. MINERS AND MANUFACTURERS OF WHITE CHINA CLAY.

American Stationer. THE BEST AND MOST WIDELY CIRCULATED PAPER OF ITS CLASS. J. Henry Blanchard, Chemical Broker, No. 36 BATTERYMARCH ST. BOSTON, MASS.

JARVIS' PATENT FURNACE. For the Setting of Steam Boilers. A. F. UPTON, GENERAL AGENT, No. 45 CONGRESS STREET, BOSTON, MASS. IRON BLEACH TUBS FOR PAPER MILLS.

GLENS FALLS
Marble Lime
 The best bleaching Lime known for
PAPER-MAKERS' USE.

Osborn & Robinson,
 AGENTS,
 87 Dey Street, N. Y.

PIQUA
FELTS.

Paper Makers'
FOURDRINIER FELTS.
 Coarse and Fine
CYLINDER WET FELTS.
 Press Felts and Jacketing.

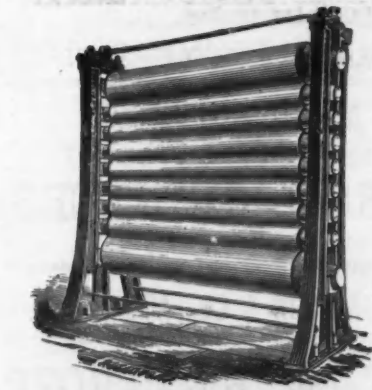
F. GRAY & CO.,
 Successors to F. GRAY, O'FERRALL & CO.,
 PIQUA, OHIO.

We warrant every Felt to work well, and if it does not, it can be returned.

SATISFACTION GUARANTEED.
 In ordering Felts, give kind of Stock used, and quality of Paper made.

[From The Paper Trade Journal of March 4, 1876.]
 MIDDLETOWN, O., February 23, 1876.
 To the Editor of The Journal:
 Much has been said in former numbers of THE JOURNAL about the running and durability of cylinder long felts. GRAY, O'FERRALL & Co. are supplying the best cylinder long felt I have ever had any experience with for wide machines. I think they decidedly excel. They keep their width under a reasonable strain, and when kept clean never trouble with wind marks, never get slack in the middle or edges: in fact, they make paper, with ordinary care, until they are entirely worn out, and it would be well for any one who is troubled with an unsatisfactory working felt of any other make, to try one, and by all means to do so if there is a necessity for fast running.
 J. W. B.

IRA L. BEEBE,
 NEW YORK AGENT.



J. MORTON POOLE & CO.,
 Wilmington, Delaware,

MANUFACTURE

Chilled Rolls
 GROUND BY THEIR PATENT PROCESS.

EMPIRE
FELTS.

Cylinder and Fourdrinier
 WET FELTS, PRESS FELTS,

AND
JACKETS.

MANUFACTURED BY
H. WATERBURY & CO.,
 RENSSELLAERVILLE,
 Albany County, N. Y.

In ordering Felts, give kind of Stock used and quality of paper made, and we warrant Felts that will please.

ORDERS PROMPTLY FILLED.
OUR PRICES ARE IN CURRENCY.

Will send Price List upon Application.
 All Felts sent out by us warranted to work well; if not, may be returned.

GERMANIA ULTRAMARINE WORKS,
 WHITESTONE, L. I.,
W. HOFFMANN & CO. Proprietors,
 Office, 74 PINE STREET, NEW YORK.

Manufacture High Grade Ultramarines for manufacturing purposes only. We specially call the attention of the trade to our Superior Alum Proof Ultramarine, which is greatly stronger than any other produced. Samples and Prices sent on application.

GEO. M. RICE, Treas. GEO. S. BARTON, Pres. JOS. E. FALES, Manager.

Rice, Barton & Fales Machine and Iron Co.
 AT OLD STAND OF RICE, BARTON & CO.,
 WORCESTER, MASS.,
 MANUFACTURERS OF

PAPER MACHINERY

OF EVERY DESIRABLE VARIETY,
 Iron and Brass Castings, Chilled Iron and Paper Calender Rolls, Rag Engines, Rag Cutters, Steam Pressure Regulators, &c.
HYDRAULIC PRESSES, FROM 5 to 14 INCH PISTON.

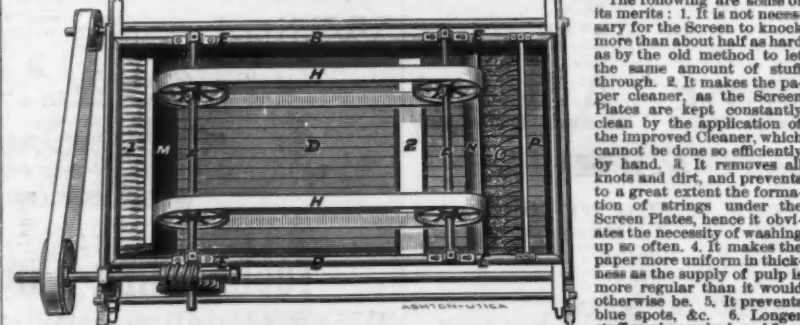
CHEAPEST AND BEST IRON ROOFING MADE.
 Used on Sides and Roofs. Making a Fire-proof Building.



THIS Roofing has received the unqualified indorsement of all who have used it for its ease and simplicity of application by any ordinary mechanic, combining in its merits and worth cheapness and durability with all the desired qualities of a Fire, Water and Wind Proof Roofing. Send for Descriptive Circular and Testimonials.

THE PORTER IRON ROOFING CO., Manufacturers, 101 & 103 W. Front St., Cincinnati, O.

HOLLINGSWORTH'S **PULP SCREEN CLEANER** For Cleaning Paper or Wood Pulp Machine Screens.



The following are some of its merits: 1. It is not necessary for the Screen to knock more than about half as hard as by the old method to let the same amount of stuff through. 2. It makes the paper cleaner, as the Screen Plates are kept constantly clean by the application of the improved Cleaner, which cannot be done so efficiently by hand. 3. It removes all knots and dirt, and prevents to a great extent the formation of strings under the Screen Plates, hence it obviates the necessity of washing up so often. 4. It makes the paper more uniform in thickness as the supply of pulp is more regular than it would otherwise be. 5. It prevents blue spots, &c. 6. Longer stuff can be worked, and finer and cleaner paper can be made from the same stock. 7. It is equally applicable to fine writing or print machines. 8. It may be used with great advantage for either rag, straw or wood pulp, and a great saving be effected by its use.

- REFERENCES:**
 Rochester Paper Co., Rochester, N. Y. (3 machines.)
 Smith Paper Co., Lee, Mass. (7 machines.)
 Taggart & Davis, Watertown, N. Y. (2 machines.)
 Kalamazoo Paper Co., Kalamazoo, Mich. (3 machines.)
 Glen's Falls Paper Co., Glen's Falls, N. Y. (2 machines.)
 Orr's Paper Co., Troy, N. Y. (2 machines.)
 North Western Paper Co., Beloit, Wis.
 Jones & Settle Paper Co., Ballston, N. Y.
 Palmer's Falls Paper Co., Palmer's Falls, N. Y.
 Allen Brothers, Sandy Hill, N. Y.
 Ogdenburgh Paper Co., Ogdenburgh, N. Y.
 Skaneateles Paper Co., Skaneateles, N. Y.
 Week's Paper Co., Skaneateles, N. Y.
 Woodruff Paper Co., Dansville, N. Y.
 And others too numerous to mention.

Address, **EDWARD CONLEY, 5 Beekman Street, New York.**

THE SIBLEY MACHINE CO.,
 NORWICH, CONN.,
 Manufacturers of Modern Improved Paper Machinery,

RAG ENGINES, DUSTERS AND THRASHERS, RAG AND ROPE CUTTERS, ROLL BARS, BED PLATES AND ROTARY BOILERS, HUNT'S TURBINE WATER WHEELS, MILL GEARING, SHAFTING, PULLEYS AND MILL JOBBING.
 Castings at Short Notice.

In the last twenty-five years having furnished machinery to some of the best mills in the country the subscriber feels confident of giving the best satisfaction. Orders and inquiries for machinery will receive prompt attention.

RUFUS SIBLEY, Agent.
 References by permission: HUDSON & CHENEY PAPER CO., North Manchester, Conn.; WILLIAMSON, BROS. & CO., Birmingham, Conn., and many others.

ARE YOUR MILLS Fully Insured In SOUND Companies?

A prominent paper-maker writes:
 "As stated before, we want to get out of the hands of our local agents, who omit no opportunity to make us feel that we are paper manufacturers, and that paper mills are burning up at the rate of one a minute."
 We can refer to some of the leading Paper Mills, for whom we are SOLE AGENTS.

We can Save you Money.

Blank surveys sent by mail upon application.
 ADDRESS,

ANDERSON & STANTON,
 Insurance Brokers,
 152 BROADWAY.

BRIGGS & TAYLOR,
 IMPORTERS OF

Paper Stock,

60 DUANE ST., NEW YORK.
 Also, Sole Agents for Dundee Paper Stock, as selected and packed by

JOHN S. BRADFORD,
 Clepington Steam Waste Works,
 DUNDEE SCOTLAND.

STOUT, MILLS & TEMPLE,
 MANUFACTURERS OF THE



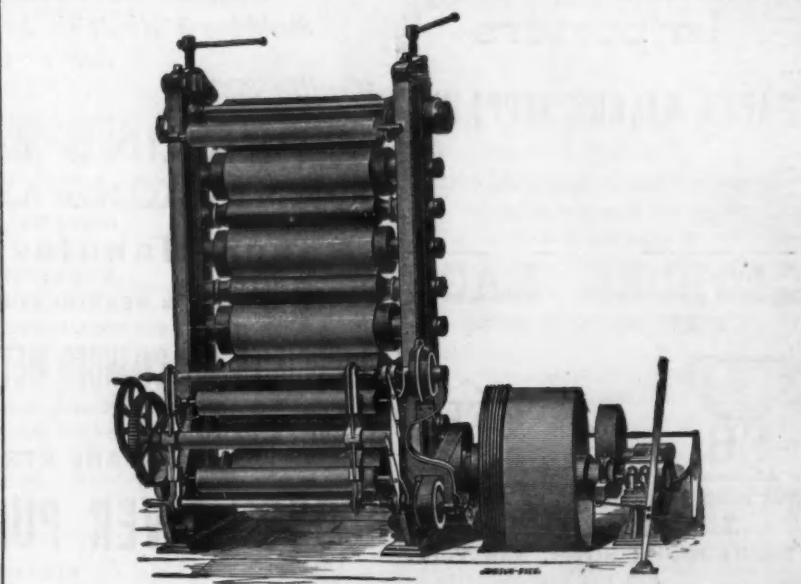
Water Wheel,

GEARING AND SHAFTING.
Rag Engines, Wood or Iron Tubs, Rag Cutters, Dusters, Pumps, &c.

THE AMERICAN TURBINE, as recently improved, utilizes a higher average percentage of power than any Turbine ever known, which justly entitles it to the position claimed for it as the BEST Water Wheel in the world.

Large Illustrated Catalogue sent free on application, to **STOUT, MILLS & TEMPLE, DAYTON, OHIO.**

HOLYOKE MACHINE CO.,
 Holyoke, Mass.,
 MANUFACTURERS OF
IMPROVED PAPER MACHINERY



Patent Web Super-Calender.
HIGHEST AWARD AT CENTENNIAL EXHIBITION.

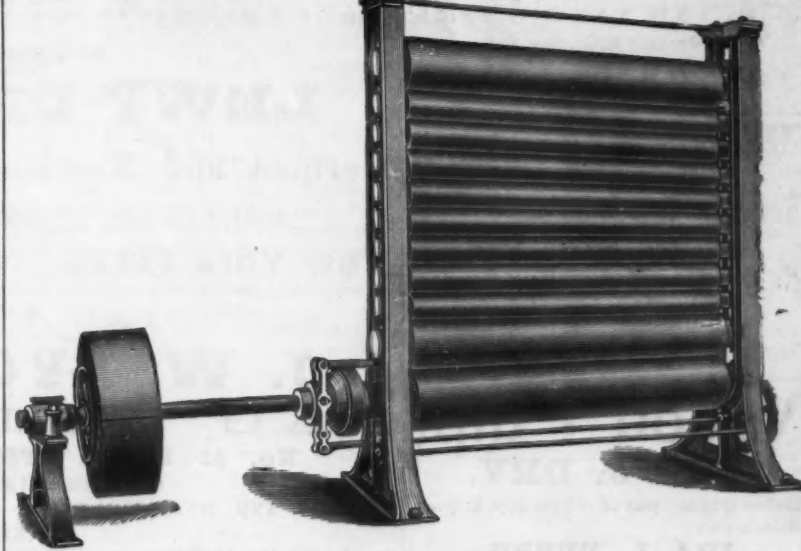
Our Improved Web Super-Calender is a very complete Machine, heavy and substantial in all its parts, with our new patented reeling apparatus, which increases the capacity of the Calender, and effects a saving in broken paper. The shipping arrangement is complete, ready to set up and operate. The paper rolls are made of the best paper, made expressly for the purpose.

Chilled Iron and Paper Calender Rolls, Web and Sheet Calenders, Friction Calenders, Machine Calenders, Platers, Rag Engines, Gould's Patent Rag Engines, Hydraulic Presses (5-in. to 18-in.) Piston, Elevators, Rag-Dusters, Thrashers, Trimming Presses, Hammond's Patent Stop-Cutter, Ruling Machines with Layboys, Littlefield Power Pumps, Vertical Power Pumps, Bed-Plates & Roll Bars &c.

ALSO, MANUFACTURERS OF THE
Boyden, Risdon, and American Turbine Water Wheels.

Improved Apparatus for Driving Fire-Pumps, Friction Pulleys and Couplings, Shafting, Gearing, and Mill Work of Every Description, Bleach Boilers, Keirs, &c.

ILLUSTRATED CATALOGUE SENT FREE ON APPLICATION.



The undersigned, builders of PAPER MACHINERY, offer their services to Manufacturers of Paper, soliciting orders for all MACHINERY REQUIRED IN PAPER MILLS.

Having unsurpassed facilities for producing Machinery in short time, and with patterns and drawings of the best in use, they offer their customers advantages not usually found.

Specially they ask attention to their ROTARY BOILERS, the journals of which are turned AFTER the heads have been riveted in, thus insuring parallelism of the bearings, a very important matter.

Also to their CHILLED IRON CALENDER ROLLS, which they guarantee to be ABSOLUTELY PERFECT, both as to hardness and excellence of finish. Address

PUSEY, JONES & CO.,
 WILMINGTON, DELAWARE.

M. S. BULKLEY. J. G. DITMAN

J. G. DITMAN & CO.,
 Paper Manufacturers and Dealers.

WISSAHICKON AND HANWELL MILLS PAPERS,
 30, 32 & 34 South Sixth Street, Philadelphia.
 TELEGRAPH COMMUNICATION WITH MILLS.

RICH'D LACEY & CO.
 133 Pearl Street, New York.
 BROKERS IN

JUTE BUTTS
 AND
REJECTIONS.
 P. O. Box 5423.

FITZGIBBONS, MESSER & CO.,
 Agents for Manufacturers of

Straw Boards and Lining Papers.
 Straw Boards Lined to order. Paper Box Makers Machinery. All Sizes and Numbers on hand or made to order with dispatch.
 65 & 67 Crosby St., New York.

W. H. PARSONS & CO.,

74 DUANE STREET, NEW YORK,

COMMISSION PAPER MERCHANTS

AND

Importers

OF

PAPER MAKERS' SUPPLIES.

French and English Linen and Cotton Rags, and Papers of all grades, on hand and to arrive.

LEGHORN RAGS,

OF THE WELL-KNOWN BRAND



and



FOR SALE, ON HAND, AND TO ARRIVE, BY
J. FABBRICOTTI,
No. 34 Beaver Street, New York.
P. O. BOX 4354.

LEE & STURGES,

COMMISSION MERCHANTS,

23 Beekman Street,
P. O. Box 2,367 NEW YORK.

FOREIGN RAGS AND PAPERS.

SOLE AGENTS FOR THE CELEBRATED BRANDS

of Messrs. John Pfeffer & Co.,
France and Belgium.

KEENAN LIME CO.,

Manufacturers of

Paper Makers' Lime

PROVEN BY CHEMICAL ANALYSIS TO BE THE BEST LIME MADE FOR BLEACHING PURPOSES.

J. R. VAN VALEN, Agent,
214 Franklin Street, New York.

Paper Makers' References if required. All Orders promptly attended to.

WING & EVANS,

DEALERS IN

Soda Ash, Caustic Soda,
Sal Soda, Bi-Carb. Soda,
and Bleaching Powder,

92 WILLIAM STREET, N. Y.

Agents for Newcastle Chemical Works Co., Limited, Newcastle-on-Tyne, England.

Wood Pulp, WET or DRY,

Delivered in any part of the country, in quantities to suit.

IRA L. BEEBE,

30 Duane Cor. Elm St., N. Y.

GEORGE HARLEY,

Importer of California Rags,
Anc. Dealer in
WOOLEN and COTTON RAGS, and all kinds of PAPER STOCK.

362, 365 & 367 THIRD STREET,
Between Avenue D and Lewis St. NEW YORK.

JOSEPH LIBMANN,

SUCCESSOR TO

LIBMANN & KORNBLUM,

No. 3 Howard Street,
WHOLESALE DEALER IN

PAPER AND PAPER-MAKERS' STOCK,

New Linen and Cotton Rag Specialties.

Packer of the well-known Brand of strictly A1 Shirts Cuttings.

SERGEANT BROS.,

78 William St., New York, P. O. Box 3912.

HAVE ALWAYS ON HAND AND TO ARRIVE

FOREIGN RAGS,
JUTE AND PAPER STOCK,
CHEMICALS, CLAYS,
ANIMAL AND ROSIN SIZE.

ALSO AGENTS FOR

The Swan Brand Silesian White and H. & S Brands Southern Clays.

H. C. HULBERT & CO.,

13 Beekman St., N. Y.

IMPORTERS AND DEALERS IN

Paper Makers' Supplies.

SOLE AGENTS DURING THE LAST FOURTEEN YEARS FOR THE SALE OF

Stubbins Vale Mills Feltings, Pearl Hardening,
& Berger Ultramarine.

Manilla Sizing, Extra Heavy Canvas Dryers.

**PERKINS & GOODWIN,
COMMISSION PAPER WAREHOUSE.**

IMPORTERS AND DEALERS IN

Paper Manufacturers' Supplies.

SOLE EASTERN AGENTS FOR

SHULER & BENNINGHOFFEN, OF HAMILTON, OHIO.

THE WELL-KNOWN MANUFACTURERS OF

FOURDRINIER AND CYLINDER WET FELTS, PRESS FELTS AND JACKETS.

Pronounced by many equal to the best foreign felts, at a much lower price.

Extra Heavy Canvas Dryers.

84 DUANE STREET, NEW YORK.

HUDSON RIVER PULP AND PAPER CO.,

MANUFACTURERS OF

News, Colored and Manilla Papers,
Hanging and Card Middles.

ALSO REFINED SPRUCE AND POPLAR WOOD PULP,

Suitable for Book, News and Manilla Papers.

MILLS AT

PALMER'S FALLS, N. Y.

NEW YORK OFFICE,

45 BEAVER STREET.

Natrona Porous Alum,

FOR PAPER MAKERS' USE.

FREE FROM IRON AND FROM EXCESS OF ACID.

Two pounds of it will size as much Paper as three pounds of Potash or Ammonia Alum.

PENNSYLVANIA SALT MFG. CO.,

140 South Delaware Avenue, Philadelphia. 212 Washington Avenue, St. Louis, Mo.

Agents: W. M. ELLICOTT & SON, Baltimore; MOREY & CO., Boston; E. L. EMBREE, New York.

ESTABLISHED 1826.

LEWY BROTHERS,

German and Russian Linen Rag Packers.

BERLIN and KOENIGSBERG, Germany.

New York Office: No. 12 BROADWAY.

ESTABLISHED 1853.

**J. W. LYON & CO.,
RAG WAREHOUSE,**

No. 35 PARK STREET, NEW YORK,

CORNER CENTRE AND DUANE STREETS.

FOREIGN AND DOMESTIC PAPER STOCK AND WOOLEN RAGS OF ALL DESCRIPTIONS.

Cash paid for all kinds of WOOLEN RAGS and PAPER STOCK in large or small lots.

Ypsilanti Mills, Ypsilanti,
Superior Mills, Ypsilanti.

Ann Arbor Mills,
Jackson Mills.

F. P. ELLIOTT & CO.,

Manufacturers of
and Dealers in

PAPER,

169 Randolph St.,
CHICAGO.

BUTTERWORTH & SMALLEY

54 Beekman St., New York; 58 Federal St., Boston, Mass.,

PAPER STOCK AND SIZING MERCHANTS.

DEALERS IN EVERY KIND OF

MATERIAL FOR PAPER MAKERS,

Jute, Hemp and Flax Waste, Papers, Rags, Hemp and Gunny Bagging, Jute Butts, &c.

French Linens, Cottons, &c., always on hand. Sizing prepared at our hide yards, Salford.

HEAD ESTABLISHMENT:

EDWIN BUTTERWORTH & CO.,

52 Ward's Buildings, Deansgate, Manchester, England.

BEEBE & O'CONNELL,

Commission Paper Warehouse,

DEALERS IN ALL KINDS OF

PAPER MAKERS' MATERIALS,

Cotton Waste, Jute, Hemp and Flax Waste, Papers, Rags,
Hemp and Gunny Bagging, Jute Butts, &c.

DOMESTIC STOCK A SPECIALTY.

78 DUANE STREET, N. Y.

BULKLEY, DUNTON & CO.,

NO. 74 JOHN ST., NEW YORK.

"EXCELSIOR" FELTS.

PIECE FELTING AND JACKETING.

FOR ECONOMY, DURABILITY AND GOOD RESULTS THEY ARE UNEQUALED.
LONG ESTABLISHED AND WELL KNOWN. A TRIAL IS SOLICITED
FROM MANUFACTURERS NOT ALREADY USING THEM.

EXTRA HEAVY CANVAS DRYERS.

SATISFACTION GUARANTEED.

SEND FOR PRICE LIST

WM. CABLE EXCELSIOR WIRE MFG CO.

ESTABLISHED 1848

INCORPORATED 1870.

MANUFACTURE



Brass, Copper & Iron Wire,
FOURDRINIER & CYLINDER WIRES,
Making Cylinders & Dandy Rolls,



AND WIRE CLOTH OF EVERY DESCRIPTION.

INNER AND OUTER FACES OF ALL NUMBERS ALWAYS ON HAND.

Medal awarded WM. CABLE from the Great Exhibition in New York, 1853, for the finest and best specimens of Composition, Brass and Copper Wire, for the manufacture of Cloth for Paper-makers' purposes, and is recommended for its strength and durability.

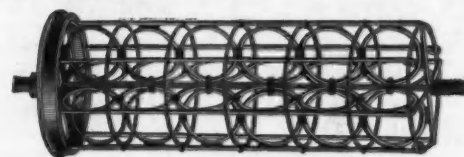
Warehouse: 43 Fulton Street, New York.

SELLERS & CO., Limited,

3919 Powelton Avenue, Philadelphia.

SOLE MANUFACTURERS OF

Whitehead's Patent Dandy Roll.



ALSO MANUFACTURE

FOURDRINIER AND CYLINDER WIRES,

Wire Cloth for Washers, Dusters &c.
CYLINDERS AND DANDY ROLLS MADE AND REPAIRED.

Lettering and Designing on Dandy Rolls Executed Neatly and Promptly.

IMPORTANT TO PAPER MANUFACTURERS!

We have now running at our works one of

POOLE'S PATENT ROLL GRINDERS,

and are prepared promptly to regrind Old Rolls, soft as well as chilled.

Manufacturers can rely upon having their rolls ground perfectly, and at a material saving of freight, by applying to

TOWNSEND, JACKSON & CO., Albany, N. Y.

WM. PICKHARDT & KUTTROFF,

98 Liberty Street, New York.

BRANCHES AT BOSTON AND PHILADELPHIA.

IMPORTERS OF

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

GEORGE WATSON, JR.

(LATE BRAUTIGAM & WATSON.)

IMPORTER OF

Paper-Makers' Stock and Materials,

Whitehead's Feltings,

Pochin's Patent Aluminous Cake,

Curtius' Ultramarine.

DEALER IN

FOREIGN AND DOMESTIC RAGS.

NOS. 63 AND 65 BEEKMAN STREET.

New-York.