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PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY.

ESTABLISHED IN 1872

Vol. LXIX. No. 12 NEW YORK AND CHICAGO, SEPTEMBER 18, 1919

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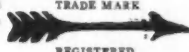
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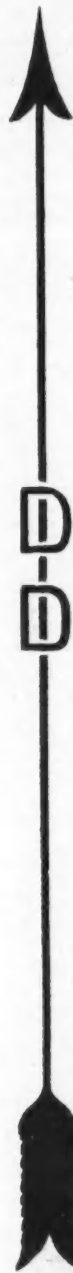
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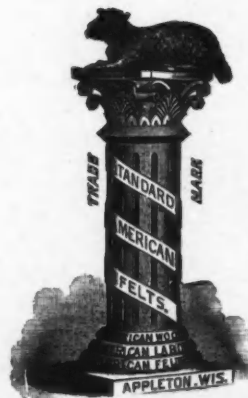
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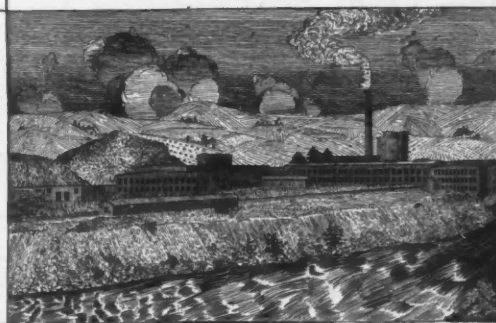
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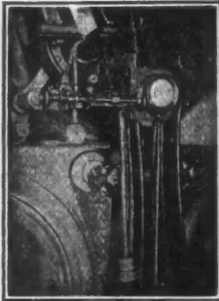
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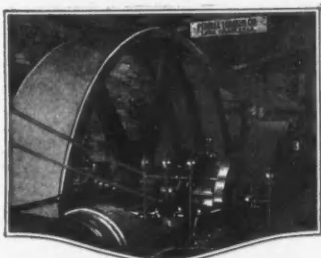
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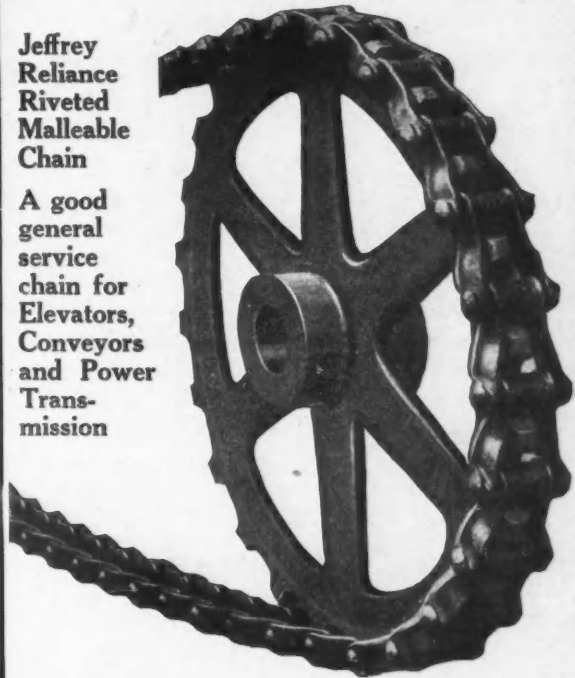
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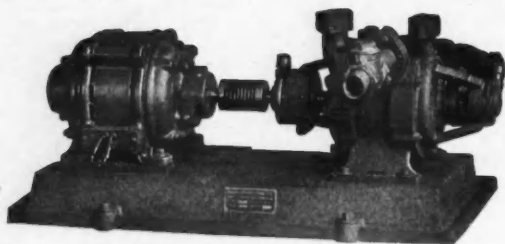


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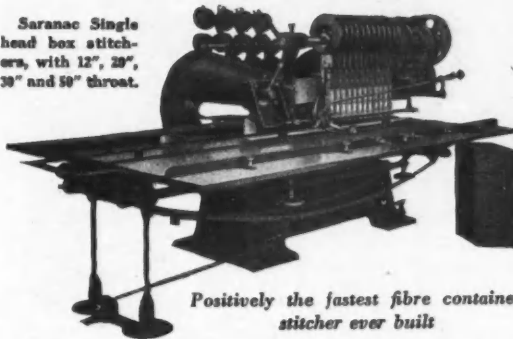
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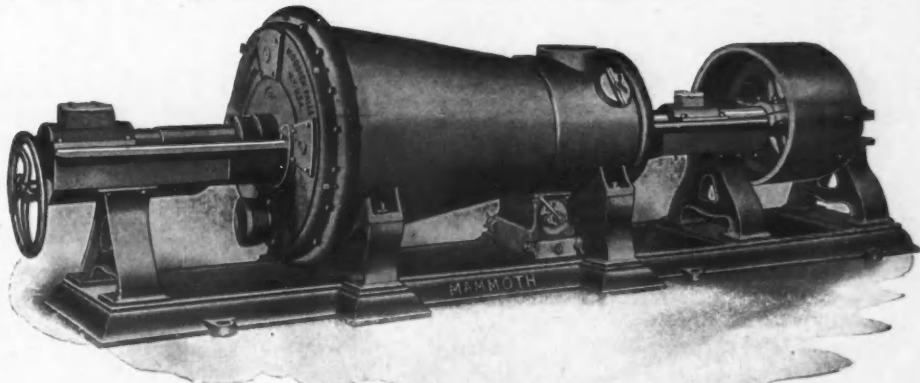
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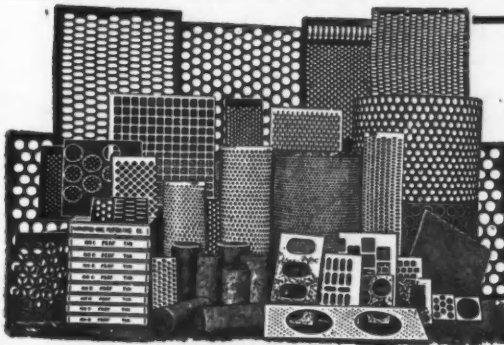
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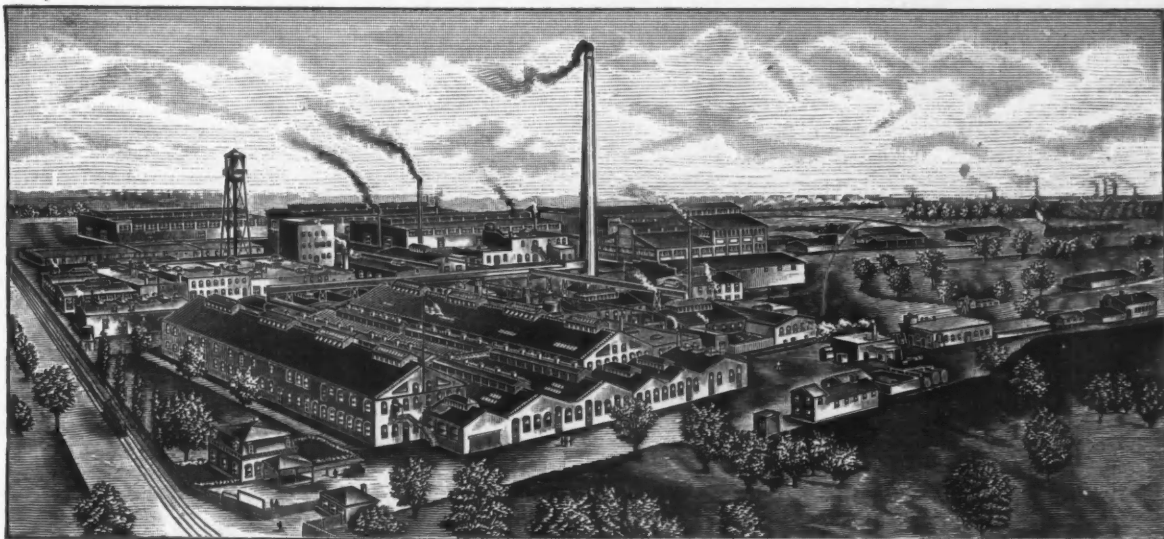
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THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

FORTY-EIGHTH YEAR

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TO ORGANIZE SALESMEN OF THE PAPER INDUSTRY

R. S. Litchfield, Manager of Sales of the Crocker-McElwain Co., and the Chemical Paper Co., Is Appointed Chairman of the Committee on Organization—Plans for the Permanent Organization of the Proposed Association Will Be Submitted at a Meeting to Be Held in Connection With the Fall Conference of the American Paper and Pulp Association at the Waldorf-Astoria, November 10.

At the regular quarterly meeting, July 23, the executive committee of the American Paper and Pulp Association passed a resolution in favor of the formation of a salesmen's division to affiliate with the association. The secretary was authorized to set in motion proper action looking toward the organization of such a division.

Accordingly, a meeting was held in the office of the association September 10, for the purpose of bringing together a group of salesmen representing various branches of the industry to discuss the matter and devise plans for its immediate promotion.

L. B. Steward Presides

The morning session was presided over by L. B. Steward, secretary-treasurer of the American Paper and Pulp Association. There developed a most interesting discussion of the possibilities of a salesmen's organization of the paper manufacturing industry, for the purpose of bringing about wider acquaintance and promoting an esprit du corps among those engaged in that branch of the business; of raising the efficiency of sales methods by proper educational features, not only along practical lines of manufacture, but, by a broader knowledge of the adaptability of and new uses for paper; of the establishment of universally recognized standards of salesmanship, and the development of the highest ethics.

The opinion was unanimously expressed that such an organization could be best effected through a unified Salesmen's Division of the American Paper and Pulp Association.

R. S. Litchfield Temporary Chairman

At the afternoon session Mr. Stewart turned the meeting over to those present and suggested that they organize. R. S. Litchfield, manager of sales of Crocker-McElwain Company and the Chemical Paper Manufacturing Company, of Holyoke, Mass., was elected temporary chairman and authorized to appoint a committee on organization, of which he should be chairman, this committee to report and submit its plans for permanent organization at a meeting of salesmen to be held in connection with the fall conference of the American Paper and Pulp Association, which will take place during the week of November 10 at the Waldorf-Astoria Hotel, New York City.

Every salesman connected with the paper manufacturing industry in the United States will be invited to attend this meeting; take part in its deliberations; assist in the organization, and become a member of the Salesmen's Division.

The launching of this new organization will be one of the most important steps in the progress which the industry has made during recent years.

Committee on Organization

The committee on organization appointed by Mr. Litchfield is as follows:

R. S. Litchfield, manager of sales, Crocker-McElwain Company, and Chemical Paper Manufacturing Company, Holyoke, Mass.; J. G. Turpin, Eastern representative, Miami Paper Company, West Carrollton, Ohio; R. C. Tilden, assistant sales man-

ager, International Paper Company, New York City; Carl T. Lincoln, general manager of sales, American Writing Paper Company, Holyoke, Mass.; J. Howard Stannard, president, Grocery Bag Manufacturers' Service Bureau, New York City; L. B. Steward, secretary-treasurer, American Paper and Pulp Association, ex officio.

This committee will meet in Mr. Steward's office on Friday, September 19, to begin work on the plans for permanent organization.

Do Not Want Bagging Disinfected

An effort to have bagging which is imported into the United States admitted without being disinfected and unpacked by Government officials will be made by the Paper Stock Division of the National Association of Waste Material Dealers, in order to save the delay necessitated by the Federal process, and also to save the government the expense involved in this precaution.

The reason for this request is, in the first place, that the disinfecting is entirely unnecessary, if the bagging is to go to the paper manufacturers, because the thorough treatment given by the manufacturer kills any insects, or disease bacilli which might be imported with the bagging. If the bagging is going to the South, where it might be used for other than paper stock purposes, the present precautions should be taken, it is the opinion of the association, but as all stock sent to the paper manufacturer is so treated that no bacilli or insects can possibly live, they feel that the treatment is unnecessary. The precaution is taken largely against the boll weevil, which is destructive to the cotton crop, according to government reports.

This plan was discussed at the meeting of the Paper Stock Division of the National Association of Waste Material Dealers, which held its meeting at the Hotel Astor, New York City, Wednesday, September 17. Charles M. Haskins, secretary of the association, is at present in correspondence with the government officials concerning the matter, and a speedy decision is expected.

Discussion of the trade customs between paper stock dealers and manufacturers of writing papers was also on the program, the writing paper manufacturers being represented by a conference committee.

To Discontinue News Print Control Soon

[FROM OUR REGULAR CORRESPONDENT.]

OTTAWA, Ont., September 13, 1919.—Controller Pringle was asked today by your correspondent when he expected the government to release the news print industry from the control to which it has been subjected by the government for the past three years, and he stated that he thought the control would be lifted "very shortly." Further than this he would not go. The news print inquiry is getting under way again on September 18, and it is quite likely that the desirability of going into the question of costs prior to the starting of investigations will be decided. It will also be decided what steps will be taken to ascertain costs of production since November, 1918.

Controller Pringle informed the correspondent for THE PAPER TRADE JOURNAL that there was a scarcity of news print in Canada, evidently due to heavy exportations, and he said he knew of instances where newspapers had difficulty in getting sufficient supplies.

Metropolitan Bag Association Officers

The Metropolitan Bag and Paper Jobbers' Association, Inc., at a meeting September 11, 1919, at the St. George Hotel, elected the following officers for the ensuing year: President, August T. Wolf; vice-president, F. W. Hinrichs; treasurer, J. M. Berger, of Forbes Paper Co.; secretary, George W. Vatz.

Directors—A. E. McAdam, H. L. Heberlein, F. W. Hinrichs, J. J. Paulsen, William E. Shuttleworth, A. T. Wolf, J. Stein.

SENATORS PREPARING PLANS FOR NEWS INVESTIGATION

Senator LaFollette Appoints News Print Investigating Committee—Method of Conducting Investigation to Be Decided at Next Meeting—Alleged That Union Men Are Discharged—Paper Exports During July—Better Paper Packing Desired by Government—Government May Provide for Export Corporations—German Dyes Now Used in Britain—Foreign Markets for American Goods.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., September 15, 1919.—A brief wire in last week's issue of the PAPER TRADE JOURNAL told of the appointment by Senator La Follette of the sub-committee to take up the news print investigation. In this connection the following statement was given out by Senator La Follet's office:

"Senator La Follette today announced the appointment of the sub-committee to conduct the investigation of the news print paper industry, under Senate Resolution 164, introduced by Senator Reed, of Missouri. The sub-committee is as follows: Senators McNary, Gronna, Reed and Walsh, of Massachusetts; La Follette to be chairman.

"As soon as a meeting of the sub-committee can be secured a plan for conducting the investigation will be decided upon and announced. In the meantime the date which has been obtained as a result of previous investigations will be furnished to members of the sub-committee."

Allege Union Men Are Discharged

It is alleged that the Kimberly Clark Paper Company at Appleton, Wis., is discharging employees because of union affiliations. The Department of Labor has assigned its Commissioner F. I. Ronde to investigate.

Stabilizing Prices in Basic Industries

Representative Kelley of Pennsylvania has introduced a resolution in the House which has been referred to the Committee on Interstate and Foreign Commerce asking the Secretary of Commerce to furnish to the House a detailed report of the efforts made to stabilize prices in basic industries, through the Peek Committee, and the results which would have followed the putting of this plan into effect, based on the prevailing prices of such basic products." It would seem from this resolution that Congressmen are beginning to feel that if the idea of the secretary had been carried out in connection with the Price Fixing Committee that the high cost of living might have been materially reduced before this.

Paper Exports in July

There was \$268,542 worth of paper board exported from the United States during July, according to a statement just made public by the Department of Commerce. The board was distributed as follows: Denmark, \$60; Greece, \$2,000; Spain, \$1,204; England, \$53,026; Scotland, \$5,458; British Honduras, \$3; Canada, \$55,907; Costa Rica, \$87; Honduras, \$30; Panama, \$111; Salvador, \$71; Mexico, \$5,609; Newfoundland and Labrador, \$16; Jamaica, \$244; Cuba, \$28,461; Dutch West Indies, \$175; French West Indies, \$60; Haiti, \$28; Dominican Republic, \$208; Argentina, \$38,695; Brazil, \$20,065; Chile, \$2,893; Colombia, \$320; British Guiana, \$1,441; Peru, \$3,919; Uruguay, \$11,746; Venezuela, \$1,581; China, \$5,912; British India, \$1,353; other British East Indies, \$446; Dutch East Indies, \$1,415; Japan, \$524; Australia, \$5,673; New Zealand, \$7,831; Philippine Islands, \$7,099; British South Africa, \$4,840; French Africa, \$6; German Africa, \$25.

Packing American Paper for Export

The export packing of American paper is apparently not all that it should be. Following is a report which has just been

received by the Department of Commerce from the American Vice-Consul at Melbourne, Australia, in which this situation is discussed at some length:

"This consulate has recently been in receipt of numerous complaints from Melbourne houses relative to the great trouble and annoyance caused them by the inadequate packing of goods received from the United States. Recently a well-known paper importing firm in this city received a large shipment of American paper, and part of the paper was so badly packed that it was landed without any cases at all and the paper consequently was in an unusable condition.

"Shipments to Australia should be packed in stronger cases than those generally used in the domestic trade in the United States. Cases should be made of strong material and be iron-strapped. For some articles they should be lined with zinc. Strong cases would not only lessen the danger of damage to goods in transit, but would also prevent pilfering, which has been causing heavy losses to local importers.

"If American exporters desire to hold the trade they already have and wish to increase their sales in Australia, they will have to devote the same thought and attention to the proper packing of their shipments as British and other foreign manufacturers do."

Water Power Development Bill

Favorable report on the water power development bill in substantially the form passed by the House last July was ordered by the Senate commerce committee with approval of the Senate public lands committee. Senator Lenroot, Republican, of Wisconsin, reserved the right to offer amendments providing for regulation of power rates.

The bill creates a Federal power commission to have charge of development of hydraulic power projects on navigable water and upon public lands. Licenses would be issued for projects, which would be under strict regulation of the commission. The Senate committee approved the House plan of granting fifty-year licenses.

German Dyestuffs in Great Britain

British authorities propose to take under the terms of the peace treaty only such German dyestuffs as can not be obtained or made in Great Britain, and in the importation of these a rationing scheme will be employed, the provisions of which will be applicable to individual firms as well as to the countries of the associated powers. American dyes will be given most liberal treatment; but as only a few lines can compete in price with the British-made dyes, it is not expected that there will be any demand except for such lines and possibly for some specialties which are not produced here. Import licenses for these lines will be granted "fairly freely."

The British government has made strenuous efforts to build up the dye-manufacturing industry in this country and has subscribed for \$8,273,000 worth of the stock of the British Dyestuffs Corporation, which has just been formed to exploit and co-ordinate the dye industry of Great Britain.

Foreign Markets for American Goods

Steps toward the opening of foreign markets for American goods and the rehabilitation of Europe so that it can pay its tremendous debt to the United States were taken last week through the passage by the Senate of Senator Edge's export finance bill, designed to achieve these ends. The bill had been approved by Secretary Carter Glass, of the Treasury; Governor W. P. G. Harding, of the Federal Reserve Board, the leading financial and commercial organizations of the country, and a very large number of individual manufacturers and exporters.

Through amendment of the Federal Reserve Act, the bill provides that groups of five or more men, predominantly American, may form corporation with a minimum capital of \$2,000,000 each, for an export-finance business. Against sales to impover-

(Continued on page 64.)

CANADIAN PAPER AND PULP NOW PREFERRED IN ENGLAND

A. L. Dawe Reports That Canadian Products Are Highly Regarded in the Mother Country and That Large Orders Have Already Been Placed Which Will Be Considerably Augmented as Soon as Shipping Facilities Permit—Demand for Paper and Pulp Stocks Is Featured of the Week on the Montreal Stock Exchange—Nine Million Dollars Mill May Be Built at Sillery Cove.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., September 15, 1919.—A despatch from London received here on Saturday last says: "The Canadian pulp and paper industry has every reason to be well satisfied at the prospects of business in Great Britain, in the opinion of A. L. Dawe, who was sent by the industry at the request of Lloyd Harris to assist in the expansion of trade with the Mother Country and secure additional shipping facilities.

"Prior to sailing for Canada on the *Melita*, Mr. Dawe stated that in a three months' canvass of the country he found a marked preference for Canadian pulp and paper products and large orders had already been placed which will be augmented as soon as shipping facilities permit. Realizing the important part which paper played in the successful prosecution of the war and the fact that in pre-war days the sources of raw materials were under the domination of alien countries there is a strong sentiment towards the encouragement of trade with the Empire in pulp and paper.

"Canadian pulps are highly regarded by paper makers and equal to and in many cases of better quality than the Scandinavian and German grades. Many Canadian manufacturers of pulp and paper are strongly represented in Great Britain by capable selling organizations fully alive to their opportunities."

Pulp and Paper Stocks Make New Records

Once more the demand for pulp and paper stocks has been the feature of the week on the Montreal Stock Exchange. There has been heavy buying of such issues as Wayagamack, Spanish River and Brompton, with Laurentide and Riordon also featuring. Under the urgent demand Wayagamack rose to 70½, a new high for the stock, but closed Friday weaker under liquidation at 68. Spanish River common touched 49½, and the preferred 112, both new highs. Brompton on good buying went to 64, but closed Friday at 63½, while Laurentide was 224. Abitibi sold up to 90, and Smith Paper made a jump to par, but closed down 5 from the high at 95.

The continued bull market for pulp and paper stocks has raised a discussion as to whether developments are taking place which would affect the industry as a whole in addition to developments within different companies. Among other things, the statement is heard that contracts are being made at advancing prices and that control of paper prices will shortly cease.

The situation with respect to control is that upon the declaration of peace, price-fixing ceases and thereafter manufacturers and their customers may make agreements at competitive prices as before the war.

It is probably the case that some contracts are being made at advanced prices, more especially as a few contracts are understood to be about to expire, which were made under the fixed prices, a considerable time ago.

The *Financial Times* here holds that another factor in the situation is undoubtedly seen in the announcement just made that Great Britain has decided to transfer the Canadian ships back to Canadian owners. There is every reason to believe that this will result in increased shipments to Great Britain.

Finally, there is the fact that prices in the open market are tending strongly upward in news print, so that the freedom of prices from control in the near future would add greatly to the earnings of Canadian pulp and paper concerns. The output of these continues to increase and further increases are now under way. The increased production is largely for export so that the proportion of Canadian production going for export constantly increases and is now thought to be not far short of 90 per cent. There is much advantage in this, both from the standpoint of volume of export and exchange and from the opportunity afforded the industry for greater profit in open and diversified markets.

A Nine Million Dollar Mill

It is reported from Quebec that an option has been taken upon the property situated around Sillery Cove, Quebec, for its eventual purchase for the erection of a nine million dollar pulp mill. The promoters are well-known American financiers and practical pulp-mill men. The option will expire in thirty days.

Forest Trees Killed Wholesale by Pest

Half of the balsam fir in New Brunswick has been destroyed by the spruce bud worm this year, according to a report brought to the city by Prof. S. A. Graham, of the University of Minnesota, and Prof. J. D. Tothill, of the Dominion Entomological Bureau, who have returned after taking a trip of 125 miles through the crown timber lands of the province in company with L. S. Webb, of the Forests S. V. C.

They entered the woods about a week ago at Red Bank, near Newcastle, and then went to the headwaters of the little South-west Miramichi. They came south across the Renous, and out of the woods at Bioetown. The trip was made on foot and practically all the balsam fir, which has been very plentiful in that district, has been destroyed. In some areas the pest attacked the spruce; and on the Renous the damage to spruce has been quite serious.

Paper Trade Association

This week the annual meeting of the Canadian Paper Trade Association is being held in the Ritz-Carlton Hotel, Montreal, and at the same time the book and writing section, the coated paper section and the wrapping paper section of the Canadian Pulp and Paper Trade Association is being held. The present officers of the Canadian Paper Trade Association are: John F. Ellis, Toronto, president; John Martin, Winnipeg, vice-president; H. B. Donovan, Montreal, second vice-president; E. S. Munroe, Toronto, treasurer, and N. L. Martin, Toronto, secretary.

Abitibi's Big Developments

A whole trainload of new machinery for the Abitibi Power and Paper Company's plant recently pulled into Iroquois Falls, Ont. The machinery consisted of the huge dryer rolls for the four Fourdrinier machines which are to be added to the equipment. The company is erecting fifty new houses at the town site, and the frame work for more than half of them is now completed.

Paper Box Makers to Arbitrate

Thirteen thousand workers who have been affected by the strike of paper box makers, which began three weeks ago in New York City, returned to work Monday. The manufacturers agreed to arbitrate the question of wages and hours and decided to open their plants, but refused to recognize the union, because of conditions peculiar to the industry.

Some of the workers, it was said, demanded a forty-four-hour week and \$1 an hour, and the manufacturers asserted that these demands would force them out of business in a short time. The manufacturers said further that several months ago, after a series of conferences, a forty-eight-hour week was agreed on and an increase of 25 per cent. in wages.

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An Unexplained Lull in Demand Occurs Which, However, Does Not Disturb Paper Dealers—Prices Are Firm All Along the Line With Advances in Some Varieties of Paper—Paper Stock Is Scarce and Prices Are Against the Buyer—Garrett-Buchanan Co. Preparing to Occupy Much Larger Quarters Oct. 1—Firm Has Had Steady Growth Since Its Organization in 1867.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., September 15, 1919.—The slight lull which the jobbers experienced toward the close of last week was so remarkable that it has occasioned interest quite disproportionate to its importance. There was by no means a slump. But business did fall off perceptibly, and this was so unusual an experience that it is really the outstanding feature of the week's development. It is generally agreed that the decline was due to the lessened demands of the printers and publishers. As before suggested, the intense political campaign which is being waged in this city has occasioned the consumption of carloads of paper. The fight is now on its last legs, and the printers who had contracts from this source have of course completed their work. That seems to be the nearest explanation which can be had of what after all was rather a trifling affair and one which has not occasioned the slightest alarm that it is the forerunner of dull times.

On the whole, the jobbers continue to enjoy the fine, healthful, prosperous times which began as soon as Labor Day was over. Nearly all grades of paper are selling well and at firm, and in many cases advancing prices. Wrappings are reported to be very firm, although there has been no change since the advance toward the end of August. Bonds and jute manilas and news are slightly advanced in price. A number of the mills have withdrawn prices on coated and machine finished papers, and there seems to be no stability in prices in this class of goods. The trade notes that in the last three months prices on cardboards have advanced twenty-five per cent in cost, twenty per cent of which occurred in the last six weeks. The box manufacturers all are rushed, have greater demand for stock than the market is able to give them and many manufacturers are oversold for weeks, and in the case of many candy box manufacturers, for months in advance.

Roofing papers are having a very active sale, building operations being rushed before cold weather stops work. Prices are firmer and may soon be increased.

Paper stock, both of old papers and of rags, is scarce and prices are stiff for all grades with advances recorded during the week on all grades save heavy books, over issues and krafts. Rags are equally scarce in supply and firm in price. Bagging is jumping forward in price by leaps and bounds.

Garrett-Buchanan Co. Expanding

When the Garrett-Buchanan Company on October 1 takes possession of the premises recently vacated by the liquidated Megargee-Hare Company, 12 to 16 South Sixth street, there will be ready for patrons the largest paper house in point of capacity structurally, in all Pennsylvania, and it is the purpose of the firm to make it the leader in point of volume of business transacted and extent of stock carried and customers supplied. With the addition, the Garrett-Buchanan Company will have a Sixth street frontage of 100 feet, with a depth of 170 feet through to Marshall street. In addition, the firm has additional warehousing quarters at 22 and 24 South Marshall street, 210 to 220 South Darien street and at 520 Ludlow street. The main building on Sixth street represents an investment of close to \$350,000.

In the consolidated building it is proposed to establish the executive office of the firm in the Megargee-Hare end. The remainder of the space on the first floor in the old Garret-Buchanan building will be given over entirely to the use of the sales force, each man having his own partitioned quarters and facilities for giving individual attention to customers. The force, however, will be grouped by departmental divisions, at the head of which will be an executive giving entire attention to his particular department. The department heads are: Fine paper, Walter H. Buchanan, second vice-president; coarse paper, board and twine, Joseph A. Weaver; book, Howard Satherwaite; cardboard, Edward A. Keller; papeteries, stationery and specialties, W. Harry Goebel; envelopes, Frank E. Sultzer; covers, Joseph H. Miller; ruling department, Fred Kurtz; mill and export, John P. Deal. The general sales manager is Harry G. Gaither, the oldest employee in point of service with the firm. The firm's executives are J. H. Sinex, president and treasurer; Morgan H. Thomas, vice-president; J. Lloyd Cowan, Jr., secretary; W. E. Coe, assistant treasurer, and Morgan H. Thomas, general manager. Employees number 175.

The foundation of the present concern were established in 1867 by Sylvester S. Garrett, Sr., and Alexander S. Buchanan. Beginnings were small, at 4 South Decatur street. In 1871, due to growth, quarters were taken at 3 and 5 outh Marshall street, and in 1896 Clarence Collins was admitted to partnership and the firm name was changed to the Garrett-Buchanan-Collins Company. At this time H. George Buchanan, son of A. S. Buchanan, also was admitted as partner. A felt roofing department was added. A year later there came incorporation as the Garrett-Buchanan Company. In 1904 John H. Sinex entered the firm as general manager, and then there came removal to the present quarters at that time occupied by the Dill & Collins Company and the Whiting Paper Company. S. S. Garrett and Alexander S. Buchanan retired in 1907, and Mr. Sinex took over the business, reorganized it and became president and treasurer. Title to the building was taken the following year. Since then expansion has been continuous and rapid, the great step forward, however has been continuous and rapid.

Philadelphia Paper Mfg. Co. Adds Machine

A new machine for the manufacturer of box boards with a capacity of 76 tons a day is being installed by the Philadelphia Paper Manufacturing Company at its plant on Venice Island in the Schuylkill at Manayunk. With the addition the firm will have a battery of six machines and a gross capacity of 350 tons a day, making it one of the largest mills of its character in the country. Since the firm has developed a tremendous business for box board containers to replace wood.

P. Sullivan & Sons Add Department

P. Sullivan & Sons have added a box board department to the plant at Third and Wood streets. The firm is now selling 6 to 7 carloads a day under the sales managership of Jack Shryock, formerly of Shryock Brothers, 924 Cherry street. There is being featured the products of the mill of Frank Miller, Downingtown, Pa.

D. L. Ward Co. to Have Outing

The D. L. Ward business family is planning a day's outing on the ground of the Philadelphia Rifle Club on September 27. An attendance of 200 is expected. A full program of athletic activities has been arranged. These over, the family is to sit down to dinner and after that to enjoy dancing. George W. Ward, W. A. Hentz, T. J. Curry, T. J. Furlong, Lewis N. Megargee and Vice-President W. S. Wilcox are now attending the convention of the S. D. Warren Mills employees at Boston, Mass., and Swampscott, Mass. Mr. Ward and Mr. Hentz proposes en route home to attend the Typothetae convention in New York September

(Continued on page 22.)

SYSTEMS BOND



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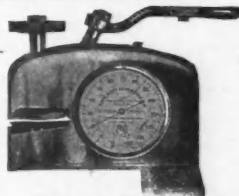
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BIDS AND SPECIFICATIONS FOR GOVERNMENT PAPER

Bids for Various Lots of Paper at Interesting Prices Are Opened by the Purchasing Officer of the Government Printing Offices—Awards Are Announced by the Purchasing Officer of the Government Printing Office for Which Bids Were Opened Recently—Bids and Awards for Paper for the Year by Various Other Government Departments.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., September 16, 1919.—The Purchasing Officer of the Government Printing Office has received the following paper bids:

120,000 pounds (1,000 reams) of No. 1, 22½ x 28½, 120, white bristol board; George W. Wheelwright Paper Company, at \$.14¼ per pound; Wilkinson Brothers Company, at \$.16¼; Merriam Paper Company, at \$.169; and Stoue & Andrew, at \$.201.

6,000 pounds (1,000 reams) of 25 x 38, 50, white laid antique printing paper; Dobler & Mudge, at \$.09625; and Merriam Paper Company, at \$.10¼.

11,250 pounds (225 reams) of 20 x 25, 50, dawn and moss green rough cover paper; Graham Paper Company, at \$.13¼; Niagara Paper Company, at \$.14; Strathmore Paper Company, at \$.20½ and \$.14; Old Dominion Paper Company, at \$.1449; Knowlton Brothers Company, at \$.14; American Writing Paper Company, at \$.168 and \$.118; George W. Millar & Co., at \$.13¾; D. L. Ward Company, at \$.12; Dobler & Mudge, at \$.12625; and R. P. Andrews Paper Company, at \$.112 and \$.348.

2,000 pounds (20 reams) of 26½ x 41, 100, light green coated cover paper; Dobler & Mudge, at \$.12¾; D. L. Ward Company, at \$.12; and Peninsular Paper Company, at \$.12¼.

The Purchasing Officer of the Government Printing Office has received the following bids for 500 pounds of 20½ x 29, 50, laid antique deckle edge printing paper; D. L. Ward Company, at \$.17 per pound; and Knickerbocker Supply Company, at \$.18.

Bids will be opened at the Printing Office on September 19 for 60,300 pounds (700 reams) of double-coated book paper.

The Purchasing Officer of the Government Printing Office has received the following bids for 5,000 pounds (50 reams) of 26½ x 41, 100, India tint coated cover paper; Dobler & Mudge, at \$.1195 per pound; Whitaker Paper Company, at \$.122; Champion Coated Paper Company, at \$.11½; R. P. Andrews Paper Company, at \$.12¼; and D. L. Ward Company, at \$.15½.

Government Printing Office to Open Bids

The Purchasing Officer of the Government Printing Office will open bids on September 18 for 20,240 (184 reams) of 32 x 46 No. 28 flat white writing paper.

The Purchasing Officer of the Government Printing Office will open bids on September 19 for 250,000 pounds of 25 x 38, 45, white S. & S. C. printing paper.

Government Printing Office Awards

The Purchasing Officer of the Government Printing Office has announced the following paper awards, bids for all of which were opened on September 3.

The American Writing Paper Company will furnish 100,500 pounds (1,500 reams) of 31¼ x 45½, 67, white S. & S. C. printing paper at \$.0945 per pound.

32,500 pounds (500 reams) of 32 x 48, 65, rag machine finish printing paper (white) will be furnished by the Bryant Paper Company at \$.12 per pound.

The R. P. Andrews Paper Company will furnish 5,800 pounds of 22 x 34 No. 16 dark pink writing paper at \$.177 per pound.

The Whitaker Paper Company will furnish 5,000 pounds (100 reams) of 20 x 25, 50, rough sage cover paper at \$.12125 per pound and 6,700 sheets of 19½ x 29, green cover paper will be furnished by the American Writing Paper Company, at \$.1045 per pound.

Post Office Department Bids

The Purchasing Officer of the Post Office Department will open the following paper bids. Bids for 215,000 pounds (5,000 reams) of 21 x 32 No. 24 flat white wove writing paper will be opened on September 22. Bids for 167,000 pounds of various sizes flat hard rolled binders' board will be opened on September 19.

DEMAND IN PHILADELPHIA

(Continued from page 20.)

15 to 17, inclusive, while A. J. Meyer, of the firm's publicity department, will make the trip to New York direct from this city.

A. S. Datz & Sons Take Over Building

A. S. Datz & Sons have taken over a new five-story warehouse adjoining the present quarters at 16 and 18 South Marshall street. The addition is the building which it had been planned by George Rudolph and others to use for the Fulton Paper Stock Company. This venture for the present is in abeyance and the Datz Company thereupon took over the building. The firm requires additional space because of the recent development of a fine paper department.

Daniel T. Murphy Expands Business

Such large purchases of Government excess stock have been made by Daniel I. Murphy that there has been required for its disposition the organization of a separate department at his warehouse, Delaware avenue and Vine streets. It will be in charge of John O'Leary. The largest item of stock is 500 tons of felt papers, 1,500 tons of boards and 1,200 kegs of roofing nails. A wool waste department also has been established. John Murphy, son of the head of the house, and recently returned from service, is general manager of the business.

The Penn Card and Paper Company, 20 North Sixth street, Myer Magill proprietor, has bought the eight-story building at 129-131 North Broad street, which it will use as a warehouse. The addition was required by general business expansion, particularly in its jobbing of envelopes, tablets and other stationery articles.

The business of the W. T. Grant Company, dealer in paper boxes, Pittsburgh, and of the J. F. Young Company, roofing paper manufacturer, has been absorbed by the Pittsburgh Paper Products Company, a newly organized concern. Quarters will be occupied at 105 Wood street. Announcements received by the Philadelphia trade also informs it that it is proposed to add a coarse paper department, with direct from mill sales.

The A. M. Collins Company has added to its sales force W. Sherman Winslow, and he will take charge of the department. He was connected formerly with the J. E. Linde Company of New York, which handled the Collins specialties, the Oak Leaf cardboard brand.

Albert A. Light, a former employee of David Weber & Co., Fourth and Locust streets, corrugated paper products manufacturer, has opened offices in the Denckla building, where he will engage in a similar business.

The United Printing Company, 411 South Fifth street, has just been incorporated as the United Printing and Stationery Company, with Louis Silver as president. The new concern will manufacture calendars, advertising novelties and stationery in addition to its general printing business. The adjoining building, 413 and 415, have been added to its plant. The old building is to house the stationery store and carry the stock.

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for the first screening of sulphite, sulphate or ground wood pulp

We shall be glad to furnish data and samples of the work this machine will do in actual use.



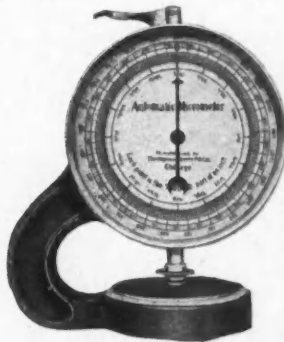
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The cost of power and upkeep is extremely small and the results are very satisfactory.

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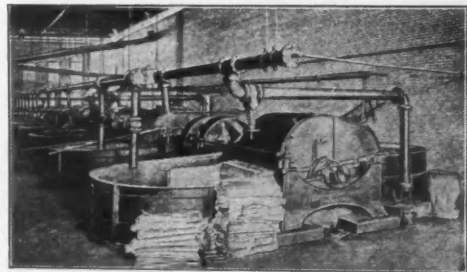
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Graduated in thousandths of an inch from .001 to .250. Guaranteed to be accurate. Has base adjusting screw. Mechanism Brads and Plated steel. Finished in black enamel. Exact size 8 1/2 x 10 with 6-in. Dial. Send your order direct to the manufacturer.

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THOMPSON-BREMER & CO.
850 South Canal St.
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The Illustration Shows a Typical Dilts Equipment in the Beater Room of One of the Largest Boxboard Mills in the United States

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**Beating Engines ALSO
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Owning and operating as a separate department of our business the Knife Works formerly Taylor Brothers & Co., makers of MACHINE KNIVES at Fulton, N. Y., for over fifty years.

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PACKERS OF ALL CLASSES OF ENGLISH AND CONTINENTAL PAPER STOCK. WASTE PAPERS, SHAVINGS, NEW AND OLD CANVAS, RAGS, ROPES AND STRINGS, GUNNY, TARES

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CHANGES IN THE OFFICES OF AMERICAN WRITING PAPER CO.

Numerous Promotions Are Announced Which It Is Expected Will Greatly Strengthen the Efficiency of the Sales Organization of the Company—White & Wyckoff Mfg. Co. Is Praised by War Department—Paper Manufacturers Appreciate Re-establishment of Over-Night Freight from Holyoke to New York—Executives of Chemical Paper Mfg. Co. Have Interesting Banquet.

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., September 15, 1919.—Changes and promotions are coming thick and fast at the American Writing Paper Company main offices these days. In line with the progressive policy which has governed its manufacturing department and department of technical control the company last week made announcement of further changes in its sales department. This was the department that President George A. Galliver found very inadequate after making a careful investigation and examination of the company when first coming here, more than two years ago, and which, through his efforts, is being built up to be one of the very strongest, most reliable and efficient sales organizations in the paper industry of the country.

George J. Cadwell, who for two years has been a sales representative for the company in Chicago and Middle Western territory, has been appointed assistant sales manager. His service in this capacity will prove of inestimable value to Carl E. Lincoln, general sales manager, because of Mr. Cadwell's familiarity with the paper trade conditions in the Middle West. As assistant sales manager he will devote his time in coordinating the efforts of branch offices with those of the home office; to the activities of the salesmen in various territories; and particularly will he give attention to customers' service work. By applying himself to the details of customers' requirements and establishing close relationship between the buyer and the home office he will do much to cement the constantly increasing good-will of the company with its large number of customers.

Another promotion is that of R. D. W. Ewing, who has been placed in charge of the writings and ledgers section of the company's sales department. Mr. Ewing, who years ago served his apprenticeship in the mills of the company, and who subsequently spent four years in the American Writing Paper Company's New York Office as sales representative, will push the sales of these special lines for which the company has secured a high reputation. It may be interesting to note that Mr. Ewing saw active service during the war as a lieutenant in Uncle Sam's Navy.

Another deserved promotion is that of J. L. Wallace, who has been with the company during the last seventeen years. Until a few weeks ago Mr. Wallace has been chief sales correspondent at the home office, when he went into field service as a salesman through eastern New York and New England territory, and demonstrated his selling ability. He has now been given full charge of job and mill ends—lines with which he has become very familiar. His headquarters will be at the general office in Holyoke.

A further inclusion is the company's department of sales is John Kastner, Jr. For a long period he has been connected with the old-established wholesale house of W. C. Coccaro & Co. of New York. His position with the American Writing will be that of export manager. The company intends to increase its export trade, and the services of Mr. Kastner, who has had considerable experience in exportation, are deemed a valuable factor to this end. The American Writing Paper Company does

not deal directly with foreign buyers in foreign lands, but through the means of established export houses. Mr. Kastner is well acquainted with export methods.

A further promotion accorded has been that of F. Henry Savage, who has been appointed a sales representative in the Boston office of the company. Mr. Savage, who was born in the "Paper City," and is a well-known Holyoker, is thoroughly acquainted with the company's papers. He has been connected with the sales and manufacturing departments for three years.

White & Wyckoff Praised

The War Department last week notified the White & Wyckoff Manufacturing Company that it has been cited for its patriotic spirit and cooperation during the world war. Announcement of the award came in a letter in which Colonel Arthur Woods, Assistant to the Secretary of the Navy, in part says: "It is such splendid cooperation as that of your company and other high-minded concerns that has made possible our work in securing employment for discharged soldiers and sailors."

Forty-five employees of the White & Wyckoff Manufacturing Company entered the service, and the company now has a 100 per cent. record of reemploying these men as soon as they returned. Many of them have been given positions even far more lucrative and important than they occupied at the time of leaving. None were killed, none seriously wounded, while one of them received the Croix de Guerre for distinguished service.

Manufacturers Have Meeting

A general meeting of manufacturers in this city will be held at the Hotel Nonotuck tomorrow (Tuesday). Local aspects of the general situation in the nation's industry will be discussed and the conference is expected to bring to light some matters of vital concern and benefit to the Holyoke manufacturers.

All Paper Makers in Unions

Within a few months it is entirely possible that every employee in every local paper mill will be a member of some union organization which will be affiliated with the Eagle Lodge of Paper Makers. Plans are now going forward for forming another union of paper mill women operatives. The new organization will include calender workers, sorters, plater girls and all others now unorganized. The organization meeting will probably be held some time this week.

To Attend Meeting of Writing Paper Men

Many of the local paper manufacturers plan to attend the meeting of the Writing Paper Manufacturers' Association which will be held in Lenox, at the Hotel Curtiss, on Thursday, October 9. On Friday the members will make a trip to Woronoco, where the Strathmore Paper Company mills will be visited. A stop will be made for luncheon at the farm of Horace A. Moses, president of the Strathmore Paper Company. An automobile trip will be made to this city also and several of the mills visited. The meeting will come to a close with a grand "blow-out" given by the Connecticut Valley Members at the Hotel Nonotuck.

Threaten to Strike

Notification has been given the Japanese Tissue Mills that unless the wages of the 50 employees at the two division mills of the company, the Stoney Brook Mill at South Hadley and the Pearl City Mills at Pearl City, are given the standard wage scale as adopted by other paper mills here, they will go out on strike Friday morning. A vote on the situation was taken at a special meeting held Sunday, at which time it was decided to wait until after pay day Thursday to see what attitude the company takes. Thus far, according to William B. Clement, business agent for the Eagle Lodge of Papers, the company has not only refused to pay the scale of wages that is being paid in other mills, but it has also refused to arbitrate. The scale wanted and paid in other mills is \$6 per day for skilled workers and \$3.92 for unskilled labor.

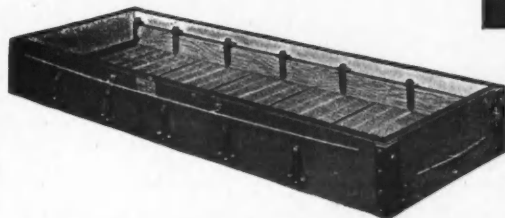
(Continued on page 26.)

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Old Plates RECLOSED and RE CUT to accurate gauge.

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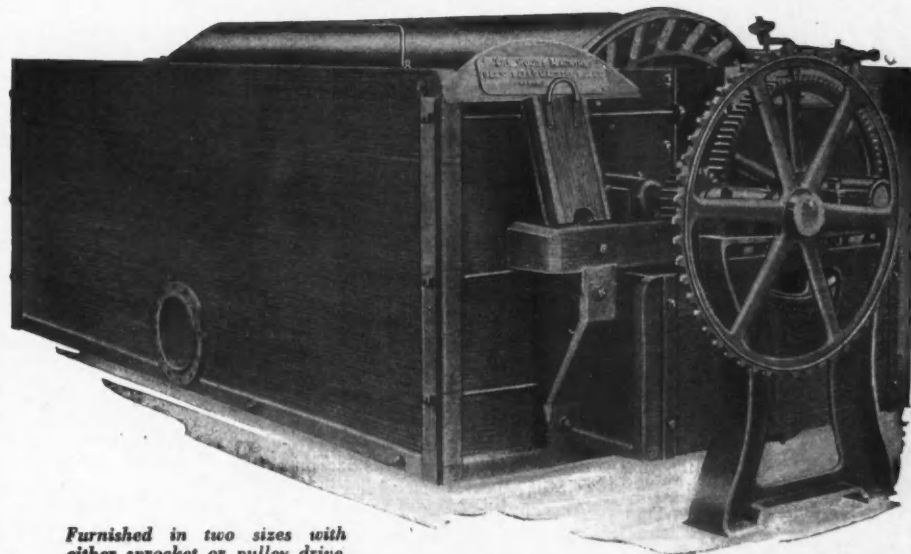
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See Our Exhibit at National Chemical Exposition, Chicago, Week September 22.

PULP INDUSTRY OF SWEDEN IS STILL UNSATISFACTORY

British Continue to Buy Small Parcels of Sulphite for Immediate Delivery but Do Not Care for Large Contracts—Cost of Production Is High and Many Sulphite Mills Do Not Yield Any Profit At All—Mechanical Wood Pulp Mills Have Practically Sold All Their Production—Concerted Movement for Higher Wages in the Paper Industry—Poor Shipments Handicap Trade.

[FROM OUR REGULAR CORRESPONDENT.]

STOCKHOLM, Sweden, August 22, 1919.—The British continue to buy small parcels of sulphite pulp for prompt delivery. They do not care for large contracts. The British appear not greatly to like to use Canadian pulp.

On account of the high cost of production, no further reduction in price should occur. Many sulphite mills scarcely yield any profit at all now.

Quotations are as follows: Strong sulphite: £22 10/@23 per ton, c.i.f. England. Bleaching sulphite, £24@25 per ton, c.i.f. England.

Mechanical Wood Pulp

The mechanical wood pulp market is getting more and more favorable. No changes are likely to occur this year. The mills in Norland have practically sold their stocks and a great deal of their output this year.

Quotations for wood pulp are as follows:

Wet pulp: Prices are firm at Kr. 92/95 per ton f.o.b. Gulf of Bothnia. Norwegian quotations are Kr. 120/125 per ton f.o.b. Christiania. The Norwegians are pretty well sold out.

Dry Pulp

The demand for dry pulp has declined. Prices, however, are firm at Kr. 240/250 per ton f.o.b. Gothenburg.

The Situation in Paper

In the paper industry there is at present a large movement for increase in wages. Negotiations for higher wages are in progress at many mills, and at a number of mills a new wage scale has been agreed upon, which will be in effect until May 1, 1920. Workers with wife and children get additional wages.

However, the great typographical strike in Sweden, which has been in effect since July 1, and includes the greater part of the printing industry in Sweden, has a depressing effect upon the paper market.

Shipments

Shipments: It is reported that all ships to England are fully engaged for 6 to 8 weeks ahead. High rates are charged. For shipments from the Baltic the difficulties are still greater and freights have risen to great heights.

Shipping from Scandinavia to the United States is very restricted, and the offers made are at much higher prices than before.

The Situation in Norway

The situation in paper and pulp is critical. Early in the year the Vestfos, Katfos, Phoenix and Fladeby Cellulose mills and the Skien Paper Mill stopped. At Skotfos there has been a great reduction in the production.

Now the Norwegian mills have practically only England left as a market, and have great competition from Sweden and Finland. The Swedish and Finnish sellers offer lower prices, because they can buy timber cheaper and they pay their workers less.

From Finland comes a report that their exports to America will principally be cellulose. This export begins under favorable conditions.

London

Certain mills have proposed increase of one pence on print paper. The outlook of the market is brighter. The mills have enough orders. Wet mechanical pulp is in good demand, but dry mechanical is not.

AMERICAN WRITING PAPER CHANGES

(Continued from page 24)

Of great benefit to the local manufacturers is the reestablishment of the overnight freight service between Holyoke and New York by the Boston & Maine Railroad. The freight leaves Holyoke at 1 a. m. and is in New York the same morning. Freight is received in car load lots as late as 10 p. m. and on private sidings as late as 9 p. m. the same day. The train was taken off during the war, and Traffic Manager P. J. Dowd, of the Holyoke Traffic Bureau, has been working like a trojan in having this restored again.

Get Acquainted Outing

The American Writing Paper Company's general and division mills office employees of all its 23 Eastern mills, about 400 in number attended a "get acquainted" outing at Dupuis Grove Saturday. The general offices of the company were closed for the entire day, many of the officials, superintendents and managers attending. Those in charge of the affair included Harry W. Alexander, assistant to the president; Forest R. Kee, controller; Martin L. Cramer, general purchasing agent; E. H. Frank, Charles E. Vautrain, of the publicity department, and L. B. Garland.

Chemical Paper Mfg. Co. Has Banquet

The executives of the Chemical Paper Manufacturing Company held a very interesting banquet at the Y. M. C. A. last week. Following the banquet and an entertainment, Seth L. Bush, cost accountant at the Chemical mill, gave a talk on "Cost Accounting" which proved decidedly interesting and of vital interest to all present.

Americanization Meeting

Foremen and other executives of Holyoke paper manufacturing concerns, about 50 in number, attended an Americanization meeting at the Hotel Nonotuck last Friday night. There is much work that can be done locally in the Americanization of employees of concerns, and all manufacturers are interesting themselves on this point. It is probable that other meetings will take place.

Now Connecticut Valley Paper Co.

The B. & B. Paper Supply Company will hereafter do business under the firm style of the Connecticut Valley Paper Company. The company also announces the opening of a Boston office and warehouse at 167 Oliver street. This step has been taken to enable the firm to meet its increased business in New England and also to furnish a means of closer relationship with its customers.

Riverside Paper Company Buys Timber Land

DETROIT, Mich., September 15, 1919.—The Riverside Paper Company, of Ashland, Wis., has purchased for \$80,000 at receiver's sale 10,000 acres of timber land of the old Montreal River Lumber Company, in Gogebic and Ontonagon counties. Pulpwood taken from the tract will be shipped to Ashland and Wisconsin cities.

Cleveland Waste Paper Company Increases Stock

CLEVELAND, Ohio, September 15, 1919.—The Cleveland Waste Paper Company has filed notice of an increase in its capital stock from \$12,000 to \$24,000.

M. GOTTESMAN & COMPANY

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18 East 41st Street, New York

Bleached and Unbleached WOOD PULP

of Every Description

SOLE SELLING AGENTS FOR THE UNITED STATES

FOR

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Eds Cellulosafabriks Aktiebolag	Helgenas
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Forsmarks Cellulosafabrik.....	Johannisfors, Forsmark
	Easy Bleaching and Strong Sulphate (Kraft)
Hellefors Bruks Aktiebolag.....	Hellefors
	Strong Kraft and Easy Bleaching Sulphite
Frederiksberg Sulphate Mills.....	Frederiksberg
	Strong Sulphate (Kraft)
Laxa Sulphite Mill.....	Laxa
	High Grade Easy Bleaching Sulphite
Gustafsfors Fabriks Aktiebolag.....	Gustafsfors
	Easy Bleaching and Strong Sulphate (Kraft)
Hjerpen Sulphite Mills.....	Jarpen
	Mitscherlich Strong Unbleached Sulphite
Holmens Bruks Och Fabriks Aktiebolag.....	Norrkoping
	Strong Unbleached Sulphite
Wermbohls Fabriks Aktiebolag.....	Katrineholm
	Strong and Easy Bleaching Sulphate (Kraft)
Konga Aktiebolag	Konga
	Prime Bleached Sulphite
Nyhamns Cellulosa Aktiebolag.....	Sundsvall
	Easy Bleaching and Strong Unbleached Sulphite
Ohrvikens Aktiebolag	Skelleftea
	Strong Unbleached Sulphite
Stromsnas Bruks Aktiebolag.....	Stromsnasbruk
	Easy Bleaching and Strong Sulphate (Kraft)

THE ABOVE MILLS HAVE A TOTAL PRODUCTION
IN EXCESS OF 200,000 TONS ANNUALLY.

CHICAGO PAPER DEMAND IS VERY SATISFACTORY

Prices Have Shown Less Alterations Than in Some Weeks Past, But Mills Are Getting More and More Behind on Their Orders and Show Reluctance to Make Prices on Paper Which They Cannot Ship Before Nov. 1—Expectation of Higher Prices Late in the Year Is Leading Many Jobbers to Endeavor to Increase Their Stocks, But Under Present Conditions They Are Lucky to Get Current Supplies.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, September 15, 1919.—The condition of the paper trade of the city has been good during the past week. The volume of business is satisfactory, and prices, in all branches, continue firm. Prices have displayed less alteration than for some weeks, but the mills are getting more and more behind, and are showing a reluctance to make prices on lots of paper which they cannot ship before November 1. Some mills which have always frowned on the policy of price at the time of delivery have been forced to insist on this arrangement, even with their oldest and best jobbing customers. This is said to be due to the fact that the mills are being constantly made to pay increases when they come to renew contracts on raw materials. The raw material people, according to the mills, all have good reasons for making increases, and the paper manufacturers make no charges of profiteering in this connection. Nevertheless, the increases are there, and they must be taken into consideration when prices are made on the papers produced by the mills. The labor situation is also one of the factors entering prominently into the matter of future prices. The expectation of higher prices a little later in the year is leading many jobbers into an effort to increase their stocks, but under present conditions they consider themselves fortunate if they are able to get enough paper shipped to supply their current demand, which is very heavy. The vast amount of advertising and other publicity work which is being done is responsible for much of the heavy consumption of paper at the present time.

Discuss Industrial Unrest

The paper, paper board and paper box industry was well represented at an important meeting held last week by the Illinois Manufacturers' Association at the Congress Hotel. The purpose of the meeting, as described by John M. Glenn, secretary of the association, was to "consider the present unrest throughout the country." The meeting concerned itself for the most part with the labor situation, which has become very serious in certain industries. Ways and means of bringing down the cost of living, rather than of giving wage increases and thus aiding the "vicious circle," were also discussed. A number of representatives remarked that labor is now more anxious to see the cost of living reduced than to receive higher wages, since the more intelligent workers realize the futility of asking for more wages if prices of necessities are to be increased in greater proportion. Particular attention was given to the railroad situation. The consensus of opinion seemed to be that the government should return the railroads to private control with the least possible delay. While no resolution was set forth, the spirit of the meeting seemed utterly to condemn government ownership and operation of the lines. Charles Piez, president of the Link-Belt Company, was appointed to make a report on the views of the members before the railroad committee of Congress at an early date.

General Trade News

George Seaman, president of the Seaman Paper Company, has returned from a trip to New York.

W. N. Gillett, of the Chicago Paper Company, has returned from an out of town trip. Mr. Gillett spent a few days at his summer home in Michigan, during the course of his trip.

E. E. Lloyd, of the E. E. Lloyd Paper Company, is at the Chicago office again this week after finishing an out of town business trip.

Peter King, of the Empire Paper Company, recently visited among the paper mills of the middle West.

Sam Knode, of the Albemarle Paper Company, Richmond, Va., has continued on his way after spending a short time in this city. Mr. Knode will visit the leading paper centers of the middle West.

F. H. Koch, of the Wolverine Paper Box Company, Menominee, Mich., visited the city on business this week. The company has a mill, and makes its own board, taking the entire output for its own business.

Frank Borchers, of the Menasha Paper Company, Ladysmith, Wis., will return to this country September 23, after a business trip in the Orient lasting six months. He is expected to land at Vancouver on that date, and after spending a few days on the Pacific Coast, will come direct to Chicago. Mr. Borchers was accompanied by his wife on his trip, which, while of a business nature, also afforded excellent sight-seeing, an opportunity to study conditions in the far East.

George Olmsted, of the J. W. Butler Paper Company, has returned from an out of town business trip.

Frank Walsh, of the Douglas Wray Paper Company, recently returned from a trip to the mills.

Robert Butterworth, of the Champion Coated Paper Company, is back from a trip among the western jobbers.

Harry Williams, of the C. L. Laboiteaux Company, paper board manufacturers, is at his desk after an out of town business trip.

George Gephide, of the Bardeen Paper Company, Otsego, Mich., was in the city on business this week.

Henry G. Prosser, of the Birmingham & Prosser Company, made a business trip to Kalamazoo last week.

Alexander Thomson, sales manager of the Champion Coated Paper Company, was in the city this week after finishing a western trip.

Al Steindler, of the Inlander & Steindler Company, made a business trip through Indiana last week.

D. F. Peck, of the D. F. Peck Paper Company, is a believer in late vacations, so with Mrs. Peck will go to French Lick Springs, Ind., about the first week in October, for a rest of several weeks. Mr. Peck contends that when the weather is too hot to work it is too hot to enjoy a vacation. He will undoubtedly find much support for his stand from other paper men who have come home to rest after spending their vacations during the warm months.

Prices Increasing in Canada

[FROM OUR REGULAR CORRESPONDENT.]

OTTAWA, Ont., September 15, 1919.—Manufactured materials such as envelopes, cartons, etc., have increased in price lately as well as printed matter, according to one of the leading wholesale men here. He said drug papers had also gone up, and that the poor deliveries of kraft seemed an indication that this, too, would advance in price shortly. Twine has advanced \$100 a ton.

The mills are gradually getting rid of their stocks of wrapping papers, steamers going back to the old country carrying large quantities of this, as ballast, for the British market. Such exportation portends higher prices here. The mills are getting better organized, according to reports to dealers. There is ample labor available now, and although it has been stated that there is quite a shortage of news print, it is not believed that there is need to worry over the situation. It is believed production will be much increased within the next two months.



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Coated Cardboard, Boxboard and Lithograph Paper, including Lithograph Blanks, Postal Card Stock, Tough Check, Railroad, Thick China, Transluents and Menu Board.

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IMMEDIATE DELIVERY

BOILERS

T. P. 301-A. Three 175 H.P. Heine Water Tube Boilers. 150 lbs. pressure. Ray feed water purifiers and stack 66" diameter x 128' high with breeching included with these. Laclède-Christy chain grate stokers (T. P. 301-B) with Vach engine for driving can be included with these Boilers.

C. C. 1223. Two 250 H.P. B. & W. Stirling Boilers. Each Boiler has three 42" steam and one 42" mud drum with 56 sq. ft. herring-bone grate. Water columns, steam gauges, blow-off and safety valves, etc. Complete with breeching and steel stack 5' diameter x 125' high.

T. P. 890. 267 H.P. Parker Water Tube Boiler. 54" diameter x 20' long, 1/2" shell. 130 lbs. pressure. Complete with dumping grates, front and doors, blow-off, water column, etc.

T. P. 402. 400 H.P. Union Water Tube Boiler. 150 lbs. pressure. Butt strapped, triple riveted. Equipped with McKenzie chain grate stokers, including full front and fittings. First-class rating at last inspection.

T. P. 517-C. 400 H.P. Parker Water Tube Boiler. 165 lbs. pressure. Complete with front and fittings.

T. P. 301-G. Three 350 H.P. B. & W. Boilers. 150 lbs. pressure. Accessories include Ray feed water purifier and stack 78" diameter x 150' high. Laclède-Christ stokers (T. P. 301-H) can be included with these Boilers.

C. G. 41. 100 H.P. Cooper H. R. T. Boiler. 110 lbs. pressure. Complete with damper, columns, gauges, etc.

T. P. 1109-E. 82 H.P. H. R. T. Boiler. 60" x 15', 83 lbs. pressure. Complete with grate, front, stack, etc.

C. G. 46. Two 70 H.P. American Horizontal Tubular Boilers. 48" diameter x 12' long. 90 lbs. pressure.

C. G. 30. 308 H.P. Heine Water Tube Boiler. 180 lbs. working pressure. Hand fired, passed Mass. inspection.

EVAPORATORS

C. C. 1202. Horizontal Triple Effect Swenson Evaporator. Iron tubes. 6' 3" wide x 8' long x 11' high, heating surface each effect 336-1/4" O. D. iron tubes. Complete with vapor lines, jet condensers and three vacuum pumps. Very good condition.

C. C. 1203. Swenson Horizontal Triple Effect Evaporator. Steel tubes. 6' 3" wide x 10' long x 11' high, heating surface 336 No. 18 gauge 1/4" steel tubes 10' long. Complete with vapor lines, Dean wet wash vacuum pump and jet condenser. Has been very little used.

T. P. 939. Triple Effect Yaryan Evaporator. Steel shells 44" diameter, steel tubes. 400 sq. ft. heating surface in 3" tubes.

MIXERS

T. P. 1126-O. Werner & Pfleiderer Mixers. Type 6, Size 15, Class B. B. 100 gals. capacity for mixing stiff masses. Jacketed; can be used for hot or cold mixes.

JORDAN

T. P. 1178-Q. Noble & Wood Mammoth Jr. Jordan Engine. Belt driven, pulley 36" diameter x 18 1/2" face. 350 R. P. M. Inlet 10", outlet 6". Complete with crucible steel bar and oak lumber filling for plug and shell.

The September issue of our "Economist" will be out on the 20th. Watch for it. It lists many items of equipment of interest to you.

TECHNICAL PRODUCTS COMPANY, INC.

Technical Service in Used Equipment

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Railway Exchange Building
Olive 3278

SRERE BROS. & CO. ABSORB THE MEYER BROS. PAPER CO.

Equipment of the Cincinnati Concern Will Be Removed to Franklin, Where Excellent Manufacturing Facilities Are Afforded—Miami Valley Press Association Is Satisfied with News Print Conditions—Dayton Manufacturers of Paper Products to Exhibit at the Mississippi Valley Exposition to Be Held in St. Louis November 13 to 27—Lee W. James Reorganizing Fan & Motor Co.

[FROM OUR REGULAR CORRESPONDENT.]

DAYTON, Ohio, September 15, 1919.—An important deal has been consummated by one of the leading paper firms of the Miami Valley whereby the Srere Brothers & Co. of Franklin has absorbed the Meyer Brothers Paper Company of Cincinnati. The equipment of the Queen City plant is being removed to Franklin, and will be installed in the commodious mills located there.

The Meyer Brothers Company manufactures toilet paper and specialties. The mills are located along the Miami River and have excellent railway facilities, switches connecting with the Big Four Railroad. The Srere Brothers' concern has 40,000 feet of floor space and is well equipped with boilers, shredders, rotary cookers, heaters, rollers and other modern machinery.

Srere Bros. & Co. is officered as follows: Alfred Srere, president; Harry Srere, vice-president; Howard L. Cheney manager, and Andrew Meehan, superintendent. A branch office is located at Detroit. The Srere Pulp & Paper Company's plant also is located at Franklin, and is one of the most complete mills in this section, the equipment including two wet machines, three rotaries and six combination washing and beating machines. It is devoted to the manufacture of rag and jute pulp. Both mills have a combined capacity of about 32,000 pounds of pulp and jute specialties per day. Sullivan Black is the superintendent of the pulp company, while the officers of the Srere Bros. & Co. are identical with those of the pulp and paper concern.

The addition of the Meyer Bros. Paper Company equipment will prove an important one, and will add to Franklin's prestige as a paper center.

Satisfied with News Print Situation

The Miami Valley Press Association held a meeting this week at the Hotel Gibbons. A score of publishers of the smaller dailies and large weeklies were in attendance. Questions pertaining to the trade were discussed, particularly the news print situation. Most of the consumers are apparently satisfied with prevailing prices and the manner in which paper manufacturers are supplying their needs.

To Enlarge Twine Factory

The J. C. Groendyke Twine Company at Miamisburg is installing two large Sterling boilers to replace four boilers of another design. When completed the twine factory's steam plant will have a capacity of more than 800 horsepower. The Miamisburg mills are among the largest of their kind in the country, and have enjoyed exceptional prosperity. For a time following the death of the president, activities were partly suspended but in recent months the plant has been run to its full capacity and the outlook for future business is said to be bright.

Dayton Paper Men to Exhibit at St. Louis

Dayton manufacturers, including those engaged in turning out paper products of various kinds, are preparing to install exhibits at the Mississippi Valley exposition to be held in St. Louis November 13-27. A meeting was held at the rooms of the

Chamber of Commerce the latter part of last week at which the advantages of being represented at this Western fair were explained in detail. Each State in the Mississippi Valley is being asked to provide machinery and finished product exhibits while a number of foreign countries will be represented. The Bureau of Foreign and Domestic Commerce of the Federal Government has invited all American consuls to give publicity to the exposition in countries in which they are stationed.

Reorganizing Dayton Fan & Motor Co.

Lee W. James, president of the Chamber of Commerce, and the legal representative of the Friend paper mill interests, is interested in the reorganization of the Dayton Fan & Motor Company, which has increased its capital to \$700,000. The company is erecting a five-story brick and concrete building at Monument avenue and Meigs street, and is anticipating a large addition to its working force. The present plant is located at Ludlow and Bayard streets.

Endeavor to Settle Strike Difficulties

F. L. Hawley, commissioner of conciliation for the Department of Labor, was called to Dayton last week in the hope of effecting a settlement of the difficulties at the Miami Paper Company's plant in West Carrollton, where a strike has been in progress for some time. Mr. Hawley interviewed officials and workmen, and found both sides assuming a very fair attitude, he explained. Commissioner Hawley stated that representatives of an undesirable element have been endeavoring to influence the strikers. He related an incident in connection with a meeting of 400 workmen at West Carrollton at which two sovietts made their presence felt in an underhand manner by circulating among the workmen and their families at night.

Miami Flowing in New Channel

The Great Miami River now is flowing through a new channel in the bottom lands between Middletown and West Middletown, the new cut made by the Conservancy organization having eliminated a wide bend in the river at that point. The task occupied three months' time, during which time 100,000 cubic yards of earth were removed. By the improvement, the new channel is somewhat removed from Middletown, and the change affords practical flood protection to the "Paper City." There still is a great amount of protective work to be finished in the construction of levees, work on which was not started until this week. It is expected it will be completed by January 1.


The general scheme for the protection of the city and paper mills which suffered considerably during the 1913 flood, includes the building of levees along the river both north and south of the city. Flood gates will be constructed at Tytus bridge to close the canal when necessary. Part of the conservancy plan to widen Hydraulic street was completed before the drag line machine was removed to work on the channel cut which made possible the new river course as stated above.

It may be said that the general scheme of construction is progressing satisfactorily throughout the entire Miami Valley. Work on the five retarding basins, or reservoirs, has been rushed to the limit for eighteen months and never before has the valley rested in greater security, as one of the principal detention dams has been completed to the point where the waters of the Miami and its tributaries may be corralled in the event of heavy rains. The work of widening and deepening the channel of the Miami River in Dayton still is in progress. During the past month the results of the all-summer activities have been especially noticeable. Not only has the river been broadened to afford a greater flow of water but strong levees have been added, while those existing were strengthened. Paper manufacturers and owners of machinery plants are deeply interested in the consummation of the \$25,000,000 project and are well satisfied with results up to date.

DIRECT INQUIRIES

Considering our advantages of experience and knowledge of certain requirements, both domestic and foreign, we solicit the opportunity to handle some of your direct inquiries.

Your profit will probably be larger and much of your time will be saved.



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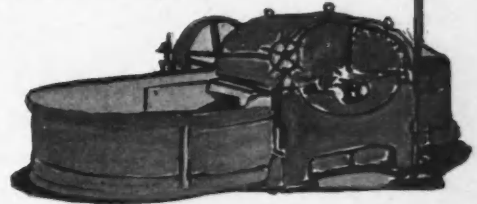
Our plant at Waterford is ideally equipped for speedy and effective service in colored specialties for all purposes. Try us.

At Cohoes, our new mill is now concentrating upon the manufacture of WATCO Bond in white and colors, which has been received with such marked favor by paper buyers the country over.

Let us quote on specialties of all descriptions

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Domestic and
Export

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Albany, Indiana

A Second Palaver on Paper

BY ELBERT HUBBARD II.

THIS being an account of a visit to Parchment by Elbert Hubbard II and Freddie—the introductory lap of which was taken “astride a bucket of gasoline,” as Bert puts it. But drop us a letter for the NEW BOOK now being done a la Roycroftie. KVP products edge into the dope very interestingly. When you express your reluctance to get along without this “Second Palaver” you might at the same time tell us what you need in vegetable parchment, waxed and bond papers.

Kalamazoo Vegetable Parchment Company

Kalamazoo, Michigan

“The world’s model paper mill.”

Makers of bond and waxed papers, and vegetable parchment.

SPAIN IS IMPORTING MORE HEAVY PAPER FROM U. S. A.

In 1912 and 1913 Germany furnished half of the total but during the war Germany, Austria-Hungary and Belgium dropped out of the market—in paper generally the foreign market has been so interfered with that imports have fallen in spite of steadily rising local prices and this has stimulated a demand for a more adequate domestic supply.

[FROM OUR REGULAR CORRESPONDENT.]

The conditions created by the war have done much to turn the attention of Spain to the possibilities of supplying its own needs, and paper is one of the things in which its dependence upon foreign markets is looked upon as unfortunate, according to Commercial Attaché Chester Lloyd Jones.

Domestic Paper Output Restricted

In recent years the foreign market has been interfered with, and imports have fallen in spite of steadily rising local prices. This has stimulated the demand for a more adequate domestic supply. The local producers are reported as able to supply the greater part of the reduced demand at the present time at prices which on the cheaper grades of paper compare favorably with those now offered by foreign houses; but they can not with present methods of production supply a growing demand in normal times for the better grade papers. They can not greatly increase their production of even the cheaper grades without importing increased amounts of raw materials or discovering new local sources of supply.

The first alternative seems to be the more feasible, since the timber scarcity is such that greater reliance on the local forests is not to be considered. Some of the paper manufacturers are convinced that cultivation of esparto may be developed to an extent which will greatly reduce, if it does not entirely eliminate, the dependence of the country on foreign sources of supply. For the immediate future, however, it is evident that Spain will continue to be a steady importer of foreign papers.

Tariff Rates on Plain Paper

The most important branches of paper imports are those which occur under the tariff classification headed "papel en rama," which includes news print and wrapping papers—the classes known in the Spanish tariff classification as "endless paper." The tariff of 1906 with its modifications classifies "papel en rama" in seven divisions, of which two are unimportant. The trade in the other five requires individual analysis. The classification is based on weight per square meter, the tariff charges (equivalents in United States currency) being as follows:

	Per 100 kilos.
Up to 20 grams per square meter.....	\$5.85
From 21 to 40 grams per square meter.....	3.47
From 41 to 50 grams, per square meter, containing mechanical paste	1.65
From 41 to 50 grams, per square meter, not containing mechanical paste	3.47
Ordinary packing paper	2.09

The rates quoted are for the most favored nation, and are in force for the commerce of all countries important in Spanish trade.

The rise in the local price of paper caused by the war resulted in the issuance of a royal order on August 11, 1916, removing import taxes on tree trunks and wood pulp for paper manufacture. On May 5, 1917, the exportation of all grades except those

made by hand, cut in sheets for letters and envelopes, cigarette papers and packing papers made from straw, was prohibited; and on May 12, 1917, the exportation of used paper came to an end. A request by the manufacturers for a revision of these regulations which would have allowed the exportation of 5,000 tons of low-grade papers resulted in a protest by the publishers' association in April, 1919, and an assurance on the part of the government that not a ream would be allowed to leave the country.

War-time Changes in Paper Market

The Spanish trade in "papel en rama" before the war was predominantly in the hands of German interests. Next in rank were the French and the British. Smaller amounts came through Belgium and the Netherlands. Shipments from the United States were negligible.

Paper weighing 20 grams or less per square meter constituted the only branch of the "papel en rama" market in which France held first place in the years immediately preceding the war, and with the disappearance of Germany as a competitor France practically monopolized this trade by 1916. In 1917 the total imports from all countries were 75,734 pounds and in 1918, 37,955 pounds. Statistics of distribution by countries are not available for these years.

In the tables given below only imports totaling 5,000 kilos (11,000 pounds) or more are noted by countries of origin. The following statistics show the quantities of paper imported during the years 1912, 1913, 1914, 1915 and 1916, under the tariff classification "Endless paper, white or colored, uncut, whether glazed or not, weighing up to 20 grams inclusive per square meter":

Countries of Origin.	1912. Pounds.	1913. Pounds.	1914. Pounds.	1915. Pounds.	1916. Pounds.
Germany	31,493	21,101	18,282	.....	.....
France	54,670	54,556	75,249	93,837	62,688
Total imports	96,013	94,342	109,213	109,058	68,566

The second class of paper, of 21 to 40 grams weight per square meter, was distinctly a German product. About four-fifths of the total import came from Germany before the war. Beginning with 1914 the trade rapidly declined, falling to 8,170 pounds in 1916. In 1917 and 1918 the shipments increased, reaching 53,352 pounds in the latter year. The statistics for this classification follow:

Countries of Origin.	1912. Pounds.	1913. Pounds.	1914. Pounds.	1915. Pounds.	1916. Pounds.
Germany	85,943	132,185	81,017	.....	.....
France .....	.....	18,258	16,111	12,168	.....
Great Britain .....	.....	.....	12,501	.....	.....
Total imports	110,929	167,462	117,248	36,328	8,170

Germany Loses Trade in Heavier Grades

The bulk of the Spanish trade in "papel en rama" falls in the heavier grades, classified as weighing from 41 to 50 grams per square meter and as ordinary packing paper. Neither of the classes already discussed is imported to the extent of one-tenth the amount received of each of the three important heavier classes of paper.

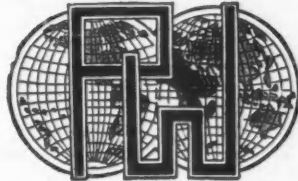
"Endless paper" weighing 41 to 50 grams per square meter and containing mechanical pulp was supplied by Germany in 1912 to the extent of almost three-fourths of the total of 1,174,760 pounds. Great Britain, the nearest competitor, furnished little more than one-tenth as much. The Netherlands, France, Belgium and Austria supplied lesser amounts. The next year German trade held practically the same relative position. The war drove the old competitors from the field, with the exception of Great Britain. By 1916 two new contributors had appeared—Sweden supplied almost two-thirds of the decreased total and Norway about one-tenth as much. Practically all the remainder continued to come from Great Britain. In 1917 the total imports were 217,051 pounds, and in 1918, 389,030 pounds.

The following table, covering the years 1912, 1913, 1914, 1915

(Continued on page 34.)

Parswhit Perfect Papers Universally Used

Cable Address:
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As a long established export paper house of American origin, we are prepared and equipped to be your foreign representative. Our agents and salesmen are in many of the large buying centers of the world and thereby keep us in intimate touch with the market condition of the various countries.

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New York

SPAIN IS IMPORTING MORE HEAVY PAPER FROM U. S. A.

(Continued from page 32.)

and 1916, shows the imports of "endless paper weighing from 41 to 50 grams inclusive per square meter, containing mechanical pulp":

Countries of Origin.	1912. Pounds.	1913. Pounds.	1914. Pounds.	1915. Pounds.	1916. Pounds.
Germany	855,663	330,990	206,470	71,630	.....
Austria-Hungary	44,527	.....	.....	.....	.....
Belgium	42,076	.....	.....	.....	.....
France	64,079	17,618	.....	.....	.....
Great Britain	86,826	79,260	46,103	110,550	118,116
Netherlands	79,436	.....	85,355	56,071	.....
Norway	.....	.....	.....	.....	20,259
Sweden	.....	.....	.....	.....	220,336
Total imports	1,174,760	443,729	350,180	238,298	360,250

Increased Imports of Heavy Paper from United States

In the imports of "paper weighing 41 to 50 grams per square meter not containing mechanical pulp, and all paper weighing 51 grams and up," there was before the war a livelier international competition than in other grades. In 1912 and 1913 Germany furnished half of the total, but both France and Great Britain made important contributions, and Austria, Belgium and the Netherlands were active elements in the commerce. During the war the total imports fell off to almost a third of the figure for 1912, or to a fourth of that of 1913. Germany, Austria-Hungary, and Belgium dropped out of the market. France and Great Britain continued through 1916 to ship substantially the same quantities as before the war, and so increased the importance of their relative position.

This is the only class of paper of which more than 5,000 kilos (11,000 pounds) was imported from the United States before the war, and the shipments have shown a tendency to rise, amounting in 1916 to over 10 per cent. of the total. Sweden and Norway did not figure in these imports as they did by 1916 in the previous class. Statistics for the years 1912 to 1916, inclusive, are given below* for this classification of paper imports. Imports in 1917 totaled 909,485 pounds, and in 1918, 160,641 pounds.

Countries of Origin.	1912. Pounds.	1913. Pounds.	1914. Pounds.	1915. Pounds.	1916. Pounds.
Germany	694,601	1,202,297	962,533	483,564	.....
Austria-Hungary	153,345	243,947	157,143	24,466	.....
Belgium	121,696	66,973	33,324	.....	.....
United States	23,335	18,822	61,996	33,661	84,292
France	236,330	259,845	230,604	165,723	217,779
Great Britain	182,478	279,066	200,220	142,819	232,793
Netherlands	95,660	137,324	93,275	60,680	37,946
Italy	.....	15,070	.....	21,090	16,539
Sweden	.....	15,313	.....	.....	.....
Total imports	1,511,448	2,244,478	1,750,244	940,568	594,696

Revival of Trade in Ordinary Packing Paper

In ordinary packing paper, with or without stained pulp, the market in 1912 and 1913 belonged to Germany to the extent of two-thirds of the total. The rest was divided in portions varying from year to year between Sweden, France, Great Britain, Norway, the Netherlands, Belgium and Austria-Hungary. Of the three more important classes of paper imports this suffered most as the result of the war. All but three competitors had by 1916 disappeared or become insignificant. The total imports had sunk with each year from 1,910,887 pounds in 1912 to 189,707 pounds in 1916. Great Britain had succeeded in maintaining and even increasing its shipments, and contributed almost 30 per cent. of the total in 1916. Swedish consignments had fallen in amount but had increased in relative importance. In 1917 the imports were only 154,901 pounds, or little over 8 per cent. of those in 1912. In 1918, however, they rose again, reaching 1,185,551 pounds.

Imports of Packing Paper

The following table gives the statistics of imports of ordinary packing paper for the years 1912 to 1916 inclusive:

Countries of Origin.	1912. Pounds.	1913. Pounds.	1914. Pounds.	1915. Pounds.	1916. Pounds.
Germany	1,555,453	735,135	441,333	181,420	.....
Austria-Hungary	28,751	12,391	.....	.....	.....
Belgium	84,400	15,353	33,177	.....	.....
United States	.....	12,166	.....	.....	.....
France	138,812	47,091	27,951	15,792	17,372
Great Britain	31,660	40,188	19,375	55,964	54,095
Netherlands	81,746	17,165	.....	.....	.....
Norway	96,059	.....	.....	34,713	.....
Sweden	177,056	27,777	80,598	82,524	112,406
Italy	.....	24,608	11,020	.....	.....
Portugal	.....	.....	.....	36,044	.....
Total imports	1,910,887	941,740	630,007	412,377	189,707

Trade Prospects

At the present time purchases in the paper trade, as in most other lines, are being confined to amounts of which disposition can be made immediately. It is felt that the changes that will come in the prices of available raw materials and papers which can be imported are such as to counsel conservatism. For the immediate future the old sources of supply can not be counted upon; and those countries which have come to furnish a large part of the Spanish paper imports will, with the restoration of more nearly normal conditions in shipping, carry on a lively competition to hold the market which the war has placed in their hands. The revision of the Spanish tariff now in process will introduce another element which will have an important influence upon the character and amount of Spanish purchases abroad.

Endicott Paper Co. Builds at Portland

PORTLAND, Ore., September 10, 1919.—Work has been started on a new warehouse at the southwest corner of Fifth and Flanders street for the Endicott Paper Company of Portland, which is affiliated with the J. W. Butler Company of Chicago.

The new warehouse, which is to be 100x100 feet in dimensions, and with ground and mezzanine floors, is to be pushed to completion as rapidly as possible. The building is of concrete and is to cost in the vicinity of \$20,000.

The new warehouse was designed by John V. Bennes, architect of Portland, and is to be of the latest design. It is expected that the structure will be completed about October 15 and the paper company will immediately move in and begin business. It has been announced that orders have already been placed for different grades of paper so that the goods will be ready when the firm is able to take up its quarters in the new warehouse.

The building is being erected by the owner of the property, Will T. Wright, who is president of the bank of Oregon City.

The paper company has been incorporated under the laws of the statute of Oregon for \$75,000 with the following officers: Laurence Endicott, president; R. H. Miller, vice-president, and W. L. Walsh, general manager. The company will be a Portland-owned corporation, the majority of the stock being held by Mr. Endicott and his associates who will reside in this city.

The officers of the new concern are all well known in the paper industry. Mr. Endicott has been in the paper business for the last twenty years. Ten years he spent in the East with mills and dealers and ten years in Seattle, where Mr. Miller and he have been associated together in the Mutual Paper Company of that city. Mr. Endicott, during his residence in Seattle has been vice-president and general manager of the Mutual Paper Company, and while he will retain the position of vice-president of that company he will not be actively engaged there, as he will move to Portland and reside there to take active charge of the new company.

Mr. Miller is president of the Mutual Paper Company and will remain in Seattle to look after the company there.

Mr. Walsh has been with the Blake McFall company of Portland for the last nine years.

COLUMBIAN TWINES



COLUMBIAN ROPE COMPANY

"The Cordage City"

AUBURN

N.Y.

BRANCHES , BOSTON , NEW YORK . CHICAGO .

New York Trade Jottings

Henry C. Atterbury, of Atterbury Brothers, Inc., 38 Park Row, returned last Monday from a two-week vacation.

Philip T. Dodge, president of the International Paper Company, sailed today on the *Aquitania* for England, where he will spend two or three months. His trip is entirely on business.

A. C. Scrimgeour, of the Manufacturers' Paper Company, 30 East 42d street, New York, is taking a two-week vacation, and will be back at his office about September 22. He is spending his vacation on Long Island, playing golf.

R. S. Kellogg, secretary of the News Print Service Bureau, 18 East 41st street, left last Tuesday for Ottawa, Ontario, to attend the hearing on the price fixing of news print in Canada, which is being held there this week. He will return the first of next week.

The Paper Traffic Association advises that rates which it has complained of on paper as being too high, are about to be adjusted and brought in line with other rates. This will mean a substantial reduction, in many instances, and could only be brought about through the efforts of an organization of this kind, as there is no other association looking after the interest of the paper trade generally in traffic matters.

The State Pulp and Paper Company, Inc., of 8 West Fortieth street, New York, has increased its capitalization from \$50,000 to \$100,000. Due to the rapid increase in business, the firm has felt it necessary to enlarge, and will open new and larger offices as soon as they can be obtained. The added stock will be taken up by the members of the firm, only a few preferred shares being sold to outsiders. The officers of the company are E. E. Ellsworth, president and secretary, and G. M. Carnochan, vice-president and treasurer. The directors consist of Mr. Ellsworth, Mr. Carnochan and Albert Nashmann.

Corydon A. Woodward, conducting a printing business at 5 Beekman street has filed a petition in bankruptcy with liabilities of \$14,000 and interest and assets of \$200, consisting of two refunding bonds of Ridgewood Country Club, Ridgewood, N. J. Petitioner also owns 122 shares of common stock and 20 shares of preferred stock of the Storm King Paper Company, Inc., in bankruptcy, and given as of no value. The only creditor is the Atlantic National Bank of the City of New York by virtue of petitioner's indorsement of three promissory notes drawn by the Storm King Paper Company, Inc.

James McGinley Returns to Niagara Falls

NIAGARA FALLS, N. Y., September 15, 1919.—James McGinley, former superintendent of the Falls plant of the International Paper Company, who has been away from the Falls since the mill was closed early last year because the power was necessary for use by plants making war materials, has returned to the plant as superintendent. Since he left this city Mr. McGinley has been connected with the Lake George mill of the International Company at Ticonderoga. During the shutdown the motive power has been changed from hydraulic to electric, power being supplied by the Niagara Falls Power Company. The mill formerly took its water for power from the intake canal of the power company.

The mill is being put in shape to turn out a high grade of writing papers, the other international mills being able to supply the news market. It is said that the mill will not be started for about two months.

Recent Incorporations

SEEPAIN ENVELOPE COMPANY, 40 Clinton street, Newark, New Jersey.—Manufacture paper envelopes, writing paper, etc.; capital, \$100,000.

H. B. HENRY COMPANY, INC., Lambertville, New Jersey.—Manufacture paper and paper products; capital, \$25,000.

GIBRALTAR CORRUGATED PAPER COMPANY, Brooklyn, New York.—Capital, \$60,000. Incorporators, S. Rubin, S. Levine, W. Weingarden, 184 Greenpoint avenue, Brooklyn.

ROVERTON PAPER COMPANY, INC.—Capital, \$100,000; Manhattan, New York. Incorporators, Edmund E. Ellsworth, Gouverneur M. Carnochan, Fred B. Oldham, Hartford, Conn.

J. P. GALEWITZ, INC.—Capital, \$30,000; Kings County, New York; general paper and paper products business. Incorporators, Jacob P. Galewitz, Joseph Klein, Alexander Slater, 100 West 121st street, New York City.

MILLER PAPER COMPANY, Louisville, Kentucky. Capital, \$10,000. Incorporators: S. C. Miller, Gordon Miller and Lawrence Miller.

AMERICAN SULPHITE PULP AND PAPER COMPANY, INC., New York. Capital, \$5,000. Incorporators: Albert N. Pirman, Michael Pirman, Marie Pirman, 154 Foxall Street, Brooklyn.

PITTSBURGH PAPER PRODUCTS COMPANY, Pittsburgh, Pennsylvania. Capital, \$15,000. Incorporators: Walter S. Grant, Pittsburgh; J. F. Minke, Fair Oaks, and H. D. Young, Wilkesburg.

American Paper Mills Corp. Expands

Recent additions to the sales force of the American Paper Mills Corporation of 38 Park Row, New York City, include Fred R. Eitzkorn, formerly with the Dill & Collins Company; T. Gordon, formerly with the White-Burbank Paper Company; Frank Lally, formerly with James Carleton Payne; Frank L. Pollard, formerly secretary of Wm. C. Hart Company, Inc.; Wm. H. Ornsten, formerly with Wm. Green, Inc., printers; Edmund B. Skinner, formerly with the Canfield Paper Company; Charles A. Stachelroth, formerly with the J. E. Linde Paper Company; Stanley A. Morris, formerly of the editorial staff of the PAPER TRADE JOURNAL.

M. H. Freimark, president of the company, is naturally enthusiastic about his sales force. He declares that he is well on the way to achieving his ambition to have the most capable sales force in New York City. His standard of selection is high, the men being chosen not only for their knowledge of paper and ability to sell but more particularly for their knowledge and keen appreciation of the needs of the buyers and users of paper—particularly printers and publishers.

The American Paper Mills Corporation has already outgrown its present offices and is seeking larger quarters.

Safepack Mills Changes at Pittsburgh

PITTSBURGH, Pa., September 15, 1919.—H. F. Yeakel, who was the manager of the Pittsburgh office of the Safepack Mills, has gone with the Chatfield & Woods Company as manager of their coarse paper department at Pittsburgh.

Charles F. Briggs, of the Charles F. Briggs Paper Company, who was for many years connected with the Hartje Paper Manufacturing Company, will represent Safepack Mills exclusively in Pittsburgh, Western Pennsylvania and the eastern part of Ohio.

The offices of the Safepack Mills and the C. F. Briggs Paper Company have been combined at 108 Smithfield street, Pittsburgh.

William C. Jupp Dead

William C. Jupp, paper merchant, 15 Park Row, New York City, died of Bright's disease on September 11, at his country home in Keyport, N. J. The body was taken by his family to Detroit where interment occurred on September 13, 1919.

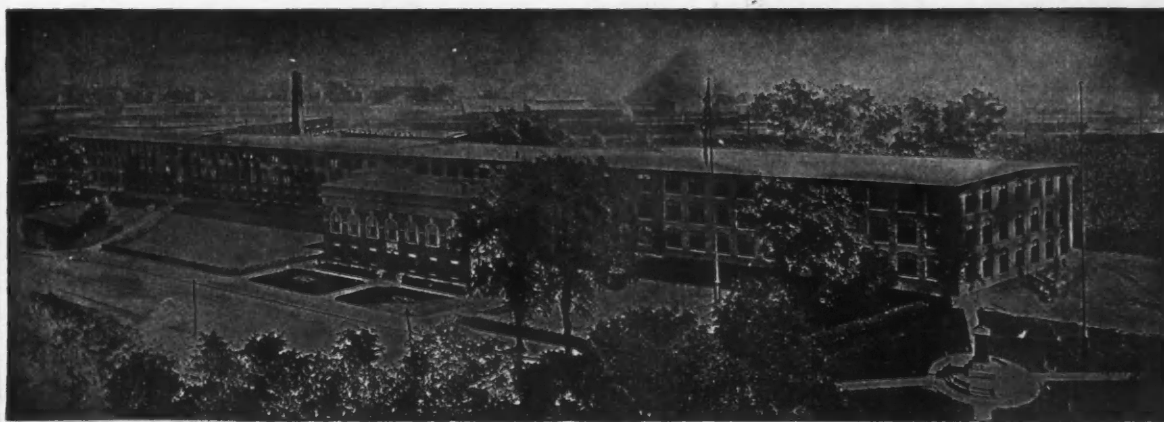
HOWARD BOND

WATERMARKED

Color Brilliant : Strength Wonderful

THE HOWARD PAPER CO.
URBANA, OHIO

F. C. HUYCK & SONS ALBANY, N. Y.



Manufacturers of Kenwood Felts and Jackets for all kinds of Paper and Pulp
Seamless Felts both for high speed machines and fine papers.

NEWS PRINT STATISTICS FOR MONTH OF AUGUST

The News Print Service Bureau has just issued the following report on news print for August:

The 39 reporting companies produced 158,534 tons and shipped 155,708 tons during August. Production exceeded shipments by 2,826 tons. Production figures include 1,298 tons of hanging, of which 129 tons were made in Canada.

The average daily production of news print paper by the mills reporting for August amounted to 100.5 per cent. of the average daily output during the three months of greatest production in 1919.

The comparisons for 1919 with 1918 are based upon the same identical mills. Production by the United States mills during the first eight months of 1919 was 39,546 tons, or 6 per cent. greater than during the same months in 1918. Canadian production during this period exceeded that of the same eight months in 1918 by 25,582 tons, or more than 5 per cent., making combined production of the 39 reporting companies 65,128 tons, or nearly 6 per cent. greater than in the first eight months of 1918.

Stocks during August decreased 966 tons at United States mill points and increased 4,212 tons at Canadian mills, making total stocks 3,246 tons more on August 31, 1919, than on July 31. The increase in Canadian stocks was at British Columbia mills which do not have facilities for rail shipments. The total of 37,737 tons on hand at all mills August 31 amounted to slightly more than 6 days' production.

National Paper Trade Association to Meet

A conference meeting of the National Paper Trade Association of the United States will be held at the Waldorf Astoria Hotel the week of November 10, it was learned from William C. Ridgway, secretary of the association, 41 Park Row, New York.

The meeting, which is to be held at the same time as that of the American Paper and Pulp Association, is simply a conference, and not the annual convention. The exact day of the conference is not yet set, according to Mr. Ridgway.

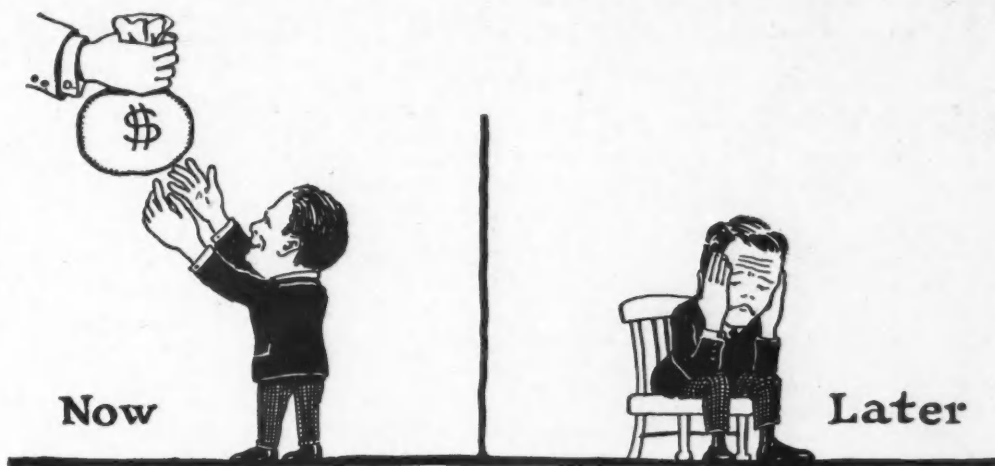
Mr. Ridgway left last Tuesday for Philadelphia, to settle the details of the conference, and to arrange the program. He will be back in New York on Friday. It is expected that the date of the annual convention will be set for some time in April, in order to coincide with the changed date for the meeting of the American Paper and Pulp Association.

F. J. Ford Goes with Nuera Paper Company

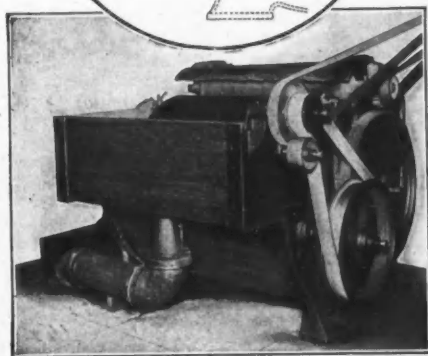
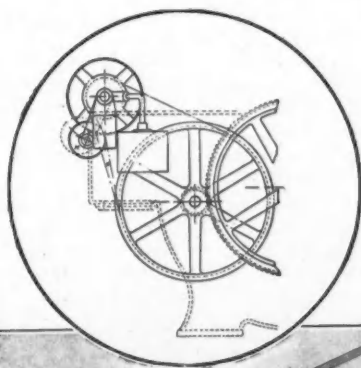
FULTON, N. Y., September 15, 1919.—F. J. Ford, for nine years superintendent of the Volney Paper Company, and for the past year general superintendent of the Arrowhead Mills, Inc., of this city, has severed his connection with that company and taken a position as mill manager of the Nuera Paper Company, Hadley, N. Y. Mr. Ford is leaving a host of friends in Fulton, who wish him all success in his new venture.

	Days in Month	Companies Reporting	United States Mills.				Shipments.		Total Stocks on Hand at all Points.	
			Production.		Per Cent. of Maximum.	Total Tons During Month.	Per Cent. of Maximum.			
			Maximum in Tons. Per Month.	Actual in Tons. Per Day.						
1919—January	27	24	98,199	3,637	95,555	3,650	100.3	95,936	97.6	23,450
February	24	24	87,288	3,637	88,793	3,700	101.7	84,041	96.2	28,403
March	26	24	94,562	3,637	93,868	3,610	99.2	88,556	93.6	29,587
April	26	24	94,562	3,637	94,287	2,626	99.6	90,435	95.6	33,512
May	27	24	98,199	3,637	83,265	3,084	84.7	92,576	94.2	24,219
June	25	24	90,925	3,637	91,381	3,655	100.5	93,496	102.8	23,289
July	26	24	94,562	3,637	92,625	3,567	97.6	93,994	99.3	22,138
August	26	24	94,562	3,637	92,591	3,561	97.9	93,850	99.2	21,172
8 months	207	24	752,859	3,637	735,365	3,552	97.6	732,884	97.7	.....
1918—8 months	208	24	770,758	3,705	695,819	3,351	90.2	727,502	94.3	.....
Canadian Mills.										
1919—January	26	15	63,050	2,425	63,799	2,454	101.1	65,000	103.0	13,170
February	24	15	58,200	2,425	58,954	2,456	101.2	60,483	103.9	11,943
March	26	15	63,050	2,425	62,851	2,416	99.6	60,877	96.5	14,134
April	26	15	63,050	2,425	64,285	2,471	101.9	66,280	105.1	12,401
May	27	15	65,475	2,425	61,356	2,272	93.7	63,231	96.5	10,681
June	25	15	60,625	2,425	59,557	2,382	98.2	58,245	96.0	12,135
July	26	15	63,050	2,425	64,449	2,480	102.2	64,284	101.9	12,353
August	26	15	63,050	2,425	65,943	2,536	104.5	61,858	98.1	16,565
8 months	206	15	599,550	2,425	501,194	2,433	100.3	500,258	100.1	.....
1918—8 months	207	15	485,622	2,346	475,612	2,298	97.9	486,824	100.2	.....
United States and Canadian Mills.										
1919—January	39		161,249	6,062	162,354	6,104	100.6	160,936	93.6	36,620
February	39		145,488	6,062	147,747	6,156	101.5	144,524	99.3	40,346
March	39		157,612	6,062	156,719	6,026	99.4	149,433	94.8	43,721
April	39		157,612	6,062	158,572	6,097	100.6	156,715	99.4	45,913
May	39		163,674	6,062	144,621	5,356	88.3	155,807	95.1	34,900
June	39		151,550	6,062	150,938	6,037	99.5	151,741	100.1	35,424
July	39		157,612	6,062	157,074	6,047	99.6	158,278	100.4	34,491
August	39		157,612	6,062	158,534	6,097	100.5	155,708	98.7	37,737
8 months	39		1,252,409	6,062	1,235,559	5,985	98.7	1,233,142	98.4	.....
1918—8 months	39		1,256,380	6,061	1,171,431	5,649	93.2	1,214,326	96.6	.....

NOTE.—Maximum figures 1919 represent average production best three months of 1918. Maximum figures 1918 represent average production best three months of 1917.



When Do You Want to Use Your Save-All Stock Now? or Later?



With a Bird Save-All you realize your savings of waste stock immediately. The salvaged fibre goes back instantly to the paper machine—no waiting until the stock can be recovered from settling tanks—no storing of fibre until the same grade of paper is run again—no using of good stock in a lower grade of paper where it is worth less—no spoilage or deterioration.

The stock saved on a Bird Save-All is all profit. There is no deduction for labor, for handling, for storage.

With a Bird Save-All you can save money at a profit.

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BIRD MACHINE COMPANY
EAST WALPOLE, MASS.

T. H. SAVERY, JR., Western Representative
1630 Republic Bldg., CHICAGO, ILL.

THE BIRD SAVE-ALL

PRACTICAL QUESTIONS AND ANSWERS FOR MILL MEN

A Department for the Solution of the Troubles, Large and Small, That Are Encountered by the Workers in the Mills in the Course of Their Duties in Making Paper and Pulp—All Mill Men Are Invited to Send in Both Questions and Answers—A Free Exchange of Ideas Is Desired—By Active Co-operation This Department Can Be Made a General Clearing House for Information in Regard to Practical Paper Making.

Quick Method of Reckoning Machine Production

Copyrighted by PAPER TRADE JOURNAL, 1919.

Question No. 2454. Can you give me a quick method of reckoning machine production?

Answer 2454—Example: Speed of machine 210 feet per minute; width of paper trimmed, 78 inches; base weight of paper 50 lb. (25 x 38, 500-S). The formula is as follows: Multiply speed x deckle x base weight, and the first three figures of this result will give you the approximate answer within three or four pounds, by simply referring to list of numbers printed below.

Cut this list out and paste it in a convenient place over the machine room table.

Here is the example:

210 speed	
78 deckle	
<hr/>	
1680	
1470	
<hr/>	
16380	
50 base weight	
<hr/>	
819000	

The first three figures 819 are found on the list as 820, and give the production at 1,240 lbs. per hour.

This method does away with the tiresome dividing and obviates many mistakes, especially when the first felt hasn't quite steadied down yet.

300—454	400—605	500—756
310—470	410—620	510—772
320—485	420—635	520—787
330—500	430—650	530—802
340—515	440—665	540—817
350—530	450—680	550—832
360—545	460—696	560—845
370—560	470—711	570—863
380—575	480—726	580—878
390—590	490—741	590—893
<hr/>		
600—908	700—1060	800—1212
610—923	710—1075	810—1226
620—938	720—1090	820—1242
630—954	730—1105	830—1257
640—969	740—1120	840—1273
650—984	750—1135	850—1288
660—999	760—1150	860—1303
670—1014	770—1165	870—1318
680—1029	780—1180	880—1333
690—1045	790—1197	890—1348
<hr/>		
900—1364	1000—1517	1100—1667
910—1380	1010—1532	1110—1682

920—1397	1020—1547	1120—1697
930—1412	1030—1562	1130—1712
940—1427	1040—1577	1140—1727
950—1443	1050—1592	1150—1742
960—1457	1060—1607	1160—1757
970—1472	1070—1622	1170—1773
980—1487	1080—1637	1180—1788
990—1502	1090—1652	1190—1803

It will be noted that there is about 15 pounds difference between each amount. If, for example, your first figures come to 955, your production would be between 1443 and 1457, which would give you 1450 per hr.

To figure how fast to run to make a certain amount per hr., add three ciphers to the figures on the left opposite the amount you wish to make and divide by base weight x deckle.

Large Reserves of Pulpwood in Maine

[FROM OUR REGULAR CORRESPONDENT.]

BANGOR, Maine, September 15, 1919.—Some of the large Maine pulp and paper companies, including the Great Northern Paper Company, have such a large reserve supply of pulpwood that they have decided not to cut 100 per cent this year. The Great Northern will cut only sixty or seventy million feet, compared with the average of from 110,000,000 to 120,000,000 feet. The first step in the curtailment of operation has been the discharge of more than 30 clerks in the spruce wood department of the company in the Bangor office. It is said that the company has a supply of pulpwood large enough to keep all its mills running until the end of 1921.

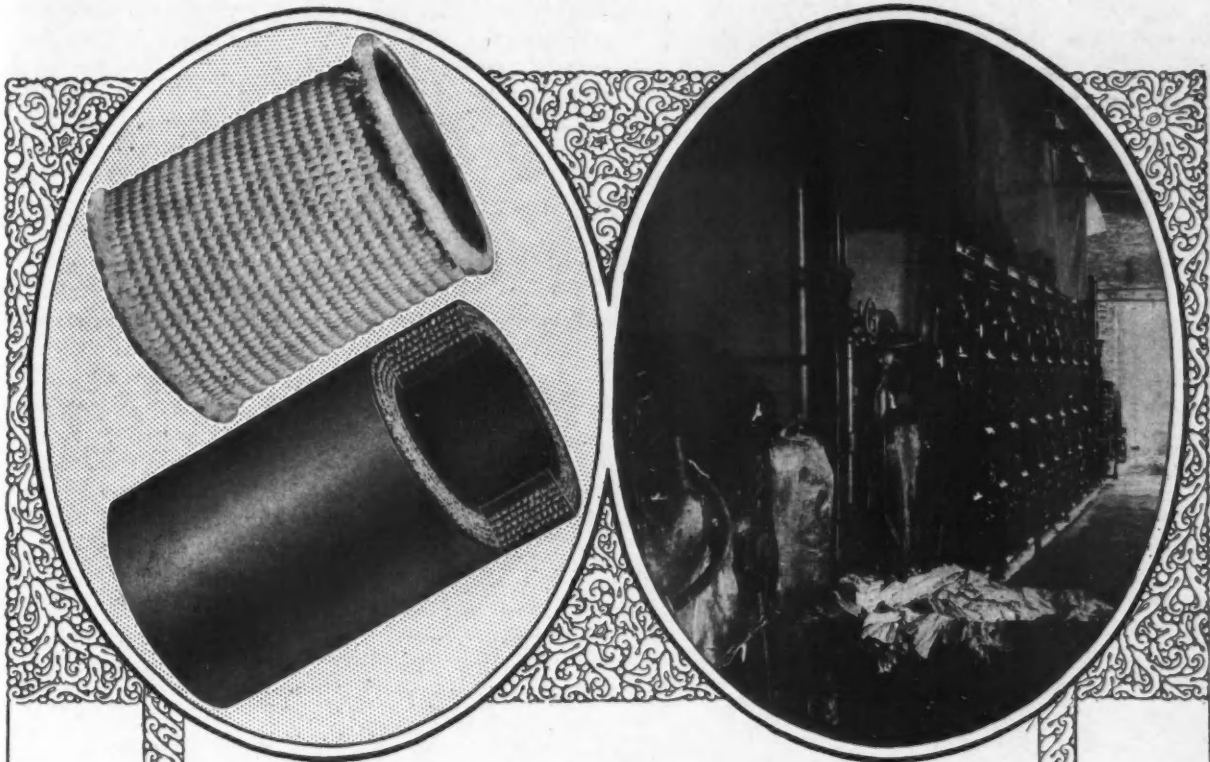
Indications are that woods laborers will be plenty this fall, owing to the shut down of munitions plants and other high-wage industries that drew the men from the lumber camps last year. The demand will probably be less unless the building boom makes for a larger cut of timber than is now anticipated. Lumber is very high in price, but the cost of stumpage, wages, supplies of all kinds and camp equipment is also far above normal and operators see little encouragement to go in.

The extent to which the foreign element has succeeded the native logger is shown by the following statement by a Bangor employment agency of the nationalities in a sample thousand lately hired: Americans, 291; Russians, 253; Finns, 193; French, 116; Swedes, 61; Lithuanians, 44; Poles, 43; Canadians, 36; Indians, 2; Italians, 2; Spaniards, 2; Jews, Austrians, Swiss and Norwegians, 1 each; total, 1,049.

May Start Old Mill at Ontonagon

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., September 15, 1919.—Rumor is current in Michigan paper circles that R. E. Anderson has purchased the old mill site at Ontonagon, and that he hopes to organize a company with a capital stock of \$1,000,000 to operate the property as a paper mill.



FIRE and WATER in the MILL

Hose for water distribution must be the Goodrich kind—the sort that delivers the same amount of water at one end that went in at the other. Goodrich Water Hose is tough to tread on—but flexible to handle. Won't kink. Won't develop little fountains of water at the couplings after months of service.

Again, for protection against Fire, Goodrich cotton-jacketed Mill Hose is a worthy associate of the most complicated and expensive paper-making installations.

Goodrich have made Hose since the beginning of their gigantic business nearly fifty years ago. Whatever piece of Hose of any kind you buy, that is braided Goodrich, rest assured it is "best in Rubber," and made in a plant where experience has made "knowing how to get the utmost possible use in service" a certainty.

Samples at your request

THE B. F. GOODRICH RUBBER COMPANY
The City of Goodrich—Akron, Ohio

GOODRICH

RUBBER GOODS *for the*
PAPER MILL INDUSTRY

Editorial

Vol. LXIX. New York, Thursday, September 18, 1919 No. 12
FORTY-EIGHTH YEAR

Questions and Answers

The "Practical Questions and Answers Department," printed elsewhere in this issue of THE PAPER TRADE JOURNAL, is of more than ordinary interest and value. The question and answer entitled, "Quick Method of Reckoning Machine Production," will be found worth many times the price of a year's subscription to THE PAPER TRADE JOURNAL. It was prepared and has been successfully used for some time past by a widely experienced papermaker, and it may thus be depended on as thoroughly accurate in every respect. It should be cut out and pasted on or near the paper machine, where it will be convenient for ready reference.

It will be observed that this particular question and answer has been duly copyrighted by THE PAPER TRADE JOURNAL and may therefore not be reprinted except by the permission of this publication.

As was stated in these columns a few weeks ago, the publishers, because of the war, were reluctantly obliged to discontinue this department as a regular feature of this paper, but with the return to normal conditions it has again been possible to perfect arrangements to run the "Practical Questions and Answers Department" regularly.

Ample evidence is already at hand that this arrangement is appreciated by numerous subscribers to THE PAPER TRADE JOURNAL. Judging from the former popularity of the department it will be increasingly appreciated as time goes along.

The sub-caption of the department well explains its purpose. It is as follows:

"A department for the solution of the troubles, large and small, that are encountered by the workers in the mills in the course of their duties in making paper and pulp; all mill men are invited to send in both questions and answers; a free exchange of ideas is desired; by active co-operation this department can be made a general clearing house for information in regard to practical paper making."

The department is in charge of a thoroughly experienced paper maker, who will be glad to receive questions from any one in the trade. Questions should be addressed to Technical Editor, PAPER TRADE JOURNAL, 10 East 39th street, New York.

Pointing to the Red Cross

When the bugle note sounded, all rallied to the Flag, and now that the hymn of peace resounds, Americans will gather about the banner of the Red Cross. If a country is worth dying for, it is worth living for. With this axiom as a foundation-stone, the Red Cross will conduct a third roll call November 2 to 11, to secure 15,000,000 new members and \$15,000,000 with which to complete the old work and commence the new. The especial new mission which the society takes up is aiding America: helping

the families of the men who fought and died for the preservation of her honor; making America a healthy place in which to live, that the faith be kept with the valiant dead resting between the rows of crosses in the quiet fields of France.

And in this work there is a place for every man, woman and child. Just as there was some special sphere of endeavor for each during war, so is there one during peace. And to the paper manufacturers and paper dealers there is afforded an opportunity for service to America, humanity and also to themselves in methods not entirely altruistic.

From many manufacturing houses samples of blotters are sent to thousands of individuals and business concerns. Generally they are seen by persons too busy to read of the extensive activities of the Red Cross in foreign or home fields though they know in a general way the aim and accomplishments of the organization. Samples of blotters come to their attention, and on them, perhaps, they see "November 2 to November 11," a Red Cross, a dollar sign and a heart. Immediately their memory is jogged from the routine affairs of business to a realization of the approaching Third Red Cross Roll Call. Their hand is in their pocket for money; it comes forth to get a membership. As a result, the life of another tiny babe is saved, or perhaps they themselves are freed from the danger of contagious disease.

Thousands of calendars are sent out to business concerns in all parts of the country during the fall, that they may select their next year's method of keeping their names in the minds of their patrons. The printing of a Red Cross with, perhaps, the announcement of the Third Roll Call is simple to the manufacturer, who sends out the samples, yet there is little question but the sight of the loved symbol and the announcements will win many new members.

The posters officially accepted by the organization are well suited to covers, their clean lines and simple effective ideas are easily printed on paper of any grade. The artistic talent displayed in these posters is of the first rank, for they are all the work of the best artists in America, and afford the paper manufacturer a design that will show the quality of his paper to the best advantage.

So, while performing the service of the needy, while keeping trust with the heroic dead, those who endeavor to assist the Red Cross in this manner are also serving their own ends according to recognized principles of publicity.

With the return from foreign shores of the demobilized army, the business world is largely peopled with ex-soldiers. Practically every place of human endeavor harbors a former wearer of khaki. To these men the Red Cross is not merely a symbol, a noble spirit; it is a reality. For such men have traveled in hot, dusty troop trains across the continent; have existed for many days packed on stuffy ships; they have trudged through the rain and the mud of France. Perhaps they have been sick or wounded, have gone to hospitals. The red symbol will remind them of the Blue Birds who gave them a cool drink when they were en route for port; of the cheery bon voyage wished them as they left their native land; of the steaming cup of coffee in the canteen; of the nurse who eased their anguish; of the gentle comrade who wrote the letter home; of the aides who taught

them heading to while away the weary hours of convalescence; of the Red Cross man who fitted them for the job they are now holding—such is their translation of the sign.

Salesmen's Association

The movement to organize the salesmen of the paper industry deserves the active support of every one who can lend assistance. Organizations exist in practically every other branch of the business of making and selling paper, and the organizations have long since demonstrated their value to the trade in general and their helpfulness to the individual in particular.

The possibilities for usefulness of this proposed organization seem so obvious that they hardly need to be enumerated. Among them, however, should be emphasized the possibilities of raising the efficiency of salesmanship, which has already received considerable attention in other trades and industries.

Mr. L. B. Steward, secretary-treasurer of the American Paper and Pulp Association, who has taken the initiative in starting this movement, is to be commended for his enterprise in thus endeavoring to serve the industry, and it is to be hoped that his efforts will receive such co-operation as to result in the enthusiastic organization on November 10 of the Salesmen's Division of the American Paper and Pulp Association.

Solving Industrial Unrest

Colonel Arthur Woods, Assistant to the Secretary of War, is urging 20,000 factory owners and industrial corporations throughout the country to undertake industrial training for their workers at the same time they pay them a sufficient living wage during the period of their apprenticeship.

American factories are today using six million or more workers to do what four and one-half million men could do as well if they were fairly treated. This means that American manufacturers are paying the wages of one million and a half workers who are really adding nothing to the total output of the industrial system. In the manufacturing section of New England—and a few portions of the United States are more important in the production of our daily necessities—factory experts have stated that the factories are not more than 60 per cent efficient in output, merely for want of more skilled and intelligent man power. This does not compare very well with a pre-war Germany, in which individual industrial training was so successfully operated that 65 per cent of the managerial and technical force consisted of men who had started work as unskilled or semi-skilled labor.

In aggravation of the high cost of living, the entire question has been brought to a head just now by the large numbers of soldiers returning to civilian life from the military service. Many of these men went to war unskilled workers, but because of their experience have come back with greater ambitions and larger vision. They have the psychological start for better things. They have the desire to improve their condition and their earning power. But they have neither the skill, nor the means for developing the skill, without which their ambitions cannot possibly be realized. They must have industrial training immediately and on a sufficiently large scale to offer an opportunity for advancement to every man who wants one and deserves it. These men must earn a living wage while they are learning, and must be taught intensively enough so that in a short time they will be able to realize their ambitions and to increase their earning powers.

That greater production means lower prices is axiomatic. That this result can be accomplished with those very men who are at present classed as unskilled laborers is abundantly proved by the

experience of a number of factory owners.

What industrial training means in terms of advancement for the workers of the United States can scarcely be overestimated. A great majority of our 10,000,000 factory workers confront a changeless task that they do not really comprehend and will never get a chance to master or escape. It has recently been said that "labor unrest at this time is an effort to secure a recognition of personality." This is absolutely fundamental to the solution of our industrial and labor problems. High wages alone will get us nowhere, because the monotony of a routine task and the lack of opportunity for advancement will not be replaced by a mere increase in the weekly payroll. Men must be given every reasonable chance not only to improve their wages, but actually to improve their working conditions and express their personal ambitions by having an opportunity to graduate from the less skilled and less interesting to the more skilled and more interesting type of work.

Nor will this be a difficult matter once the facts are clearly presented to America's industrial leaders, because not only is future productivity increased, but the men more than pay for themselves at the same time that they are learning. More and more factories are beginning to discover that raising the level of skill of their workers is a paying investment which makes for contentment among their men, which produces leaders to take charge of the work requiring skill and intelligence, and which actually increases the profits and dividends by raising the general level of production to a higher plane, by means of increased efficiency instead of increased expenditure. Labor, on the other hand, is responding eagerly to this idea because it means increased earning power to the individual worker, independence and better education. It makes for pride in his work and contentment with his prospects for every laborer who is thus given an opportunity to better his condition and improve his status as his skill increases. The public, finally, sees in this a fundamental approach toward solving the high cost of living, and completes the tripartite National approval on which the success of the plan depends.

New Orleans to Have News Print Mill

A press dispatch from New Orleans, La., under date of September 12, says the "Apex Paper Company, D. H. Greene, president, has announced its intention to build a \$250,000 plant for manufacturing news print paper, the daily capacity to be twenty tons. Machinery has been ordered and construction will soon begin. This will be the first plant of its character in the South and it will be an addition to a big tissue paper factory recently completed by the Apex management."

EDWIN BUTTERWORTH & CO.

MANCHESTER, ENGLAND

Packers of all kinds of

P PAPER STOCK, COTTON WASTE AND
GUNNY BAGGING, BUFFALO SIZING, Etc.

83 Sole Agents HAFSLUND

BLEACHED SULPHITE PULP — BEAR BRAND

Boston Office, 136 Federal St. New York Office, 132 Nassau St.

CHARLES H. WOOD, Sr. U. S. Mgr. LEWIS JENNINGS, Manager

"WATERBURY"

W Felts-Jackets **W**
ORISKANY, N. Y.

OUR TIGHT FITTING, DIAMOND "W" JACKETS
WILL NOT LICK UP AT ANY SPEED

1869 {MADE ONLY AND} 1918
GUARANTEED BY

H. WATERBURY AND SONS COMPANY, ORISKANY, N. Y.

AN ANALYTICAL METHOD OF INVESTIGATING RAW VEGETABLE TISSUES AND THE CELLULOSE DERIVED FROM THEM

WRITTEN BY CARL G. SCHALBE AND TRANSLATED FROM ZEITSCHRIFT FÜR ANGEWANDTE CHEMIE, SPECIALLY FOR THE PAPER TRADE JOURNAL

Under this title I set forth in a lecture before the chief meeting of the Association of German Chemists at Cassel an analytical method of investigating the raw tissues of plants and their celluloses.

In reference to the essential thing—the determination of the dry substance, the quantity of water can be shown by the determination with toluol, xylol, or petroleum, since these methods are freer from error than the usual determinations in the drying oven. In the determination of water by distillation, the loss of substance through volatile oils, fats, and resins is eliminated. An apparatus for employing greater quantities of substance—which are requisite when a good average of specimens from very different materials is obtained with difficulty—is the tin plated copper retort. It has been commended in an earlier paper (Schwalbe, Papierfabrikant, 6, 551, 1908). Besson's apparatus (Chem-Ztg., 4, 346, 1917) is also to be recommended; its single drawback—apart from the small loss of weight—is its inflammable material. With this apparatus the distilled water-hydrocarbon mixture is collected in a graduated tube or connecting arm. The impermeability of the cork stopper is obtained by means of a tinfoil cover.

As regards the ash determination it may be mentioned that, perhaps, through quantitative analysis some of the constituents characteristic of the substance under investigation, may be eliminated, and the ash exactly determined. It should be recalled, for example, that the ash of coniferous woods contains at times considerable quantities of manganese. (Wislicenus, Zeitschrift für analyt. Chemie, 40, 441, 1901.) For a closer determination, we may obtain the volatile constituents of the ash by means of Wislicenus' apparatus, and method of working (Schwalbe, Zeitschrift für angew. Chemie, 31, 9e, 1918).

Fat, Wax and Resin Content Vary

Fat, wax, and resin content of the raw vegetable tissues varies considerably each according to the solvent employed. In regard to the comprehensive statistics already at hand, it will be most practical to continue to employ ether with subsequent alcohol extraction. A strict precaution must also be observed, i. e., the age and temperature of dryness of the substance under investigation, at least in the case of resinous material, whose surprisingly quick changes of composition I have shown with Schulz (Chem-Ztg., 4, 229, 1918). It is noteworthy that a considerable rise in the resin values, and respectively of the fat and wax values, occurs in the course of fat determinations during the decomposition of vegetable tissues by acids. With Schulz I have shown that in the wax values of straw, for example, rise 100 per cent. through previous decomposition. Subsequently Lindner proved that in grains of corn the outer husk is much richer in fat than one had conjectured, because the ether employed as solvent possessed not the power of penetrating the thick cell wall sufficiently; thus it appears requisite to obtain impeccable figures of the actual fat content of raw vegetable tissues and to carry out the fat determination in the raw as well as in the decomposed state. (Zeitschrift für angew. Chemie, 31, 50, 1919). In a bran decomposed by my process, Ernst Becker in the Experiment Station of Eberswalde was able to extract with ether 3.04 per cent. of fat before decomposition, and after decomposition 4.87 per cent. of fat. Moreover, he found in an unbleached sulphite cellulose after extraction with ether a resin content of 0.58 per cent., which

rose to 1.09 per cent. after decomposition. A mixture extracted with benzol-alcohol gave values of 1.61 and 3.24: thus this cellulose mixture showed the extraordinarily high increase of extracted matter after decomposition of the cell walls by acids.

A reduction of the methyl figures in lignin is not possible with the still hypothetical formula of the molecular weight of lignin. We must be content, therefore, to compare with each other the methyl figures of the various vegetable tissues. The accuracy of the methyl figures may be influenced by pectin, which easily splits off methyl alcohol. Another, but somewhat improbable error, may arise from the abundant presence of pentosans, or methyl pentosans, namely, when through complete reduction, or complete decomposition by hydriodic acid, alkyl iodide is produced from the tissues named. In case such a substance as alkyl iodide with its long chains, should arise, it is very improbable that it would possess a volatility similar to that of methyl iodide: it will therefore remain in the reaction flask.

Correcting the Methyl Numbers

Through special researches Ernst Becker has proved that one cannot cause the production of methyl iodide, either from natural substances arising from pentosans, for example, arabinose, or from those arising from methyl pentosan, for example, quercitrin. So far methyl pentosans afford a means of correcting the methyl numbers, for we reduce the methyl and calculate according to the true methyl number. It must, however, be borne in mind that in the case of methyl pentosan, it is methyl combined with a carbon atom with which we are concerned: but in the case of true methyl we are concerned with oxymethyl. The results of an "oxymethyl number" would thus logically be freer from fallacy or objection.

Direct lignin determinations are made possible by eliminating the cellulose with acids. Here, of course, the observation will be made that the insoluble lignin residue does not enlarge its molecule by condensation with the by-products of cellulose, or that a portion of the molecule is removed by conversion into soluble compounds, and finally, through partial isolation of the cellulose too high a lignin content may be obtained. According to König and Becker, the most uniform values for the residue remaining after energetic treatment with acids, are given by treating with strong hydrochloric acid, following the researches of Krull and Willstätter. Possibly in the foregoing researches the decomposition carried out together with the subsequent treatment by acids has some influence.

Lignin can also be determined with pectin in vegetable tissues, as v. Fellenberg has proved. Dilute acids split off only methyl alcohol from pectin; stronger sulphuric acid decomposes, besides, the lignin from the methyl alcohol production, the difference between this and the found methyl alcohol value, gives the true lignin value. If we should generalize the researches made by v. Fellenberg on fir and other ligneous fibres and those of Schwalbe and Becker, described above, on hemp and flax, the pectin content in strongly ligneous fibres takes no part in the result; in many other tissues, however, according to the researches of Ehrlich this would be the ease. But here it would be well to avoid the uncertain reduction of pectin and depend only upon the methyl alcohol value of the raw tissue—the more so, since in the data of a pectin estimation, owing to the pentosan component of pectin, a certain

(Continued on page 46.)



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METHOD OF INVESTIGATING RAW VEGETABLE TISSUE

(Continued from page 44.)

quantity of pentosan is calculated twice—as total pentosan and in the pectin values.

Calculation of Pentosan Values

In the calculation of the pentosan values, which are obtained by the reduction of furfural and pentosan, there exists so far some uncertainty, since not only pentosan but also hexoses split off small quantities of furfural. According to Testoni, this error, whose extent cannot be estimated in raw tissues which have been investigated little or not at all, may be avoided when we decompose with a mixture of glacial acetic acid and hydrochloric acid, and determine by calorimetry the pentosan thus produced. (Staz. sper. agrar. ital. 50, 9u, 1918.) As this method has not yet been established by further proof, we should best avoid in furfural determinations, the reduction of pentosan values, and only depend upon a furfural figure.

In pentosan values, fural and also methyl, i. e., methyl fural must be estimated. Indeed it seems in general that the quantity of methyl pentosan in ligneous fibres cannot be very great, as has already been pointed out in the foregoing researches. But with unknown vegetable tissues in the raw state, the case may sometimes occur that methyl pentosan takes part in the composition. It is true that the methods of determination are as yet but little adapted to this calculation: here too we should only depend upon one value for methyl furfural.

Method of Cross and Bevan

The determination of cellulose by the method of Cross and Bevan, yields as König and his coworkers have proved, a pentosan containing fibre; and in particular the cellulose of leaf-woods is especially rich in pentosan. Were we to use these figures uncorrected, as has often happened, many errors as to the true composition of the raw tissues might arise. And should we use, after correction, the figures of the furfural determinations, the Cross and Bevan method of cellulose determination, commends itself with this modification more than König's process of heating under pressure with glycerin and sulphuric acid, of which the principle fallacy lies in this—that heat under pressure can render soluble considerable quantities of cellulose, so that the cellulose values would fall too low.

Hydrolysis by acids according to the method of Cross and Bevan, allows us no especial chemical insight into the chemical composition of the raw tissue. In the meanwhile Schorger—whose figures as given in the original reached me a short time ago—has shown that the decomposition of acetic acid by mineral acids is very considerable, and is very well adapted to the characterization of raw vegetable tissues. It will be serviceable, therefore, to enlarge the analytical scheme by the hydrolysis with sulphuric acid, and determine the "acetic acid number" of raw tissues. The term "acid number" may lead to confusion with that proposed by Vieweg, but not often introduced into nomenclature, that is, the term "cellulose constants" (cooking of hydro- and oxycellulose containing substances with measured alkali).

Further Enlargement Necessary

A further enlargement of the analytical method seems to be necessary. The investigation of flax and hemp chaff has shown that the nitrogen content in comparison with that of woods, is extraordinarily higher. We may therefore infer that raw vegetable tissues may, in some circumstances, be characterized by their nitrogen content. In the analysis of cellulose, the nitrogen content is often a criterion of the completeness of the chemical decomposition. The analytical method of determining cellulose may be applied equally well to raw tissues. This observation relates, however, to the question whether the presence of the same con-

stants for cellulose and raw tissues possesses any particular interest, not that they suffice for a complete characterization of cellulose. For scientific and technical purposes, the determinations of the "bleaching grade" and "steeping grade" are also of value. Through determination of the bleaching grade it may be determined that in the cellulose neither hydro- nor oxycelluloses are present, that is, hydro- and oxycellulose coming from the raw material, or through the process of decomposition and bleaching. Here the value of the copper reduction figure in the determination of these substances has been fully established. Hydro- and oxycellulose also, as already mentioned (Schwalbe, Zeitschrift für angew. Chemie, 31, 50, 1918), are in part determined together, by the usual wood gum determinations, since the 15-17 per cent. alkali employed for the determination of wood gum, partly dissolves the substance after decomposing it. With hydro- and oxycelluloses, pentosans are dissolved in a certain degree; finally, too, celluloses are soluble in alkali—substances in which wood celluloses are rich—when they have been subjected to decomposition by treatment with acids and, where possible, under pressure. Hence the wood gum figures give but the sum of many impurities. By determining the copper reducing figures and furfural numbers and by the production of the so-called alpha, beta, and gamma celluloses, we may reach a further point. As alpha cellulose is defined, it is the alkaline residue of the wood gum determinations; beta and gamma cellulose are defined as that portion of the cellulose which, during investigation, goes into solution. The latter values are often more adequately and thoroughly analyzed through oxidation with bichromate; thus beta celluloses are those substances which are precipitated by acids, corresponding, perhaps, to the gum figures; gamma cellulose is the cellulose capable of precipitation or split product remaining in the filtrate after precipitation.

Should we assume that cellulose is completely oxidized by bichromate to carbon dioxide and water, we might then calculate the quantities of alpha, beta, and gamma cellulose from the bichromate exhaustion of the solution.

The Steeping Grade

The necessity of determining the "steeping grade" is founded on the fact that between various celluloses depending on their hygroscopic properties, distinct differences exist, which allow of figure determinations. If a cellulose, for example, is treated with strong alkali—"mercerized"—there remains after removal of the alkali a greatly increased power of water absorption. This "steeping power" I have attempted to measure through determination of the "copper hydrate number," or that of the "hydrolysis number." The copper taken up from the cold Fehling solution formerly had the designation of copper hydrate, as it is probable that the steeping is to be explained in molecules by the absorption of water in soda lye. Meanwhile it is proved that such an absorption of water does not occur; the name, however, has remained; I propose to substitute in its stead the term "steeping grade."

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PAPER STOCK TREATING MACHINE

William J. Herrbold, of Kalamazoo, has been granted a patent on certain new and useful improvements in paper stock treating machines which the inventor interestingly describes as follows:

This invention relates to improvements in paper stock treating machines.

My improved stock treating machine is especially designed by me for use in disintegrating old papers for use as paper stock or for use in de-inking such stock.

The main objects of this invention are:

First, to provide an improved disintegrating machine in which the fibers are effectively separated or disintegrated without grinding or abrading action.

Second, to provide an improved stock treating machine which is well adapted for disintegrating printed papers and also for treatment thereof with de-inking solutions.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure I is a view partially in vertical central section on a line corresponding to line 1-1 of Fig. IV and partially in elevation

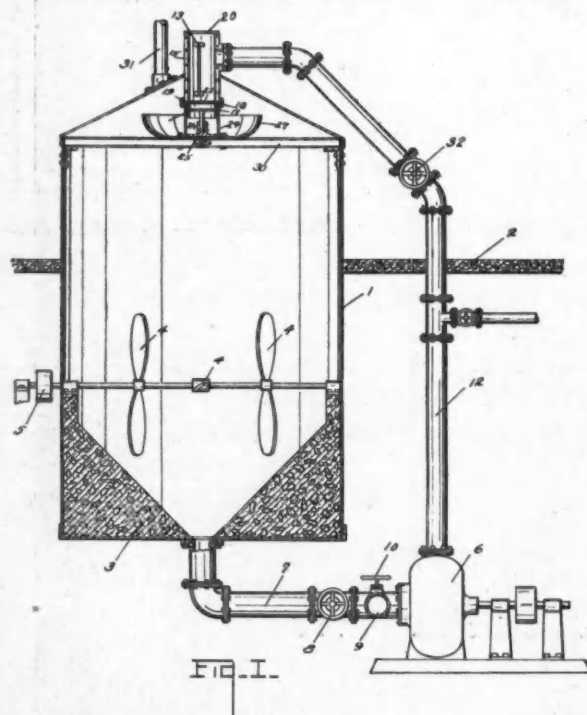


FIG. I.

of a structure embodying the features of my invention, the support for the main tank not being illustrated.

Fig. II is an enlarged detail view partially in vertical section as in Fig. I.

Fig. III is a detail horizontal section on a line corresponding to line 3-3 of Fig. II.

Fig. IV is a detail horizontal section on a line corresponding to line 4-4 of Fig. II.

In the drawing similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, 1 represents a stock tank, illustrated as extending through the floor 2, the base or support for the tank not being illustrated as any suitable base may be employed.

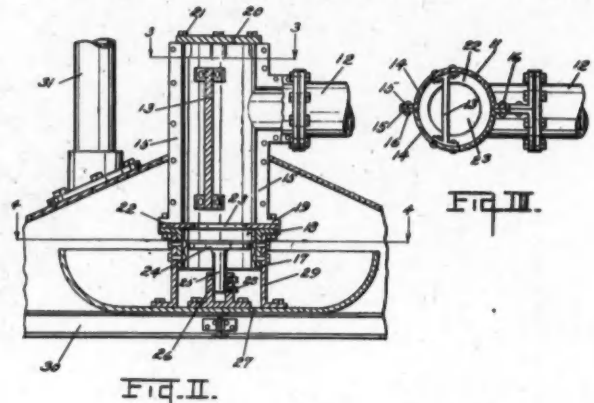


FIG. II.

The tank illustrated has a conical bottom 3 of concrete. Within the tank is an agitator, designated generally by the numeral 4, the shaft of which projects through the tank and is provided with a pulley 5.

A circulating pump 6, which is preferably of the rotary type, has its intake 7 connected to the bottom of the tank. A valve 8 is provided for this intake. The intake pipe 7 is also provided with a discharge 9 provided with a valve 10. At the top of the tank is a chamber 11 to the side of which the pump discharge 12 is connected. Within this chamber 11 is a baffle plate 13 disposed in front of the pump discharge so that the discharged stock impinges against the plate. This baffle is disposed in a spaced relation to the top and bottom of the chamber so that the stock may circulate within the chamber about the plate.

For convenience in manufacture the chamber is formed of vertically divided sections 14, 14 having flanges 15 connected by bolts or rivets 16 and an annular bottom section 17 having a flange 18 at its upper end bolted to the bottom flange 19 of the sections 14, 14.

The cap or top 20 is retained by the screw bolts 21. Below the baffle 13 preferably provide an annular restricting member 22, it, in the structure illustrated, being clamped between the flanges 17 and 19 of the chamber sections. This restricting member projects into the chamber and provides a central opening 23. Below the restricting member 22 is a discharge valve 24 of disk-shape supported centrally so that an annular discharge is provided about the valve. This valve is adjustable, its stem 25 being supported in the socket-like support 26 on the discharge pan 27, set screws 28 retaining it in its adjusted position. The discharge pan is supported by the hanger straps 29 on the chamber and the cross pieces 30 within the tank.

The discharge of the chamber is such that the stock is delivered into the chamber and circulated therein and discharged therefrom under a high pressure, resulting in the stock circulated through the chamber being thoroughly disintegrated.

The stock is discharged from the discharge pan 27 over its rim so that it is quite evenly delivered to the tank and the agitator therein insures that all of the stock is uniformly treated.

(Continued on page 50.)

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PAPER STOCK TREATING MACHINE

(Continued from page 48.)

The stock inlet pipe 31 is connected to the top of the tank to deliver into the discharge pan 27. The pump discharge pipe 12 is preferably provided with a regulating valve 32.

My improved machine is especially adapted for treating of stock with de-inking solutions, as such stock is thoroughly and uniformly treated and at the same time effectively disintegrated. The stock is, in practice, suitably soaked and treated before being introduced to the machine.

What Is Claimed

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a stock treating machine, the combination of a tank,

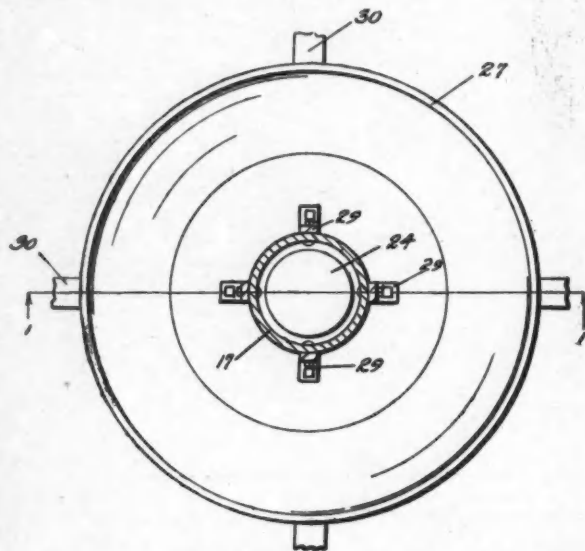


FIG. IV.

an agitating means within the tank, a chamber discharging to the tank, a pump having discharge connections to the chamber and an intake connection to the tank, a baffle plate disposed within the chamber so that the stock is discharged from the pump against the same, said baffle plate being disposed so that stock may circulate within the chamber about the same, a discharge pan disposed to receive the stock from said chamber, and a stock supply pipe connected to the tank to discharge into said pan.

2. In a stock treating machine, the combination of a tank, an agitating means within the tank, a chamber discharging to the tank, a pump having discharge connections to the chamber and an intake connection to the tank, a baffle plate disposed within the chamber so that the stock is discharged from the pump against the same, said baffle plate being disposed so that stock may circulate within the chamber about the same, and a discharge pan disposed to receive the stock from said chamber.

3. In a stock treating machine, the combination of a tank, a chamber discharging to the tank, a pump having discharge connections to the chamber and an intake connection to the tank, a baffle plate disposed within the chamber so that the stock is discharged from the pump against the same, said baffle plate

being disposed so that stock may circulate within the chamber about the same, a discharge pan disposed to receive the stock from said chamber, and a stock supply pipe connected to the tank to discharge into said pan.

4. In a stock treating machine, the combination of a tank, a chamber discharging to the tank, a pump having discharge connections to the chamber and an intake connection to the tank, a baffle plate disposed within the chamber so that the stock is discharged from the pump against the same, said baffle plate being disposed so that stock may circulate within the chamber about the same, and a discharge pan disposed to receive the stock from said chamber.

5. In a stock treating machine, the combination of a tank, a cylindrical chamber at the top of said tank open at its bottom, a pump having a discharge connection to the side of said chamber and an intake connection to the bottom of the tank, a baffle plate disposed vertically within said chamber in front of the pump discharge and at substantially a right angle thereto with its ends spaced from the top and bottom of the chamber so that stock may circulate vertically about the same, an annular restricting member disposed below said baffle plate, a disk valve disposed below said restricting member in a spaced relation thereto and to the discharge of the chamber, the valve being supported for vertical adjustment with its periphery in spaced relation to the wall of the chamber providing an annular discharge, and a discharge pan below said chamber disposed centrally of the tank.

6. In a stock treating machine, the combination of a tank, a cylindrical chamber at the top of said tank open at its bottom, a pump having a discharge connection to the side of said chamber and an intake connection to the bottom of the tank, a baffle plate disposed vertically within said chamber in front of the pump discharge and at substantially a right angle thereto with its ends spaced from the top and bottom of the chamber so that stock may circulate vertically about the same, an annular restricting member disposed below said baffle plate, and a disk valve disposed below said restricting member in a spaced relation thereto and to the discharge of the chamber, the valve being supported for vertical adjustment with its periphery in spaced relation to the wall of the chamber providing an annular discharge.

7. In a stock treating machine, the combination of a tank, a chamber discharging to the tank, a pump having discharge connections to the chamber and an intake connection to the tank, a baffle plate disposed within the chamber so that the stock is discharged from the pump against the same, said baffle plate being disposed so that stock may circulate within the chamber about the same, a restricting member disposed below said baffle and having a central discharge, and a valve disposed below the opening of said restricting member to provide an annular discharge about the valve.

8. In a stock treating machine, the combination of a tank, a chamber discharging to the tank, a pump having discharge connections to the chamber and an intake connection to the tank, a baffle plate disposed within the chamber so that the stock is discharged from the pump against the same, said baffle plate being disposed so that stock may circulate within the chamber about the same, and a discharge valve.

9. In a stock treating machine, the combination of a tank, a chamber discharging to said tank, a pump having a discharge connection to said chamber and an intake connection to the tank,

(Continued on page 62.)

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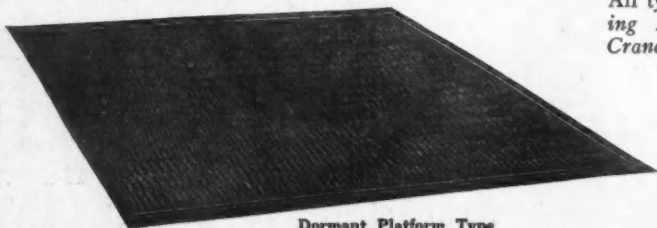
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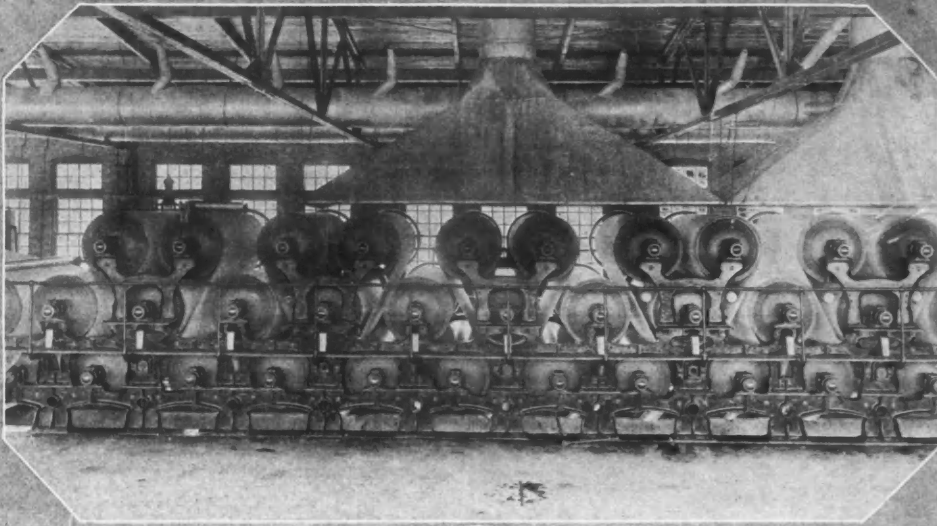
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Makers of better cutting knives since 1847
Beloit, Wis.

Agents for Canada, Pulp & Paper Mill Accessories, Ltd., Shaughnessy Bldg.,
 Montreal, Canada.

CENTRAL MANUFACTURING COMPANY

THE QUICK SERVICE HOUSE KALAMAZOO, MICH.

Manufacturers of

High Grade Brass and Bronze Screen Plates and Dandy Rolls

OLD PLATES
CLOSED AND RECUT

DANDY ROLLS AND
WATER MARKING

Secure Our
Prices

We Can
Please You

ENTERPRISE PAPER CO.

Selling Agents for

CONSOLIDATED PAPER BAG CO.

GROCERS' SQUARE AND FLAT BAGS
FLOUR, FUEL AND POULTRY SACKS

Prices and Samples Upon Request.

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A. SALOMON, Inc.

15 PARK ROW NEW YORK

Consult us if you are looking
for Foreign Rags.

PAPER MAKERS' SUPPLIES

Goulds Centrifugal Pumps for Shower Pipe Service

For supplying water to shower pipes, a large number of paper mills have found Gould Centrifugal Pumps to give efficient, satisfactory service.

The Continental Paper Bag Co., Watertown, N. Y., recently installed two Goulds Fig. 3031 Centrifugal Pumps for this service. Both of these pumps (one of which is illustrated) have a capacity of 400 G. P. M. against pressures varying from 20 to 30 pounds.

A large number of mills have also installed Goulds Centrifugal Pumps for general water supply, for feeding boilers, for fire service, for water circulation, in hot water heating systems and for other standard and special services.

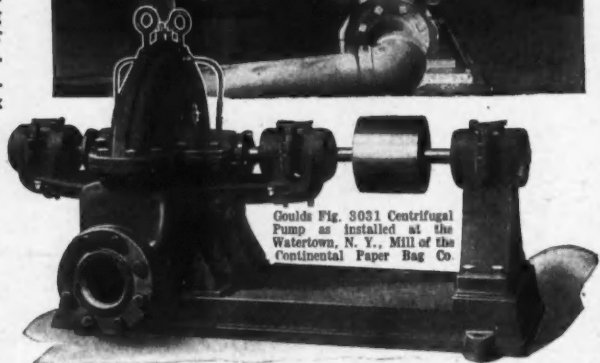
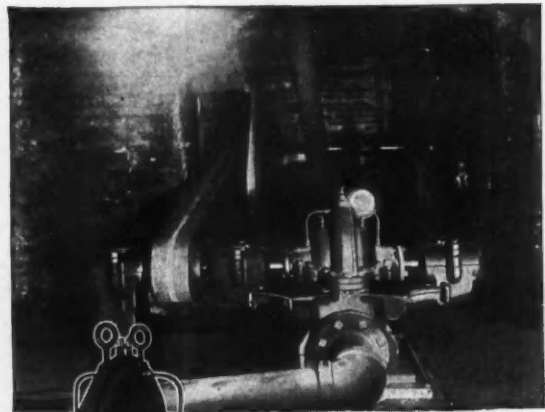
Goulds Centrifugal Pumps are fully up to the high reputation enjoyed during the past 25 years by our triplex pumps.

You will be interested in Bulletins containing complete data on Goulds Centrifugal Pumps. A postcard will bring you a complete set.

The Goulds Manufacturing Company

Main Office and Works, Seneca Falls, N. Y.

Boston New York Philadelphia Chicago
Pittsburgh Atlanta Houston



Goulds Fig. 3031 Centrifugal Pump as installed at the Watertown, N. Y., Mill of the Continental Paper Bag Co.

The Union Sulphur Company

Producers of the Highest Grade
Brimstone on the Market . . .

ABSOLUTELY FREE FROM ARSENIC OR SELENIUM

The Largest Sulphur Mine in the World

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Main Offices: Whitehall Bldg., 17 Battery Place, New York

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W. M. PRINGLE & CO., INC.

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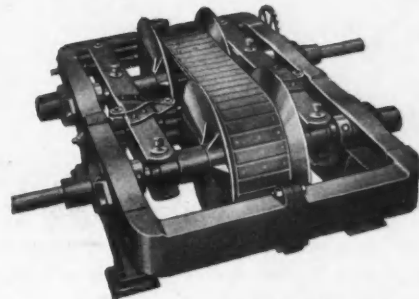
Manufacturers and Exporters of

PAPER

TO THE JOBBING TRADES ONLY

The Reeves

VARIABLE SPEED TRANSMISSION



THE need of Speed Variation on paper mill machinery is easily recognizable. Slitters, winders, re-winders, etc., double or treble their output when subjected to speed control. "The Reeves" Variable Speed Transmission efficiently accomplishes this variability. Write for Catalog T-21.

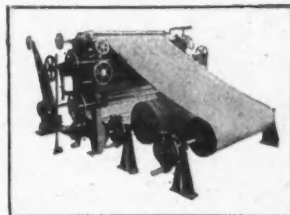
REEVES PULLEY CO.
COLUMBUS, INDIANA

Samuel M. Langston Company

CAMDEN, N. J., U. S. A.

Paper Slitting and Rewinding Machines

Machines for cutting and rewinding rolls of paper. We build all width machines to handle any weight or thickness paper and any size rolls.



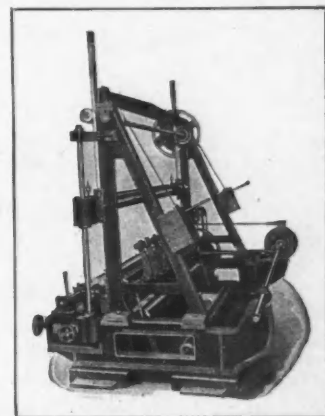
Corrugated Paper Shipping Case Machinery

We build all the machinery necessary to make paper shipping boxes or cases such as are now replacing wooden boxes in the United States.

*Our time and experience
are at your disposal.*

WE HAVE THE MACHINES—

HAVE YOU THE INCLINATION?





In its swift, smooth gliding over the pulleys of this highly efficient Power Plant, Test Special Rubber Belting typifies inherent strength and dependability.

THE BELT FOR ENDURING SERVICE

On drives of the hardest kind everywhere—in Saw Mills, Paper Mills, Cement Plants, Machine Shops, Textile Mills, etc., Test Special Rubber Belting not only is performing faithful service, but is standing guard against costly shut-downs and delays.

The friction surface affords the strongest pulley grip. The extreme flexibility permits the running over small pulleys at high speeds. The plies of cotton duck—of great tensile strength—are inseparably united by a tenacious rubber friction.

**TEST SPECIAL RUBBER BELTING IS
MADE TO SERVE YOU WELL**

The New York Belting & Packing Co.

MAKERS OF BELTING SINCE 1846

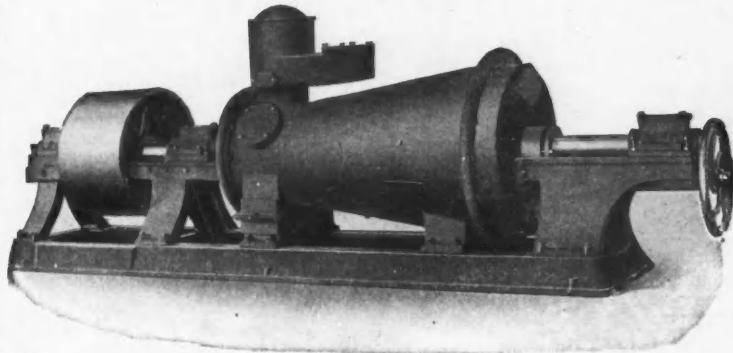
BOSTON
CHICAGO

NEW YORK
PHILADELPHIA
PITTSBURGH

ST. LOUIS
SAN FRANCISCO



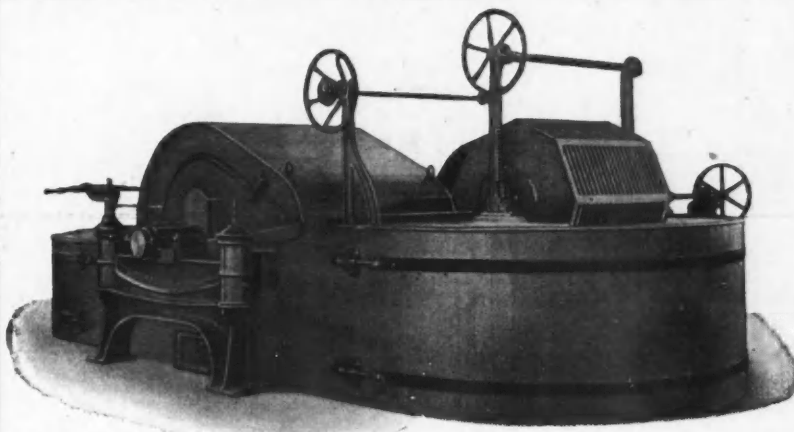
THE DILLON JORDAN



Our latest Improved Machine, three sizes; belt or direct connected motor driven. All Bearings self-oiling, adjustable and water-cooled. Outside stand fitted with gauge to keep the plug central with the shell.

For full particulars apply to

DILLON MACHINE CO., Inc.
 Builders of Paper Mill Machinery
 Lawrence, Mass.



WOOD AND IRON TUB BEATERS

**Fourdrinier
 Machines**

**Cylinder
 Machines**

Pulp Machinery

Downingtown Mfg. Co.
 Downingtown, Pa.



The Undercut Trimmer

The Paper Mill Cutter, combining the highest degree of accuracy, speed and simplicity for the most exact trimming.

The clamping power of the Undercut is not equalled by any other cutter, and assures absolute accuracy in trimming. The safety in operating an Undercut is a very important fact to be considered, as well as simplicity of design and construction carried out in the best manner and workmanship possible.

The speed of the Undercut is such that more cuts can be utilized in the working of our machine than in the high-speed cutters, which not only consume power, but wear out rapidly.

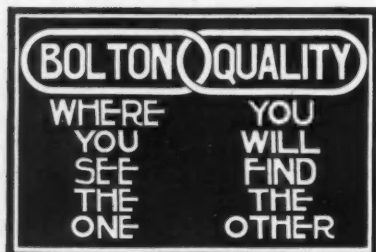
Our Power Back Gauge Drive enables the operator to handle material quickly, easily, and more in quantity than can be secured in the use of other machines.

For further and full information, call upon

The Smith & Winchester Mfg. Co.

Builders of High Grade Paper Mill Machinery and Paper Bag Machinery

South Windham, Conn.



JOHN W. BOLTON AND SONS, INC.

EAGLE KNIFE AND BAR WORKS

MANUFACTURERS OF

HIGH GRADE KNIVES BARS, PLATES and ORDAN FILLINGS
OF EVERY DESCRIPTION USED IN PAPER MILLS

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Caldwell Tanks For All Uses

For special purposes. For general purposes. Large or small. Round or rectangular. All built strictly according to approved engineering principles by men who have been designing and building tanks for thirty years.

No leaking. No bulging. No breaking. Whenever you see the name Caldwell on a tank it is a sign of good, long, honest tank service.

A Caldwell Rectangular Tank is illustrated. Whatever your requirements are, we can meet them.

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W. E. CALDWELL CO.
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TANKS
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Starch

Paper manufacturers generally recognize the value of **starch** in the manufacture and coating of paper.

To obtain definite results in any desired direction in the preparation of paper, not merely a difference of grade, but a difference of kind or variety of **starch** is required.

Our carefully controlled and thoroughly standardized processes enable us which the paper industry has found to produce exactly the various **starches** economical and efficient.

Corn Products Refining Company
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Starch



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It will outlast any fire brick. An ideal material for front-door arches, side walls, combustion chamber linings and bridge walls. It's Jointless. Makes your furnace Airtight and Saves Coal.

Write for free copy of our 36-page book of useful information on furnace building and maintenance

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JOINTLESS FIRE BRICK CO.

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TRADE MARK

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BOND**

**HAMMERMILL
COVER**

**HAMMERMILL
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"AMERICAN" TWINES



Paper Makers' Twine

Tube Rope

Wall Paper Twine

Hay Rope

Fine and Coarse Polished Twines

Manila Rope

Transmission Rope



For Prices Write Department M

American Manufacturing Company

Largest Makers of Commercial Twines and Rope in the World

Mills and Sales Office:

NOBLE AND WEST STREETS,

BROOKLYN, NEW YORK CITY

New York Market Review

Office of the PAPER TRADE JOURNAL,

WEDNESDAY, September 17, 1919.

The New York market is rapidly drawing to a situation where all orders are subject to acceptance by the mill. Many grades of paper, especially news print and kraft, are practically out of the market. Manufacturers report that they are accepting no orders, as they are, in many cases, sixty days behind their contracts. Some spot lots of news print and kraft are still obtainable, and are being sold at very high prices.

Other papers are very active, and the entire market shows a decidedly strengthening aspect. Side runs are being sold at 4@4.25, when they can be obtained, a quarter-cent increase over former quotations. Kraft also has advanced this week, No. 1 domestic now bringing 9@9.50.

Book papers are still strong, and in great demand. Supplies of book paper are not yet quite as short as those of news, but increases are expected, and a real shortage is imminent.

Coarse and wrapping papers also took on a bullish aspect this week, not noticed last week. Manila, No. 2 wood, has advanced to 5.50@6, a half-cent increase over last week's prices.

Tissues are active, but no changes in prices have been evidenced this week.

Ground Wood

Wood pulp is still very scarce, and is bringing the same high prices quoted last week. Dealers report an inability to obtain stocks sufficient to fill their orders, and still further increases are anticipated. Ground wood is being quoted at \$33@40, and there are indications that prices have not yet reached high water mark.

Chemical Pulp

Chemical pulp is still very strong, and is in unusual demand. Prices are maintaining their upward tendency, and trade is as heavy as the restricted supply allows. Mitscherlich advanced a half-cent, according to report, and other grades remained the same. No weakening in the market is expected, but prices are very unsteady, some changing over night.

Rags

The rag market was a little steadier this week than it has been for several weeks, due to the fact that a large shipment of foreign rags arrived, and steadied the somewhat cramped market. Cloth strippings advanced slightly this week, nevertheless. Trade was, as usual, active.

Old Ropes and Bagging

Trade in this market was normal this week, no unusual changes being evidenced. Prices are the same, but demand is strong, and the market shows a bullish tendency.

Paper Stock

Waste paper is still strong, and the market maintains its high prices. Soft white No. 1 shavings advanced slightly, this week bringing 4.50@4.75. Other grades of paper stock are being quoted at the same prices that they were last week. The market seems to be a little more stable this week than it has been recently, but further advances are not unlikely.

Twine

A very strong demand, and serious shortage of supplies have somewhat complicated the twine market. Particularly strong is the demand for the soft fibre twines, which, as a result, have gone up in price within the last week. A two-cent increase on jute wrappings, extra No. 1, and No. 2, as well as on paper-makers' twine and on box twine, is reported this week. Trade is heavy, and supply apparently far below demand.

PAPER STOCK TREATING MACHINE

(Continued from page 50.)

a baffle plate disposed within said chamber so that the stock is discharged against the same, said baffle plate being disposed so that the stock may circulate about the same, and a valve for the discharge chamber, the capacity of the chamber and its discharge relative to the pump being such that the stock is under pressure within the chamber.

10. In a stock treating machine, the combination of a tank, a chamber discharging to said tank, a pump having a discharge connection to said chamber and an intake connection to the tank, a baffle plate disposed within said chamber so that the stock is discharged against the same, said baffle plate being disposed so that the stock may circulate about the same, the capacity of the chamber and its discharge relative to the pump being such that the stock is under pressure within the chamber.

11. In a stock treating machine, the combination of a tank, an agitating means within said tank, a chamber discharging to said tank, a pump having a discharge connection to said chamber and an intake connection to the tank, and a baffle plate disposed within said chamber so that the stock is discharged against the same, said baffle plate being disposed so that the stock may circulate about the same, the capacity of the chamber and its discharge relative to the pump being such that the stock is under pressure within the chamber.

Chicago to Have Big Chemical Show

CHICAGO, September 15, 1919.—The leaders in the world of chemical arts are turning toward Chicago and September 22 will see some twenty thousand delegates and exhibitors assembled for the biggest industrial exposition ever held—the Fifth National Exposition of Chemical Industries.

From all parts of America, from foreign countries, experts are to take part in the great one-week session during which four big organizations will hold their meetings. These are the American Institute of Mining and Metallurgical Engineers, the American Ceramic Society, the American Electrochemical Society, and the Technical Association Pulp and Paper Industry.

Perhaps in no branch of the big exposition will there be more satisfaction gained than in the vivid representation of chemical processes to be shown by moving pictures. A series of these pictures will show vividly and forcibly, the processes from removal of the product from the ground to its ultimate delivery to the consumer in finished form.

The all-important objects of the great exposition will be progress, knowledge and economy. Organizations, commercial and industrial, from all parts of the nation are sending representatives to Chicago to make observations, to study various subjects as they are taken up at the numerous sessions. Some time ago ocean passage was arranged for by a number of foreign chemists. They will take back to Europe the story of how America has progressed in chemistry, of how America has assumed world leadership, and they will learn why world leadership inevitably must remain with America.

Before the doors of the Coliseum and First Regiment Armory have been thrown open, all of the three hundred and fifty exhibits, many of them containing new phases of greatest interest, will be in place. Several days ago the entire space for exhibits had been allotted. Many of these exhibits will deal with mining, with safety appliances and with various other phases of the industry.

The war's surprising results in the uses of gases will be a most interesting topic treated in speeches and dealt with in exhibits.

Early estimates that the number of delegates would approximate and possibly exceed twenty thousand are being borne out by hotel reservations.

Market Quotations

Paper Company Securities

New York Stock Exchange closing quotations, September 16, 1919:

Stocks.		
	Bid.	Asked.
American Writing Paper Company, pref.	58 3/4	59
International Paper Company, com.	56 3/4	57
International Paper Company, pref.	96	105
International Paper Company, pref., Stamped.	76	77
Union Bag & Paper Corporation	82	91
United Paper Board	13	..

Bonds.		
International Paper Co., Convertible S. F. 5s, 1935	98	..
International Paper Co., 1st and Refunding Conv. 5s, 1947	90	..
Union Bag & Paper Corporation, 1st 5s, 1930	88 3/4	92

Paper		
Bonds	11	@ 41
Ledgers	13	@ 36
Writing—		
Extra Superfine	20	@ 21
Superfine	19	@ 22
Tub Sized	14	@ ..
Engine Sized	12	@ ..
News—f. o. b. Mill—		
Rolls, contract	..	@ ..
Rolls, transient	5.20	@ 5.50
Sheets	5.00	@ 5.50
Side runs	4.00	@ 4.50
Book cases—f. o. b.—N. Y.—		
S. & S. C.	9.00	@ 9.50
M. F.	8.50	@ 9.00
Coated and	10.50	@ 12.00
Enamel	10.00	@ 11.00
Lithograph	10.00	@ 11.00
Tissues—f. o. b. N. Y.—		
White, No. 1	1.15	@ 1.25
White, No. 2	1.00	@ 1.10
Manila, No. 1	1.00	@ 1.10
Kraft	1.10	@ 1.35
Colored	1.60	@ 3.10
Anti-Tarnish	1.20	@ 1.40
Kraft—f. o. b. Mill.		
No. 1 Domestic	9.00	@ 9.50
No. 2 Domestic	7.75	@ 8.25
Imported	..	@ ..
Screenings	3.75	@ 4.25
Manila—		
No. 1 Jute	11 1/2	@ 12
No. 2 Jute	11	@ 12
No. 1 Wood	5.75	@ 6.25
No. 2 Wood	5.50	@ 6.00
Butchers'	5.00	@ ..
Fibre Papers—		
No. 1 Fibre	6.00	@ 6.25
No. 2 Fibre	4.75	@ ..
Card Middles	4.00	@ ..
Common Bogus	3.00	@ ..
Boards, per ton, f. o. b. N. Y.—		
News	60.00	@ 65.00
Straw	52.50	@ 55.00
Chip	55.00	@ 60.00
Binders Board	70.00	@ 75.00
Manila Lnd. Chip	70.00	@ 75.00
Wood Pulp	80.00	@ 85.00

Mechanical Pulp		
(F. O. B. Pulp Mills.)		
No. 1 f. o. b. Mill	33.00	@ 40.00

Chemical Pulp		
(Ex-Dock, New York.)		
Sulphite (Foreign)—		
Bleached	7.50	@ 8.00
Easy Bleaching	5.25	@ 5.50
No. 1 Unbleached	4.75	@ 5.00
No. 2 Unbleached	4.00	@ 4.25
Kraft (Foreign)	4.50	@ 5.00
(Domestic, F. O. B. Mills.)		
Sulphate—		
Bleached	6.50	@ 7.00
Sulphite (Domestic)—		
Bleached	5.75	@ 6.25
Extra Strong Unbleached	4.75	@ 5.00
Easy Bleaching	..	@ ..
Sulphite	4.50	@ 5.00
News Sulphite	3.25	@ 3.50
Mitscherlich	5.50	@ 6.00
Kraft (Domestic)		
F. O. B. Mill	4.25	@ 4.50
Soda Bleached, delivered	4.75	@ 5.00
*—Dash means nominal.		

Domestic Rags		
Prices to Mill f. o. b. N. Y.		
Skirt Cuttings—		
New White, No. 1	15 1/4	@ 16 1/4
New White, No. 2	10	@ 10 1/2
Silesias, No. 1	11	@ 11 1/2
New Unbleached	13	@ 13.50
Washables	10 1/4	@ 10 1/2
Fancy	11 1/4	@ 11 1/2
Cottons—according to grades—		
Blue Overall	11	@ 11 1/2

Fine Tube—		
5-ply and larger (basis)	31	@ ..
4-ply	31 1/2	@ ..
3-ply	32	@ ..
Unfinished India—		
No. 8 (3-ply) and larger	24	@ ..
Papers Makers' Twine		
Balls	21	@ 23
Box-Twine, 2-4 ply	23	@ 25
Jute Rope	25	@ 40
Amer. Hemp, 6	30	@ 31
Sisal Hav—		
No. 1 Basis	20	@ 22
No. 2 Basis	18 1/2	@ 20
Sisal Lath Yarn—		
No. 1	19 1/4	@ 19 3/4
No. 2	17 1/4	@ 19 1/2
Manila Rope	27	@ 29

Old Waste Papers		
(f. o. b. New York)		
Shavings—		
Hard White, No. 1	5 1/4	@ 5 1/2

CHICAGO

Paper		
[FROM OUR REGULAR CORRESPONDENT.]		
Straw Board		
.....	45.00	@ 55.00
Filled Pulp Board	70.00	@ 75.00
Old Papers		
Shavings—		
No. 1 Hard White	5.25	@ ..
No. 1 Soft White	4.50	@ 1.75
No. 2 Soft White	1.50	@ 1.25
No. 1 Mixed	1.00	@ 1.25
No. 2 Mixed	1.00	@ 1.25
Ledgers & Writings	2.85	@ 3.00
Solid Books	2.50	@ 2.65
Blanks	1.60	@ 1.75
No. 2 Books, light	1.50	@ 1.75
Extra No. 1 Manila	2.00	@ 2.25
Manila Envelope		
Cuttings	2.50	@ 2.75
No. 1 Manila	1.40	@ 1.50
Folded News (over-issue)		
.....	1.10	@ 1.20
Old Newspapers	1.10	@ 1.20
Mixed Papers	1.10	@ 1.25
Straw Clippings	1.00	@ 1.10
Binders Clippings	1.00	@ 1.10
Kraft	2.50	@ 2.75
New Kraft Cuts	2.75	@ 3.00
Roofing Stock, F.		
O. B. Chicago.		
Net Cash—		
No. 1	63.00	@ ..
2	63.00	@ ..
3	61.00	@ ..
4	61.00	@ ..

PHILADELPHIA

Paper		
[FROM OUR REGULAR CORRESPONDENT.]		
Mixed Strains	2.25	@ 2.50
Manila Shaving	2.50	@ 2.75
Manila Shaving	1.50	@ 1.60
No. 2	1.50	@ 1.60
Manila Sul, No. 1	4.00	@ ..
No. 1 New Lt. Bur	10.00	@ 12.00
lap	..	@ ..
New Burlap Cuttings	3.25	@ 3.50
Old Papers		
Shavings—		
No. 1 Hard White	5.50	@ 5.75
No. 2 Hard White	4.25	@ 4.50
No. 1 Soft White	4.25	@ 4.50
No. 2 Soft White	1.75	@ 1.80
No. 1 Mixed	1.50	@ 1.75
No. 2 Mixed	1.25	@ 1.50
Solid Ledger Stock	3.25	@ 3.50
Writing Paper	2.50	@ 2.75
No. 1 Books, heavy	2.25	@ 2.40
No. 2 Books, light	1.25	@ 1.50
No. 1 New Manila	2.75	@ 3.00
No. 1 Old Manila	1.25	@ 1.30
Old Kraft	2.50	@ 2.75
Overissue News	1.00	@ 1.10
Old Newspaper	80	@ 90
No. 1 Mixed Paper	80	@ 95
Common Paper	60	@ 70
Straw Board Chip	75	@ 80
Binders Bd. Chip	75	@ 80
Rags		
Old White—		
No. 1	6.50	@ 7.00
No. 2	5.00	@ 5.25
Blues—		
Thirds and Blues	4.00	@ 4.25
Black Cotton Stockings	3.25	@ 3.50
Mixed gansies	3.00	@ 3.50
Lace Curtains	6.00	@ 6.50
Colored Wiping		
Rags	6.25	@ 6.50
Cotton Quilts	2.50	@ 2.75
White Cotton Battling	4.50	@ 4.75

(Continued on page 66.)

Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

FOR THE WEEK ENDING SEPTEMBER 16, 1919.

Cigarette paper, 27 cs.
Miscellaneous paper, 18 cs., 25 bls.

CIGARETTE PAPER.

C. Drucklieb, La Touraine, Havre, 27 cs.
Cartier & Co, La Savoie, Havre, 8 cs.
Black, Starr & Frost, La Savoie, Havre, 10 cs.
N. Narcogion, Red Italia, Genoa, 25 bls.

CASEIN.

Atterbury Bros., Inc., Harlem, Bordeaux, 445 bags.
A. Klipstein & Co., Harlem, Bordeaux, 1,056 bags.
H. F. Nielsen, Drammensfjord, Kristiania, 3 bags.

PULP.

N. Y. Overseas Co., Inc., Drammensfjord, Kristiania, 250 bls. dry chemical pulp; 50 tons.
M. Gottesman & Co., Drammensfjord, Kristiania, 800 bls. dry chemical pulp; 100 tons.
E. M. Sergeant & Co., Oscar II, Copenhagen, 350 bls., wood pulp.
E. Butterworth & Co., Oscar II, Copenhagen, 200 bls. dry bleached wool pulp.
J. Andersen & Co., Oscar II, Copenhagen, 1,450 bls., dry bleached wood pulp.
J. Andersen & Co., Oscar II, Copenhagen, 1,250 bls., unbleached sulphite.

RAGS, BAGGING, ETC.

Certaineed Products Co., Harlem, Bordeaux, 285 bales rags.
American Express Co., Harlem, Bordeaux, 212 bales rags.
Wilkinson Bros. & Co., Harlem, Bordeaux, 46 bales rags.
R. Goldstein Sons, Harlem, Bordeaux, 202 bales rags.
E. J. Kellar & Co., Harlem, Bordeaux, 307 bales rags.
A. Salomon, Inc., Harlem, Bordeaux, 958 bales rags.
Atterbury Bros., Inc., Harlem, Bordeaux, 296 bales rags.
Castle, Gottheil & Overton, Soestdijk, Rotterdam, 1,136 bales rags.
Salomon Bros. & Co., Soestdijk, Rotterdam, 1,385 bales rags.
E. J. Kellar & Co., Soestdijk, Rotterdam, 643 bales rags.
Frank & Berg, Soestdijk, Rotterdam, 86 bales rags.
F. W. Bird & Son, Soestdijk, Rotterdam, 327 bales rags.
Jebb Bros., Soestdijk, Rotterdam, 382 bales rags.
R. F. Downing & Co., Soestdijk, Rotterdam, 635 bales rags.
Patent Vulcanite Roofing Co., Soestdijk, Rotterdam, 450 bales rags.
Castle, Gottheil & Overton, Soestdijk, Rotterdam, 130 bales bagging.
Salomon Bros. & Co., Soestdijk, Rotterdam, 224 bales bagging.

Northern Metal Co., Soestdijk, Rotterdam, 128 bales bagging.
R. Goldstein & Sons, Soestdijk, Rotterdam, 257 bales bagging.
Wilkinson Bros. & Co., Oscar II, Copenhagen, 489 bales bagging.
Wilkinson Bros. & Co., Vitellia, Glasgow, 112 bales bagging.
M. O'Meara, Vitellia, Glasgow, 111 bales bagging.

PAPER STOCK AND OLD ROPE.

Foreign Trade Banking Corp., Vitellia, Glasgow, 59 bls. new cuttings.
National City Bank, Vitellia, Glasgow, 97 bls. flax waste.
Wilkinson Bros. & Co., Soestdijk, Rotterdam, 231 bls. old impress.
Wilkinson Bros. & Co., Soestdijk, Rotterdam, 179 bls. old fustians.
Salomon Bros. & Co., Soestdijk, Rotterdam, 182 bls. shoppery.
Salomon Bros. & Co., Soestdijk, Rotterdam, 99 bls. old cottons.
Northern Metal Co., Soestdijk, Rotterdam, 188 bls. old fustians.
E. J. Kellar & Co., Soestdijk, Rotterdam, 126 bls. old linens.
E. J. Kellar & Co., Soestdijk, Rotterdam, 500 bls. shoppery.
R. Goldstein Sons, Soestdijk, Rotterdam, 87 bls. shoppery.
R. Goldstein Sons, Soestdijk, Rotterdam, 191 bls. old cottons.
R. F. Downing & Co., Soestdijk, Rotterdam, 164 coils old rope.

Plans for Technical Convention

The entire day of Friday, September 26, will be spent, according to present plans of the Chicago Local Committee of the Technical Association of the Pulp and Paper Industry in a visit of inspection to the United States Forest Products Laboratory, located at Madison, the capital city of Wisconsin, and the seat of the University of Wisconsin. At present sixty-five members and guests have signified their intention of taking this trip, and if this reaches the eye of any who wish to go and who have not yet been urged to do so, it behooves them to notify the Chicago committee as soon as possible; for Mr. Hines has not yet turned back the railroads to private management, and if there be any Tappi member, friend or guest who thinks that arranging for this Madison trip under the United States Railroad Administration is a sinecure, let him stand up in his seat and be counted.

The sleepers thus far reserved for the accommodation of the Tappi party will be ready for occupancy at 10 p. m. Thursday, September 25, at the Northwestern Terminal, and will be attached to the regular train scheduled to leave at 2 a. m. and due to arrive at Madison at 7.20 a. m., Friday, September 26. The fare from Chicago to Madison is \$4.21 each way, and lower berth is \$1.62, "including war tax." Meals at the Park Hotel, Madison, selected as headquarters, will be at the expense of members making the trip. On return trip these same sleepers will be attached to the Badger State Express, leaving Madison at 5.40 p. m., Friday, and arriving at Chicago at 10.30 p. m., and will serve as chair cars at the regular seat rate. Dining car service on this train is provided.

The Forest Products Laboratory is a Federal institution, established by the United States Forests Service at Madison, Wis., in co-operation with the University of Wisconsin for the study of forest products. A similar institution has been established at Syracuse University by New York State to co-operate with the New York State College of Forestry. Not only have these institutions done great research work, but they are doing much to prevent the waste of our forest products.

Much favorable comment has been heard regarding the holding of the banquet at the Union League Club, one of the most exclusive clubs in the city of Chicago. Previous sessions of the

Tappi conventions have been held in the various mill centers—Holyoke, the Fox River Valley, the Miami Valley and others—and the entertainment program has been in the hands of the mills in those localities and most ably carried out. The best clubs were open and the utmost entertainment provided without any expense to visiting members and their guests.

Chicago, however, is a somewhat larger spot, and though her heart is big and her generosity and hospitality is breezy, Western and above suspicion, she has few paper mills. So that the committee is to be sincerely congratulated in the matter of the unusual courtesy that has made it possible for the members and their guests to enjoy their banquet within the walls of this historic old club.

FOR NEWS PRINT INVESTIGATION

(Continued from page 17.)

ished foreign purchasers, either governments or private concerns, such corporations may accept security satisfactory to the Federal Reserve Board, even including mortgages on plants or other real property, and against it issue debentures for sale to investors. The money received from the sale of these debentures will be used for the payment of actual cash to the American producers or exporters.

While such corporations will be subject to Government supervision through the Federal Reserve Board, just as are national banks, neither Government participation, underwriting nor guarantee is involved.

By the opening of foreign markets to American goods, Senator Edge showed that American industrial plants would be kept going at full speed, labor would be employed at adequate wages, cargoes would be provided for the American merchant marine, which now runs well over 1,000 ships, and abnormal foreign exchange rates would be gradually readjusted. Also, he argued, foreign embargoes and other discriminations against American goods would be precluded.

At Senator Edge's request, the bill was introduced in the House some time ago by Representative Ackerman, and it is well known in that chamber the early passage of the Edge bill there is expected.

JOBBERS

Our New Prices Surely Will Interest You

**Krafts
Manilas
Tissues**

**Napkins
Toilet Paper
Towels.**

**News
Fibre
Pattern**

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NATIONAL PAPER SUPPLY COMPANY

NOW at Washington Place and Mercer Street, New York

Mechanical Filters

GRAVITY AND PRESSURE TYPES

All Sizes, to Suit Locations
No Proposition too Large or Small

WRITE OR WIRE

WE WILL CALL ON YOU

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BOWSHER'S SPEED or MOTION INDICATOR
IS INDISPENSABLE

In obtaining a UNIFORM speed of machinery, and is one of the most PROFITABLE little devices ever put in a mill. Will pay for itself in 30 days. Dial 12 in. in diam. Weight, 10 lbs.
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UNITED STATES TALC CO.
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E. J. KELLER COMPANY

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200 FIFTH AVENUE
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FOREIGN AND DOMESTIC

PAPER MAKERS' SUPPLIES
COTTON, JUTE and FLAX WASTES
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PULP & PAPER

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NIAGARA FALLS, NEW YORK

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HIGH TEST

Packed in Steel Drums, air tight, insuring full strength at point of consumption

LIQUID CHLORINE

Pure, anhydrous, in improved and convenient packages.

Soda Ash

48 per cent. and 58 per cent.

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60 per cent., 70 per cent., 72 per cent., 74 per cent., 76 per cent.; also 78 per cent. Our 78 per cent. Caustic Soda is an article of greater purity than has ever before been produced in a commercial way, analyzing 99.70 Hydrate of Soda

Bicarbonate of Soda

Packed in Kegs, Barrels or Bags; also Cases

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PROVIDENCE: 55 Canal Street NEW YORK: 61 Broadway BOSTON: 88 Broad Street
PHILADELPHIA: Delaware Ave. and Green St. CHARLOTTE, N. C.

Want and For Sale Advertisements

HELP WANTED

WANTED—A good back tender on water finished fibre. Two tour mill. Speed \$50 to 400 feet. Address Box 1391, Paper Trade Journal. **tf**

WANTED—Man familiar with the manufacture of gummed paper and cloth. Knowledge of waterproofing papers also desirable. Excellent proposition for right man. Negotiations strictly confidential. Address, Box 1470, care Paper Trade Journal. **S29**

WANTED—Finishers. Two good finishers for Box Board Mill in Central West, two tours, good pay, in fine city of twenty-five thousand, good working conditions, transportation furnished. Write, Box 1555, care Paper Trade Journal. **S18**

WANTED—Beater Engineer with experience in coloring on fibre papers. Position with good firm. Are paying 80c. per hour. Only reliable men need apply. Address, Box 1559, care Paper Trade Journal. **S18**

MACHINE TENDER WANTED—Experienced on cylinder machine running principally news board and chip board. Mill located close to large city. Must be sober and industrious; married man preferred; steady work the year round. Address, Box 1560, care Paper Trade Journal. **S18**

SUPERINTENDENT—51 years of age; 18 years' experience as Superintendent making Wrappings, Kraft, News, Chips and Test Boards. Will go anywhere. Married. Address, Box 1457, care Paper Trade Journal. **S25**

WANTED—Three Beater Engineers for three machine mill on light weight specialties, three tower shift, good wages, steady, competent and reliable men required. Address, Box 1576, care Paper Trade Journal. **S-18**

WANTED—Experienced Mill Manager, one familiar with Fourdrinier and Cylinder specialties, also with ability to handle general sales. Address, Box 1577, care Paper Trade Journal. **tf**

WANTED—Young man for drafting room and laboratory in Sulphate Pulp Mill. State age, experience and salary expected. Address, Box 1578, care Paper Trade Journal. **S-25**

WANTED IMMEDIATELY—Superintendent for waxed paper and printing establishment in the Middle West; most modern and up-to-date factory. Salary \$85 to \$100 per week to start. Immediate and permanent position for a man who can produce quality and results. Address answers, which will be treated absolutely confidential, stating age, experience and references, to Box 1585, care Paper Trade Journal. **S25**

MACHINE TENDER wanted on Book and Writing. Two tours. No one but A-1 Machine Tender need apply. Address, Box 1586, care Paper Trade Journal. **S18**

WANTED

One (1) 96" to 100" face Calender Stack. The Shartle Brothers Machine Co., Middletown, Ohio.

S-4

HELP WANTED

WANTED—Good, sober, steady machine tender for Boxboard Mill. Good wages to right party. Apply, Box 1587, care Paper Trade Journal. **S25**

WANTED—Machine Tender on Fourdrinier Tissue Machine, 100" trim. All Sulphite stock. Send copy of your letters of reference. Address, Box 1590, care Paper Trade Journal. **O2**

WANTED—Boss Cutter Man, familiar with Dillon Duplex Cutter and Brennan Folder on Tissue, Horn Cutters on heavy weight. Cut 25 tons per day. Send copy of your letters of reference. Address, Box 1591, care Paper Trade Journal. **O2**

NIGHT BOSS for Twenty Ton Container and Jute Board Mill at once, must be good Board Machine Tender. Apply, giving references. Steady position for good man. Address, Box 1592, care Paper Trade Journal. **S25**

WANTED—Machine Tenders, two tours, \$6.80 per day, good location. Steady work. Address, Box 1593, care Paper Trade Journal. **S18**

WANTED—Two Machine Tenders on double cylinder machines and two Beater Engineers in running rope and jute papers. Two shifts. Good wages. No strikes. Address, Lock Box 425, Philadelphia, Penn. **S25**

WANTED AT ONCE

LARGE BOARD MILL HAS EXCELLENT OPPORTUNITY FOR A

MASTER MECHANIC

having paper mill experience, also experienced with boilers, engines, piping and general maintenance work. Must be a good leader of men. Only 1st class men need apply. Address Box 1579, care Paper Trade Journal. **S-18**

WANTED AT ONCE

LARGE BOARD MILL HAS GENUINE OPPORTUNITIES FOR THE FOLLOWING:

SUPERINTENDENTS
ASS'T SUPERINTENDENTS
TOUR BOSSES
MACHINE TENDERS
BEATER MEN

Owing to our policy of expansion and our rapid growth, we will need men who are looking for a reliable connection and who can grow with us. Mill is located in a progressive town in vicinity of Niagara Falls, Ontario. Schools, Churches and living conditions are all that could be desired. Only first class men need apply. Highest wages and best of working conditions. Transportation paid. Address Employment Department, Beaver Board Companies, Buffalo, N. Y., giving full particulars. **S-25**

SITUATIONS WANTED

A SUPERINTENDENT having fifteen years' experience on Board, Wrappings, Roofing and Bag Papers, wishes a position as day or night boss. Can furnish good references. Address, Box 1433, care Paper Trade Journal. **S25**

A YOUNG, AGGRESSIVE and responsible sales agency seeks permanent mill connections, particularly with manufacturers of Kraft and Book. Address, Box 1482, care Paper Trade Journal. **tf**

SALESMAN—New York City, who can produce large volume of paper business, wants to make connection with a Mill Agency Company or would represent a Mill with good capacity. Substantial drawing account on commission basis. Address, Box 1561, care Paper Trade Journal. **S25**

YOUNG MAN, married, age 27, wishes to represent a mill making Grease Proof, News and Manila. Acquainted with the jobbing trade in New York for the past eight years. Also in New Jersey and Philadelphia. Address, Box 1563, care Paper Trade Journal. **S18**

SUPERINTENDENT—With twenty years' experience on News and Hanging, open for position. Capable and efficient. Best of references. Prefer Mill with ground wood attached. Address, Box 1564, care Paper Trade Journal. **N27**

EXECUTIVE and salesmanager desires a strong connection where he can create or develop a Paper Specialty Department. Address, Box 1565, care Paper Trade Journal. **S25**

PAPER SALESMEN

We desire to secure two alert, ambitious salesmen to sell in New York for a large paper house with extensive stock, preferably with paper sales experience. Answer giving age and experience, also salary or commission expected. Replies will be treated in strictest confidence. Address Box 1496, care Paper Trade Journal. **tf**

FOR SALE

BOARD MACHINE—six cylinder 36" x 50", 5 baby presses, three presses, 61 dryers, two stacks calenders, duplex cutter and Marshall drive.
PAPER MACHINE—1 72" Fourdrinier, two presses, 15 dryers, 36" x 60", Marshall drive.
BOARD MACHINE—4w cylinders, 30" x 72", three presses, 23 dryers, 36" x 66", calenders, cutter and Marshall drive.
PULP DRYING MACHINE—two molds, 30" x 77", three presses, 37 dryers, 48" x 68", Marshall drive.
MACHINE CALENDERS—1 84" nine roll, 1 82" nine roll, 1 72" nine roll, 1 68" five roll, 1 48" five roll, 1 37" five roll.
SUPER CALENDERS—1 62" Norwood, 1 60" Norwood cotton rolls, 1 53" Holyoke, 1 45" Norwood, 1 43" Holyoke.
SLITTERS AND WINDERS—1 127" Kidder, 1 108" Kidder, 1 102" Langston, 1 80" Kidder, 1 38" Kidder.
PAPER SHEET CUTTERS—1 112" Finlay, 1 108" Horse, 1 104" B & C, 1 84" Beloit duplex, 1 62" Horse, 1 53" Finlay, 1 48" Finlay, 1 42" Finlay.
REAM CUTTERS—1 59" Dayton Seybold, 1 48" Acme, 1 46" Sheridan, 1 36" Sheridan.
BEATERS—2 52" x 59" Hornes, 1 53" x 52" Emerson, 1 48" x 48" Horse, 1 48" x 48" Downingtown, 1 48" x 46" Umpherson, 1 No. 1 Claffin.
JORDANS—1 Jones Waag Majoette with base, 1 Emerson "Special", 1 Noble & Wood with base, 1 Emerson with base, 2 Smith & Winchester without base.
PUMPS—1 Deane triplex power water pump 10" x 10", 2 Deane triplex stuff pumps 8" x 8", 2 Pucey & Jones double stuff pumps 6" x 10", 1 10" Worthington centrifugal, 2 4" centrifugals, 3 3" centrifugals.
SCREENS—2 ten plate packers.
WEY MACHINE—2 34" Sandy Hill Iron & Brass, 1 72" Bagley & Sewall hydraulic.
BOARD CALENDER—1 Horse two rolls 48" x 48".

FRANK H. DAVIS

175 Richdale Ave., Cambridge, Mass

SITUATIONS WANTED

ENVELOPE manufacturers attention. A man of 24 years' experience from adjusting to having full charge wishes a position. Address, Box 1571, care Paper Trade Journal. S13

SUPERINTENDENT desires to make a change. Am well up-to-date in the manufacturing of Book and Writing made from old papers. Also Sulphite Bond and paper for waxing and Parchment. Address, Box 1532, care Paper Trade Journal. S-25

PROGRESSIVE MAN, 12 years experience in domestic and foreign papers, desires to become selling agent for mills that contemplate opening Eastern Sales Office. Address, Box 1541, care Paper Trade Journal. S-25

EFFICIENCY SUPERINTENDENT—Thoroughly experienced in the manufacture of Coated Book papers. Latest up-to-date methods. Chemist. Desires connection with Coating Mill of large production, with opportunity to demonstrate increased production and lowest possible cost of manufacture. Salary based on percentage of increased profits only. Address, Box 1554, care Paper Trade Journal. S18

SUPERINTENDENT—Now employed but wishes to make change. Experienced on Book, News, Greaseproof and Bag Papers. Expert man on White Waxing and Toilet Tissues; well up on construction. Best of references from both present and past employers. Address, Box 1539, care Paper Trade Journal. S18

YOUNG MAN, 19, is desirous of connecting with paper manufacturing or exporting house. High school graduate, having six month's experience with paper jobber, by whom he is at present employed. Address, Box 1605, care Paper Trade Journal. S18

PAPER EXPORT MANAGER

Large Paper Merchants have excellent opening for export paper manager. Must be an executive and possess proper initiative to take full charge of this department. Give age, experience, and compensation desired, all of which will be treated in the strictest confidence. Address, Box 1602, care Paper Trade Journal. S18

WANTED

Experienced superintendent to develop new wax paper mill for waxing papers of various grades, also waxed bread wrappers. Capital subscribed. Superintendent may expect good salary, and substantial interest. Negotiations strictly confidential. Please furnish detailed experience. Address, Box 1604, care Paper Trade Journal. O-9

Your Opportunity

Wanted **TWO FIRST CLASS SALESMEN. MUST BE ABLE TO SELL PAPER BAGS and TOILET PAPER.** One with Headquarters at Chicago and one to travel Eastern Territory. Salary commensurate with your **ABILITY.** H. Norwood Ewing Co., Woolworth Building, New York City.

SITUATIONS WANTED

SUPERINTENDENT desires position running Board Mill. Fifteen years' experience. All grades. Can handle help and get production. Can also furnish good help. Best of references. Address, Box 1594, care Paper Trade Journal. O2

SALESMAN AND EXECUTIVE—Twelve years' experience as an executive and salesman for one of Philadelphia's leading jobbers. Thirty-two years of age. Still employed, but desires a connection with a future. All replies must be in the strictest of confidence. Unquestioned references. Address, Box 1595, care Paper Trade Journal. S25

SITUATION wanted as Eastern representative selling to Paper Manufacturers. Have had over twenty years' experience. Will furnish best of references. Address, Box 1596, care Paper Trade Journal. S25

SUPERINTENDENT having twelve years' experience making ground wood; also some experience on news and hanging. Can furnish references. Address, Box 1597, care Paper Trade Journal. S25

BACK TENDER, four years' experience on Combination Board, desires position. Employed at present. Married. Sober. Good references. Address, Box 1598, care Paper Trade Journal. S18

INVESTOR—Experienced Paper Salesman with following in trade will purchase a financial interest in paper mill, where he can take care of selling, or will consider outright purchase. Correspondence absolutely confidential. Address, Box 1599, care Paper Trade Journal. S18

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HIGH CLASS EXECUTIVES
ENGINEERS AND
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War time experience has speeded up their thinking ability. They are better workmen, better organizers, better managers.

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PROFESSIONAL AND TECHNICAL DIVISION

WANTED AT ONCE

A-1 Draftsmen with actual experience in Paper Mill construction. Men capable of laying Board Mill complete. Practical experience necessary. We have a real job. Give full details as to past experience and salary expected. Address: Employment Department of the Beaver Board Companies, Buffalo, N. Y. S-25

SITUATIONS WANTED

WANT POSITION as representative salesman for Paper Box Manufacturer—one making a specialty of Ice Cream pails and cartons, and who has the facilities to fill large contracts promptly. Territory covers Washington, D. C., Baltimore, Md., and the south. Have sold twenty million this year and can increase the amount largely. Would be willing to work on salary and commission. Address, Box 1600, care Paper Trade Journal. O2

YOUNG MARRIED MAN with two years' Paper Mill training and ten years' Paper Mill office work, desires position in Sales Department or as Salesman for Paper Jobber. Address, Box 1601, care Paper Trade Journal. S25

SUPERINTENDENT—51 years of age; 18 years' experience as Superintendent making Wrappings, Kraft, News, Chips and Test Boards. Will go anywhere. Married. Address, Box 1457, care Paper Trade Journal. O2

FOR SALE

FOR SALE—We have discontinued the manufacture of sugar bags, and offer for sale, at a very low price, our complete sugar bag plant comprising seven machines making heavy sugar bags from 4 lb. to 24 lb. The plant also includes presses, individual compressors, counter shafts, main shaft, pulleys and the entire sugar bag equipment. A complete inventory sent to interested parties. We need the space occupied by this plant for other purposes and if sold at once, as a unit, we will make a bargain price. Payment can be made by notes properly secured, extending over a year's time. Possession given immediately. Address, Box 1538, care Paper Trade Journal. S18

FOR SALE—Two absolutely new 17"x22" Ohio Cultivator Baling presses equipped with friction clutches. Piermont Paper Company, Piermont, N. Y. tf

FOR SALE

BEATERS—One 61"x48", Five Jones, One Downingtons, Two Horne, One 60"x60", Several 72"x44", Two Clifton Refining Engines.
BED PLATES—Circled to diameter of roll.
CALENDERS—One 7 roll stack 72" face, Two 9 roll stacks 72" face, One 9 roll 63" face, One 9 roll 54" face.
COATERS—Two 56" Waldron coaters.
CUTTERS—Two 45" Finlay cutters newly rebuilt with brand new Hamblet expansion pulley drive, 36" Sashers cutter, 38" gullotine cutter.
CYLINDER BUILDS—One 30"x54", one 30"x64", both rebuilt, ready for quick shipment. One new 30"x52".
DRIVES—One Reeves No. 4, Class E, one Reeves No. 9, Class E, one Moore & White No. 10.
DRYERS—1 30"x54", 3 36"x62", 7 48"x108", 2 36"x 66", 1 36"x78", 1 24"x120", also twenty brand new shells 48"x96", and ten new shells 48"x102".
EVENERS—Two Mellor eveners.
JORDANS—1 Mammoth Jr., several Emerson and Horne type Jordans.
MACHINES—One 2-cylinder machine for 56" trim, 28" dryer. One 72" Harper foundriner.
PULLEYS—One 91" dia. 34" face double arm, modern pulley. One set cone pulleys, 40"x31"x83" face. One set cone pulleys, 40"x31"x78" face. Also large stock of iron pulleys, including some cone pulleys for Marshall drives. New wood pulleys with friction clutches.
PUMPS—One dry suction pump single vacuum, 12x32x18 Knowles, one 1,000 gallon Blake tank pump, several 7" and 8" Lawrence Machine Company, Class A, high duty pumps; fan pumps, new stock pumps, single and double.
PRESS ROLLS—Large number of different sizes on hand. Some suitable for rubber covering.
ROTARIES—One 14" Globe, one 24"x22" horizontal in good condition, ready for immediate shipment.
REELS—Two Bagley & Sewall, one two bowl upright, one ten bowl revolving, bowls 48" face. Also several new reels now under construction. State the width you require.
RAG CUTTERS—One Daniels No. 2, 12 1/2" knife; one Wm. Barton & Paine with 12" knife, newly overhauled and ready for quick shipment.
SCREENS—Two 6 plate Success, newly overhauled, 6 Bush centrifugal, 6 Voith centrifugal.
WEY MACHINES—One 74", one 72", one 64".
WINDERS—One 72" single drum, one Manning 74".
Stock is constantly changing. Advise us of your wants.

Mills Machine Company
LAWRENCE, MASS.

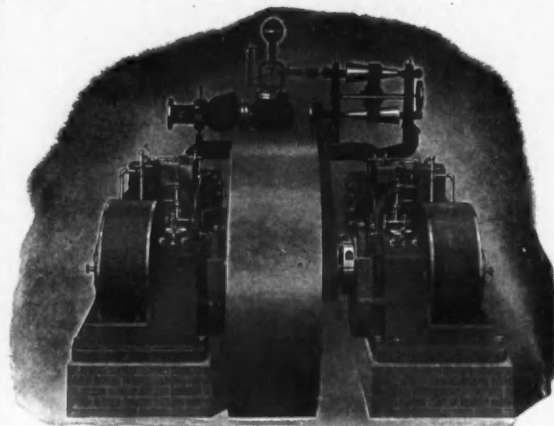
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We shall be pleased to send a
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Middletown, Ohio



Stop Wasting Money

The chances are that you're trying to turn
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The Ball Variable Speed Engine

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The real live paper manufacturers are using
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Fourdrinier Tissues, White and Colored, G. B. Silver, Manifold, Celluloid and Specialties

FOR SALE

FOR SALE—Following engines in good condition ready for immediate delivery:
 1—25x42 400 horse power Fishkill R. H. Single Corliss.
 1—24x36 530 horse power Murray R. H. Single Corliss.
 1—20" and 36"x48" 850 horse power Watts-Campbell Cross Compound Corliss complete with surface condenser and all trimmings.
 1—20"x13" 300 horse power Watertown Automatic. Arrowhead Mills, Inc., Fulton, New York. O9

MISCELLANEOUS

WANTED—Silicate pasting or doubling machine with cutter attachment. Give full particulars, also price and location. Address, Box 1584, care Paper Trade Journal. O-2

CYLINDER MOLDS, tanks and head boxes plain dandy rolls, Brass wire cloth. Fine seams for tissue paper a specialty. We put them on tight. Address Clark Mfg. Co., 79 Merrick Ave., Holyoke, Mass.

NEW GRADES—We have satisfactorily represented two mills in Boston for four years and have the best facilities, storage, location and personnel, augmented by late returns from France, to handle the account of another mill. If you have a grade you want thoroughly introduced in Boston, write us. Our service is less expensive and more productive of results than having a traveling man visit this territory. Write NEMA, care Paper Trade Journal. S18; O2; O16

WANTED—12 to 15 second hand driers with frames, gears, stuffing boxes, etc., to be 48" in diameter and 58" face. Send price and full particulars to Bird & Son, Inc., East Walpole, Mass., Dept. K. S18

ABDOOLKADER NOORBHOY'S SONS of Bombay, 3, India, seeks agency of a first class manufacturer of Papers, such as Casing, Packing, Writing, Printing, Ledger, Lithograph, coarse papers, glazed, white and colored, carbon paper, etc. They also invite correspondence from a manufacturer desirous of erecting a factory for the manufacture of Papers of all kinds, especially packing and printing papers in Bombay, to be paid full value by installments. O2

WANTED—Press Cutter, first class condition, 40-48" in width. Please advise make and price; also one eight-roll stack of calendars, 74-78" face double housing. Address, Box 1603, care Paper Trade Journal. O2

YOU CAN DO AS WELL!

One of our friends had some paper mill machinery he wanted to dispose of, so he inserted a small ad in the For Sale Column of The Paper Trade Journal. One week after he had advertised his stock he had sold \$3,100 worth of machinery. This is just a sample of the wonderful drawing power of Paper Trade Journal Want Ads.

MISCELLANEOUS

PAPER MACHINERY FOR SALE.

- 6 White Oscillating Screens, with new oscillating device.
- 8 Plates 10 x 24", cut .0014.
- 4 Plates 10 x 24", cut .0018.
- 1 New York Safety Steam Engine, Upright, 125 H. P. Cylinder 16 1/2" Bore, 18" Stroke. Flywheel 38" Diam., 18" Face.
- 3 Holyoke Machine Company Platers, 36" Rolls.
- 1 Fan (Blower) made by B. F. Sturtevant Co. of Boston, Mass., Diam., 72" x 40" wide; 37/16" Bearings 12" long; casing outside dimensions, 42" 8' 6" x 7' 2". All in good condition. Prices low. Address—Parsons Paper Company, Holyoke, Mass.

Architects and Engineers.

CAREY, JAMES L., Paper Mill Architect and Engineer, 208 North Laramie Ave., Chicago, Ill.

CHAPMAN, C. A., Inc., Paper Mill Architects and Engineers, 28 Jackson Boulevard E., Chicago, Ill.

SNOW, S. M., Mill Architect, Engineer, Paper and Pulp Mills. Steam and Water Power plants. 55 Kilby street, Boston, Mass.

Bale Ties.

WILSON, H. P. & H. F., Manufacturers of Steel Wire Bale Ties, for baling all compressible material. 544 West 22nd Street, New York City.

Boards.

MILLER PAPER CO., FRANK P., high grade specialities. Boards. East Downingtown, Pa.

Rags, Paper Stock, etc.

BERLOWITZ, PAUL, 132 Nassau Street, New York. Importer of Rags, Bagging, New Cuttings.

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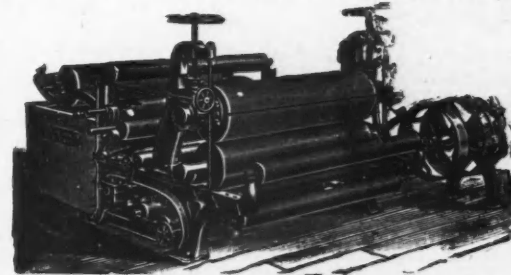
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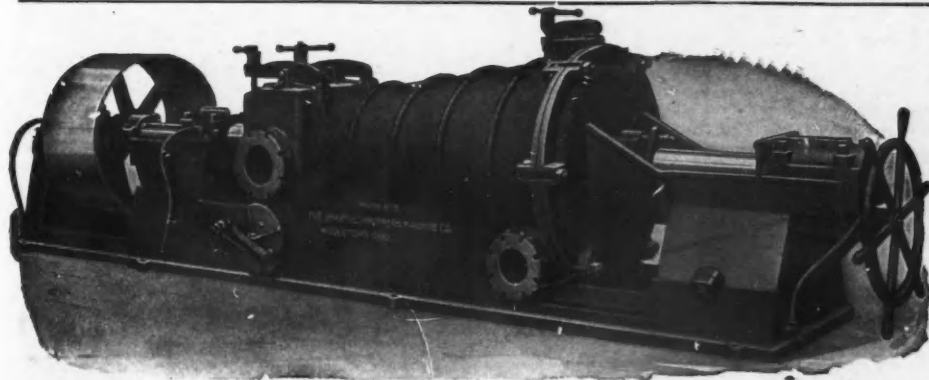
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Bleached Sulphite Pulp

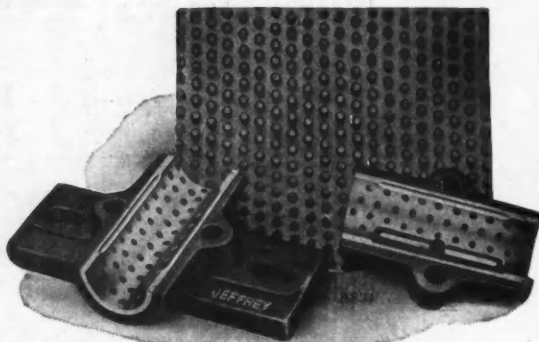
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Sell 140 tons per day of Bleached Sulphite Fibre made from choicest Quebec spruce wood, produced at Hawkesbury and at Merritton, Canada.

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Manufacturers of Paper Mill Machinery will find Randall an ideal device to incorporate in the bearings as standard equipment.

ENABLES you to utilize all the advantages, and economies of graphite and is incorporated in babbitt bearings as they are poured, without changing the construction in any way—preventing hot bearings—eliminating shutdowns, loss of production, cost of frequent rebabbiting, running bearings three to four times longer than plain babbitt. This lubricator is being used in the bearings of Jordans, Calenders, Dryers, Beaters, Rag Cutters, Pumps and Transmission.

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Isn't this sufficiently convincing of the desirability of this device? Manufactured exclusively by

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WE specialize in durable Fourdrinier
Wires and Cylinder Wires in any
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in plain woven, double warp, triple chain,
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Save two-thirds the cost and three-quarters
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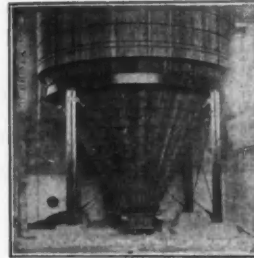
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Job Lots, Rejections, Side Rolls Wanted

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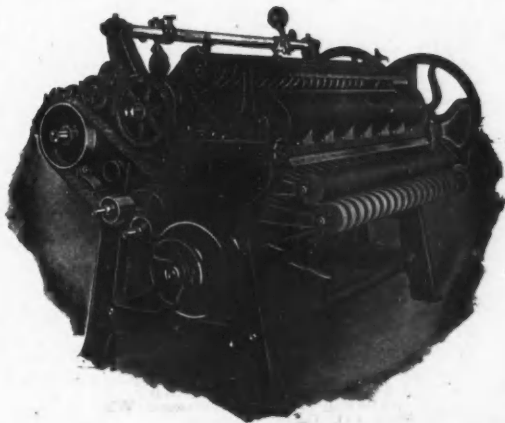
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Single, Duplex and Diagonal



Cutter Knives : Patent Top Sitters

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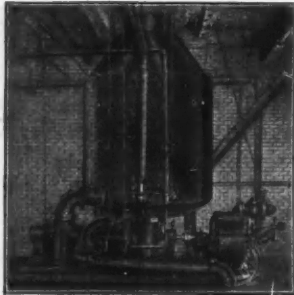
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PATENTED

Produces Strongest, Brightest and Best Pulp Obtainable from Waste Papers. Not a Mere Say-So, but a Fact.

CAPACITY—12 TO 15 TONS IN 24 HOURS

It de-fibers and liberates ink and color in one operation. It separates ink and color from fibers, instead of rubbing, grinding or kneading them in—thus shortening the time required for washing, and insuring a brighter pulp.

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Acid Proof Wood Pipe

Paper mills throughout the country have found that the merciless test of time and use have proven the superiority of WYCKOFF ACID PROOF WOOD PIPE.

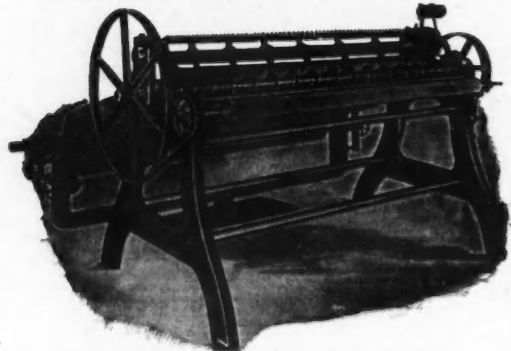
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For making Toilet Paper Rolls with or without perforations



Self-Adjusting—Easy to Operate
WE ALSO MANUFACTURE

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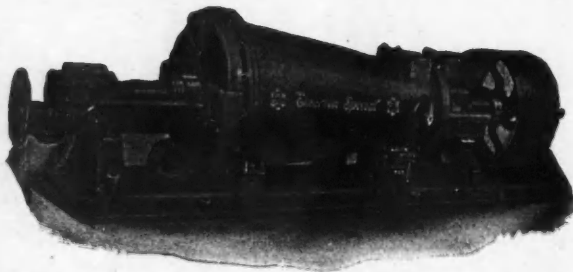
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PERFECT CIRCULATION. NO "PADDLING."

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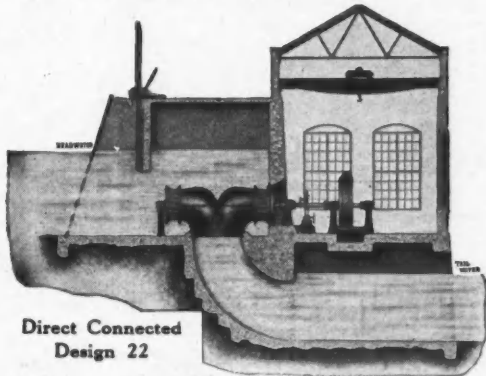
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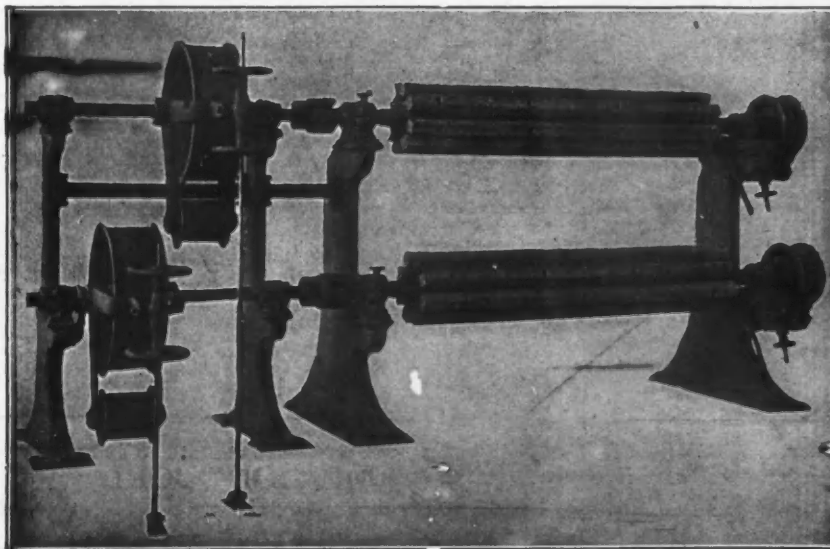
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We issue a Catalogue which contains real information. Write for it.

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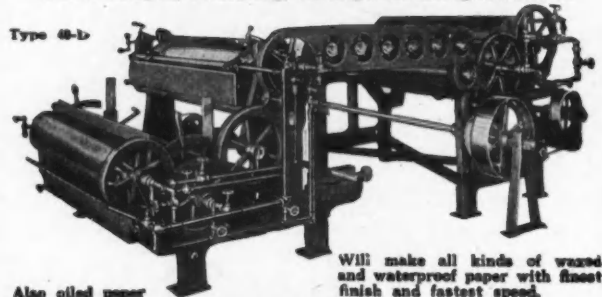
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Carbon Paper, Gumming, Gluing and Oiling Machines

Type 40-B

Will make all kinds of waxed
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Also oiled paper

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Write today for
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In all widths up to 250 inches

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In Brass, Bronze and Phosphor Bronze

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Specify "BIGGS" Rotaries



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Steel pressure and storage tanks for every purpose

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Mill Blanks, Bogus Bristols, Marble Grained Jute Boards, Clay Coated Box Boards, Binders' Board, Paper Box Board, Pasted Boards, and Paper Board Specialties

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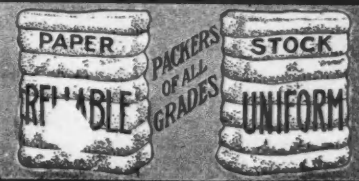
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The Home of Quality

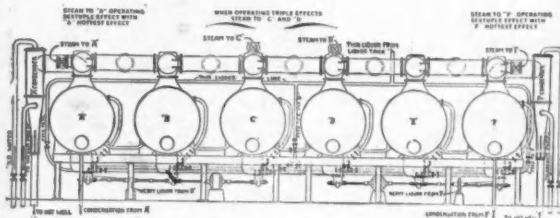
FACTORY
132ND TO 133RD ST. & BROOK AVE.**PAPER BAGS**

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SCHORSCH & CO.

Manufacturers

500 East 133d Street ... New York

This Registered
Trade Mark
Octagonon a Paper
Bag vouches
for its Good Quality**Two Lillie Triple Effects Converted
Into a Sextuple Effect**

IN recent advertisements—we have told about such exclusive Lillie advantages as Film Evaporation, Mechanical Circulation, Reversibility, minimum incrustation troubles, ability to increase the size of each unit, etc.

HERE is another important advantage: the above drawing shows how two old model triple Lillie effects were placed in line and converted into a Vapor Reversing Sextuple Effect.

THIS sextuple effect is operated with steam in the hot effect at about four pounds pressure. It works practically without incrustations on the tubes.

BEFORE the combination was made, the non-vapor-reversing triple effects gave about the heaviest incrustations we have ever seen. Similar incrustations were obtained in a vertical tube double effect when evaporating the same liquors.

THE Lillie is the most efficient of all evaporators. Comparative tests prove that it is far superior in every respect.

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Under agreement with the Sugar Apparatus Mfg. Co.—S. Morris Lillie, Pres.—
Owners of the Lillie Evaporator patents.

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VERA ROSIN SIZE

Guaranteed to Be Absolutely Clean and Pure
SHIPPED IN BARRELS and TANK CARS

OUR VERA PAPER SIZE

is the purest, strongest and highest free rosin size made. We can furnish you with an ideal rosin size and patented apparatus to use same.

OUR VERA MILL SIZE

is the best soluble paper makers' rosin size made. Ready to use in cold or warm water in the ordinary way without apparatus. Gives better satisfaction and is more economical than mill made size.

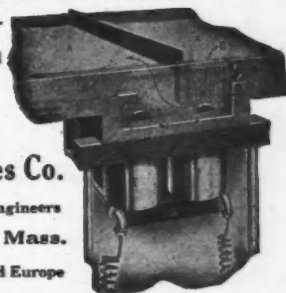
OUR VERA BEATER SIZE

Especially prepared to be dumped direct from the barrels into the Beater, without first dissolving it.

VERA CHEMICAL COMPANY

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Quality rather than quantity should be the aim in business today. Our Extractor removes that iron speck.



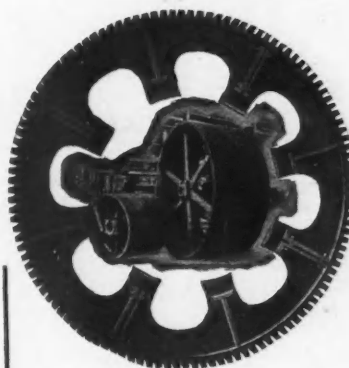
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Superior Chemical Co.	78	Harrington & King Perforating Co.	11	Gumbinsky Brothers	84
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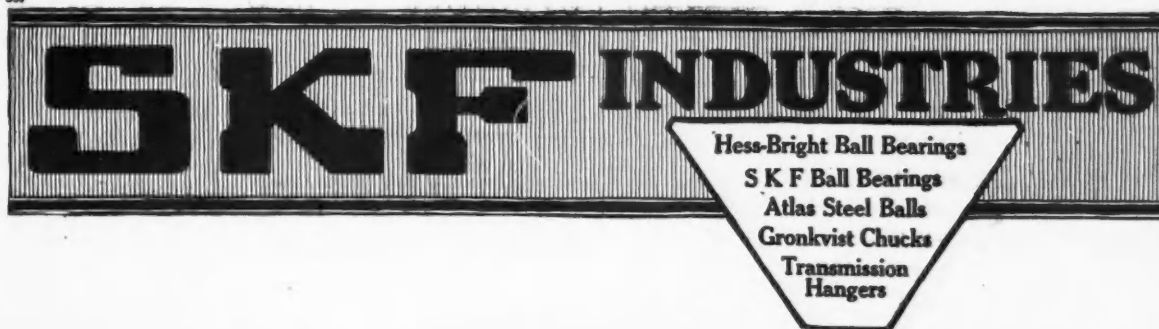
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