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FIFTIETH YEAR

PAPER TRADE JOURNAL

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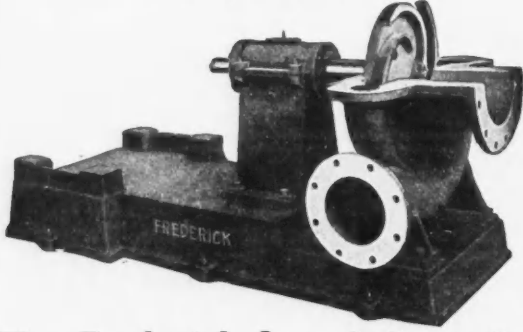
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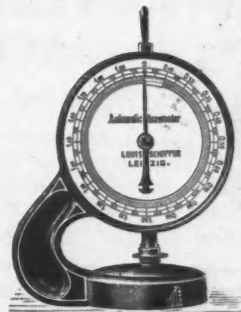
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Fig. 243
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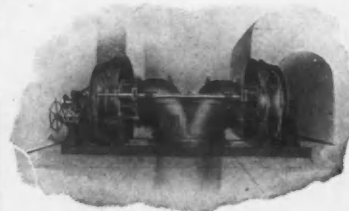
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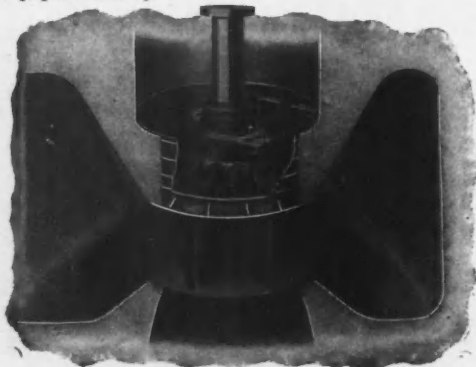
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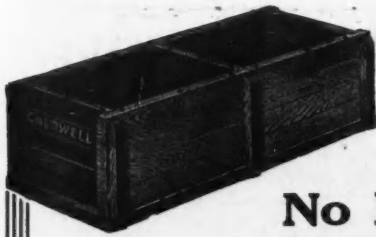
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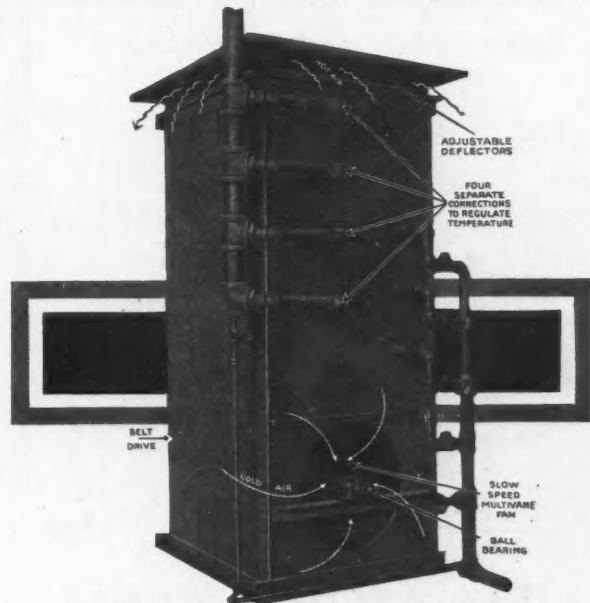
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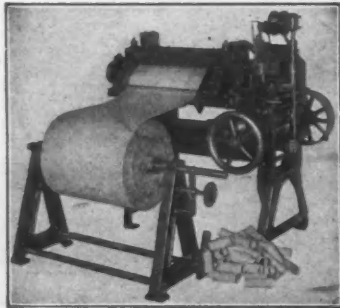
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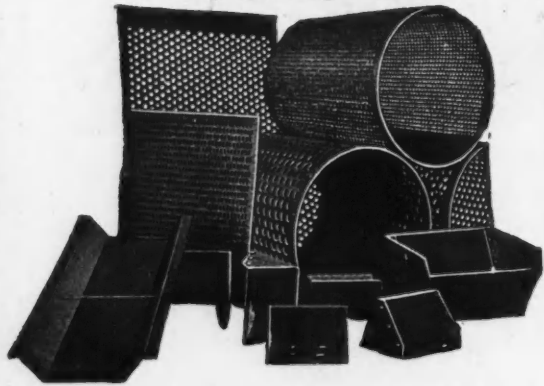
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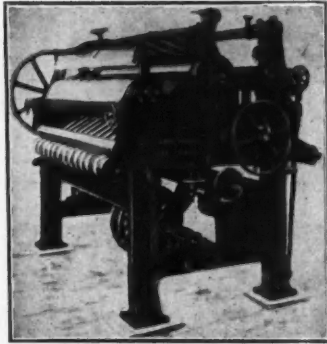
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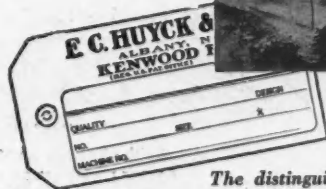
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THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

FIFTIETH YEAR

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NEW YORK AND CHICAGO

Thursday, October 20, 1921

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CANADIAN PAPER MERCHANTS HOLD MEETING IN MONTREAL

Fourth Annual Convention of the Canadian Paper Trade Association Is Characterized by a Spirit of Optimism in Regard to the Outlook for Flat Paper—C. J. Kay, of Vancouver, Is Elected President of the Association for the Ensuing Year—Report of President T. W. McGarry Shows That the Whalen Pulp & Paper Co. Has Enjoyed a Very Successful Year—Settling Affairs of the Riordon Co.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., October 17, 1921.—The fourth annual convention of the Canadian Paper Trade Association has been held in Montreal during the past week, and was characterized by a spirit of optimism in regard to the outlook for the flat paper trade. It was a matter for general congratulation that the paper trade had come through the period of depression without demoralization, and the opinion was expressed that rock-bottom prices had been reached, with a prospect that in the future there would be a larger demand with better prices. There was an attendance of about forty delegates at the meetings, including representatives of leading paper firms all over Canada.

When the convention met in the morning an address of welcome was given by E. V. Dawson, of Montreal. This was followed by the presidential address by the president, C. W. Graham. In his report Mr. Graham said that a year ago the paper trade was in such a position that there were more orders than could be filled, with a general scramble to secure supplies of paper. During the past year the market had gradually turned to the opposite extreme. The paper men now had to face a reduced demand for stocks and lower prices. This condition, said Mr. Graham, had continued for some time. It had been met in the paper trade in a manner that tided it over without demoralization and to much better advantage than in the case of other commodities.

Now, said Mr. Graham, it was felt that the price of paper had struck rock bottom, and he thought it was more likely that there would be an advance in prices than a reduction. This situation was due largely to the existence of the Paper Trade Association, which during the past three or four years had brought about a much better understanding between the wholesalers.

The treasurer, E. S. Munroe, presented a brief report, in which he showed that the finances of the association were in excellent shape. The secretary, N. L. Martin, in his report, dealt chiefly with the domestic affairs of the association during the year. His reports showed that the membership comprised practically every jobber of paper in the Dominion, and that the members had supported well the work of the association during the year.

The delegates at the convention were guests of the Canadian Pulp and Paper Association at luncheon at the Windsor Hotel, when the chair was taken by C. W. Graham, and the mill organization was represented by A. L. Dawe and a number of members of the Pulp and Paper Association.

In the afternoon the sessions resumed with the reading of a number of technical papers dealing with problems of interest to the paper trade. These included a paper by A. Clarke Hunt, of Winnipeg, on "Costing Every Sale its Value and Importance," while a long discussion took place with a deputation from the Typothetae Association, which embraced a number of the problems facing the commercial printers today.

The officers for the coming year were elected as follows: President, C. J. Kay, Vancouver; first vice-president, George Wilson, Winnipeg; second vice-president, J. C. Larkin, Montreal; treasurer, E. F. Munroe, Toronto; and secretary, A. L. Martin.

In the concluding afternoon of the two-day conference the members were entertained on a local golf course, and in the evening the guests of the Montreal members of the association at a dinner at the Mount Royal Club.

Whalen Co.'s Satisfactory Statement

It is announced from Vancouver, B. C., that from figures submitted by President T. W. McGarry at the annual meeting of the Whalen Pulp and Paper Company, the company is shown to have had a very successful year. The present board of directors was re-elected. W. D. Ross, of Toronto, represented the Eastern directors. Mr. McGarry reported the physical condition of the company to be in good shape. Mr. McGarry also reported that during the year the sum of \$858,735 had been expended on capital improvements. He stated that no further capital expenditures would be made unless essential to the prosperity of the industry. The company's production of pulp last year was 51,731 tons, against 47,962 tons the preceding year.

Seed from Fir Cones

Seed from fir cones will be extracted in a large plant now being erected at New Westminster, B. C., for that purpose. The weeds will be used in a great reforestation scheme in the British Isles. The Dominion Department of Public Works has erected a three-story building to house the plant and the machinery is being installed. Fir and hemlock cones will be gathered in all parts of the province and threshed out at the plant here. The industry will be operated by the forest service.

An Advance in St. Maurice Stocks

An advance of five points made this past week by the St. Maurice Paper's stocks is probably a reflection of the report that Union Bag and Paper Corporation is now running at 100 per cent of capacity in all of its plants, including the St. Maurice Paper Company, Limited, of whose stock Union owns about two-thirds. This operation is entirely on current orders. August sales were equal to those of a normal month and September was slightly above normal; October sales, from present indications, will set a record for 1921. The company is operating at a profit. Stocks of wrapping and bags have been thoroughly liquidated. Only the news print end the St. Maurice subsidiary is running 100 per cent, although the presence of a relatively small amount of foreign paper in the domestic market has softened spot prices. In regard to finances, Union Bag and Paper Corporation is comfortable in many respects. It has somewhat increased the treasury holdings of bonds, which stood at \$1,022,000 on December 31 last. This is sufficient to cover sinking fund requirements into 1923.

Lumber Exports Holding Up Well

The October Monthly Letter of the Canadian Bank of Commerce, in referring to the market for forest products, says:

"Half the lumber produced in British Columbia is exported, and this export trade is keeping up remarkably well, although recently a substantial increase has taken place in freight rates on less than carload lots. Japan is the principal market, but there has been an increased demand from China and Australia, and some inquiries have come from the United Kingdom. Australia and New Zealand are drawing about 30 per cent of their requirements from British Columbia, which is a far larger proportion than for many years past.

"News print manufacturers in British Columbia are at present encountering severe competition from Norway and Sweden, where it is understood that manufacturers are being forced to liquidate stocks. This condition is expected to continue for some months, after which conditions should again become normal.

"In the Maritime Provinces the market for pulpwood is very dull, and sales are difficult to make. The mills are overstocked and are also now subject to keen competition from Europe at prices which are difficult to meet. Inquiries for lumber are, however,

becoming more frequent. There is little disposition to extend operations in the woods, although men can now be engaged in the Quebec woods at \$25 a month and board."

Howard Smith's New Mill

The Howard Smith Paper Mills, Limited, have issued the following announcement of the opening of their new mill:

"We announce the opening of our own pulp mill at Cornwall, Ont. This new addition to our manufacturing system is of great value for, by means of it, we are able to control the development of our production from standing timber to the finished sheet of paper.

"In making this statement we would add that, as part of our pulp program, we have purchased nearly 5,000 square miles of timber limits, recognized as among the very finest in Canada for our purpose.

"The mill itself is of the most modern construction and contains the last word in equipment necessary for the production of a standardized quality of high grade pulp. In addition to the mill, our own electrolytic bleach plant will soon be producing our own bleach. A further addition is made in a filtration plant, which will ensure for the production of Beaver S. papers a purity of water supply unsurpassed in quality. The very source of our water, the St. Lawrence River, is one of the purest courses of water in the world for this grade of stock."

Affairs of the Riordon Co.

The various interests which are concerned in the effort to pull Riordon out of the unfortunate position into which the company has fallen have been carrying on negotiations for some time past for the purpose of arriving at some basis whereby operations may be resumed under a trusteeship. Last week these negotiations assumed a more definite form and in many quarters the hope was entertained of a successful result.

It is stated that in connection with the financial end it is known that an arrangement has been reached by which further time has been obtained for dealing with the mortgage on the Edwards portion of the Gatineau limits, from which so much was feared about a month ago. The subsequent death of Senator Edwards has not altered the situation alluded to. It would seem, therefore, that the immediate pressure has been somewhat relieved, thus placing the Boston interests in a better position to deal with the situation. It is understood that some of these interests are in Montreal and that some decision relative to the proposed operation of trustees may be reached at any time, possibly during the present week.

News Print Paper Production in September

The 44 companies in the United States and Canada reporting to the News Print Service Bureau produced 143,472 tons and shipped 142,393 tons of news print paper during September. Production exceeded shipments by 1,079 tons. Production figures include 1,099 tons of hanging paper, of which 268 tons was produced in Canada.

The average daily production of news print paper by the mills reporting for September amounted to 73.7 per cent of the average daily output during the three months of greatest production in 1920, allowing for new machines recently started.

Production during September was 6,242 tons or 4 per cent, and shipments 5,238 tons or 4 per cent less than in August, there being two less working days in September.

Production by the reporting United States mills during the first nine months of 1921 was 229,882 tons, or 24.4 per cent less than in the first nine months of 1920, and production by Canadian mills decreased 82,491 tons, or 12.4 per cent during the same period, making a total decrease of 312,373 tons, or 19.4 per cent by the 44 reporting companies.

Total stocks at reporting mills on September 30 amounted to 40,630 tons, or 957 tons more than on August 31, and were equivalent to about 5 days maximum production.

Program for Chicago Paper Week

The program of the third fall business conference of the American Paper and Pulp Association, at the Drake Hotel, Chicago is as follows:

GENERAL SUBJECT

The paper industry as seen by manufacturer, merchant and consumer.

THURSDAY, NOVEMBER 3, 1921

10:30 A. M. General Session of American Paper and Pulp Association.

Addresses by Representatives of Manufacturers of Paper Merchants and Consumers.

1:00 P. M. Joint Luncheon with National Paper Trade Association.

Addresses by two leading business men on the Paper Industry and business in general.

The symposium at the 1921 convention in April of the American Paper and Pulp Association, at which manufacturers representing various groups of the paper industry discussed the conditions in their respective branches, met with such a favorable response from the industry that it was decided to hold a similar symposium at the fall conference. The fall symposium, however, has been extended to include the entire industry. The program, therefore, will include three prominent manufacturers, two of the best known merchants and two of the largest consumers of paper who will discuss the condition of the industry from their respective viewpoints.

The program of the affiliated associations is as follows:

TUESDAY, NOVEMBER 1

10:00 A. M. Book Paper Manufacturers' Association, Blackstone Hotel.

10:00 A. M. Card Board Manufacturers' Association, Drake Hotel.

10:00 A. M. Pulp Manufacturers' Association, Drake Hotel.

11:30 A. M. Salesmen's Association of the Paper Industry, Chicago District, followed by luncheon and afternoon program, Drake Hotel.

2:30 P. M. Cover Paper Manufacturers' Association, Blackstone Hotel.

7:00 P. M. High Grade Paper Conference with Merchants, Blackstone Hotel.

WEDNESDAY, NOVEMBER 2

10:00 A. M. Gummed Paper Manufacturers' Association, Drake Hotel.

10:00 A. M. Board Section of the American Paper and Pulp Association, Drake Hotel.

10:00 A. M. Waxed Paper Manufacturers' Association, Drake Hotel.

10:00 A. M. Writing Paper Manufacturers' Association, Blackstone Hotel.

10:30 A. M. Wrapping Paper Manufacturers' Association, followed by luncheon and afternoon program, Drake Hotel.

2:00 P. M. Woodlands Section, Drake Hotel.

2:30 P. M. Sulphite Bond Division, Blackstone Hotel.

8:00 P. M. Vegetable Parchment Manufacturers' Association, Drake Hotel.

THURSDAY, NOVEMBER 3

7:30 A. M. Breakfast of the Glassine & Greaseproof Manufacturers' Association, Drake Hotel.

10:30 A. M. Third fall business conference of the American Paper and Pulp Association.

FRIDAY, NOVEMBER 4

10:00 A. M. Tissue Paper Manufacturers' Association, Blackstone Hotel.

2:00 P. M. Toilet Paper Converters' Association, Blackstone Hotel.

PAPER MERCHANTS OF BOSTON MADE PLANS FOR R.R. STRIKE

Arrangements Being Made Among the Big Houses Whereby A "Ship-by-Truck" Campaign Will Be Well Under Way by the Time Set for the Proposed Strike—It Is Believed That in the Event of a Strike Practically All of the Trucks Connected With the Larger Houses Will Be Pooled and Will Be Released Through a Clearing House to Be Sent Where Immediate Deliveries Are Demanded.

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., October 17, 1921.—Boston paper merchants this week started a "preparedness" campaign in view of the uncertain situation pertaining to railroad transportation. Plans are being formulated among the big houses whereby a "ship-by-truck" campaign will be well under way by November 1, the time set for the proposed strike.

It is a preparedness move, nothing else. Business is good—deliveries must be made. Consequently several "leaders" held informal meetings and outlined an anti-strike campaign. It is believed that practically all of the trucks connected with the larger houses will be pooled. In event of a strike they will be released through a clearing house—to be sent where immediate deliveries are demanded.

The mills have already agreed to co-operate with the jobbers and so on down the line.

Prices of Old Paper Decline

There was a noticeable slump in old paper prices in this section this week, with book stock dropping \$5 a ton, and news declining from \$14.50 to \$13.50 and in some instances to \$13. Mixed papers took a drop anywhere from \$1 to \$2 a ton.

Good tonnage in old rags was obtained in many houses and an upward trend was observed in No. 1 scrap burlap and mill gunny. Manila rope has been in great demand for several days.

Col. Edgar Smalley Returns to England

Col. Edgar Smalley, head of the Edwin Butterworth & Co., Inc., Ltd., of Manchester, England, sailed from this country this week after a tour of this section lasting many weeks. He expressed himself as very much pleased with conditions and is credited, by many of the big men in the business, with having started some good business spurts in the sections visited by him.

General Trade News

Several members of the "Be Nice" club, an organization consisting of girls connected with the clerical force of Carter, Rice & Co., this week tendered a miscellaneous shower to Miss Florence Robart, popular bookkeeper, who is to be married next week. A feature of the party was a mock marriage which caused considerable amusement. Miss Robart received many fine gifts.

Ex.-Gov. Roland A. Spaulding, of New Hampshire, stopped in Boston for a few hours this week while en route to Buffalo. Gov. Spaulding, one of the largest manufacturers in the East, expressed much optimism over the future and incidentally did some good business while in town.

Charles H. Wood, president of E. Butterworth & Co., Inc., returned this week from a three-day trip in New York. He reports good business.

Lewis Robertson, manager of the Bellows Falls, Vt., plant of the Claremont Paper Company was another visitor in town this week.

Frank J. Colcord has been added to the city sales force of John Carter & Co., Inc.

Much interest is manifested in the announcement that John Carter & Co., Inc., has been selected as an "Eagle A Service Home," and is now handling the entire line of Eagle A standardized mill-brand papers.

The trade welcomed John A. Andrew, president of the paper firm of Stone & Andrew this week upon his return to his Boston home from Scituate, where he has been spending the Summer. This company is planning an interesting exhibition at the Direct-By-Mail Convention to be held in Springfield. The house will show a fine line of papers from all the mills it represents.

Plans for Salesmen Meeting at Chicago

Following the decision of the Salesmen's Association of the Paper Industry to hold the semi-annual meeting of that association during the Fall Business Conference of the paper industry at Chicago, the Chicago members of the association have been rushing plans to make this a notable meeting. The date has been definitely set for November 1 at the Drake Hotel, and following the men's meeting there will be entertainment, which will include the ladies attending the convention.

President H. H. Reynolds of the Salesmen's Association attended the preliminary meeting with twelve salesmen of the Chicago district, including J. L. Fearing, vice-president for the Chicago district, and George K. Gibson, former president.

All meetings of the Salesmen's Association will be held in the grill room, and the meeting will be called to order promptly at 11 o'clock, instead of 11.30 as originally suggested. This will be the business meeting of the association, and at 12 o'clock Dr. Graig Stewart, the chaplain of the association, will make his address. At 12.30 there will be a luncheon, followed by a formal program at 2 o'clock. R. S. Kellogg, secretary of the News Print Service Bureau, will discuss important conditions, and other speakers will be selected to discuss the financial situation and the advertising and general business conditions. At 3.30 the meeting will adjourn for the social feature, which will be a reception to members and their ladies. There will be music with dancing until 5.30 or 6 o'clock.

This is the latest development of the plans for the Chicago business conference, which now promises to be of the greatest importance to the industry. Many of the speakers have been selected, and plans are going forward rapidly for the closing of details for the convention. The holding of the symposium in the spring, as a cross section of the industry from the viewpoint of the various manufacturers, was met with such favor that it was decided to extend the idea to the entire industry for the fall conference, with the manufacturers, merchants and consumers all represented.

The merchants' side of the program has been completed by the acceptance of the invitation to speak by O. A. Miller, of Columbus, Ohio, President Edward F. Herrlinger, of the National Paper Trade Association, having been announced earlier as the other of the two merchants on the program.

There will be at least two manufacturers to lead the program, those who have accepted being George W. Sisson, Jr., former president of the association, and J. H. Stannard, of the Grand Lake Company, representing the converters among the manufacturers.

One important consumer has already accepted an invitation to appear, Thomas E. Donnelly, of Chicago, a well-known publisher, and former president of the United Typotheta of America.

Plans for the luncheon are also being rapidly completed, and the announcement of the speakers is only waiting for the word of the acceptance of invitations already sent out.

Those who expect to attend should make their hotel reservations as early as possible.

HIGH COLOR!

CLEAN!

STRONG!

MT. TOM

BLEACHED SULPHITE

— . . . —
May we quote?
— . . . —

A. J. PAGEL & CO., Inc.

347 Madison Avenue

New York

SEEKS PAPER WORKERS IN THE KALAMAZOO DISTRICT

Representatives of the International Paper Co. Said to Be Making an Effort to Round Up Papermakers to Work in the Eastern and Canadian Mills of the Company Where Strikes Are in Progress—Michigan Paper Mills Tariff Association Asks for a Lowering of Freight Rates on Coal—Frank W. Fletcher, of Fletcher Paper Co., Gives Land for Park—Other News of the Trade.

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., October 17, 1921.—Representatives of the International Paper Company are in Kalamazoo making an effort to round up paper makers to work in the New York, Vermont, Maine and Canadian mills of that corporation. Messrs. Kelly and Johnson from the employment offices of the big news print company, are conducting the campaign.

They are frank in stating that a strike still exists against the I. P., though no trouble is being experienced by men employed. Despite the fact that the scale for news print workers is slightly higher than for the book mills in the Kalamazoo valley, it is reported from labor headquarters that very few are answering the call. Kalamazoo is generally recognized as one of the highest class residence towns among paper mill centers and offers advantages not available at most points.

One prominent machine tender remarked: "We get some things in Kalamazoo not included in our pay envelope. Living conditions here are ideal compared with most paper mill centers. There are churches of every denomination, schools, colleges and opportunities for recreation without end. There are also no company's houses to live in. Many of the paper mill workers own their own homes.

"While it is true that everything is not just as one might wish for in Kalamazoo, it is my opinion that very few of the local workers will be induced to seek employment elsewhere, especially with a company that is confronted by strike conditions."

Wants Lower Freight Rates on Coal

The hearing of the Michigan Paper Mills Traffic Association's coal case was held in Grand Rapids last week. The association is asking for a lowering of the freight rate on Crescent coal from \$3.43 to \$3.00 a ton. If granted this would result in a saving of \$250,000 annually to the mills in the Kalamazoo valley, while, if the benefits to industries generally are considered, the savings would be in excess of \$600,000 a year.

L. A. Larish, commerce counsel of the association, handled the case for the paper mills. He was assisted by C. R. Hillyer, of Chicago, and George J. Bolender, traffic manager of the Chamber of Commerce, Kalamazoo.

Kalamazoo Vegetable Parchment Improvements

During the past summer eight very attractive houses have been erected at Parchment, home of the Kalamazoo Vegetable Parchment Company. This gives in all about 40 residences under the shadow of the great plant. They are homes in the best sense of the word, containing all modern conveniences. Work is also progressing rapidly on the new Parchment community building.

General News of the Trade

Frank W. Fletcher, associated with the Fletcher Paper Company, Alpena, has added to the extent of Frank A. Fletcher park an eighty acre tract. It is delightfully wooded and will be thrown open for automobile use next summer.

The Michigan Carton Company, Battle Creek, is reported to have received an order for 22,000,000 cartons from the California Raisin Company, Fresno, Cal. This concern also manufactures the cartons

for the Kellogg Toasted Corn Flakes Company, Battle Creek. The order runs to 100,000,000 annually.

The August, 1921, gross income of the Consumers Power Company, including the Michigan Light Company, was \$378,771, compared with \$277,853 for August, 1920. The balance, after subsidiary dividends, replacements and depreciation and preferred stock dividends of the parent company, was \$107,216, compared with \$22,847 for August, 1920. For the eight months ended August 31, 1921, balance after all charges was \$1,539,955, compared with \$771,248 for the similar period of 1920.

The consolidated balance sheet of the Detroit Edison Company, as of August 31, 1921, shows as follows: Assets: Real estate, plant and equipment, \$83,756,766; cash, \$2,104,148; notes receivable, \$31,710; accounts receivable, \$3,164,534; materials and supplies, \$4,395,409; prepaid accounts, \$763,109; investments and special advances, \$3,930,867; other assets, \$101,900; debt discount and expenses, \$5,209,595; deferred accounts, \$235,926—total, \$103,693,964. Liabilities: Capital stock, \$27,970,200; funded debt, \$64,341,300; notes payable and acceptances, \$2,346,191; accounts payable, \$1,415,266; accrued liabilities, \$2,146,731; permanent and corporate reserves, \$55,765; operating reserves, \$3,316,921; profit and loss surplus, \$2,102,220—total, \$103,693,964.

Decision Under Anti Dumping Act

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., October 19, 1921.—The Secretary of the Treasury in an opinion just handed down has declared that the paper making industry in this country is likely to be injured by reason of the importation of goat skin parchment paper. The decision is the first of its kind under the anti-dumping act of 1921, and because of its importance a memorandum is quoted herewith which has been sent to collectors of customs regarding this decision:

"Section 201 (a) of the Anti-dumping Act, 1921, provides as follows:

"Section 201 (a) That whenever the Secretary of the Treasury (hereinafter in this Act called the 'Secretary'), after such investigation as he deems necessary, finds that an industry in the United States or elsewhere at less than its fair value, then he shall establish, by reason of the importation into the United States of a class or kind of foreign merchandise, and that merchandise of such class or kind is being sold or is likely to be sold in the United States or elsewhere at less than its fair value, then he shall make such finding public to the extent he deems necessary, together with a description of the class or kind of merchandise to which it applies in such detail as may be necessary for the guidance of the appraising officers.

"After due investigation I find that the paper making industry in the United States is being or is likely to be injured, by reason of the importation into the United States of goatskin parchment paper, first and second quality, manufactured by Wiggins, Teape and Company, Limited, London, England, and that such merchandise was sold and is likely to be sold in the United States at less than its fair value.

"For any further description of this particular merchandise, appraising officers will communicate with the Comparative Valuation Reports Bureau at New York, where samples are on file."

Charles A. Esty Paper Co. Send Out Sample Books

WORCESTER, Mass., October 17, 1921.—The Charles A. Esty Paper Company is mailing out Advance Bond sample books, together with an attached photogravure letter on No. 20 unglazed Advance Bond. This is a new line of the L. L. Brown Company that the Charles A. Esty Paper Company have recently taken on, and with which in this short time it is having very gratifying success.



"As Good as Calco"—

Any dyestuff or intermediate so characterized, makes you realize that Calco products — Calco Methylene Blue or Calco Beta Naphthol, for example—are accepted as standard. This is due to the fixed Calco policy, adhered to from the start, of not placing a single Calco product on the market until facilities, both of plant and personnel, assured its manufacture in sufficient quantities to meet every demand without sacrifice of uniform high quality.

"As good as Calco" is as high a recommendation as can be applied to a dye or an intermediate. But to be doubly sure, see that the Calco Red Diamond is on every container you buy.

*We shall be glad to quote prices
and send samples and dyeings
of any colors from our line*

THE CALCO CHEMICAL COMPANY
Bound Brook N. J.

New York Boston Philadelphia Chicago

PAPER DEMAND IN TORONTO IS CONSTANTLY IMPROVING

Doubt Has Given Way to Confidence and There Is More Optimism Regarding the Future Than There Has Been in a Long Time—September the Most Satisfactory Month That Jobbers Have Experienced This Year—Printers' Strike, Which Has Been in Progress for a Number of Months, Still Has Tendency to Restrict Business—This, However, May Be Settled Next Month.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, October 17, 1921.—The outlook is improving all the time and there is more optimism in evidence than there has been for a long time. Doubt is giving way to confidence and September was one of the best months which the jobbers have had this year. Nearly all the Toronto wholesalers were away in Montreal during the past week attending the annual gathering of the Canadian Paper Trade Association. There, the situation, particularly with regard to fine papers was fully discussed, and it is felt that prices have struck bottom and any changes in the future will likely be in the nature of an advance rather than a reduction.

While the forthcoming Dominion elections, which will be held in December, will no doubt disturb many lines of trade, there is little fear that the paper or the printing business will suffer. The demand for news print will be greatly increased while many posters, pamphlets, cards, and other printed literature will be brought into general requisition. The printers' strike is still in progress in Toronto, having been going on for five months now, but there are rumors that a settlement may be effected about the first of next month. It is felt that all sides are losing money.

The waste paper market steadily improves and reports in all allied lines such as manufacturing stationers, envelope makers, toilet and tissue producers, and others are doing a much better business than they were a month or six weeks ago and it is expected that from this cut continued activity will be the watchword. It must be remembered that things in the pulp and paper line are still a long way from being what they were a year ago, but the pendulum has swung in the opposite direction from which it was swinging all summer and with stabilization of quotations and a cessation from price cutting, there is a fair amount of business for all.

Gummed Papers Going to Capacity

Gummed Papers, Limited, which was visited by a serious fire several weeks ago at Brampton, is now running to capacity. E. R. Colbert, manager of the company, says while the blaze was a disastrous one, the machinery was not injured and the building is now in good shape again. The firm, which turns out cloth lined papers, stay papers, waterproof papers as well as gummed paper and cloth tapes, reports that business has been picking up rapidly. The prospects look good for the coming season and the company expects to operate with a larger force than ever before.

Timber Commission Resumesittings

After an adjournment of many months the Timber Commission began sittings in Toronto last week. James McCreary, a lumberman of Sudbury, stated that he had received a thousand dollars to withdraw his tender on the Groves and St. Louis timber areas, from Wilbert Cochrane, who was a joint tenderer with the Spanish River Pulp and Paper Mills. Col. Thomas Gibson, of Toronto, vice-president of the Spanish

River Pulp and Paper Mills, told the Commission of Cochrane's connection with the Spanish River Company as a joint tenderer, Cochrane getting the pine on the limits and the company the balsam and spruce. Col. Gibson contended that it was a perfectly legitimate thing to secure the withdrawal of Mr. McCreary's tender. He was prepared to give instances of where such practices had been upheld by the courts. The Commission will finish at as early a date as possible all cases before them, but will not widen the scope of the present probe which has been going on intermittently for the past year and over.

Mattagami Plant Is Producing Pulp

The Mattagami Pulp and Paper Company, whose plant is at Smooth Rock Falls, Ont., has resumed operations after being closed down for a couple of weeks. The mill is turning out about one hundred and thirty tons of unbleached sulphite daily and reports that there has been some improvement in the market. The Mattagami Company is taking out quite a quantity of pulpwood this season, the work being done through jobbers. Formerly the company conducted its own camps. S. A. Armstrong, of Toronto, vice-president of the company, who was ill for the past few days, is able to be at his desk again.

Ontario Launches Big Law Suit

The Attorney-General of Ontario and the Minister of Lands and Forests on behalf of Ontario, are suing the Shevlin-Clarke Company, of Fort Frances, for \$250,000 for pine alleged to have been wrongfully cut on timber berths, 45 and 49, Quetico forest reserve. The Crown also seeks payment for all timber cut or about to be cut hereafter on these berths at the fair value of timber on August 30, 1919, the date on which the license was issued. The Shevlin-Clarke Company denies that it owes anything to the government and states that it was carrying on, at the request of the Crown officers, a practical test for the removal of slash or debris left after lumbering operations. The case is now ready for trial. It has been the practice of lumbermen to leave top branches and other waste on the ground when the timber is removed. This becomes highly inflammable and has been the cause of destroying vast quantities of standing timber and pulpwood upon Crown lands. Officers of the Crown, knowing that the Shevlin-Clarke Company had had considerable experience in removing this slash and knowing no other lumbermen in Ontario who had, approached the Shevlin-Clarke Company, so the latter contend, with a request that they should carry on a practical test for the removal of slash as an effective means of minimizing the fire risk.

Woods Operations Are Very Quiet

Owing to the quietness in lumbering and pulpwood camps in Northern Ontario this season, there is a serious unemployment among horses. It is said that between Sault Ste Marie and North Bay, there are eight hundred heavy working horses for which there is no work and no sale, due to the almost complete cessation of work in the woods. The horses are now a drug on the market and animals, which two years ago brought \$500 to \$700 a team, can be had today from \$200 to \$300.

Lower Costs in Pulpwood Production

Owing to the drop in wages of woodsmen—skilled workmen being employed at \$30 a month and ordinary labor at a dollar a day and board—lumbering and pulpwood companies in Northern Ontario are able to cut, haul and drive logs for approximately 40 per cent of the amount paid a year ago. Added to this is the increase in working efficiency, which

(Continued on page 24)



A Yankee

*will surprise you
with its versatility*



Ask Yankee Headquarters

at

Beloit, Wis.



CHICAGO DEMAND FOR PAPER IS CONSTANTLY EXPANDING

Jobbers Feel Confident that the Turning Point Has Been Reached and that from Now On Demand for Paper Will Be More Active—Reports from the Mill Sections Are to the Effect that the Situation Has Greatly Improved Recently and that a Continuance of the Improvement Is Expected—Charles G. Palmer Co. Opens New Office and Warehouse—Prospect of Printers' Strike.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, October 17, 1921.—The better situation reported as obtaining in this market recently continues without any immediate signs of abatement. The jobbers here feel certain that the turning point has been reached and that from now on more active buying will be very evident.

The trade is feeling much more confident of a better future than it did a few weeks ago. Several of the jobbing houses say that they are doing better business than they have done for some time and expected it to continue to grow better. All grades of paper are moving better, it is said. Of course, some lines are dominating the market just now, but there is an improved trend noticeable in all lines.

Wrapping papers are said to be finding an easier market as well as tissues and toiles. Printing and book papers have not been finding as heavy a demand as was expected of them, though even here advancement has been noted.

Members of the trade who have visited the mills recently report a much improved situation in the mill districts with a looked for continuance of improved conditions.

Stocks in warehouses are reported low and the buyers are in the market filling these up.

Prospects of Printers' Strike

Many of the Chicago paper men are asking whether there is going to be a printers' strike in Chicago, November 5. On that date the contract of six months' duration drawn up between the unions and the Franklin Division of the Franklin Typothetae of Chicago, representing the closed shop printing houses here, expires. The printers themselves are reluctant to answer this question just now. Meetings are being held and the unions and printers are attempting to come to a new agreement. The printers say that perhaps the unions will have some remedial offer to make and the unions say the same thing of the printers. However, it is expected here that there will be developments before the first of the month.

Charles G. Palmer Co. Opens Office

Charles G. Palmer, identified with the paper trade for many years in Minneapolis, St. Paul and Chicago, has just opened an office at 738 First National Bank Building here and has warehouse space at 748 South Clinton street. He is handling a line of paper towels, toiles and paper napkins. The new company will be operated under the title of the Chas. G. Palmer Company, not incorporated. Mr. Palmer has a wide acquaintance among the trade in the Middle West and success in his new venture is assured.

General Trade Notes

Frank Sanborn, Chicago sales manager of the Ideal Coated Paper Company, has just returned from a trip to St. Louis. He reports business not so good there as in this section of the country.

H. T. Anderson, who formerly was identified with the Victory Bag and Paper Company of Marionette, Wis., is now a

member of the Ideal Coated Paper Company sales staff, working out of the Chicago office calling on local trade.

Friends of Geo. H. Miller, president of the Miller Fiber Products Company, were pleased to receive news of the recovery from a recent illness from which Mr. Miller has been suffering. Mr. Miller has been confined to his home for the past month with pneumonia.

Chicago friends of John F. Holman, identified with the Eddy Paper Company, Three Rivers, Mich., have taken a great deal of interest in the rumor which has been circulating about the city to the effect that Mr. Holman took unto himself a wife. The wedding, according to all the data available here, took place in Three Rivers, Monday, October 10.

Harry Williams, Chicago manager of the C. L. La Boiteaux Company, demonstrated some of the La Boiteaux pep recently when he found it necessary to go to Browns Lake, Wis., by airplane in order to keep an appointment.

Walter Trafton, identified in this territory with Stoke & Smith Machinery Company, left Monday, October 10, for the South where he will call on the trade and visit his home. He does not expect to be back in Chicago until the first of the year.

Dick Crotteau, president of the Mills Pulp and Paper Company, paid a visit to the mills in Wisconsin last week. He called at Green Bay and Rhinelander while on his trip.

H. W. Brightman, with the Northern Paper Mills, Green Bay, Wis., paid a visit to Chicago last week.

Ward Black, identified with John Hoberg Company, of Green Bay, Wis., spent a couple of days in Chicago on a business trip last week.

The Central States Paper Trade Association will hold a meeting at the Drake Hotel, Monday, October 31. This will be one of the first of several meetings to be held here during the fall paper conference, October 31 to November 3.

PAPER DEMAND BETTER IN TORONTO

(Continued from page 22)

is due to the present surplus of men and the accompanying necessity for those on the payroll to work hard in order to hold their jobs.

Company Increased Pulp Tonnage

Hon. T. W. McGarry, of Toronto, president of the Whalen Pulp and Paper Company, whose mills are located in British Columbia, submitted figures at the annual meeting held last week in which it was shown that the organization had had a very successful year. No change in policy was decided upon. Mr. McGarry stated that the physical condition of the company was in good shape and also reported that, during the year, the sum of \$858,735 had been expended on capital improvements. He added that no further capital expenditure would be made unless essential to the prosperity of the industry. The company's production of pulp last year was 51,731 as against 47,962 tons the preceding year.

Big Dam Will Provide Power

The big dam at Kenogamise Lake near the head waters of the Mattagami river has been completed, the final layer of concrete having been poured last week. The dam is calculated to back the water up about thirty miles and raise the level some ten feet. Officials of the Northern Canadian Power Company believe this is adequate provision for ample Hydro-electric power throughout the winter provided the fall does not turn exceptionally dry.

Ben Logie, manager of the Toronto branch of the E. B. Eddy Company, of Hull, Que., who has been ill for some time, is able to resume his duties.

J. Andersen & Co.

21 East 40th St., New York, N.Y.

A-1 Bleached Sulphite

Handwritten notes: 350, 515, 100

Agents for

KELLNER-PARTINGTON PAPER PULP CO. LTD.
Borregaard, Norway

WAYAGAMACK

KRAFT PULP

Uniform in Quality
Essential for Strength Requirement

The Pulp and Paper Trading Company

21 East 40th St., New York, N. Y.

Sole Agents for United States for

CANADIAN KRAFT, Ltd.

Three Rivers, Canada

IMPROVEMENT CONTINUES IN PHILADELPHIA TRADE

While the Degree of Optimism in the Trade Varies, There Are Really No Representative Distributors Who Do Not Recognize in Existing Conditions Recovery From the Depression of the First Three Quarters of the Year—Old News Is Reduced \$1 Per Ton, But Dealers Are Not Disturbed by This Fact, as They Believe the Recession Will Be Only Temporary—Fine Division Meets.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, October 18, 1921.—Continuation of the upward movement in demand with the larger portion of the gain falling into the fine paper division, a stiffening of prices and some slight advances particularly in book by mills hitherto below the general market price and a substantial increase in mill demand for the better grades of paper stock while prices on some of the cheaper grades eased off slightly pending absorption of stocks now on hand by the mills, summarizes the week's experiences of the paper distributors and the related paper stock industry. It is true that the actual business of the week showed a slight falling off in dollars and cents from the preceding and yet business was better; the apparent discrepancy being solely due to the interruption incident to Columbus Day and the solemn Jewish holidays which caused a two day suspension of all commercial activities. But business on the whole before and after these holidays, showed a most satisfactory increase in daily sales and the tone of real substantial and continuing prosperity. Indeed at the close of the week, trade may be said to have been close to the normal, taking as the standard of comparison of course, the average of say the last five years even though two of those years ran far ahead of the average of the others.

While the degree of optimism in the trade varies, there are really no representative distributors who do not recognize in existing conditions, recovery from the depression of the first three quarters of the year.

Better Demand for All Varieties

Improvement of demand has come from all classes of consumers, the printing trade showing during the past week the largest increase. Business is excellent for out of town deliveries and decidedly improved for the city trade although the distributors are none the less of opinion that if printing prices were revised downward as have been all other commodities, there would result a large increase in paper buying. Prices of printing, however, remain almost at the peak. Despite that fact, however, sales urgencies brought into the market for competitive bidding, a number of large contracts, particularly for catalogues which could no longer be held back. Of course the paper distributors felt the gain immediately because there are few printers who still have on hand an accumulation of stock from which to fill orders.

Inquiries for the work being estimated upon were numerous because printers are doing considerable shopping about in the hope of affecting savings in cost. They found, however, that book paper prices everywhere were firmly maintained. The western mills which some weeks ago withdrew all their quotations issued new ones during the week. The new prices show an advance but only to the point of a parity with the eastern book mills issued a month or more ago. There were no real advances in fine paper during the week. All grades held firm.

The coarse paper market improved further during the week with prices steady to firm on all grades and advanced on a few. The Crystal Paper Company announced a decided increase on its tissue prices. The Shelton Paper Company also advanced quotations on its corrugated papers. The tendency of the whole class

of building papers was to strengthen, and in a few cases actually to advance fractionally. The cheaper grades of Kraft papers too rose slightly in price.

Old News Reduced

Though the mill price locally for mixed, commons and old news was reduced \$1 a ton at the beginning of the week, the stock-dealers were not at all disturbed by that fact. They believe the recession to be only temporary and due solely to the fact that the mills were able to secure a sufficient quantity of stock for present needs and therefore reduced prices until existing supplies are used up. The stock dealers are confident that within a week or so the mills again will be in the market for raw materials and that it will be necessary to restore the price to the former level at \$10 a ton to bring out shipments. Even at this price, the stock dealers say not much stock can be secured since it is not high enough. Hard and soft white shavings of both grades advanced in price from a quarter to a half cent. Ledgers, writings book stock and container followed suit. Old Kraft and over issue news alone maintained old prices although sales generally were at the outside rather than the inside quotations.

Fine Paper Division Meets

The entirely satisfactory conditions existing in the fine paper divisions were discussed at the meeting on Thursday noon last of the Fine Paper division of the Philadelphia Paper Trade Association, the first held since it was determined henceforth to have a definite subject assigned for each meeting and to connect up the programs into a continuity of purpose. There was only informal discussion of business conditions but there was consensus of opinion that unquestionably they had changed for the better and that the character of sales was such as to forecast a continuance of a healthful and steadily increasing business. The fact that no substantial reduction in prices had been made for the past two months was pointed out as justification for the opinion that the critical period in the industry had passed. There is, however, considerable opinion that in the future there will be further revision but none of a drastic character and that though prices would fall that would be very gradual and extending over a long period of time. It was decided that the first meeting, two weeks hence, under the new program should be devoted to a symposium on Trade Customs, to be presided over by Leon Beck of the Charles Beck Company and to receive and discuss a special report on the matter to be made by William S. Wilcox, of the D. L. Ward Company.

Paper Stock Dealers Meet

The Paper Stock Dealers' Association met during the week for the first time since the summer recess. Because of the Jewish holidays, the attendance was restricted. There are ample funds in the treasury, however, and there resulted an interesting discussion as to the best way to place it in circulation before the close of the year. Majority opinion was against a repetition of the supper and theatre party enjoyed last year and rather favored an informal shore dinner. This function, however, will be merely supplemental to and will not displace, the annual banquet which is to be held in February. It was decided to postpone final action until the meeting next month. It was announced that A. Rose & Son, whose financial embarrassment previously was reported were in receipt of pledges of financial assistance so that they were in a position to offer an immediate 40 per cent cash settlement instead of the 20 per cent cash and 20 per cent in guaranteed notes extending over the period of a year, previously offered. President Evan G. Badger announced the wedding of his son and associate, Benjamin Badger, who is now on his honeymoon.

Changes in D. L. Ward Co. Sales Force

Readjustments of personnel to meet the new conditions of the industry continue to be made by the D. L. Ward Company. Dur-

(Continued on page 28)



This Engineer Was Mistaken as to what Heine Large-Unit Boilers can do

HE CLAIMED he was entirely familiar with the Heine Boiler and what it could do. Why shouldn't he be? He had had charge of one of them for the last ten years. But he was not satisfied with its overload capacity, and scoffed at the idea of obtaining 300% of rating with a respectable efficiency.

The engineer then took our representative down into his boiler room to show him. His proof was:—a 350-hp. Heine Boiler built fifteen years ago, with baffling arranged according to the practice of that day, and the boiler set only six feet above the grate! No wonder he couldn't get any considerable overload!

Our representative "opened" this engineer's eyes when he showed him a report of an official test, in which, *under actual working conditions* a 950-hp. Heine Large-Unit Boiler, from a banked fire, attained 300% of rating in 4 min. 23 sec.—and maintained this rating until the stoker ceased to function due to poor fuel. (This test was made by Mr. George H. Perkins, Consulting Engineer, of Boston).

Finally our representative prevailed upon this engineer to pay a visit to a plant in his own city, where Heine Large-Unit Boilers are installed according to modern practice. He learned of up-to-date baffles and settings, and saw that a 300% rated load was being carried with little loss of efficiency.

That engineer is now convinced.

Heine Boiler Company, St. Louis, U. S. A.

New York Boston Chicago Cincinnati New Orleans Philadelphia Pittsburgh Detroit Cleveland
Also Agencies in many other cities

2012

HEINE LARGE UNIT BOILERS

IMPROVEMENT CONTINUES IN PHILADELPHIA TRADE

(Continued from page 26)

ing the week five salesmen connected with the wrapping paper department severed their connection with the firm but immediately found positions elsewhere, in fact were aided in that by E. T. Walter, head of the department. The salesmen with others were taken on by the firm two years ago at the time when it made the very elaborate and exhaustive survey, published in *The Paper Trade Journal*, of the wrapping paper consumption in Philadelphia and closely contiguous territory. Out of that survey came a Ward campaign for the business of the smaller purchasers of coarse papers. The firm has decided that it is no longer expedient to cover this field as thoroughly as before and therefore the sales force was reduced. Eugene Rowe and Harry Myers found new positions with the Enterprise Paper Company; John Doherty joined the sales force of the Paper Manufacturers Company; Joseph Herstein went with the Saxe Paper Company and William Kulp found a position with F. W. Winne. Sparta Fritz was transferred from the floor to the out of town department.

General News of the Trade

The directors of the Argo Paper Mills Corporation which is to engage in the manufacture of news print immediately for the *North American* and the *Record* and after their wants are supplied, the general market, met on Friday afternoon last at the mill in Gloucester, N. J. Only routine business was transacted consisting mainly of the approval of bills for machinery, alterations and the like. President Waite reported that the contractor for the alterations was in advance of his time and that there was every reason for believing that production would begin early in the new year. The first floor of the finishing room has been entirely completed and is ready for the installation of machinery the arrival of which is expected this or next month. The paper machines will not be installed until early next month.

B. C. Potts, statistician and salesman for S. S. Garrett coarse papers, Third and Spruce streets, has accepted a position on the sales force of the Garrett-Buchanan Company.

The Keystone Mill at Upper Darby, which recently returned to the manufacture of medium priced book is operating full on this grade. The mill made book papers many years ago but afterwards turned to waterleaf production.

Lindsay Brothers are preparing a new sample book embracing the complete line of their stock. Many of the fine papers will be printed and engraved to show the qualities of the paper for line and half tone work.

The Charles Beck Company during the week added to its stock the Surety super calender red book, a low priced Beck brand selling at 9½ cents. The firm is about to issue a new catalog and price list showing substantial reductions in prices from the last issue.

President Allen E. Whiting, of the Whiting-Patterson Company, and also of the Paper Trade Association and finally of the American Envelope Manufacturers' Association, returned during the week from the annual meeting of the last named, bringing back a cold which confined him to his home for the week. He was runner up in the golf tournament which preceded the meeting, winning a silver cup. C. Sharpless Jones, treasurer of the company, goes this week to Barnegat on a duck shooting trip.

The Industrial Committee of the Chamber of Commerce has arranged for a tour of inspection of the Philadelphia paper mills this week by the students of the Pennsylvania State College under the escort of Sheridan Taylor, secretary of the committee.

John A. O'Neill, of the Paper Manufacturers' Company, 526 Cherry street, returned last week from a belated vacation at Atlantic City. James P. McKee has been assigned to the sales department of the die wiping paper division.

Trade visitors of the week included E. C. Walker, the Collins Manufacturing Company; Representative Mulford, Crane & Co., Dalton, Mass.; D. J. Tracy, Temple Paper Company, New York, and C. B. Brown, Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich.

Tester of Board Patented

Ernst Kirchner, of Chemnitz, has obtained German patent No. 338,298 on a card board tester. The machine tests the flexibility of the board and fixes the breaking point, by measuring the resistance when bent. In the accompanying cut showing the machine the basic plate is marked G, holding within the fastenings of C and C a revolving rod marked J which also passes through a fixed

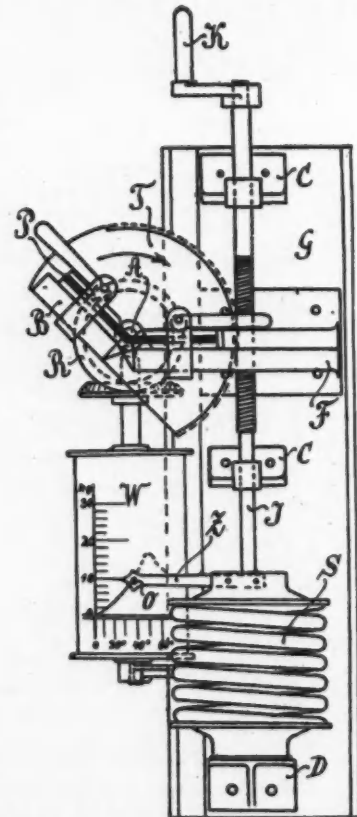


plate marked F and ends in D. To the latter a spring, marked S, is attached. The indicator is marked Z and the attached pencil writing down the indicated resistance is marked O. Rod J may be moved to or fro slightly within C. To plate F is attached a perpendicular plate upon the board to be tested held by clamps. The board to be tested is marked P. Revolving around an axis marked A is a plate, marked B, with an horizontal table marked T and a clamp. The rim of the table is grooved and responds when rod J is turned by handle K. Thus plate B will revolve around axis A. When the operation begins B and F are forming a straight line, thereby permitting the placing in position of the card board and the clamping of the same. In bending the resistance overcome expands the spring. The wheel R connects with the indicator which records at the same time.

When White Water Writes Red —

White water unchecked in its journey to the river writes a red-ink entry on your books. The loss may be hidden, but it is just as surely there. Profits are being allowed to run away.

This loss is needless. The profit may be saved.

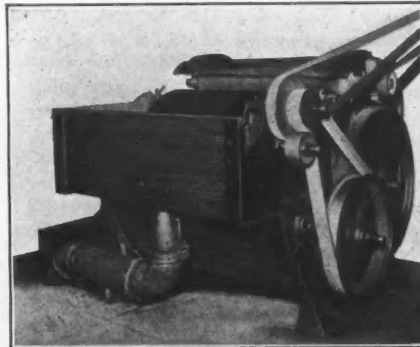
The method is simple and easy to use. Pass the white water through a BIRD SAVE-ALL. This is inexpensive, effective, dependable. It is a common sense pulp saver which catches the fibres and puts them back into your paper.

Can you afford to permit your white water to be writing red?

THE BIRD MACHINE COMPANY SOUTH WALPOLE MASSACHUSETTS

*Western Representative,
T. H. Savery, Jr., 1718 Republic Bldg.,
Chicago, Ill.*

*Canadian Builders of Bird Machinery,
Canadian Ingersoll-Rand Co., Ltd.,
260 St. James St., Montreal, Canada.*



THE BIRD SAVE-ALL

Obituary

John G. Luke

John G. Luke, for many years president of West Virginia Pulp and Paper Company, died at St. Luke's Hospital in New York, October 15, following an operation for appendicitis.

In the death of Mr. Luke the book paper industry has lost one of its most splendid ornaments, for he was indeed one of God's own noble men. He was a pioneer in the book paper industry. It might truthfully be said of him that he was born and reared



JOHN G. LUKE

in the environment of a paper mill, for his father and grandfather before him were engaged in the same occupation.

Mr. Luke was born in Springfield, Mass., April 29, 1857. Like many successful business men, Mr. Luke was thrown on his own resources early in life. His first effort in the paper industry was at the age of 16 years, when he was employed in the mill of the Jessup & Moore Paper Company at Rockland, Del., of which his father was superintendent at the time. Here he served for some seven years. Later he became superintendent of the paper mill of the Mead & Nixon Company of Dayton, Ohio; then of the Morrison & Cass Paper Company of Tyrone, Pa.; later of the Eremaker-Moore Paper Company of Louisville, Ky., and later still of the Richmond Paper Company at Providence, R. I. In the aggregate he served for some 15 years in these several mills. During these years of service and hardship, his splendid character developed; his active and thirsty mind absorbed an intimate knowledge of the paper industry, and his ambition to do something big in the paper industry intensified,—an ambition splendidly realized in the later years of his life.

With this splendid experience as a foundation, and urged on by this laudable ambition, he, in conjunction with his father and brothers, organized a company and built a mill at Piedmont, W. Va., in 1889, for the manufacture of sulphite pulp. This was but a modest beginning, but by the exercise of a genius seldom equalled, by untiring industry and stern courage, by conforming at all times to the dictates of truth and honor, and by the splendid co-operation of his brothers and other business associates, his great ambition was realized at last in the splendid company of which he died president and of which he was so justly proud.

Of Scotch ancestry, Mr. Luke was clear-minded, forceful,

industrious, determined, successful, yet no man was more generous, more modest, more gentle. To have known him intimately was at once an honor and an inspiration. He had a splendid confidence in human nature. He trusted his friends and associates with a faith that could not be shaken. His friends trusted him without reserve. With him from a friendship once formed there was no turning.

That he will be greatly missed there is no doubt; yet to those who knew him most intimately, and hence will miss him most sorely, there remains the consolation of his splendid life and character which are at once a priceless heritage and an inspiration.

Bids and Awards for Paper

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., October 17, 1921.—The Purchasing Officer of the Government Printing Office has received the following paper bids:

750 pounds 24 x 36—60 pounds. Plate Wiping Paper in 5" and 8" rolls: The Whitaker Paper Company, \$.077 and \$.0764 per pound; Geo. W. Millar & Co., \$.09; Old Dominion Paper Company, \$.0774, and Paper Manufacturers Company, \$.075

The Government Printing Office has received the following bids for 1,000 pounds of 26½ x 41—100, light green coated cover paper; George W. Millar & Co., at \$.113 per pound; R. P. Andrews Paper Company, at \$.12; and Coy, Hunt & Co., at \$.117.

Bids will be opened at the Printing Office on October 21, for the following paper; 10,000 pounds (8,000 sheets) of No. 2, 25 x 30—No. 40 binders board.

50,000 pounds (50,000 sheets) of 26 x 38—No. 50 chip board.

2,600 pounds (100 reams) of 22 x 34—26, high M. F. green writing paper.

The Republic Bag and Paper Company has been awarded the contract for furnishing offset paper at \$.0675 per pound, bids for which were opened on September 30.

The Mathers-Lamm Paper Company has been awarded the contract by the Purchasing Officer of the Government Printing Office for furnishing 1,500 pounds of back lining paper in 24" rolls at 3½ cents per pound, bids for which were opened on October 3. The Paper Manufacturers' Company will furnish 750 pounds of plate wiping paper in 5 and 8 inch rolls at 7½ cents per pound, bids for which were opened on October 7.

Keith Paper Co. Celebrates 50th Anniversary

[FROM OUR REGULAR CORRESPONDENT.]

TURNERS FALLS, Mass., October 17, 1921.—The recent gathering of the directors of the Keith Paper Company of this town to celebrate the fiftieth anniversary of the concern was a meeting of unusual interest.

In reviewing the history of the concern it was brought out that there have been but three presidents during its half-century existence. John Keith, the founder, was succeeded by Alexander H. Rice, at one time governor of Massachusetts, who served until his death, when he was succeeded by Albrecht Pagenstecher of New York, who is still head of the concern.

The directors inspected the mill of the concern and later dined at the Weldon Hotel in Greenfield. The company employs a large force of men, seldom if ever disturbed by labor troubles.

Wausau Paper Co. Gets Logging Contract

APPLETON, Wis., October 17, 1921.—The Wausau Paper Mills Company, Brokaw, has awarded contracts for about 2,500,000 feet of logs to be cut this winter. Most of the logging will be clean-up operations on areas logged in previous winters and it is doubtful if new territory will be opened this year. Other companies also are preparing for the logging season, but it is said operations will not be on nearly as extensive a scale as a year ago.

Established 1886

Confidence

CONFIDENCE is an asset of paramount importance in mercantile and industrial development. The whole march of civilization rests, in last analysis, on the confidence that men repose in their governments, their laws, their institutions—and in each other.

MONEY and credit are confidence; orders, delivery dates, fulfillment of specifications—all these are confidence.

A BUSINESS gains strength not only through an increasing clientele but through the increasing confidence of that clientele. And the only way to win this confidence is by maintaining a standard of merit through the years.

M. GOTTESMAN & COMPANY

INCORPORATED

18 East 41st Street
New York, N. Y.

BRANCHES AT

Holyoke, Mass.
Kalamazoo, Mich.

THE COOKING OF RAGS*

BY HERMANN GRIMM

The earliest fibers which were used for the manufacture of paper were cotton, flax and hemp, either in the form of waste from the spinning and weaving factories, that is waste new material, or in the form of old, discarded material, such as rags, cordage, etc.

The use of rags is of such early origin that there has been little scientific investigation into the nature of the changes in these fibers during the purification processes which are necessary to produce an easy bleaching fiber of the greatest strength, conditions essential to the papermaking industry. On the other hand, the fibers which have been more recently introduced into the industry, such as straw and wood, have been carefully studied, specially as relates to the process of cooking and the changes involved therein.

The purpose of the present investigation is thoroughly to study the cooking processes ordinarily employed in the industry and to determine, if possible, whether these methods are the most efficient or whether they might be modified to give better production results.

Earliest Practice

In the very early days, the raw material (rags) was subjected to a putrefying or fermenting action, sometimes in the presence of lime, after which the product was thoroughly washed; later the putrefying process was replaced by boiling with bases, principally lime.

The earliest authors to deal with this question are G. F. Wehrs, in his treatise "Vom Papier," Gebauer, Halle, 1789, and de la Lande in his book "Die Kunst, Papier zu machen," which is mentioned by Kirchner in "Das Papier," III, Halbstofflehre, 1910. Then follows Gabriel Plancke ("Ueber Papierfabrikation," translated by Rudel, 1854), who discusses (page 113) the cooking of rags with soda and potash. He also mentions the use of lime, gives figures on the solubility of lime and compares the lime process with that in which soda is used. He carried out the cooking process (page 119) in two steps, blowing off the first liquor and then cooking at a higher pressure (up to 3 atmospheres) (so-called cooking in stages). He gives (pages 123-125) the following directions for fermenting the rags: 24 hours' steeping, allowing the material to lay in piles for 3 to 4 weeks, turning it over every week so that the outer layers are in the center and *vice versa*. Each time the pile is moistened.

The great losses involved in the fermentation process and the weakening of the resulting fibers caused the abandonment of the method.

Piette's Work

Piette (Die Fabrikation des Papiers, Kohn, 1861) gives about the same procedure and mentions in particular the disagreeable odors and the great loss of time as compared with the cooking process. He gives a complete description of the fermenting process—warming, fungi formation, etc.—and employed lime for the preservation of rags which had fermented too long. He then describes in detail a method for cooking with lime and with soda and critically discusses the action of these agents. Calcined soda does not dissolve fats but reacts only with the free fatty acids, forming sodium soaps; with fats there is an emulsifying effect which gives a satisfactory but a very slow reaction. Caustic soda saponifies fats, resins, etc., and destroys the incrusting material, the greater portion of the coloring matters and the animal fibers. Lime forms water-insoluble calcium soaps with the fats and resins and exercises a favorable action, since the solubility of the lime is low. Piette cooked with 0.5 to 4 per cent soda at 3

atmospheres for 2 to 6 hours, or with 1 to 8 per cent lime at 3 atmospheres for 3 to 7 hours.

Mierzinski (Handbuch der praktischen Papierfabrikation, I, Leipzig, 1886) likewise used soda or lime for cooking rags; he suggested 0.6 to 6 per cent of soda and 2 to 15 per cent of lime, favors the use of lime, and the use of pressure. He suggests for the first time the use of sodium sulphide and water glass for cooking rags, by which process he claims a greater yield and a better colored product.

Hoyer's Discussion

Hoyer (Die Fabrikation des Papiers, 1887) thoroughly agrees with the earlier writers as to the inadvisability of the use of the fermenting or putrefying process for purifying rags and following this discussion, treats of the action of various alkalies. In considering solubility relations and the action of the alkalies, he emphasizes the fact that in the case of soda the action is the strongest at the beginning of the reaction but that as the cooking process continues the action becomes weaker because the alkali is removed or consumed during the process. In the case of lime the behavior is different, since here the solubility of calcium oxide at 20° is only 0.123 gram per 100 grams of water. The solubility decreases as the temperature increases and at 120° is only 0.031 gram per 100 grams of water. Because an excess of lime is used at the beginning of the process, the solution process (lime in water) continues during the digestion and therefore the progress of the cook is fairly uniform. Hoyer warns against pressures higher than 4.5 atmospheres (150° C) and considers 3 atmospheres (135° C) the most favorable. In general the following rule holds: a more dilute liquor and a longer cooking period is better than more vigorous cooking for a shorter period. Hoyer also favored cooking in stages but, on the other hand, he rejected the then common practical use of lime and calcined soda, since they form insoluble calcium carbonate and sodium hydroxide, which caused unnecessary impurities in the cooked product.

Results Since 1890

Muth (Jahrbuch der Papierindustrie, 1890) proposes to allow the rags to remain in piles after cooking; in this way the rags remain warm for some time, and the cooking liquor and the calcium soaps drain off to a large degree. Because of the slight solubility of lime in water at higher temperatures, the lime is first allowed to act upon the rags in the cold, but the result of this process is not given.

Hofmann (Handbuch der Papierfabrikation, II, 1891) confirms the previous work and view concerning the action of putrefying agents. The greater strength of the paper prepared in that way as compared with that of the present time is due, according to Hofmann, to the treatment in the stampers, which did not cut or tear the fibers, but simply disintegrated the bundles of fibers, so that the individual fibers were their original length. He advises the use of "rotting" the rags only in those instances (page 63) where the cooking process was unable to produce a sufficiently soft pulp. Hofmann does not believe that the rotation of the digester is necessary. He used from 3 to 15 per cent of lime.

According to Dahlheim (Taschenbuch für den prakt. Papierfabrikanten, 1896) the "rotting" process should be used only for large and hard rags, which could not be beaten (stamped) without preliminary treatment. The process is similar to that described above. Dahlheim advises the use of 4 to 20 per cent of lime for fatty rags, 1 to 2 per cent for better rags, and scribes a favorable action to the undissolved lime during the digestion

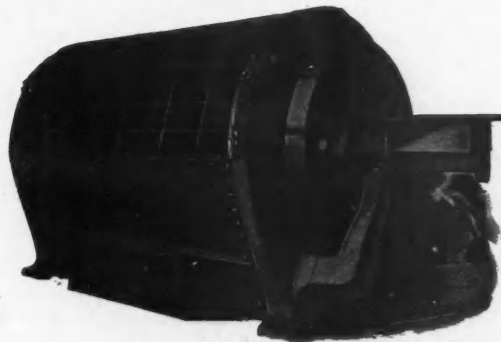
(Continued on page 34)

*This article appeared in *Zellstoff und Papier*, 1921, Nos. 1 and 2. Translated by Clarence J. West, National Research Council.

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THE COOKING OF RAGS

(Continued from page 32)

because of the intimate contact of this with the fibers; friction may play a part in this action. The digestion process may vary from four to twelve hours. He advises as high a pressure as possible, since the decomposition is accelerated at higher temperatures and the air is more completely removed from the fibers. The loss with the production of bleached half-stuff is estimated to carry from 16 to 70 per cent.

Klemm (*Handbuch der Papierfabrikation*, 1910) devotes pages 92 to 109 of his book to this subject, but does not add anything new.

Kirchner (*Der Lumpenholzstoff*) thoroughly discusses the "rotting" process, likewise the digestion process, the liquors, etc., and confirms the views of earlier authors. He states that 1 per cent of sodium hydroxide (the maximum is 5 per cent), 2 per cent calcined soda or 5 to 7 per cent of lime should be used.

Dalen's discussion (See Weyl, *Einzelschriften zur chemischen Technologie*, "Papier," 1911) of the "rotting" process is similar to earlier accounts. He believes that it should be used today only for fibers intended for the manufacture of filter and blotting papers, because in these cases the strength of the fiber does not need to be so great but the absorptive properties must be very high, which is true of such fibers. In discussing the cooking processes he states that, in addition to the slight solubility of the lime, there is a further advantage in that the lime soaps carrying down with them the mechanical impurities in such form that they may be easily washed out, while in the case of soda and sodium hydroxide the particles of dirt which are liberated remain suspended in the liquor, and, in emptying the cooker, the rags act as a filter and retain all this material.

The periodical literature cannot be reviewed here, but the principal articles relating to the subject will be listed at the end of this work.

Present Condition of the Industry

While the above would seem to indicate that there is considerable variation in regard to the most suitable chemicals, the concentration, the pressure and the time of digestion, there is in general a certain consensus of opinion upon these matters.

The "rotting" or fermentation of rags is, with few exceptions, used for the production of special grades of papers, such as filter, blotting, etc. Many things make its use impracticable, such as the loss of time, the room required, the disagreeable odors, the weakening of the fibers and the impossibility of exactly following the process. In general, today, the digestion process is carried out with soda, sodium hydroxide or lime or with a mixture of the last two under pressure in revolving digesters.

The rotating digesters are spherical iron vessels, which are provided with manholes for charging and which are heated with direct steam, entering through the trunions. Each digester possesses a water and a steam inlet valve. In the steam line there is also a return valve in order to prevent the entrance of the cooking liquor. A manometer to read the cooking pressure, testing cocks and blow-off valves complete the equipment of the digesters.

Only general values and directions can be given for the treatment of the material, partly taken from practice and partly from Kirchner, mentioned above. Of great importance in the choice of chemicals is the degree of purity desired in the finished cook, whether it is to be colored or not, bleached or unbleached and finally the kind of fiber that is to be cooked.

When calcined soda is used, the usual figures are 0.75 to 1.25 per cent to 1 to 2 atmospheres, 1 to 4 hours cooking time and 1 to 8 hours steaming time (that is, the time from shutting off

the steam until the digester is blown at about 1 to 15 atmospheres pressure). The concentration varies, for the above figures, between 0.13 and 0.27 per cent with a digester of 9.5 cubic meters and 1,000 kilos of rags.

With sodium hydroxide the figures are: 0.6 to 1 per cent at 3 to 4 atmospheres, 5 hours cooking and 9 hours steaming time. The concentration varies between 0.13 and 0.22 per cent.

In the case of lime, one uses from 2.5 to 8.75 per cent at 3 to 4 atmospheres, 3 to 6 hours cooking and 8 to 9 hours steaming time. The concentration varies between 0.5 and 1.8 per cent, a figure which is based on the total amount of lime used, not upon the part which is in solution.

In case a combination lime sodium hydroxide cook is made, one would use from 2.5 to 7.5 per cent of lime, 0.44 to 1.4 per cent of sodium hydroxide at 3 to 4 atmospheres, 4 to 6 hours cooking and 8 to 17 hours steaming time.

The yield of bleached half-stuff, based on the contents of the digester, varies between 50 and 95 per cent. Here, also, we find marked variations, since the amount and nature of the impurities, the nature of the beating process, and the conditions of washing vary and have a marked influence on the product.

Purposes of Cooking; Unsolved Problems

The purpose of the cooking process is to free the fiber as completely as possible from all impurities and thus obtain a pure, white half-stuff. Among the impurities are the incrusting wood materials, plant fats and waxes, the sizing and finishing, together with the dyes naturally occurring in the fibers as well as the artificial dyes. A third source of impurity is that collected during use, such as fats, sweat, dirt, oil, printing upon sacks or other packing materials, etc., together with transformation products of the cellulose, such as oxy- and hydroxycelluloses.

The cooking process removes these impurities in part by neutralizing them, in part by dissolving them, also by saponification; there is also a loosening of the fibers. The products resulting from the destruction of the impurities are removed either when the digester is blown or when the half-stuff is washed. As has been mentioned, the chemicals to be used must be selected according to the nature of the material, the kind of fiber and the desired properties of the finished product. Soda (Na_2CO_3) must be used with care, since it decreases somewhat the strength of the fiber, and since it does not readily attack animal fibers. These should be sorted out before introduction of the rags into the cooker, but if this is not done, they must be destroyed during the digestion process. The necessary use of a weak alkali has the disadvantage that the colors are only slightly affected. While a strong concentration of sodium hydroxide (NaOH) attacks the plant cells more than in the case of soda, it also more completely destroys the animal fibers and dyes. It should be used with care and only where the presence of fats, oils, etc., demand it. Lime (Ca(OH)_2) has the most favorable action upon plant fibers and at the same time has the advantage of completely destroying the animal fibers and most of the dyes. The disadvantage in connection with its use is the formation of insoluble calcium salts, while the salts of fatty acids with the alkalis are soluble. Washing with hot water and the proper mechanical treatment in later stages overcome this disadvantage, as will be discussed later.

The result of the cook is judged in many factories by washing and beating the half-stuff, at least by the bleaching process, and numbers or values which would lead to its classification are naturally not to be obtained. If any one factor is determined

(Continued on page 36)

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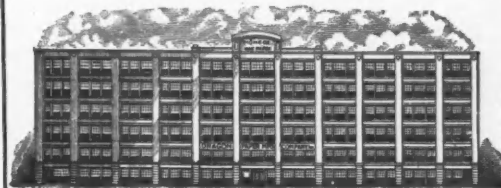
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New York Trade Jottings

The quarterly meeting of the Paper Association of New York City was held Wednesday at the Hotel Lafayette.

The West Virginia Paper Company closed its doors all day Tuesday in respect for its late and beloved president, John G. Luke.

Atterbury Brothers, dealers in paper mill supplies, 145 Nassau street, have increased their capital stock from \$250,000 to \$500,000.

Judge Mack Monday appointed Jesse W. Ehrich receiver for Rockland Mills Paper Company, Inc., jobbers in paper, at 97 Prince street, under \$5,000 bond.

F. G. Marquardt, Inc., dealing in paper and paper stock at 116 West Thirty-second street, has assigned to James J. Boyd, 280 Broadway. Frederick G. Marquardt is president of the company, which was incorporated in 1917.

William H. Parsons, president of Parsons & Whittemore, Inc., sailed from New York on the Munson Line's new steamer, *Southern Cross*, on October 1, for Rio de Janeiro, Brazil. Mr. Parsons expects to visit the River Plate countries as well as Brazil.

John Matthews, prominently identified with the export paper business for a number of years, has associated himself with Parsons & Whittemore, Inc., commencing October 17. Mr. Matthews' experience in the export paper trade is well known and his association with Parsons & Whittemore should further strengthen their worldwide sales organization.

Dr. Hugh P. Baker, executive secretary of the American Paper and Pulp Association, spoke at the monthly meeting and luncheon of the Association of Trade Secretaries at the McAlpin Hotel, Tuesday noon, on the "Trade Association and the House Organ." In the course of his remarks Dr. Baker expressed it as his opinion that the association bulletins should never endeavor to usurp the place of the trade journals and that they should not seek to support themselves by carrying advertising. The most important function of the former, he stated, was to carry the official announcements of the associations while it was the province of the latter to cover the trade field in a general manner.

The Traffic Department of the Paper Association of New York City, in charge of P. G. Gaynor, traffic manager, has been rendering valuable assistance to members of the association for the past three years. The Department is one which is much needed by the trade. By performing its functions of auditing bills, filing claims, tracing shipments, furnishing routings, and other valuable services, it is serving a want long felt by the paper interests. Members who are not availing themselves of the facilities of the Bureau are neglecting a service well worth while to them. Although membership is confined to subscribers paper jobbers and paper receivers not members of the association may join by application to Mr. Gaynor or Mr. Ridgway, secretary of the association.

THE COOKING OF RAGS

(Continued from page 34)

It is usually the decrease in the ash content and under certain conditions a quantitative investigation is made. The next question to be asked is which constituents of the fibers are changed, or

how have their properties been changed. Only a few methods are available, but with their assistance experiments have been made to follow the effect of the cooking process upon the fiber.

The natural fiber is usually rich in ash since the natural incrustation are of colloidal nature and are capable of absorbing much ash-forming material. If these incrustations are decreased during the digestion, the ash content which accompany them should also decrease; this does not consider the calcium carbonate which the fibers accumulate from the cooking progress, which, however, is lost, to a greater or less degree during the washing process. The fats and waxes, which are found in the used rags, behave similarly. Upon saponification and solution, the ash content decreases and the results of the digestion process may be controlled through these values. Fats and waxes are determined by extraction with alcohol and ether.

A further point of view as regards the course of the digestion may be obtained by the determination of the incrusting material, or a part of the same. Hexosans, which certainly are present, cannot be determined, but, on the other hand, the pentosans may be estimated by splitting off furfural with 13 per cent hydrochloric acid. Different methods have been proposed for this, of which the determination of the methyl number is the best. This method is not feasible, however, on account of the high cost of hydriodic acid. The method of König is therefore used in most cases, a method which requires much time and which does not give satisfactory results. In the case of some of the fibers a much simpler and therefore more suitable method, from the point of view of the industry, has been studied. This will be discussed below.

In order to examine the course of the reaction and to determine the effect of various factors, such as changes, in the liquor, pressure, cooking time, etc., a series of laboratory and works experiments were conducted, using six different raw materials. These were new wastes from the textile industry, and therefore did not contain the impurities collected through use, but only the incrusting material and the constituents added in the process of manufacture. The first step was to determine the constants of this raw material.

(To be continued)

Turners Falls Mills Obligated to Close

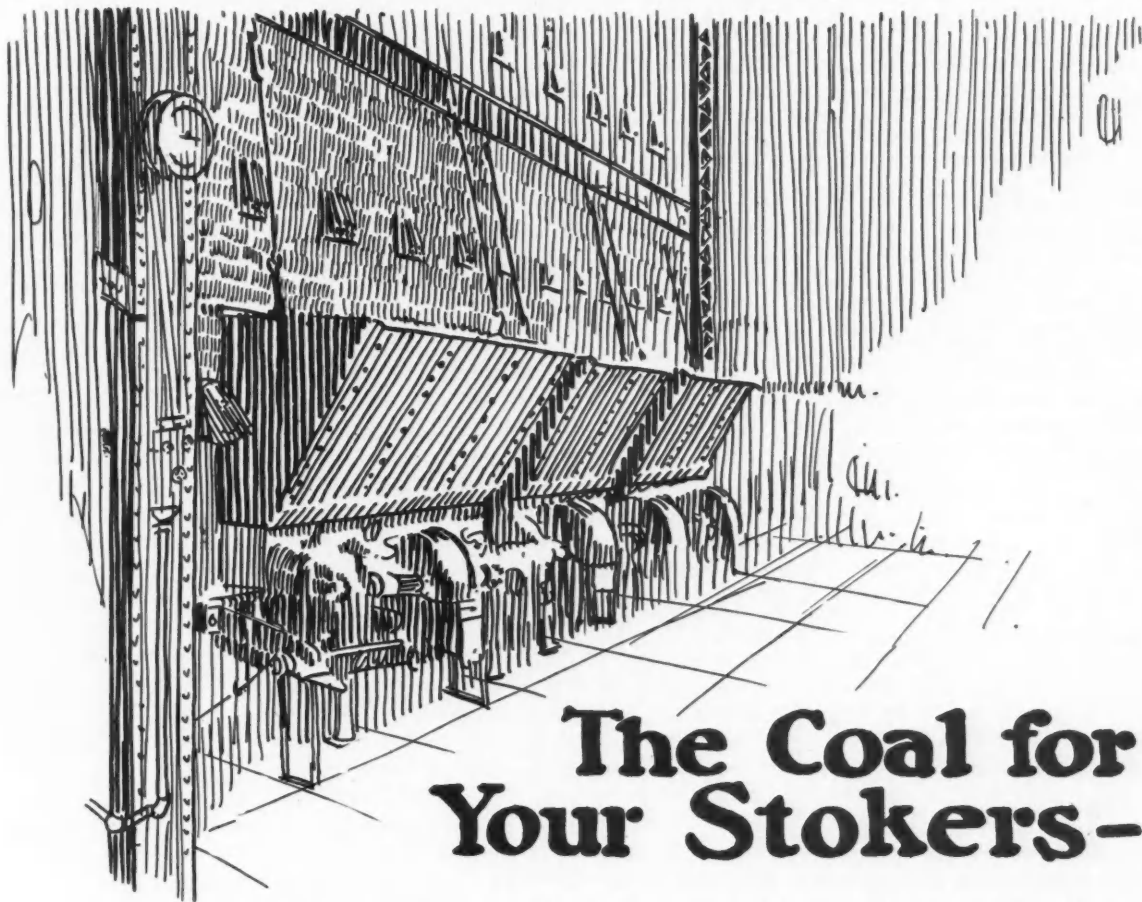
TURNERS FALLS, Mass., October 17, 1921.—The mills of the Keith Paper Company, the Esleeck Paper Company and the International Paper Company were obligated to shut down this week because of the drawing of the water from the canal for the purpose of making repairs to the walls of the canal. It is reported that the mills will be closed for about four weeks. The Esleeck mill is equipped with an electric power plant which will allow operation of a part of that mill. It is estimated that about 500 men are out of employment.

Bastrop Pulp Co. to Start Nov. 15

MONROE, La., Oct. 17, 1921.—Announcement is made that the Bastrop Pulp & Paper Co. will complete its plant during the early part of November and will begin operations Nov. 15. The company has been building a plant that has cost over \$1,000,000 at Bastrop, and when completed it will employ 300 or 400 men and has contracted for second-growth short leaf pine from 200,000 acres of land within 25 miles of Bastrop.

To Form R. G. Olsen Paper Co.

READING, Pa., October 17, 1921.—Application for a charter for the R. G. Olsen Paper Co. will be made to Gov. Sproul on Friday, October 21, by R. G. Olsen, Harry J. Kaufmann and Charles F. Eusch, of Wyomissing. The jobbing of fine papers will be the specialty of the new firm, whose business will be located in this city.



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Editorial

Vol. LXXIII New York, October 20, 1921 No. 16
FIFTIETH YEAR.

Will Not Interfere With Conference

The threat of a railroad strike will not in any way affect the plans for the fall business conference of the American Paper and Pulp Association which has practically completed its plans for the conference November 1 to 4 at Chicago.

The Association will proceed with its plans exactly as though no strike were contemplated.

The Association, however, will endeavor to secure better knowledge of the conditions by inviting some prominent railroad official to address the convention at the luncheon on November 3. This follows out the action of the Association at its annual meeting in April when a resolution was adopted declaring that the railroad problem and its relations to its employees were more than a matter of employer and employee, but because of the importance of transportation to all American industry, were a matter of importance to the whole American business fabric.

Paper Makers Not Panic Stricken

Considerable discussion has been taking place in the Canadian papers regarding an article in an American financial daily to the effect that the low price for paper is due in large part of the panic stricken attitude taken by the Canadian producers, many of whom are selling at a loss, and also to the fact that German and Swedish news print is available on American docks at below \$60 per ton. It is further stated that "there is about one-third less news print being consumed than at the peak."

In replying to this article, it is stated that in the opinion of those who know, the Canadian producers have met the situation surprisingly well. In all lines of production there has been more or less unprecedented liquidation of values, and in some cases the deflation "has been accompanied by every appearance of panic," but that cannot be said of news print in which the decline has taken a well ordered course and one that at times was so deliberate as to afford disappointment to those who were anxious to see the ultimate deflation precipitated in order that the reestablishment of the industry on a new and sounder basis might be the more quickly effected. The other two reasons given in this attack on the Canadian producers are sufficient to show why news print prices are lower. Consumption is reduced, while production is increased. The appearance of foreign news print on the market is a symptom of passing conditions. No one supposes that enough very low priced European news print to control the American market will cross the Atlantic, although it may add difficulty to the situation by increasing the supply at this time.

The paper in question goes on to point out that reduced cost of production is likely to be the basis for lower prices for news print in the future and along this line Canada's news print industry

has little to fear. In this connection the authority quoted says:

"According to an authority on news print, lower prices in 1922 would not be surprising. This does not mean that manufacturers are making much money on present prices, but rather that there is to be expected further deflation in labor costs and in the cost of spruce, which is the largest single item in manufacturing costs of the lower grades of paper. Cheaper spruce in 1922 will effect final costs materially and in 1923 spruce cut today which is about 30 per cent to 40 per cent cheaper than two years ago, is practically certain to make for considerably lower news print."

It is further claimed that owing to more accessible limits and other factors, production costs of Canadian companies are figured to be approximately \$5 a ton less than their American competitors; should American manufacturers be able to sell news print below present prices, and clear a profit, Canadian companies would have \$5 a ton advantage, plus American exchange. As to over-production, that is being taken care of. Few mills in Canada or the United States have been operating above 75 per cent of their capacity for any continuous time this year, also, owing to the large stocks of pulpwood, cutting this winter will be much curtailed, which should result in the position of the pulp market being greatly improved by next spring. Furthermore, it is pointed out that with news print around \$80 a ton, many newspapers and other publications which had either to cease publishing or largely curtail their output last year owing to the higher prices and the difficulties of getting a regular supply of paper, should be starting up again.

In a bulletin evidently inspired by the same article the Canadian Pulp and Paper Association says that "evidences of betterment in the pulp and paper industry continue to multiply. American newspapers, the largest consumers of news print in the world, are daily increasing their use of paper from the low level of the past few months. A decided expansion in daily newspaper advertising, much of which is, of course, merely seasonal, is apparent and is likely to continue at any rate until the close of the year. The 40-page daily and the 120-page Sunday paper, which disappeared altogether early in the summer, are again in use. Newspaper circulation, dormant for months, has started to grow.

"One New York daily reports an increase of 100,000 over last year. The Chicago *Daily Tribune* and its auxiliary publications are reported to be using 30 tons more news print daily than is being produced in their Canadian mills, which normally exceeds their requirements. The *United States Service*, a business men's weekly barometer, sent out from Washington, after months of bearish advice on the paper situation, is now advising its clients to purchase and hoard paper against lessened supply and higher prices which it foresees in the near future. The prices of pulp of all grades and of other paper making materials is stiffening. Mills idle for some time are coming back into operation.

"While these developments still leave the industry some distance from the peak of activity it enjoyed a year ago they are looked upon as indicating a much more stable condition of trade in the near future and will no doubt if they continue, have a bearing when it comes to deciding upon next year's prices which may not be much before the end of November.

"In regard to European paper and its effect on the American market, neither American nor Canadian producers look upon it as a really serious factor. They recall that normally this continent is not a natural market for European paper and that even as recently as a year ago, such imports were negligible. They assert that in the paper business conditions are subject to reversal almost over-night and say that it would not be surprising to see European paper disappear from the American market with the same suddenness with which it made its appearance a few months ago. A revival of paper consumption in Europe, which many believe to be imminent, would, they say, go a long way towards bringing it about."

Paper Mill Employment

The Bureau of Labor Statistics, Department of Labor has compiled figures showing the employment and wages paid in 56 paper mills during the months of September, 1920, and September, 1921. In September, 1920, the report shows that 33,439 persons were employed in these mills as compared with 22,867 employed in the same month of this year. This was a decrease of 31.6 percent. The wages paid in these mills showed a 46.2 percent decrease from \$1,000,554 paid in September, 1920, as compared with \$538,679 paid in the same month of this year.

The Bureau's report also gives a comparison between the employment and wages paid in August and September of this year. In August 56 paper mills employed 20,251 persons, increasing to 20,665 in September, an increase of 2 percent. The wages paid showed a slight decrease, however, from \$500,448 in August to \$489,193 in September, a decrease of 2.2 percent.

In regard to changes in wage rates and per capita earnings in the paper industry the Bureau says: "The entire force of one plant had wage rate reductions of 20 per cent. Decreases ranging from 10 to 25 per cent were made to the shop employees or 81 per cent of the entire force, in one mill. A decrease of approximately 16 per cent, affecting 97 per cent of the entire force, was reported by one concern. In three mills a decrease of 10 per cent was reported, affecting all employees in two mills and 96 per cent of the employees in the third mill. Part time employment was reported for this industry and the per capita earnings show a decrease of 4.2 per cent."

How Russia Affects Paper Market

The Canadian Pulp and Paper Association, which has been investigating paper conditions in Russia, has issued the following announcement on the subject to its members:

"A big factor in the world's paper market conditions for many months past has been the abstention of Russia as a paper consumer. In normal times Russia imported large quantities of pulp and paper from Finland, Sweden, Norway and Germany. Her inability or unwillingness since the revolution to buy from these countries has been responsible in a large measure for their turning to the trans-Atlantic market, where they compete with Canadian and American producers.

"At the present time the Soviet Government of Russia is making extensive purchases of Finnish, Scandinavian and German paper. According to a report made by U. S. Consul Leslie A. Davis, of

Helsingfors, Finland, and published in the current issue of the Washington Commerce Reports, Russian purchases of Finnish paper and other commodities have amounted to 40,000,000 Finnish marks (normally about \$7,600,000 in U. S. dollars). Russia, according to the report, is practically out of paper. Russian paper mills have ceased to operate. The Government has seized all stocks of paper, leaving but a limited quantity in the free market.

"Private individuals get no paper at all. Theatres, opera houses and other places of amusement use old forms for tickets. Newspapers vary their circulation according to the paper supplies allotted to them, sometimes issuing small and sometimes larger editions.

"Books for propaganda purposes are given the preference, and when their requirements are satisfied no paper remains for educational works. In Petrograd five daily newspapers maintain an existence in spite of the paper famine. In Moscow there are also five. All are government owned, there being no private newspapers in existence.

"Next to Finland, Germany seems to be forcing the Russian paper market. 'Large lots of German rotation and mouthpiece paper and different sorts of sheet paper were stored in the customs houses at Moscow,' reports the delegate of the Finnish Paper Mill Association who recently returned from Russia and who is quoted by the American Consul. 'Writing paper with German watermark could be seen everywhere in the government offices. The German business men made satisfactory deliveries and the prices were very favorable. The Soviet representative has been staying in Berlin, where he made large purchases.'

"Ordinarily, Russia is capable of absorbing practically the entire export output of Finnish and German paper and the fact that Russian importations of paper from those countries are now resumed, with the probability of being progressively increased, indicates that there will be less Finnish and German paper for American buyers as time goes on."

A. G. Howland Finds Conditions Better

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., October 17, 1921.—A. G. Howland, of Hall, Ward & Walker, owners of the Hall Process of grinding pulp, has just returned from a 3,000-mile trip through the middle west and Canada where he visited many paper mills. He reports that he found conditions in the industry greatly improved with an optimistic tone everywhere. He found mills being operated six days a week which a few months ago were on part time or entirely idle.

"In the eleven days I was on the trip I did not hear any word of hard times and every mill I visited was operating full time," he said. "I encountered men who spoke of dull times in the past but none said that business was dull at this time. There were no indications of hard times either. One does not have to fight for reservations on the Pullman cars nor accommodations in hotels, but in Montreal I was unable to get accommodations in four of the largest hotels."

The trip taken by Mr. Howland took him as far west as International Falls, Minn., and Fort Frances, Ont., mill towns located on opposite sides of the international border line. He also went as far north as Grand Mere, Quebec, where he visited the plant of the Laurentide Paper Company and saw the company's two large machines in operation. One of them was running 1,011 feet a second and the other 960 feet a second.

Mr. Howland returned with a high degree of enthusiasm for the prospects of an early return of normal conditions in the paper industry.

The Cherry River Paper Company, whose plant at Richwood, W. Va., has been closed for several months because of labor troubles, is again in operation, reports received being to the effect that the employees returned on the management's terms.

THE ANALYSIS OF CARDBOARD: ELASTICITY*

By RAYMOND ISNARD

(See also PAPER TRADE JOURNAL, September 22, 1921.)

Of the various properties of cardboard, rigidity (or flexibility, as the case may be) certainly comes next in importance after bulk. In this case, again, cardboard is used for so many purposes and the objects made from it are themselves put to such a diversity of uses, that it is absolutely impossible to say beforehand what degree of rigidity or flexibility is required. We do not hesitate to state that experience alone can show what grade should be used. But after this has once been established and the quality clearly defined by means of an accurate analysis, the manufacturer will have but to compare the analysis of his product with that of the sample submitted to ascertain whether or not his board will satisfy the customer. And in the same way the buyer can apply the same analysis to the samples which are submitted to determine which of them meets his requirements, and he can thus spare himself many disagreeable surprises. Finally, in case of dispute, the referee will have definite figures to go by.

What is meant by the rigidity or flexibility of cardboard? It is nothing more nor less than what, in other branches of science, is known as "transverse strength." The application of a system of outside forces to a sheet of cardboard results in a deformation of the sheet and brings into play molecular forces which tend to bring the sheet back to its original condition. If the outside forces are large, the fibers will glide over one another, and when the forces cease to act the fibers will necessarily remain in their final positions; the deformation is "permanent," and there is a fold in the board. But if the forces are small, the cohesion of the fibrous elements, due to the felting, the sizing, and the calendering, will resist this sliding of the fibers over one another, the deformation will be merely "temporary," and, owing to its elasticity, the sheet will regain its original shape as soon as the forces cease to act.

If we support a test strip of cardboard of length l on the two points A and B (Fig. 1), and apply a load P acting vertically at M the middle point of the strip, the deflection f will be given by

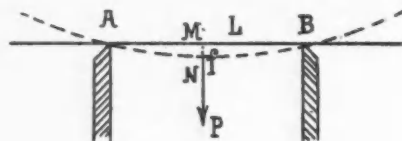


Fig. 1

$$f = \frac{Pl^3}{48EI} \quad (1)$$

This is one of the formulae used in testing the strength of materials, and it need not be proved here.

The problem thus resolves itself into the same thing as a strength test. But instead of having to determine the dimensions required of a beam to carry a given load, we shall have to determine E , the coefficient of elasticity, from the known values of P , l , I , and f .

We shall outline the method which we have used in carrying out a large number of these determinations, and shall give a few of the results we have obtained for the benefit of those who may be interested in this matter.

*Translated from *La Papeterie*, 43, 578, July 10, 1921, by A. Papineau-Couture.

Apparatus

The apparatus which we used for measuring the deflection, which we shall call a "Deflectometer" since it should be given a name, consisted essentially of:

Two supporting knife-edges, A and B, the distance between which can be regulated by means of a micrometer screw (Fig. 2);

A pressure lever L, pivoted at O, which carried a blade C parallel to A and B and by means of which pressure can be exerted on the test strip, and an adjustable counterpoise M;

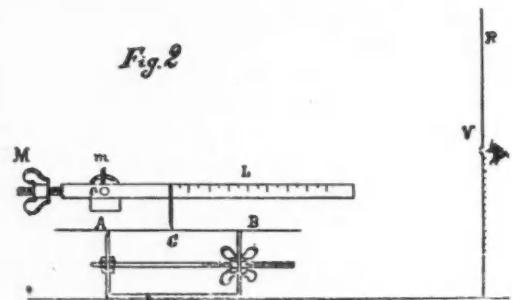


Fig. 2

Some suitable optical system for reading the deflection, consisting of a small mirror m fixed to L , and observation hole V , and a scale R graduated in millimeters.

Of course it is understood that is merely an example, and that any of the fundamental principles of the testing of the strength of materials can be used if need be. For instance, with very flexible or exceptionally thin cardboards we had to make use of the principle of the cantilever subjected to a uniformly distributed load which, in that particular case, was its own weight.

Operation

When the apparatus has been balanced and adjusted, the distance between the knife edges A and B is adjusted to exactly 50 mm, and a test piece of the cardboard exactly 10 cm. long and 1 cm. wide is placed on them so that it projects 25 mm. at either end. The projecting ends thus exactly balance the weight of the portion between A and B. The blade C is placed on the strip on which it is allowed to rest very lightly. The scale R is then adjusted so that on looking through V the zero line coincides with a fine line drawn through the center of the mirror.

Calculation of F

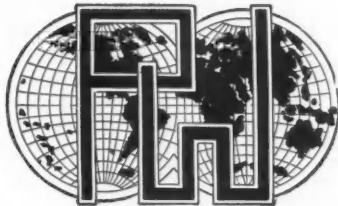
If now we place a weight p on the lever, it will cause a deflection which must necessarily be very small, but which we have purposely exaggerated in Fig. 3. The blade C moves down through a height MN which is equal to the deflection f and which corresponds to the angle of rotation oc of the lever. As this angle is very small, it is practically equal to its tangent. The angle of deflection of the mirror and of its normal are equal, while that of the reflected ray observed through V is twice as great. The displacement MN, which we wish to measure, is thus doubled by the rotation of the mirror and at the same time amplified by the distance of the scale from the mirror.

If d and D are the respective distances of the point M and of

(Continued on page 42)

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THE ANALYSIS OF CARDBOARD: ELASTICITY

(Continued from page 40)

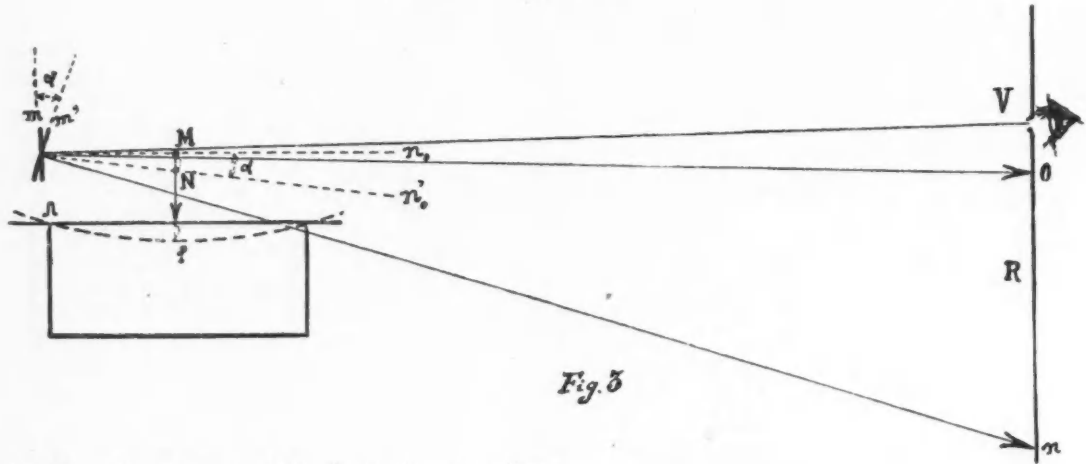


Fig. 3

the scale R from the mirror m, and if n is the observed reading (expressed in mm.), we have

$$\frac{2MN}{ON} = \frac{d}{D}$$

or

$$f = \frac{n}{2D} \tag{2}$$

It is easily seen that as the ratio D:d is increased the amplification of f soon becomes very large, and the slightest deflection gives an appreciable scale reading. We have thus been able to read quite easily to 0.01 mm., and with a telescope we could easily have increased D, and consequently $\frac{n}{f}$. But we must not exaggerate, and however tempting such figures may be, they do not mean anything if we exceed a certain limit, as we shall see further on.

Calculation of I

The moment of inertia of a rectangle having a base b and a height h, with respect to an axis parallel to the base is given by

$$I = \frac{bh^3}{12}$$

The test strip has a rectangular cross section, in which the base b is equal to 10 mm. while the height h is equal to the thickness e (expressed in mm.), so that we have

$$I = \frac{10e^3}{12} \tag{3}$$

and substituting in (1) the values found in (2) and (3) we get

$$\frac{n d}{2 D} = \frac{P \cdot 50^3}{48 E \frac{10e^3}{12}}$$

which reduces to

$$E = \frac{50^3 P \cdot D}{6250 P D n e^3 d}$$

or

$$E = \frac{50^3 P \cdot D}{n e^3 d}$$

Variations of P

A continuous variation in the value of P could be obtained by adding water drop by drop to a balance pan, but in practice it is advisable to arrange things so that P may be reduced at will, or even made equal to zero. We therefore consider it best to graduate the lever arm in millimeters, taking the point M as the zero point, and to use a set of four small weights p of say 0.5, 1, 2.5, and 5 grams, respectively. The following table gives the value of P for different values and positions of p.

p	0.5 g.	1.0 g.	2.5 g.	5.0 g.
0 mm.	0.5	1.0	2.5	5.0
10 20	0.6	1.2	3.0	6
30 40	0.7	1.4	3.5	7
50 60	0.8	1.6	4.0	8
70 80	0.9	1.8	4.5	9
90 100	1.0	2.0	5.0	10

This range of loads has been found quite sufficient for the average run of tests.

Results

If the load P be plotted as ordinate against the corresponding deflection f as abscissa, we will obtain the "deflection curve" shown in Fig. 4. This curve starts at the origin and for some distance is practically a straight line, showing that the deflection is proportional to the load. But it gradually inclines and tends to become asymptotic to a line parallel to the axis. We have said "tends," for as soon as the load P becomes sufficiently great to make the curve bend, we reach a point where not only is there a permanent deformation but also new forces come into play caused by the reaction of the supporting knife edges which tend to keep the cardboard bent between them. This part of the curve is therefore of no interest to us.

The straight line portion of the graph, which may be corrected if it presents any irregularities due to inaccuracies in the readings, gives us valuable information. We need only find from it the deflection f corresponding to any given value of P, and a very simple calculation will give the value of E.

In practice it is preferable to choose P so that f will not be any greater than the thickness of the board. This rule suffers but very few exceptions.

By this method we have obtained the following coefficients of elasticity (or rigidity) which have been taken at random from among a large number of tests.

(Continued on page 44)

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THE ANALYSIS OF CARDBOARD: ELASTICITY

(Continued from page 42)

Nature of Sample	Transverse Strength	Class
High grade roofing felt.....	20 kg/mm.	} Very flexilbe.
Second grade roofing felt.....	25 kg/mm.	
Ordinary grey cardboard, loaded and calendered.....	49 kg/mm.	} Flexible.
Bicolored cardboard for folding boxes.....	60 kg/mm.	
Sheet of groundwood (for comparison).....	81 kg/mm.	} Stiff. } Very stiff.
Ordinary grey cardboard.....	105 kg/mm.	
Business cards.....	250 kg/mm.	
Visiting cards.....	305 kg/mm.	

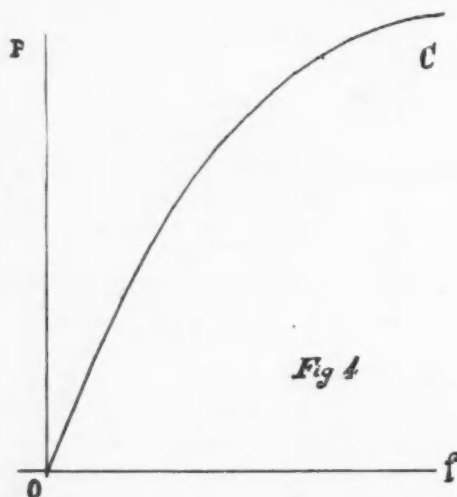
Imitation leather boards are in an entirely different class on account of the difference in their composition. They have much higher coefficients.

Accuracy of the Measurements

Let us go back to formula (4) which may be rewritten

$$E = \frac{3125P}{e^3 f}$$

If we have a board 1 mm. thick, even with a good caliper square duplicate measurements can easily vary by 0.02 mm. Hence, raising to the cube, we may have $e^3 = 1.06$ instead of $e^3 = 1$. In



other words, the possible error is 6%. Under these conditions it is useless to try to obtain a greater accuracy than this in measuring f . So that for $f = 1$ mm. an accuracy to within 0.05 mm., that is, to within 5% is sufficient. If the reading corresponding to this amount (0.05 mm.) is to be 1 mm., the ratio $D:d$ must be equal to 10, so that when $d = 50$ mm., $D = 50$ cm.

These are the dimensions which we have adopted and which we recommend. It is about the maximum distance at which a normal eyesight can easily read the scale without a telescope when there is a strong illumination on the scale.

Folding and Breaking

If now we push the deformation of the cardboard still further and fold it completely on itself, its behavior will vary according to its quality and this is not without importance to the user of the cardboard.

This folding test has the advantage of being easily carried out; but it is essential that it be always carried out in exactly the same manner.

A perfectly flat sheet is taken and folded over, and a given weight, say 500 grams, is placed on the fold and allowed to stand for a certain length of time, e. g., 15 minutes. The weight is then removed and the test sheet is allowed to stand

for several hours. During the first few minutes it recovers rapidly; then with decreasing speed, and finally it assumes a definite position corresponding to a clearly defined "fold angle."

Experience has shown that this angle is proportional to the flexibility of the cardboard; and if this test were carried out on all the samples listed in the above table it would class them in the same order as the coefficient of elasticity.

The "fold angle" can vary from 20° to 25° for stiff cards up to 60° for felts.

This test is very useful for those who do not possess the equipment required for more elaborate tests; but great care must be taken to see that the cardboard is absolutely flat and that it is afterwards allowed to stand long enough for it to reach the "fold angle."

Finally, a close scrutiny of the fold itself can give valuable information as to the composition of the cardboard. Very flexible boards, which should contain a large amount of rags, should have a perfectly round fold and should show no break at all on the outside face. Cardboards for non-folding boxes or for bookbinding, on the contrary, should be very stiff, and the breaking of those which contain a large amount of groundwood or of waste paper, far from being a defect, is an indication of their quality.

Of course, such a test as this requires a certain degree of skill, which is easily acquired by experience. We shall have occasion to come back later on to this subject of folding and breaking of cardboard.

Western Paper Stock Co. Changes

SAN FRANCISCO, Cal., October 14, 1921.—The Western Paper Stock Company of California has taken over the business of the Honest Weight Paper Company, of Seattle, Wash. The specialty of this concern was the packing of newspapers for export and the Seattle branches of the Western Paper Stock Company is now taking care of this department. Messrs. Reed and Hayden, formerly proprietors of the Honest Weight Paper Company will remain with the Western Paper Stock Company in an executive capacity.

The Western Paper Stock Company also has taken over and is now operating as one of its branches the warehouse formerly operated as a branch of the Independent Paper Stock Company in Spokane, Wash. Mr. Kemp, formerly branch manager of the Independent Paper Stock Company, will remain in charge.

The Sidney Waste Materials Company, Ltd., which is a subsidiary of the Western Paper Stock Company with headquarters in Victoria, B. C., also has established a branch warehouse in Vancouver, B. C.

The Western Paper Stock Co., is now operating a total of eight warehouses in all important cities of the Pacific Coast.

Canadian Export Paper Co. Changes

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., October 17, 1921.—G. F. Steele, general manager of the Canadian Export Paper Company, has been granted leave of absence on account of ill health, and it is stated here that there is a possibility that he may not return. Meanwhile a committee composed of sales managers of companies in the organization will direct the management of the company. This committee is composed of the following: E. L. Crooker, of the Laurentide Company; F. R. Thorn, of Price Brothers and R. H. Ryan, of the Brompton Company. In keeping with the policy in the various mills, a marked reduction in the staff of the Export Paper Company has been effected during the past few weeks.


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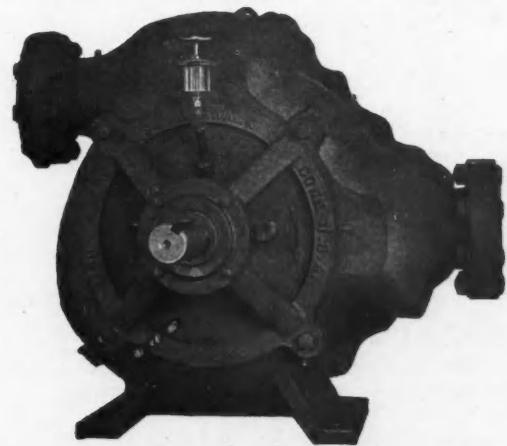
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RECENT LITERATURE ON SODA AND SULPHATE PULPS

A READING LIST COMPILED BY CLARENCE J. WEST, NATIONAL RESEARCH COUNCIL

(Technical Association of the Pulp and Paper Industry; Committee on Bibliography, Contribution No. 35)

This list of references on the soda and sulphate pulps is a continuation of the list compiled by Clinton K. Textor, which appeared as contribution No. 34 of the Committee on Bibliography, in THE PAPER TRADE JOURNAL for July 28, 1921, and following issues.

Aktiebolag Cellulosa (Stockholm).

Method for the preparation of cellulose by cooking cellulose-containing material with sulphur-free soda liquor.

German patent 317,907. Papierfabr. 18, no. 3, 43-44 (1920).

Sodium sulphide may be replaced by a catalyzer, such as mercury. In order to avoid the harmful effects of the excess of soda upon the fibers, it may be added portionwise during the cooking process.

Aktiebolag Cellulosa.

Method for the preparation of rosin from wood rich in rosin. German patent 315,731. May 20, 1916.

The wood is cooked under pressure with a concentration of alkali sufficient to dissolve the wood substance. In the presence of salt, the resins and fatty acid completely precipitate as well as a part of the lignin. The properties of this precipitate are such that it may be used as a sizing for paper or as an adhesive. The raw material contained 20 per cent resin and 5 per cent turpentine.

Andrews, D. O.

Washing and draining sulphate pulp.

Year Book, Am. Pulp Paper Manfr. Supt. Assn., 1920, 99, 101.

Arnould, Emil.

Paper pulp from alfa (esparto).

French patent 505,001. Papier-Ztg. 45, no. 79, 2841 (1920).

The material is chopped up and beaten for some time and then washed with water, to remove chlorophyll. It is then cooked with 8-10 per cent alkali, giving 55 per cent yield, as compared with 38 per cent yield by the old methods.

Ayerst, A. B., and Waite, C. N.

Recovering alkali from wood pulp black liquor.

U. S. patent 1,166,509. Jan. 4, 1916.

The liquor is evaporated, mixed with granular charcoal, the mixture calcined while it is agitated to keep the constituents commingled, and the calcined product is leached to remove the alkali. The residual charcoal is dried and used for treating another portion of the liquor.

Baudisch, Jos.

Soda pulp.

Zentralbl. oesterr.-ungar. Papierind. 35, no. 11, 200 (1917).

Soda pulp has a lower specific gravity and greater strength than sulphite pulp.

Beadle, C., and Stevens, H. P.

Comparison of papers produced from different kinds of deciduous and coniferous woods by the soda and sulphate processes.

Paper Maker 47, no. 3, 397-403 (Mar., 1914); C. A. 8, 2619.

Tabulation of ash content, fiber length and strength characteristics of paper pulps prepared by Surface.

Beadle, C., and Stevens, H. P.

Technology of the paper industry: the influence of soda consumption in boiling upon the yield of pulp produced.

J. Soc. Chem. Ind. 32, 174-179 (1913); Sci. Am. Suppl. 76, 214-5 (Oct. 4, 1913); C. A. 7, 2306.

The work on *Hedychium coronarium* confirms the earlier conclusion of Sutermeister on spruce that after a certain critical

point is reached further soda consumption causes the solution of cellulose. In the case of *Hedychium* the critical soda consumption is 5 per cent.

Bergius, F., and Hägglund, Erik.

Method for working up the waste liquors from the alkaline digestion of plant materials.

German patent 311,933. Papierfabr. 17, no. 32, 824-5 (1919); Papier-Ztg. 44, no. 47, 1393-4 (1919).

The waste liquor is heated at 250-300 degrees for two hours; carbon dioxide is evolved and at pressures up to 50 atmospheres the organic material precipitates as a carbon-like product.

Bergman, G. K.

Rapid method of control analysis of the liquor in the manufacture of sulphate cellulose.

Pulp Paper Mag. Can. 19, 11-12 (1921); C. A. 15, 1213.

Methods of analysis are given for sodium hydroxide, sodium carbonate and sodium sulphide.

Bergstrom, Hilding.

Yield of methyl alcohol upon cooking soda pulp from different woods.

Papierfabr. 11, 427 (1913).

The yield varies from 0.67 to 0.83 per cent.

Brahmer, H.

Heat conditions during the digestion of sulphate cellulose.

Svensk Pappers-Tidning 23, 269 (1920); C. A. 15, 170.

Diagrams show the distribution of the heat in the Sandberg-Sundblad heat systems.

Brown, W. R.

Kraft paper and its uses.

American Forestry 22, 150-152 (Mar., 1916).

Budde, —.

By-products in the manufacture of pulp from esparto grass.

World's Paper Trade Rev. 65, no. 13, 509-512 (1916); J. Soc. Chem. Ind. 35, 401-404 (1916).

Cellulophile.

Theory of the preparation and recovery of soda liquors.

Papeterie 42, 107-112, 151-156, 208-211 (1920); C. A. 14, 1744.

A description of the methods commercially employed for the preparation and recovery of soda and sulphate liquors and of the chemical reactions involved.

Clapp, A. L.

Counter board.

U. S. patent 1,352,541. Mar. 2, 1920. C. A. 14, 1219.

This board is made of kraft pulp.

Colsmann, Wilhelm.

Utilization of the waste liquor of the straw pulp mill.

German patent 316,147. Aug. 6, 1916. Papier-Ztg. 45, no. 35, 1214 (1920).

The product is used as a fertilizer.

Cram, M. P.

New uses for waste soda liquors.

Paper Trade J. 60, no. 19, 52 (May 13, 1915); Paper Maker 49, no. 6, 678 (June, 1915).

Daley, John E.

Mitscherlich fibers.

Paper Trade J. 70, no. 25, 56 (June 17, 1920).

Drewsen, V.

Acetic acid from waste soda liquor.

(Continued on page 48)



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RECENT LITERATURE ON SODA AND SULPHATE PULPS

(Continued from page 46)

- U. S. patent 1,298,478. Mar. 25, 1919. C. A. 13, 1764.
The liquor is concentrated to a gravity of about 1.30, mixed with about 10 per cent sodium hydroxide and about 50 per cent powdered lime (calcium hydroxide) to form a strong porous causticized aggregate. This is then heated to 250 degrees, cooled out of contact with air and extracted with hot water to obtain a strong crude acetate liquor of about 30 degrees Be. Carbon dioxide is passed through the liquor, the precipitated acid carbonate is separated and acetic acid is added in an amount equal to about 6 per cent of the solids present to neutralize the carbonate and the resulting solution is filtered and concentrated when sodium acetate is crystallized from it.
- Drewsen, V.**
Alcohol, acetone and other volatile substances from waste soda pulp liquor.
U. S. patent 1,298,479. Mar. 25, 1919. C. A. 13, 1765.
"Black liquor" is concentrated until it contains about 50 per cent water, treated with sodium hydroxide equal to about 20 per cent of the organic substances present and boiled under pressure at a temperature of about 125 degrees for at least an hour to effect conversion of organic substances and is then evaporated and converted into a dry mixture after addition of lime to an amount at least equal to the organic substances present. This dry material is subjected to dry distillation with steam at a temperature of 300-500 degrees to recover acetone, methyl alcohol and other volatile products.
- Drewsen, V.**
Acetone and other products from waste soda-pulp liquor.
U. S. patent 1,298,480. Mar. 25, 1919. C. A. 13, 1765.
A dry solid intermediate product suitable for subjection to distillation with superheated steam or dry distillation to produce acetone and other volatile compounds is prepared by concentrating waste liquor, adding 80 per cent as much lime as there are solids in the material and eliminating the water from the mixture.
- Drewsen, V.**
Sodium acetate from waste soda liquor.
U. S. patent 1,298,481. Mar. 25, 1919. C. A. 13, 1765.
Waste liquor from the soda process is heated under pressure and treated with carbon dioxide to remove ligneous substances, concentrated and causticized with lime to obtain a dry mixture, which is then aggregated by treatment with carbon dioxide and moisture, heated to 160-200 degrees and leached with a small amount of cold water to recover sodium acetate.
- Drewsen, V.**
Waste soda liquors.
Canadian patent 201,865. July 13, 1920. C. A. 14, 2707.
Same patent as U. S. patent 1,298,481.
- Ebbinghaus, P.**
Birch wood papers of high quality.
Wochbl. Papierfabr. 45, 2310-2311.
The sulphate pulp from birch wood is readily bleachable. Formulas are given for use in featherweight, writing and print papers.
- Enderlein, G. F.**
The black liquor recovery process.
Paper Industry 2, no. 1, 101-103 (Apr., 1920); Pulp Paper Mag. Can. 18, no. 29, 747-749 (July 15, 1920); Paper 26, no. 7, 356, 358, 360 (Apr. 21, 1920).
- Favier, E., Vidal, L., and Mathey, A.**
Study of the preparation and properties of the cellulose from eucalyptus and cauarin plants.
Moniteur papeterie francaise 49, no. 12, 272-3 (1913).
The pulp was prepared by heating with sodium hydroxide of 14 degrees Be. for 12 hours at 6 atmospheres. Eucalyptus gave 42 per cent of bleached pulp, cauarin, 20 per cent.
- Forest Products Laboratory.**
Waste of chemicals in pulping unbarbed wood by the sulphate process.
Pulp Paper Mag. Can. 17, 827 (1919); C. A. 13, 2763.
In pulping one ton of wood (bone dry) consisting of 96 per cent wood and 4 per cent bark, 22.9 pounds of sodium hydroxide and 8.5 per cent sodium sulphide are needed to reduce the bark.
- Frank, C.**
New investigation on the treatment of wood chips with alkali-spent lye and on the acids resulting by the steaming of wood.
Papierfabr. 17, no. 38, 1019-1020 (1919).
In the action of warm spent alkali lye upon pine chips, 90 per cent of the alkali present in the lye goes into the chips. One could therefore replace a quarter or even a third of the fresh liquor with spent lye.
- Fuchs, Carl S.**
Preparation of pulp in two steps.
German patent 324,894. Papierfabr. 18, no. 37, 891.
Straw is cooked under ordinary or diminished pressure. The second cooking is with stronger alkali. The first liquor is treated with bisulphate or acid, upon which lignin salts precipitate.
- Griffin, M. L.**
Manufacture of soda fiber.
Paper Trade J. 63, no. 13, 8c, 9a (Sept. 28, 1916).
- Griffin, M. L.**
Processes for causticizing soda liquor.
Paper Trade J. 65, no. 14, 34, 36 (Oct. 4, 1917).
- Griffin, M. L.**
Report of the committee on soda-pulp washing.
Paper 25, 132-138 (1920); C. A. 14, 1437; Paper Maker 59, no. 4, 468 (Apr., 1920).
The washing of soda pulp in the open tank and the diffuser systems are discussed. It is proposed that the process could be simplified by hydroextractors and similar devices.
- Griffin, M. L.**
Washing unbleached soda pulp.
Chem. Met. Eng. 21, 528-529 (Oct. 22, 1919).
- Halse, O. M., and Dedichen, H.**
Oil of turpentine recovered in the digestion of sulphate wood pulp.
Berichte d. d. chem. Ges. 50, 623-630 (1917).
The oil from spruce or pine sulphate pulp can be purified by fractional distillation or by carefully regulated oxidation, after which it closely resembles and may be substituted for commercial turpentine. The yield of oil per ton of pulp is 1 to 1.5 kilos for spruce and up to 10 kilos for pine.
- Hartmuth, Richard.**
Method for the treatment of wood or cellulose-containing materials for the purpose of preparing cellulose and artificial resins, lakes, etc.
German patent 326,705. Papierfabr. 18, 789 (1920).
The material is digested with phenol, using a catalysor, such as hydrochloric acid.
- Hellström, A.**
Terpenes as by-products in the manufacture of chemical pulp.
Papierfabr. 12, 1025-1027 (1914); C. A. 9, 149. Papier-Ztg. 39, no. 53, 1799 (1914).
The method of refining sulphate turpentine is given.
(Continued on page 50)

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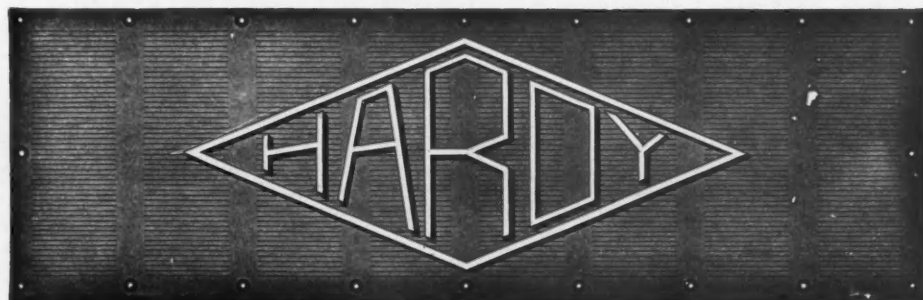
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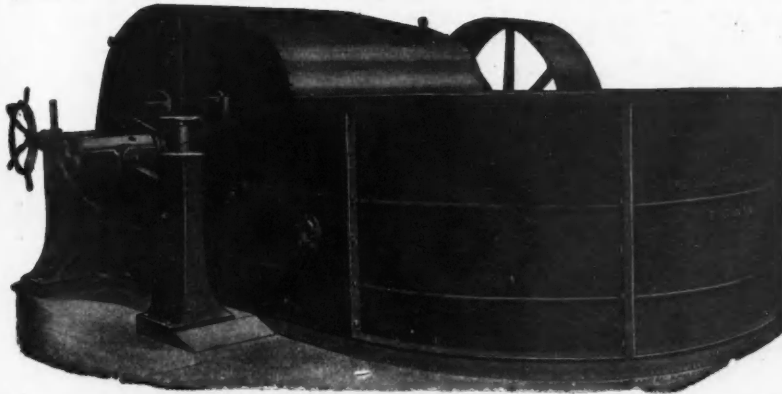


RECENT LITERATURE ON SODA AND SULPHATE PULPS

(Continued from page 48)

- Herzberg, Siegfried.**
Method for the utilization of the cooking liquors from the digestion of straw.
German patent 321,453. Mar. 28, 1919. Wochbl. Papierfabr. 51, no. 35, 2459 (1920).
The liquors are heated with bisulphite or some mineral acid at 70 degrees, upon which organic substances precipitate. After filtration, the liquor is electrolyzed.
- Heuser, Emil.**
Beech wood pulp.
Wochbl. Papierfabr. 44, 2209-2219 (1913).
The pulp is prepared by using an alkaline liquor containing 2.14 per cent sodium sulphide, 2.82 per cent sodium hydroxide and heating for 5 hours at 170 degrees and 7 atmospheres.
- Heuser, Emil, and Blasweiler, Th. E.**
Influence of washing upon the ash of straw pulp.
Papierfabr. 17, no. 20, 359-361 (1920).
Large amounts of hot water decrease the amount of the ash somewhat.
- Hope, B. C.**
Lime sludge recovery in soda wood pulp mills.
Pulp Paper Mag. Can. 17, 701-703 (1919); C. A. 14, 1039.
- How** sulphite and sulphate got their names.
Pulp Paper Mag. Can. 17, 804 (Sept. 18, 1919).
- Iversen, J. M., and Tracy, A. V.**
Making of kraft and sulphate of soda pulp.
Pulp Paper Mag. Can. 11, no. 10, 332-336; no. 11, 386 (May 15, June 1, 1913); Paper 11, no. 12, 22-24 (June 4, 1913).
Technical description of the processes.
- Kittelsen, Trygve, and Kittelsen, Erling.**
Method for the preparation of half stuff from wood by the soda method.
German patent 324,053. Mar. 4, 1919. Wochbl. Papierfabr. 51, no. 39, 2748. Papierfabr. 19, no. 36, 669 (1920).
The wood is first treated with a clear black liquor and then with fresh liquor under pressure.
- Klein, A.**
Development of sulphite and soda pulp industry.
Kunststoffe 3, 101-104 (1913); Z. angew. Chem. 26, no. 83, 609 (1913); Wochbl. Papierfabr. 44; no. 24, 2198.
- Klein, A.**
New pulp processes and wood pulp as a textile raw material.
Papierfabr. 17, 1049-1050 (1919); C. A. 14, 837.
Cellulose produced from the same pine wood by the soda, sulphate and sulphite processes shows entirely different and characteristic properties. For the purpose of relative comparison, soda pulp is likened to wool, sulphate pulp to cotton and sulphite pulp to linen. Sulphite pulp, when cooked with soda liquor, assumes a wool-like character.
- Klein, A.**
Sulphate pulp and its use as a textile fiber.
Papierfabr. 17, 69-72, 89-93 (1919); C. A. 14, 345, 467.
A detailed discussion of the sulphate process for the production of kraft paper is given. Its suitability for textiles is also discussed.
- Klein, A.**
Sulphate pulp and spinning paper.
Kunststoffe 8, 169-171, 183-185 (1918); Zentralbl. österreich-ungar Papierind. 36, no. 22, 473-480 (1918).
- Knösel, Th.**
Cellulose material from straw.
German patent 252,411. Sept. 30, 1910.
The sulphate process is used.
- Knösel, Th.**
Recovery of sulphur from sulphate waste liquor.
Wochbl. Papierfabr. 49, no. 39, 1956-1959 (1918).
Critical of the work of Lenz.
- Kraft Paper**—its speed of manufacture.
Papier 23, 90-91 (Apr., 1920).
- Kress, Otto.**
Alkaline cooking processes.
Papier-Ztg. 44, no. 5, 104; Wochbl. Papierfabr. 50, no. 6, 310; Papierfabr. 17, no. 10, 180-181 (1919).
- Kress, Otto.**
Chemical control of the kraft process.
Paper 17, no. 24, 30-32 (1916); Paper Mill 39, no. 33, 2 (Aug. 12, 1916).
A method is given for complete volumetric analysis of sulphate white liquor, and for the analysis of alkali in black liquor; rapid methods for mill control of white liquor are also given.
- Kress, Otto.**
Woods for kraft pulp.
Paper Trade J. 65, no. 14, 9, 10, 12 (Oct. 4, 1917).
- Kress, Otto, and Textor, C. K.**
Some experiments on pulping extracted yellow pine chips by the sulphate process.
J. Ind. Eng. Chem. 10, 268-270 (1918); C. A. 12, 1122.
While the experiments indicate that a commercial grade of kraft pulp can be manufactured, attention is drawn to the necessity of proper screening as the fine sawdust, shives, etc., consume chemicals and also decrease the strength of the finished paper.
- Lagerlof, Hans.**
The future of the sulphate and kraft pulp.
Pulp Paper Mag. Can. 15, no. 4, 94-95 (Jan. 25, 1917).
- Langlet, A.**
By-products from the black liquor of soda pulp mills.
Papierfabr. 12, 211-212 (1914).
The commercial application of the Rinman process showed that considerable difficulty was encountered in the distillation of the sulphate liquor. The best yields were: per ton of pulp, acetone, 30 kg., mixed alcohols, 60 kg., crude oil, 60 kg., humus, 250 kg.
- Langlet, Nils A.**
Electrolytic treatment of black liquor.
Paper 12, no. 5, 21-22 (July 16, 1913).
- Lenz, Wilhelm.**
Recovery of sulphur from the black liquor of the sulphate process.
Wochbl. Papierfabr. 49, 962-963 (1918); C. A. 14, 467.
The sulphur is recovered as calcium sulphide by fusion of the evaporated liquor with calcium carbonate and carbon and leaching of the melt, after precipitating the organic materials with sodium acid sulphate, whereby a cooking liquor of suitable composition is obtained, while the calcium sulphide remains for further application.
- Lofton, R. E., and Merritt, M. F.**
Test for unbleached sulphite and sulphate fibers.
Tech. Assoc. Papers III, no. 1, 1-7 (Dec. 1, 1920); Bureau of Standards, Technologic Paper no. 189 (Apr. 4, 1921); C. A. 15, 1213.
The stain which was found to be most satisfactory in differentiating between unbleached sulphite and sulphate pulps or fibers was a mixture of 1 part of a 2 per cent aqueous solution

(Continued on page 52)



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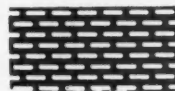
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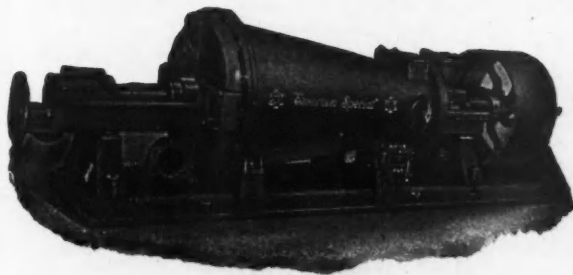


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RECENT LITERATURE ON SODA AND SULPHATE PULPS

(Continued from page 50)

- of malachite green and 2 parts of a 1 per cent aqueous solution of basic fuchsin or magenta. The sulphate fibers give a blue or blue-green color, and the sulphite fibers give a purple or lavender color. The color contrast not only enables one to detect the presence of one or both of these fibers but is sharp enough to enable one, after some practice, to approximately correctly estimate the percentage of each.
- Lundberg, J. O.**
Boiling cellulose.
German patent 284,628. June 4, 1914.
An apparatus is specified for use in carrying out the process of boiling cellulose with sulphate liquors, using preheated boiling liquors.
- Lundberg, J. O.**
Boiling cellulose by the sulphate or soda process.
U. S. patent 1,257,290. Feb. 19, 1918. Norwegian patent 28,529. Jan. 21, 1918. C. A. 12, 995, 1598.
The liquor is previously heated under pressure, the cellulose is added and the temperature raised to 100 degrees. The boiling is continued with the addition of a fresh supply of liquor which has been previously heated in a separate receiver to a temperature so elevated that no further heat need be applied.
- Luttringer, A.**
Cellulose and other products from resinous waste wood.
Papierfabr. 11, 884-889 (1913).
Larch is cooked by the sulphate process and during the early stages of the digestion relief is permitted and turpentine distilled off and condensed. Volatile products, obtained on incineration of the black liquor, are condensed and recovered. 1000 kg. of wood gave: cellulose, 315 kg.; turpentine, 60 kg.; pine oil, 11.3 kg.; rosin spirit, 13.8 kg.; light rosin oil, 8.7 kg.; ordinary rosin oil, 60 kg.; oil containing retene, 9.2 kg.; solid retene, 24 kg.; methyl alcohol and acetone, 5.8 kg.; phenols, 15.7 kg.
- Luttringer, A.**
Obtaining turpentine and resinous products in the manufacture of paper pulp.
Mat. grasses 8, 4276-4279 (1915).
The resins are extracted from the wood by steam, alkalies or resin solvents, and the residue is made up into paper pulp by boiling with sodium sulphate, turpentine being obtained as a by-product.
- McAfee, D. S.**
Recovering the alkali used in pulp digestion.
U. S. patent 1,308,184. July 1, 1919. C. A. 13, 2278.
Canadian patent 195,309. Dec. 23, 1919. C. A. 14, 629.
Soda ash cinder is treated in a closed circuit grinding system with slaked lime or unslaked lime and a liquid lime-slaking medium, the sufficiently ground product is removed, the unfinished material is returned for further treatment and the resulting solution of sodium hydroxide is separated from the residue.
- Manufacture of sulphate pulp.**
Papierfabr. 14, 595-599, 607-610, 619-623 (1916).
- Meade, R. K.**
New economy in the soda process for making wood pulp.
Paper Trade J. 61, no. 16, 38, 40 (Oct. 14, 1915).
- Moe, Carl.**
Determination of sulphide in sulphate liquor.
Paper 14, no. 22, 19 (1914).
A simple titrimetric test with silver nitrate is described.
- Moe, Carl.**
Manufacture of sulphate pulp.
Paper 18, no. 12, 11-16; no. 13, 13-14; no. 14, 15-16 (1916).
Reprinted under the title: "Technology of the sulphate process. Data for the use of manufacturers of sulphate pulp and kraft papers." New York, Paper, inc., 1917, 16 p. 30 cm. (Paper's Guides to pulp and paper manufacturing process. No. 1.)
A scheme of technical supervision of the process and of mill control is given which aims to furnish an accurate record of chemical consumption and losses and of recovery operations.
- Moe, Carl.**
Newer details of the sulphate process.
Paper 20, no. 20, 24 (1917).
Complete outline is given of the various steps necessary to the technical and chemical control of the sulphate process. The methods of analysis used in mill control are described, also a scheme for the tabulation of data throughout the process.
- Moore, Hugh K.**
Chemical engineering aspect of renovating a sulphide (sulphate) mill.
Met. Chem. Eng. 17, 117-125 (1917); Trans. Am. Inst. Chem. Eng. 10, 177-203 (1917); Papier-Ztg. 43, 1486-1487, 1570-1571, 1599, 1622-1623 (1918).
Full description is given of the chemical engineering difficulties encountered in changing certain important details of the recovery process of a sulphate mill.
- Moore, Hugh K.**
Explosion process of sulphate recovery.
Chem. Eng. 28, 8-16, 45-47 (1920); Paper 25, no. 24, 1157-1161; no. 25, 1197-1201; no. 26, 1241-1246 (Feb. 18-Mar. 3, 1920); C. A. 14, 1438.
Theoretical and practical discussion of the process.
- Moore, Hugh K.**
Recovering soda from waste liquor from the digestion of wood to obtain sulphate pulp.
U. S. patent 1,137,779. May 4, 1915.
The liquor is mixed with sodium sulphate and sawdust, bark, or coke, dried, and burned and the soda recovered by smelting and causticizing with lime.
- Moore, Hugh K.**
Evaporating and burning waste lignin liquor obtained in the manufacture of sulphate pulp from wood.
U. S. patent 1,137,780. May 4, 1915.
The waste liquor is mixed with sodium sulphate, sprayed into the upper part of a retort over a hot flame which evaporates the water from the liquor. The residue collects on the sloping floor of the retort and is burned with air under pressure.
- Moore, Hugh K., and Quinn, J. T.**
Reclaiming values from "black liquor" of wood pulp manufacture.
U. S. patent 1,326,414. Dec. 30, 1919. C. A. 14, 629.
Black liquor is mixed with salt cake, put under pressure by means of pumps and heated while under pressure in a heating coil to a high temperature. It is then allowed to discharge into a furnace under conditions so regulated that the particles of highly heated liquor burst into steam and the residue is desiccated and ignited within a short distance of the nozzle.
- Moore, Hugh K.**
Recovering caustic alkali from wood pulp digester liquor.
U. S. patent 1,324,920. Dec. 16, 1919. C. A. 14, 467.
Concentrated lignin liquor, such as is obtained in the manufacture of wood pulp by the use of sulphate and soda, is burned and the soda thus obtained is taken up in aqueous solution, the solution filtered and causticized with lime.
- Mortrud, Einar.**
Sulphate pulp cooking.
Paper 17, no. 23, 15 (Feb. 16, 1916).
(To be continued)



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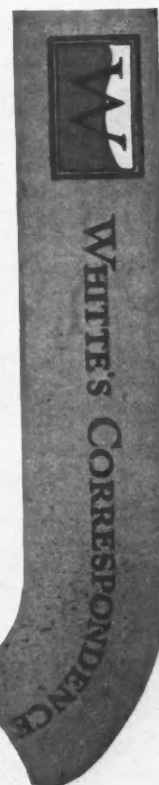
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Paper Trade Associations Not Under Suspicion

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., October 17, 1921.—While no announcement has yet been made by either the Department of Commerce or the Department of Justice regarding so-called open price associations, it is understood that the Department of Commerce has completed an analysis of trade associations. This analysis, it is understood, has led to the conclusion that there are 28 functions of trade associations, of which number, it has been found that three or four are under direct suspicion, one being the matter of price distribution. Other trade association functions it is claimed are also capable of misuse. Officials of the Department, it is said, particularly in view of the fact that the Supreme Court of the United States now has before it for decision an open price association case, feel that the wise business man or manufacturer should avoid any action that in any way throws him into a suspicious position. There are many trade associations and the Government is not desirous, it is understood, of "mopping up" all trade associations that are in existence. Undoubtedly when the official announcement is made by the Government regarding trade associations these associations will be warned to avoid suspicious positions.

When shown the foregoing dispatch from Washington Dr. Hugh P. Baker, executive secretary of the American Pulp and Paper Association made the following statement to a representative of the PAPER TRADE JOURNAL:

"While the paper industry of course is deeply interested in the dispatches from Washington that the government has been studying closely the practices of all trade associations, there is not the slightest doubt in the world that the American Paper and Pulp Association and its affiliated organizations will be found to be exempt from any suspicion of questionable practices.

"The entire industry has been most careful to live up to not only the letter of the law, but also the spirit and the discussion of prices is entirely outside the scope of the activities of any of the affiliated associations or of the American Paper and Pulp Association itself."

Few New Paper Machines Ordered for Next Year

Significant figures as to the future growth of the paper industry are made public by the American Paper and Pulp Association, which finds that only four new machines are scheduled for installation in the entire industry for 1922, as compared with the 53 machines being installed in 1921.

The record year of 1920, when such mills as the news print mills were producing at more than their registered capacity to meet the demands of publishers, was accompanied by the placing of contracts for much additional machinery. The year of 1921, however, with an influx of cheap foreign paper, in the absence of tariff legislation to protect manufacture in the United States, has seen contracts for little new capacity.

Figures just compiled show a total of 53 machines scheduled for this year, and only four for 1922. Of the new machines scheduled this year, eight are for news print, ten each for book and board, five for wrapping, six for writing, seven for tissue, two each for roofing felt, glassine and specialties and one for blotting. The 1922 installations are one for book and three for board. The increase for the two years over 1920 is largest in felts and building with 12.5 per cent, board being next with 12.4 per cent and book third with 11 per cent. News print shows an increased schedule of 9.2 per cent, tissue of 9, fine papers of 6.2 per cent and wrapping of 4.7 per cent.

Chapman Paper Co. Has Salesmen's Convention

ST. LOUIS, Mo., October 17, 1921.—The sales force of the T. P. Chapman Paper Company gathered for their regular quarterly con-

vention on October 7 and recharged their energetic batteries for the last lap of the 1921 race. An unusual feature at this time was a visit to the Alton Boxboard Company at Federal, Ill., a most modern boxboard mill, where, under the direction of H. C. Evans, manager, they were shown the manufacture of paper boxboard from the digesters to the big rolls at the end of the machine, giving every man a thorough knowledge of the manufacture of boxboard. On returning to St. Louis they were served with a nice luncheon, after which their regular quarterly meeting was held. Reports were received, general trade conditions were discussed, ideas exchanged and preparations made for a general clean-up of the year's business.

Manila Men Want Higher Tariff Rates

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., October 11, 1921.—It is understood that the manila paper manufacturers will make a determined effort in the Senate to get higher tariff rates on their product than those inserted in the bill by the House.

Representative Treadway of Massachusetts, who has just returned to Washington after the Congressional recess, states that he heard very little criticism from the paper manufacturers in his district, the only complaint being the rate on manila paper. He said that he had heard a number of suggestions regarding the changing of the phrasing in the paper schedule of the bill, but he did not foresee that this would cause much trouble.

Peshtigo Pulp Co. Sues D. R. Mead

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., October 17, 1921.—Trial of a lawsuit in which the Peshtigo Pulp and Paper Company is suing D. R. Mead, former general manager of the company for \$100,000 is in progress in circuit court in Marinette. The paper company charges that Mr. Mead mismanaged the concern and tried to wreck it in order to gain control. Mr. Mead denies the allegations and charges he made money for the company until the bottom dropped out of the market. He charges that the slump in the company's business was no fault of his. The trial has been in progress since early in the week and probably will not go to the jury for several days.

Wants Action on Pulpwood Commission

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., October 19, 1921.—Representative Porter of Pennsylvania, chairman of the Foreign Affairs Committee of the House who pushed the Underwood Pulpwood Resolution through the House, has just returned and states that he intends to try and see if he can get some action on the appointment of the Commission. While Mr. Porter refuses to discuss the situation for publication, he has some very definite ideas as to why the answer of the British Government regarding the appointment of the Commission has been delayed. He is hopeful that some kind of announcement regarding the Commission will be made in the very near future.

Safety Work at Kimberly-Clark Mills

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., October 17, 1921.—Although safety work is always emphasized in the mills of the Kimberly-Clark Company, special attention is paid to it during the winter months when there are fewer outside distractions. The first "safety contest" of the season started October 10, between the mills of Kimberly-Clark Company, at Niagara and Kimberly, and will continue until December 10. A daily report of accidents is made in the two mills and suitable reward will be paid to the mills and departments which make the best safety records during the three months.

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HALF a million dollars worth of well-selected stock, constantly maintained, and an organization keyed up to the theory that plant efficiency is measured by the number of orders shipped on the day of receipt, accounts for Caldwell service. Let us figure on your requirements.

H. W. CALDWELL & SON CO.
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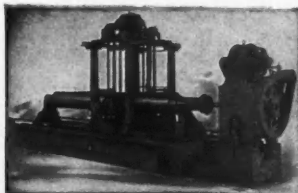
Furnished Complete, with Electric Motor Lift, Hydraulic Lift or Ratchet Lift. All Operated from Floor. Grinding Machines for Rolls of all sizes.



LOBDELL CAR WHEEL CO.
Wilmington, Del., U. S. A.

FARREL

Roll Grinders



For the sake of your product regrind your used worn rolls on a Farrel roll grinder—a heavy, sturdy instrument of precision—we have made and used them ourselves for years.

Farrel calendars and chilled rolls are known for the highest in quality.

We are the largest makers in the world of these products.

Write for Bulletin L-755

Established 1848

Farrel Foundry & Machine Company

Ansonia, Conn., U. S. A.

Branch Plant: Buffalo, N. Y.

Paper Cutters

Single, Duplex and Diagonal



Cutter Knives

Patent Top Slitters

HAMBLET MACHINE CO.

Lawrence, Mass.

New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, October 19, 1921.

An optimistic outlook prevails in the New York paper market. For the last six weeks things have been moving ahead until now prospects are bright that some of the big manufacturers will be producing at 100 per cent capacity before long. The railroad strike warnings are playing their part to stimulate buying. Paper stocks have been kept very low, and now in view of a possible tie-up, paper dealers are protecting themselves with more heavy buying. The readjustment of economic conditions is subject to a good many hard bumps. The impending strike is one of the very rough spots in the course of reconstruction. With lowered wages for railroad men will come lowered freight rates which will not be unwelcome to the paper industry. Importations for the paper industry run far behind those of 1920, leaving the field open to the domestic manufacturers who are now in a position to take advantage of the ill wind of high exchange. Exportations in paper to South America also must needs lag for some time unless an impractical interpretation be placed upon a cable received by the Argentine-American Chamber of Commerce of New York to the effect that the Argentine markets are less active than ever. Nevertheless the paper trade is looking upward in full accord with the more general trend. It will by no means fail to keep pace with the advance in the value of Liberty bonds, the extension of credit, and the gradual decrease in unemployment, which are but a few of the many indicators of improved business long awaited and soon to come.

Trading in news print for the week has shown a slight upward tendency while prices range a fraction of a cent lower than the last quotations printed. Contract rolls are the same at 4.00@4.25 cents a pound, transit rolls are lower at 4.25@4.75, and the same for sheets now at 4.75@5.00, and side runs at from 3.75@4.00.

A satisfactory demand for book paper continues to keep this market firm and active. Increased numbers of orders are expected in the near future which will go far toward putting this paper back at normal. The low limit for cased book, f. o. b. New York grades S. & S. C. and M. F. remain the same at 6.70 and 6.50 respectively, while the high limit is down a little to 7.50 for both.

The fine paper market is on the road to improvement but traveling at a tediously slow pace. The condition of affairs abroad does not lend any assistance to this market which only needs to feel the impetus of better times to boom accordingly.

Tissue has been conspicuously firm for the past week in accord with all factors making for improvement. Prices run as last week for all grades. The manufacturers are encouraged and justly optimistic for the future, for, although most of the trading is being carried on at present by dealers, the shoe interests are contributing handily to the good feeling with increased and regular orders.

Kraft has improved in the last few days to a marked degree. The demand has turned from mediocre to good and prospects are bright that it will continue to sell well for a considerable period. Domestic No. 1 kraft, f. o. b. mills is quoted at the increased price of 6.50@7.00, although some has been sold as high as 8.00 cents a pound the last few days. Domestic No. 2 kraft also stands higher at from 5.75@6.25 cents a pound.

The board market has been rather quiet now for some days with prices stable or changing but little. However, the tendency from now on is expected to be toward increased activity in this line. News board has been the most active, and its price has continued to advance until now it stands at from 50.00@60.00 a ton.

Mechanical Pulp

The pulp market as a whole has remained quiet for several

days, with prices nominal. Mechanical pulp is in fair demand and the tonnage in the market is reported to be rather small. Things should improve very rapidly in this department before many more weeks are up.

Chemical Pulp

Soda pulp continues strong. The demand is close to normal at the present time and very probably will improve. No kraft pulp from foreign markets has been seen in some time with the result that the domestic mills find it necessary to run at capacity to meet the generous demand. Conditions are most assuredly improving in the chemical pulp market. Job lots of kraft pulp have been cleared away and hopes for the immediate future run high among dealers. Bleached sulphite has been a favorite during the last week. Considerable quantities of it have moved lately and there has been a good deal available quoted at rising prices.

Old Rope and Bagging

The demand for old rope and bagging continues fair although it has lagged slightly throughout the week. The prices are in equilibrium for the present, but will move up or down according as the demand for the better grades of paper increases or decreases. Time alone can straighten out the sadly tangled business conditions, and the old rope and bagging market must needs wait on better days along with everything else.

Rags

Roofing rags and white stock have showed the greatest improvement of any of the commodities under this head. The market is stronger and shows a little improvement. Colored stock alone has failed to improve, but a better undertone exists throughout the balance of the market much to the increase of optimism among members of the trade.

Waste Paper

The demand for hard and soft white shavings has been good and the rest have at least not dropped back from their standing of last week. Prices remain about the same and the general attitude seems to be expectant of improvement.

Twine

Prices for twine tend to fluctuate a good deal but the general trend is upward. Cotton twines are a little higher this week and India No. 6 basis some lower. Improvement is the rule.

F. E. Bragg Heads Orono Paper Co.

BANGOR, Me., October 17, 1921.—Officers were elected to fill vacancies and action was taken upon the death of Hon. Charles F. Bragg, who had served as president of the corporation since 1906, at a meeting of the directors of the Orono Pulp and Paper Company recently.

Franklin E. Bragg, formerly vice-president and son of the late president, was elected president; Frederic W. Adams, vice-president, and Harry W. Libbey, a member of the board of directors.

In the resolutions upon the death of the former president appreciation of his long period of service and his wise direction during that time was expressed. Sympathy was extended to the family and the tribute was made a part of the record, a copy being sent to Mrs. Bragg.

Strike Breakers Go to Work at Rumford

[FROM OUR REGULAR CORRESPONDENT.]

RUMFORD, Me., October 17, 1921.—About 75 strike breakers arrived in town this week and went to work at the International Paper Company mill here. They take the places of men who went on strike May 1.

It is stated that other workers will be imported into the town in the near future as the plant plans resumption as was done in Livermore Falls, where more than 600 are now on the payroll.

Market Quotations

Paper Company Securities

New York Stock Exchange, closing quotations October 18, 1921:

Stocks.	BID.	ASKED.
American Writing Paper Company, pref.....	23	24
International Paper Company, com.....	46 3/4	47
International Paper Company, pref., stamped.....	69	70
Union Bag & Paper Corporation.....	64	67

Because of the unusual conditions prevailing in the various markets quotations are more or less nominal.

Paper

F. o. b. Mill.

Ledgers 12 @ 30
Bonds 9.00 @ 55.00

Writings—
Extra Superfine... 13 @ 25
Superfine 13 @ 20
Tub Sized 13 @ 16
Engine Sized..... 9.00 @ 15.00

News—f. o. b. Mill—
Rolls, contract... 4.00 @ 4.25
Rolls, transit... 4.25 @ 4.75
Sheets 4.75 @ 5.00
Side Runs..... 3.75 @ 4.00

Book, Cascd—f. o. b. N. Y.—
S. & S. C..... 6.70 @ 7.50
M. F..... 6.50 @ 7.50

Coated and Enamel 8.25 @ 11.00 @ 11.25

Lithograph 9.00 @ 11.25

Tissues—f. o. b. N. Y.—
White, No. 1... .70 @ .75
Colored 1.10 @ 2.15
Anti-Tarnish... 1.50 @ 2.70
Manila70 @ .80

Kraft—f. o. b. Mill—
No. 1 Domestic... 6.50 @ 7.00
No. 2 Domestic... 5.75 @ 6.25
Imported 6.00 @ 6.50
Sulphite Screenings. 2.00 @ 3.00

Manila—
No. 1 Jute..... 8.00 @ 9.00
No. 2 Jute..... 8.75 @ 8.50
No. 1 Wood..... 5.00 @ 6.00
No. 2 Wood..... 4.50 @ 5.00
Butchers 4.90 @ 5.70

Fiber Papers—
No. 1 Fiber..... 6.00 @ 7.00
No. 2 Fiber..... 7.75 @ 6.00
Common Bogus... 1.80 @ 2.10
Card Middies... 4.00 @ 5.00

Boards—per ton—
News 40.00 @ 45.00
Straw 35.00 @ 40.00
Chip 35.00 @ 40.00
Binders' Beard... 65.00 @ 75.00
Sgl. Mla. Ld. Crisp. 50.00 @ 60.00
Wood Pulp..... 80.00 @ 90.00
Container 55.00 @ 60.00

Mechanical Help

F. o. b. Pulp Mills.)

No. 1 Imported... 30.00 @ 35.00
No. 1 Domestic... 30.00 @ 35.00
(Ex-Dock)

Chemical Pulp

(Ex-Dock, Atlantic Ports.)

Sulphite (Imported)—
Bleached 4.00 @ 4.25
Easy Bleaching... 3.00 @ 3.50
No. 1 Strong unbleached 2.50 @ 3.00
No. 1 Kraft..... 2.25 @ 2.75

Sulphate—
Bleached 3.25 @ 3.75

Sulphite (Domestic)—
Bleached 4.00 @ 4.25
Strong unbleached... 3.00 @ 3.25
Easy Bleaching 3.00 @ 3.25
Sulphite 3.00 @ 3.25
News Sulphite... 2.75 @ 3.00
Mitscherlich... 3.15 @ 3.75
Kraft (Domestic)... 2.75 @ 3.00
Soda bleached... 3.75 @ 4.00

Domestic Rags

New

Prices to Mill, f. o. b. N. Y.

Shirt Cuttings—
New White, No. 1.10.00 @ 10.50
New White, No. 2. 6.00 @ 6.50
Silesias, No. 1... 6.50 @ 7.00
New Unbleached. 8.75 @ 9.25
Washables 4.50 @ 5.00
Fancy 5.50 @ 6.00

Cottons—according to Grades—
Blue Overall.... 6.00 @ 6.50

New Blue 5.25 @ 6.00
New Black Soft.. 3.75 @ 4.00
New Light Sec-onds 2.75 @ 3.00
Ongs Khaki Cuttings 3.75 @ 4.00
Corduroy 3.00 @ 3.25
New Canvas.... 7.00 @ 7.50
New Black Mixed 2.75 @ 3.25

Old

White, No. 1—
Repacked 6.00 @ 6.50
Miscellaneous... 5.00 @ 5.25

White No. 2—
Repacked 3.50 @ 3.75
Miscellaneous... 3.00 @ 3.25
St. Soiled White... 1.40 @ 1.60

Thirds and Blues—
Repacked 2.00 @ 2.25
Miscellaneous... 1.50 @ 1.75
Black stockings... 1.75 @ 2.00
Cloth Strippings... 1.15 @ 1.25
No. 1 1.25 @ 1.30
No. 2 1.05 @ 1.10
No. 395 @ 1.00
No. 495 @ 1.00
No. 5A85 @ .90

Foreign Rags

New Light Silesias 6.00 @ 6.25
Light Flannelettes. 6.25 @ 6.50
Unbleached Cottons.. 7.50 @ 8.00

New White Cuttings 9.50 @ 10.50
New Light Oxforde 5.50 @ 6.00
New Light Prints. 4.50 @ 5.00

New Mixed Cuttings nominal

New Dark Cuttings 2.50 @ 3.00
No. 1 White Linens 8.00 @ 9.00
No. 2 White Linens 6.00 @ 7.00
No. 3 White Linens 5.00 @ 5.25
No. 4 White Linens 3.50 @ 4.00

Old Extra Light Prints 2.00 @ 2.25
Ord. Light Prints.. 1.75 @ 2.00
Med. Light Prints.. nominal
Dutch Blue Cottons 2.00 @ 2.15
German Blue Cottons 1.75 @ 1.90
Ger. Blue Linens.. 3.00 @ 3.50
Checks and Blues.. 1.50 @ 1.60
Dark Cottons... 1.10 @ 1.15
Shopperry 1.00 @ 1.05
French Blues..... 2.00 @ 2.15

Bagging

Prices to Mill f. o. b. N. Y.

Gunny No. 1—
Foreign 1.00 @ 1.10
Domestic 1.10 @ 1.20
Wool, Tares, light. 1.20 @ 1.30
Wool, Tares, heavy 1.25 @ 1.40
Bright Bagging... 1.20 @ 1.35
No. 1 Scrap..... 1.00 @ 1.10
Sound Bagging... .75 @ .85

Manila Rope—
Foreign 4.25 @ 4.65
Domestic 4.50 @ 4.75
New Bu Cut..... 2.25 @ 2.75

Hessian Jute Threads—
Foreign 4.25 @ 4.50
Domestic 4.00 @ 4.25
Mixed Strings... .85 @ .95

Twines

Cotton—(F. o. b. Mill)

No. 1 32 @ 34
No. 2 30 @ 32
No. 3 26 @ 28

India, No. 6 basis—
Light 15 @ 15 1/2
Dark 15 @ 15 1/2

B. C. 18 Basis... 39 @ 40

A. B. Italian, 18 Basis 50 @ 60

Finished Jute—
Light, 18 basis.. 25 @ 29
Dark, 18 basis.. 26 @ 28

Jute Wrapping, 2-6 Ply—
No. 1 25 @ 26
No. 2 23 @ 24

Tube Rope—
5-ply and larger. 17 @ 18

Fine Tube Yarn—
5-ply and larger. 30 @ 32
4-ply 31 @ 33
3-ply 32 @ 34

Unfinished India—
3-ply and larger. 16 @ 17

Paper Makers Twine
Balls 10 1/2 @ 12 1/2
Box Twine, 2-4 ply 14 @ 16
Jute Rope..... 20 @ 24
Amer. Hemp, 6.... 32 @ 34

Sisal Hay Rope—
No. 2 Basis..... 19 @ 22
No. 2 Basis..... 18 @ 20

Sisal Lath Yarn—
No. 1 18 @ 19
No. 2 17 @ 19

Manila Rope..... 26 @ 28

Old Waste Papers

(F. o. b. New York)

Shavings—
Hard White, No. 1 3.75 @ 3.90

Hard White, No. 2 3.25 @ 3.50
Sott White, No. 1. 3.20 @ 3.35

Flat Stock—
Stitchless 1.15 @ 1.35
Over Issue Mag.. 1.65 @ 1.70
Sclid Flat Book.. 1.50 @ 1.55
Crumpled No. 1. 1.15 @ 1.25
Solid Book Ledger 2.00 @ 2.25
Ledger Stock 1.75 @ 1.85
No. 1 White News 2.00 @ 2.15
New B. B. Chips.. .60 @ .65

Manilas—
New Env. Cut... 3.00 @ 3.15
New Cut No. 1... 2.15 @ 2.25
Extra No. 1, Old 1.60 @ 1.70
Print90 @ 1.00
Container Board... .85 @ .90
Bogus Wrapper... .65 @ .75
Old K r a f t s, machine compressed
Bales 2.00 @ 2.05

News—
Strictly Overissue .85 @ .90
Strictly Folded... .65 @ .75
No. 1 Mixed Paper .45 @ .55
Common Paper... .35 @ .40

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

F. o. b. Mill.

All Rag Bond..... 40 @ —
No. 1 Rag Bond... 30 @ 40
No. 2 Rag Bond... 18 @ 20

Water Marked Sulphite 11 @ 15
Sulphite Bond.... 9 @ 12
Sulphite Ledger... 14 @ 15
Superfine Writing. 23 @ 30
No. 1 Fine Writing 20 @ 27
No. 2 Fine Writing 18 @ 25
No. 3 Fine Writing 11 @ 14
No. 1 M. F. Book. 5 3/4 @ 7
No. 1 S. & S. C. Book 6 1/4 @ 7 1/2
Coated Book..... 8 3/4 @ 10 3/4
Coated Label..... 8 3/4 @ 10 3/4
News—Rolls, mill. 4 @ 5
News—Sheets, mill. 4 1/2 @ 5 1/2
No. 1 Manila 5 1/2 @ —
No. 2 Manila 5 @ —
Butchers' Manila. 4 3/4 @ —
No. 1 Kraft..... 5 1/2 @ —
Wood Tag Boards. 5 @ —
Screenings 3 @ —

Boards, per ton—
Plain Chip 45.00 @ 47.50
Sclid News 50.00 @ 55.00
25 and heavier. 55.00 @ 57.50
18 to 24 57.50 @ 60.00

Manila Lined
Chip 60.00 @ 65.00

Container Line—
85 Test 65.00 @ 67.50

Old Papers

100 Test 70.00 @ 72.50
Binders' Board... 80.00 @ 80.00
Solid Wood Pulp. 80.00 @ 90.00
Straw Board..... 35.00 @ 40.00
Filled Pulp Board. 60.00 @ 65.00

Shavings—
No. 1 Hard White 3.00 @ 3.25
No. 1 Soft Shav. 2.25 @ 2.50
No. 1 Mixed90 @ 1.00
No. 2 Mixed90 @ 1.00
White Envel. Cuttings 3.00 @ 3.25

Ledgers and Writings 1.50 @ 1.75
Solid Books 1.25 @ 1.50
No. 1 Books, light. .90 @ 1.00
Blanks 1.65 @ 1.75
Ex. No. 1 Manila. 2.25 @ 2.50

Manila Envelope
Cuttings 2.50 @ 2.75
No. 1 Manilas... 1.20 @ 1.30

Folders News (over issue)85 @ 1.00
Old Newspaper... .75 @ .85
Mixed Papers... .65 @ .75
Straw Clippings... .75 @ .75
Binders' Clippings... .75 @ .75
Kraft 2.00 @ 2.25
New Kraft Cuts.. 2.50 @ —

Roofing Stock, f. o. b. Chicago, Net Cash—
No. 1 25.00 @ —
No. 2 23.00 @ —
No. 3 21.00 @ —
No. 4 21.00 @ —

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds10 @ .60
Ledgers15 @ .40

Writings—
Superfine15 @ .20
Extra fine..... .12 @ .22
Fine20 @ .30
Fine, No. 2..... .20 @ .25
Fine, No. 3..... .15 @ .20
Book, M. F..... .06 @ .09
Book, S. S. & C.. .08 @ .15
Book, Coated... .08 @ .15
Coated Lithograph. .10 @ .15
Label08 @ .15
News05 @ .07
No. 1 Jute Manila .18 @ .18 1/2
Manila Sul., No. 1 .09 1/2 @ .10
Manila No. 2..... .08 1/2 @ .09
No. 2 Kraft..... — @ .07
No. 1 Kraft..... — @ .08
Common Bogus... .02 @ .03 1/2

Straw Board 35.00 @ 45.00
News Board..... 40.00 @ 45.00
Chip Board 30.00 @ 35.00
Wood Pulp Board. 90.00 @ 100.00

(Carload Lots)

Binder Boards—
Per ton..... \$65.00 @ 75.00
Carload lots... \$60.00 @ 65.00

Tarred Felts—
Regular75.00 @ 80.00
Slaters80.00 @ 85.00

Best Tarred, 1-ply (per roll)..... 2.00 @ 2.10
Best Tarred, 2-ply (per roll)..... 1.50 @ 1.60
Best Tarred, 3-ply. 2.00 @ 2.10

Bagging

F. o. b. Phila.

Gunny No. 1—
Foreign 2.25 @ 2.50
Domestic 1.00 @ 1.25
Manila Rope..... 4.00 @ 4.50
Sisal Rope..... 75 @ 80
Mixed Rope..... 75 @ 80
Scrap Burlaps... 1.00 @ 1.25
Wool Tares, heavy. 2.50 @ 2.75
Mixed Strings... 75 @ 80
No. 1, New Lt. Burlap 75 @ 80
New Burlap Cuttings 1.75 @ 2.10

Old Papers

F. o. b. Phila.

Shavings—
No. 1, H a r d White 3.50 @ 3.75
No. 2, H a r d White 3.00 @ 3.25
No. 1 Soft White.. 2.75 @ 3.00
No. 2 Soft White.. 1.75 @ 2.00
No. 1 Mixed 1.50 @ 1.75
No. 2 Mixed 1.00 @ 1.25

(Continued on page 62)

Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING OCTOBER 15, 1921

SUMMARY

News Print	569 rolls
Printing Paper	.61 cs., 202 rolls
Paper Hangings	.16 cs., 2 cs.
Wall Paper	232 bls.
Cigarette Paper	240 cs.
Tissue Paper	4 cs., 1 bl.
Tracing and Drawing Paper	.61 cs.
Filter Paper	.8 cs.
Surface Coated Paper	.69 cs.
Writing Paper	1 cs.
Miscellaneous Paper	.70 cs.

CIGARETTE PAPER.

P. J. Schweitzer, Silene Marseilles, 100 cs.
American Tobacco Co., France, Havre, 70 cs.
American Tobacco Co., Leopoldina, Havre, 54 cs.

The Surbrug Co., by same, 26 cs.

WALL PAPER.

R. F. Lang, Mongolia, Hamburg, 230 bls.
R. E. Thebaut, Verentia, London, 2 bls.

PAPER HANGINGS.

W. H. S. Lloyd & Co., Maine, London, 2 cs.
W. H. S. Lloyd & Co., by same, 6 bls.
A. C. Dodman, Jr., Celtic, Liverpool, 10 bls.

NEWS PRINT.

E. C. Melby, Bergensfjord, Kristiania, 25 rolls.
National City Bank, by same, 144 rolls.
Hudson Trading Co., Ipswich, Hamburg, 307 rolls.
Agar Bernsson Corp., by same, 19 rolls.
Parsons & Whittemore, N. Amsterdam, Rotterdam, 74 reels.

PRINTING PAPER.

L. A. Consmiller, N. Amsterdam, 50 cs.
Hudson Trading Co., Ipswich, Hamburg, 202 rolls.
B. F. Drakenfeld & Co., Caronia, Liverpool, 11 cs.

TISSUE PAPER.

Meadows Wye & Co., Caronia, Liverpool, 4 cs.
J. L. N. Smythe & Co., by same, 1 bl.

TRACING PAPER.

E. Dietzgen & Co., Mongolia, Hamburg, 4 cs.
Keuffel & Esser, Ipswich, Hamburg, 55 cs.
H. Reeve Angel & Co., N. Amsterdam, 2 cs.

FILTER PAPER.

H. Reeve Angel & Co., N. Amsterdam, Rotterdam, 8 cs.

SURFACE COATED PAPER.

L. A. Consmiller, N. Amsterdam, Rotterdam, 69 cs.

WRITING PAPER.

Goodman & Levy, La Savoie, Havre, 1 cs. writing paper.

PAPER.

Bernard Judae & Co., Mongolia, Hamburg, 2 cs.
F. L. Kraeman, by same, 15 cs.
Coenca Morrison & Co., France, Havre, 10 cs.
Henle Wax Paper Co., Olympic, Liverpool, 10 cs.
Brooks Paper Co., Verentia, London, 11 cs.
F. W. Devoe & Reynolds Co., Leopoldina, Havre, 16 cs.
H. Kayser & Fils, La Savoie, Havre, 6 cs.

RAGS, BAGGINGS, ETC.

B. D. Kaplan, Celtic, Liverpool, 107 bls. rags.
Albion Trading Co., by same, 40 bls. rags.
J. E. Walker Co., Francisco, Hull, 16 bls. rags.
Castle, Gottheil & Overton, Francisco, Antwerp, 108 bls. bagging.
M. Dalton, Alpine Range, Dundee, 21 bls. paper stock.
American Woodpulp Corp., Ipswich, Hamburg, 81 bls. rags.
American Woodpulp Corp., by same, 9 bls. new cuttings.
R. F. Downing & Co., N. Amsterdam, Rotterdam, 146 bls. rags.
Salomon Bros. & Co., by same, 31 bls. rags.
Ladenburg, Thalman & Co., Princess Matoika, Bremen, 749 bls. rags.
Wm. Schall & Co., by same, 139 bls. rags.
R. F. Downing & Co., Old North State, London, 380 bls. rags.

OLD ROPE.

N. E. Berzen, Francisco, Hull, 99 coils.
Brown Bros. & Co., by same, 98 coils.
Salomon Bros. & Co., by same, 310 coils.
American Express Co., Francisco, Antwerp, 190 coils.
E. J. Keller Co., Alpine Range, Leith, 88 coils.
Salomon Bros. & Co., N. Amsterdam, Rotterdam, 36 coils.
Baird Daniels & Co., by same, 181 coils.
D. M. Hicks, Inc., Cameronia, Glasgow, 75 coils.
Irving National Bank, Pioneer, Antwerp, 124 coils.

WOOD PULP.

Brown Bros. & Co., Mongolia, Hamburg, 500 bls. wood pulp.
Nilson Rantoul & Co., Songaar Stenkjer, 1,000 bls. mechanical pulp, 200 tons.
Nilson Rantoul & Co., Songaar, Kristiania, 950 bls. mechanical pulp, 192 tons.

American Exchange National Bank, by same, 125 bls. dry sulphite, 25 tons.
Tidewater Papermills Co., Salborg, Christiania, 15,375 bls. wet pulp.
American Woodpulp Corp., Tasmanic, Lundsval, 2,500 bls. dry sulphite.
American Woodpulp Corp., by same, 2,500 bls. dry sulphite.
A. J. Pagel & Co., Inc., Tasmanic, Oruskoldsvik, 600 bls. dry sulphite.
Castle, Gottheil & Overton, Lord Ormonde, Hamburg, 3,300 bls. woodpulp.

PHILADELPHIA IMPORTS

WEEK ENDING OCTOBER 15, 1921

Castle, Gottheil & Overton, Deranof, Bremen, 202 bls. rags.
Hudson Trading Co., Callisto, 948 rolls news print.

NORFOLK, VA., IMPORTS

WEEK ENDING OCTOBER 15, 1921

E. J. Keller Co., Scythian, Antwerp, 388 bls. bagging.

BOSTON IMPORTS

WEEK ENDING OCTOBER 15, 1921

PAPER STOCK.

Bird & Son, Inc., Mahopac, Antwerp, 430 bls. roofing rags.
Bemis Bros. Bag Co., by same, 147 coils manila rope.
E. Butterworth & Co., by same, 198 bls. paper stock.
E. Butterworth & Co., Belgian, Liverpool, 77 bls. paper stock.
Train Smith Co., by same, 30 bls. new rags.
E. Katzenstein & Co., by same, 23 bls. new rags.
International Purchasing Co., by same 226 coils manila rope.
E. Butterworth Co., Inc., Missouri, Antwerp, 263 bls. paper stock and 206 coils manila rope.

HIDE CUTTING

G. F. Russ Co., Belgian, Liverpool, 156 bags.
E. Butterworth & Co., Inc., Missouri, Antwerp, 200 bags.
E. Butterworth & Co., Inc., Bendelsdyk, Rotterdam, 659 bags.

May Build Paper Mill at White Rapids

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., October 18, 1921.—Surveys are being made in the vicinity of White Rapids on the Menominee river for development of a huge water power and location of a mill of some kind. Efforts to learn from the engineers the kind of industry to be located there have been unavailing but evidence points toward a new paper mill.

The engineering work is under the direction of T. W. Orbison, Appleton, one of the best known paper mill engineers in the west. Mr. Orbison declines to discuss his work except to say that a large water power development is contemplated.

The clearing is for a mill of considerable size. Abundant water power can be developed at White Rapids with comparatively little difficulty.

Discuss Industrial Relations at Menasha

[FROM OUR REGULAR CORRESPONDENT.]

MENASHA, Wis., October 17, 1921.—Employment managers of industrial institutions in the Fox River Valley met here last week for the purpose of discussing industrial relations and the unemployment situation. It is probable that this was the first of a

series of similar meetings which may result in an organization to better employment conditions.

Among the speakers was Miss Mary C. Baker of the employment department of the Kimberly-Clark Company. Representatives of other paper companies also attended the meeting.

Address Connecticut Cost Association

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., October 17, 1921.—Henry O. Fernald of the firm of Loomis, Suffern & Fernald, of New York City, addressed the members of the Connecticut Valley Branch of the Cost Association of the Paper Industry at the meeting held here this week. Mr. Fernald spoke on paper mill costs and also on income and federal taxes. Ralph H. Marrow, president of the branch, presided.

Lambooy Label Co. in New Quarters

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., October 17, 1921.—The Lambooy Label & Wrapper Company, Karl Lambooy, proprietor, has moved from the Crescent Engraving building to the third floor of the B. Hopper Company's building. The new quarters are being renovated and put in fine condition. Considerable new machinery will be installed in the near future.

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produce a fine, smooth, strong, uniform stock

The 250 Claflin Continuous Beaters

Now in use prove that they are the Ideal Equipment for

Rope Manilla	Kraft Paper
Wall Board	Sulphite Screenings
Leather Board	Waste from Pulp Stones

THE CLAFLIN ENGINEERING CO.

Lancaster, Ohio

The Canadian Fairbanks-Morse Co., Montreal, Quebec
Agents for Dominion of Canada

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TRADE MARK REG. U.S. PAT. OFF.

NEWS BLUE

METHYL VIOLET

We supply a complete line of colors suitable for paper

THE WHITE TAR ANILINE CORP.

56 Vesey Street, New York

Works: Kearny, N. J.

Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, October 19, 1921.

The chemical market for the week has continued to be fairly active with small lots in good demand, and with prices tending to rise and fluctuate. Some uneasiness is apparent in the market because no one is certain just what the condition of affairs will be after the present seasonable improvement is over. Prices as a rule are being boosted in a feverish endeavor to get out from under and not be caught with large stocks purchased at high prices.

ALUM—Ammonia alum continues in fair demand with potash alum a close second. Orders are steady for the smaller lots and comparatively scarce for large quantities. The price of ammonia alum is from 3.50 to 3.75 cents a pound for the lump, 3.75 to 4.00 cents for the ground, and 4.00 to 5.25 cents for the powdered.

BLEACHING POWDER—A fairly constant demand for bleach continues, while the prices for the domestic product range around 2.25 to 3.00 cents a pound depending on quantity, and for the foreign bleach at from 2.00 to 2.25 cents a pound.

BLANC FIXE—The market for blanc fixe is moderately strong. Orders continue to come from the paper mills in sufficient numbers to show that their interest is increasing. The quotation on pulp is again \$40 to \$50 a ton depending on the grade required, and the powdered also remains at from 3.50 to 3.75 cents a pound.

BRIMSTONE—Orders for small quantities of this commodity have been in vogue during the past week, for dealers and manufacturers report few if any sales of large quantities. The price seems to be in equilibrium, remaining at \$15 to \$16 a long ton at the mines.

CASEIN—No casein has come to America from France for some time due to the irregular conditions which would place the price on the Parisian product way out of sight should any arrive here. A small amount has come from South America although the Argentine flush has not yet begun. Prices are rising and little casein is being sold at present. The demand will undoubtedly be appreciably larger when the Argentine flush commences. The price is at 8.00 to 9.00 cents a pound.

CAUSTIC SODA—The demand for caustic soda remains good and the prices firm at 3.25 cents a pound on the basis of 60 per cent.

ROSIN—The tendency is upward with a welcome in the rosin market. The soap and paper industries continue to buy heavily while the prices fluctuate to a marked degree. The prices are a bit lower this week with grade E selling at \$5.60, F at \$5.65, and G at \$5.90, all ex. yard New York.

SALTCAKE—The chemical plants are providing a plentiful supply of saltcake which is well taken care of by a renewed demand from the glass trade. Saltcake still sells at from \$17 to \$25.

SATIN WHITE—Satin white is showing a firmer tone with prices remaining at or near 2.10 cents a pound.

STARCH—The demand for Globe starch has improved this last week and slightly higher prices are to be expected. It is now quoted at \$1.78 a bag and \$2.06.

SULPHATE OF ALUMINA—The paper industry is buying an average amount of sulphate of alumina with prices firm as follows: commercial grade at 1.60 to 2.00 cents a pound and iron free grade at 2.50 to 3.00 cents a pound.

SODA ASH—There is little reason to believe that the prices of soda ash will increase for several weeks at the least. It now sells at from 2.20 to 2.50 for the domestic, and at from 1.85 to 1.95 for the imported.

TALC—The talc market is quiet, but improving slowly, while a good feeling exists through the trade. The price ranges nominally from \$14 to \$18 a ton.

Market Quotations

(Continued from page 59)

Solid Ledger Stock. 2.00 @ 2.25	New Black Soft. .03 @ .03 1/4
Writing Paper... 1.80 @ 2.00	New Light Sec-onds02 1/4 @ .02 1/4
No. 1 Books, heavy. 1.50 @ 1.75	Khaki Cuttings.. .03 @ .03 1/4
No. 2 Books, light. 1.25 @ 1.50	Corduroy02 @ .02 1/4
No. 1 New Manila. 2.75 @ 3.00	New Canvas.08 @ .08 1/4
No. 1 Old Manila. 1.50 @ 1.75	New Black Mixed 3.00 @ 3.25
Container Manila. .90 @ 1.00	Old
Old Kraft.2.00 @ 2.25	White, No. 1—
Overissue News.90 @ 1.00	Repacked06 @ .06 1/4
Old Newspaper.60 @ .70	Miscellaneous04 1/4 @ .04 1/4
No. 1 Mixed Paper. .50 @ .60	White, No. 2—
Common Paper.40 @ .50	Repacked03 @ .03 1/4
Straw Board, Chip. .40 @ .50	Miscellaneous02 1/4 @ .02 1/4
Binders' Bd. Chip. .40 @ .50	Thirds and Blues—
Domestic Rags—New.	Repacked1.85 @ 2.00
Price to Mill, f. o. b. Phila.	Miscellaneous1.55 @ 1.75
Shirt Cuttings—	Black stockings.1.75 @ 2.25
New White, No. 1 .09 @ .09 1/4	Roofing Stock—
New White, No. 2 .05 1/2 @ .06	No. 1.90 @ 1.00
Silesias, No. 1. .05 3/4 @ .06	No. 2.80 @ .90
New unbleached. .08 @ .09	No. 3.70 @ .80
Washables03 1/4 @ .03 3/4	No. 4.75 @ .85
Fancy05 @ .05 1/2	No. 5A.nominal
Cottons—according to grades—	B.nominal
Blue Overall.05 @ .05 1/2	C.nominal
New Blue.02 1/4 @ .02 3/4	

BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

Paper	Wood, Vat Lined. .47.50 @ 50.00
Bonds08 1/4 @	Filled News Board. 42.50 @ 42.50
Ledgers09 @	Solid News Board. 42.50 @ 47.50
Writings08 1/4 @	S. Manila Chip.55.00 @
Superfine15 @	Pat. Coated.75.00 @
Fine.12 @	
Books, S. & S. C. .07 1/4 @	Old Papers
Books, M. F.07 @	Shavings—
Books, coated09 @	No. 1 Hard White .03 1/4 @
Label10 @	No. 1 Soft White .03 @
News, sheets.4.50 @	No. 1 Mixed.85 @ \$1.00
News, rolls.04 @	Ledgers & Writings .02 @
Manilas—	Solid Books01 1/4 @
No. 1 Manila.7.00 @	Blanks01 1/4 @
No. 1 Fibre.8.00 @	No. 2 Books Light .80 @
No. 1 Jute.8.00 @	No. 1 Manila.01 @
Kraft Wrapping.7.00 @	Folded News, over issues18.00 @
Common Bogus.3.00 @	Mixed paper.9.00 @
	Gunny Bagging01 @
Boards	Manila Rope04 1/4 @
(Per Ton Destination)	Common Paper.8.00 @
Chip40.00 @	Old News.13.00 @
News, Vat Lined.42.50 @	Old Kraft.02 1/4 @

TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

Paper	Sulphite bleached.90.00 @ 95.00
(Mill Prices to Jobbers f. o. b. Mill)	Sulphate60.00 @ 65.00
Bond—	Old Waste Papers
Sulphite13 @ —	(In carload lots, f. o. b. Toronto)
Light tinted14 @ —	Shavings—
Dark tinted15 1/4 @ —	White Env. Cut. 3.00 @
Ledgers14 @ —	Soft White Book2.80 @
Writing11 @ 15	Shavings2.80 @
News, f. o. b. Mills—	White Blk News 1.90 @
Rolls (carloads). 4.00 @ —	Book and Ledger—
Sheets (2 tons or over)4.85 @ —	Flat Magazine and Book Stock (old)1.15 @ —
Book—	Light and Crumpled Book Stock .90 @ —
No. 1 M. F. (carloads)10.00 @ —	Ledgers and Writings1.60 @ —
No. 2 M. F. (carloads)9.00 @ —	Solid Ledgers1.60 @ —
No. 3 M. F. (carloads)8.50 @ —	Manilas—
No. 1 S. C. (carloads)10.50 @ —	New Manila Cut. 1.85 @ —
No. 2 S. C. (carloads)9.50 @ —	Printed Manilas. .70 @ —
No. 1 Coated and litho.15.00 @ —	Kraft2.25 @ —
No. 2 Coated and litho.14.00 @ —	News and Scrap—
No. 3 Coated and litho.13.25 @ —	Strictly Overissue .85 @ —
Coated and litho., colored15.25 @ —	Folded News.90 @
Wrapping—	No. 1 Mixed Papers60 @
Grey4.75 @ —	Domestic Rags—
White Wrap.5.25 @ —	Price to mills, f. o. b. Toronto. Per lb.
"B" Manila.5.75 @ —	No. 1 White shirt cuttings08 1/4 @ .08 3/4
No. 1 Manila.7.50 @ —	No. 2 White shirt cuttings05 1/4 @ .05 3/4
Fibre7.25 @ —	Fancy shirt cuttings05 1/4 @ .05 3/4
Kraft, M. F. or M. G.8.75 @ —	No. 1 Old whites .03 1/4 @ .04
	Thirds and blues .02 @ .02 1/4
Pulp	Per cwt.
(F. o. b. Mill)	Black stockings. 2.00 @ —
Ground Wood.30.00 @ 40.00	Roofing stock
Sulphite, easy bleaching70.00 @ 75.00	No. 1.1.20 @
Sulphite, news grade.60.00 @ 65.00	No. 2.1.10 @
	Roofing stock
	Manila rope04 @ —
	No. 201 1/4 @ —
	Gunny bagging02 1/4 @ —

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Bag Vouches for
Its Good Quality

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White and Tinted Bristols—White
Blanks—Index Bristol and Special-
ties in Card Boards.

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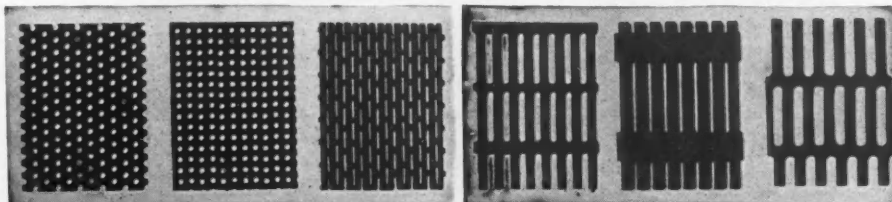
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For Centrifugal and Rotary Screens, Drainer Bottoms, Filter Plates, Pulp Washers, etc.

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WANT AND FOR SALE ADVERTISEMENTS

CLASSIFIED RATES

Minimum rate for advertisements of 25 words or less, first insertion, \$1.00.
SITUATION WANTED, 4 cents a word for first insertion and 2 cents a word for each subsequent insertion of same ad. No ad of less than 25 words accepted.

HELP AND MISCELLANEOUS WANTS, and small **For Sale Ads**, 4 cents a word for each and every insertion. No ads of less than 25 words accepted.

When answering advertisements, please address the Box Number given in ad.

Answers can be forwarded care Paper Trade Journal, and will be promptly forwarded without extra charge. All should be sent to the New York office, 10 East 39th street. And all should be addressed as the advertisement directs in every case and not simply to the paper.

All classified ads for the current issue must be in hand not later than Monday preceding date of publication.

HELP WANTED

WANTED—Color and Dyestuff Salesman for Middle West by an old established manufacturing and importing concern, to call on the manufacturing trade. Liberal compensation to a successful party. State previous experience, references, age and salary expected. Address, Box 4418, care Paper Trade Journal. O-27

WANTED—Superintendent. Experienced on Container and Combination Boards. Must be first class in mill construction and maintenance. Be able to handle help and get results. Central territory, large mill. Good opportunity for right man. Address, Box 4481, care Paper Trade Journal. O-20

WANTED—Night Superintendent. Box-board mill in Middle West. Must understand container and combination boards and be able to handle help. Good position for right man. Address, Box 4482, care Paper Trade Journal. O-20

COAL SALE AGENTS—A Coal Company with a large bituminous tonnage desires agents in various localities to sell coal to manufacturers and others on a commission basis. Send references. Address, Box 4485, care Paper Trade Journal. O-20

EXPERIENCED MACHINE TENDER **WANTED** on Cylinder Machine making Box Board. State experience and salary expected. Good job. Steady work. Address, Box 4518, care Paper Trade Journal. N-3.

WANTED—Practical Superintendent for Box Board Mill. Must be first class man and get results. State age, salary and all details in first letter. Address, Box 4536, care Paper Trade Journal. O-20.

Wanted A Real Salesman

One of the best known concerns in the country offers a genuine opportunity to a live-wire salesman who can get more than his share of the business in his field—and then dig up new markets.

He must be able to point to a commendable selling record, have a convincing personality and be a conscientious worker. Previous experience in paper manufacturing industry will help him, but is not necessary.

To the right man this job will be a stepping-stone to bigger opportunities with us.

If you have not been earning at least \$7,500 per year do not apply. If you have, write us about your experience, naming salary desired. Your letter will be kept in strict confidence.

Address Box 4533, care Paper Trade Journal

HELP WANTED

WANTED—Super-Calendar men on Book Paper. Steady work. Newton Falls Paper Company, Newton Falls, N. Y. O-20.

WANTED—Salesmen, Coarse Paper, Twine, etc., by new firm. New York Jobber, field unlimited. On commission basis. A good opportunity for right party to grow up with. Communications strictly confidential. Address, Box 4537, care Paper Trade Journal. O-27.

SALESMEN—Thoroughly familiar with Waxed Paper Lunch Rolls, as well as printed and plain Waxed Papers. All territories open. Commission basis only. Address, Box 4538, care Paper Trade Journal. O-20.

WANTED—Experienced salesman covering New York State, Wrapping and Printing Papers. To the right man a drawing account will be paid, and a worth-while future assured. Address, Box 4539, care Paper Trade Journal. O-20.

WANTED—Energetic Salesman to sell Paper on commission basis. Splendid opportunity for right man. Call Room 604. 261 Broadway, New York City. O-20.

WANTED—Two Machine Tenders, experienced in making Saturing and Deadenng Felt. Give full particulars. Address, Box 4549, care Paper Trade Journal. O-27.

WANTED—Night Boss for small Mill making Chip and Box Board. Address, Box 4550, care Paper Trade Journal. O-20.

SWEDISH PAPER AND PULP

Leading exporter in Sweden desires to make arrangements with one or more reliable Agents with good connections among buyers of Swedish paper and pulp in the United States.

Reply to: Swedish Chamber of Commerce, Produce Exchange, New York

PAPER SALESMAN

Large New York Paper House seeks energetic young man, having thorough knowledge of all grades of paper, sources of supply, jobbers, and large consumers. An excellent opportunity for the right man. State age, experience in detail, and remuneration desired. Address, Box 4534, care Paper Trade Journal. O-20

SITUATIONS WANTED

SUPERINTENDENT desires position. 20 years' experience on all grades of Combination and Container Board familiar with repairs, maintenance and operation of every department. Knows how to get quality and production. Can furnish the very best of references. Address, Box 4347, care Paper Trade Journal. tf

SITUATIONS WANTED

PAPER SALESMAN, New York City, wants connection with Mill Agency Company. Can produce large amount of business, with right kind of cooperation. Drawing account on commission basis. Correspondence invited with responsible agencies. Address, Box 4503, care Paper Trade Journal. tf.

MASTER MECHANIC desires position. Expert Construction, Reconstruction, Installing Equipment and Economical Maintenance. Ground Wood and Sulphite from the log to finished product. Fourdrinier machines making Book, Bond, News and Specialties. Cylinder Machines making Board, Bristol and Tissue Specialties, using water, steam and electric power. Address, Box 4425, care Paper Trade Journal. D-22.

POSITION WANTED—By Superintendent of 20 years' experience in mill making news, Manillas, Water and Dry Finish Fibres, Sulphite and Sulphate Test Papers. Good organizer and executive. Best of references furnished. Address, Box 4461, care Paper Trade Journal. O-27.

PAPER MILL SUPERINTENDENT, with long practical experience on Roofing Felt, would like to change position. Thoroughly understands repairs, construction and rebuilding. Address, Box 4492, care Paper Trade Journal. O-20

MECHANICAL ENGINEER AND DRAFTSMAN desires position; 14 years' experience in designing, erecting, planning, estimating, traveling and efficiency engineering. Pulp and Paper Mill. At present employed. Address, Box 4519, care Paper Trade Journal. O-27.

MACHINE TENDER of wide experience is looking for position in Paper Mill where production, quality and economy is required. Experienced on Tag, Box Board, Rope Paper, Roofing and Specialties. Address, Box 4520, care Paper Trade Journal. O-27.

SITUATION WANTED—Cylinder Machine Tender desires position. First class man, married. 12 years' experience on Crepe and Tissue. Can furnish best references. Address, Box 4521, care Paper Trade Journal. O-20.

YOUNG MAN; 25, ambitious, who has been in the Coarse and Fine Paper Trade for the last five years would like to make connection with reliable firm where there is a possibility for good future. Has worked in the capacity of Correspondent, Office Man and Salesman. Also familiar with practically all grades of Paper, Boards, etc. Address, Box 4522, care Paper Trade Journal. tf

A BOND, WRITING AND LEDGER SUPERINTENDENT desires position as Superintendent of a Mill. Have had twenty-seven years' experience in Bond and Writings Mills and have had full charge as Superintendent for the last 10 years. Can furnish best of references. Address, Box 4528, care Paper Trade Journal. O-20.

SUPERINTENDENT; now employed, would like to make change. Understands thoroughly the Cylinder Machines. Making high grade Box Board. Tests, Containers, and Fourdrinier specialties. Good on Construction, repairs and installations of all kinds of machinery connected with Paper Mills. Can give best of references as to my ability to get production, organize and handle help. Address, Box 4529, care Paper Trade Journal. O-20

THOROUGH SUPERINTENDENT desires position, experienced on tissues, all grades Crepe, Semi-Crepe, Toilet, Towels, Napkins, Fourdrinier and Cylinder Machines. High grade man on Kraft and Kraft Specialties, Waxing Tissues, plain and colored, Twisting Fibres. A-1 on Colors. Thoroughly understand the conversion of Waxing Tissues and Colored Crepe Papers. Good organizer. References furnished. Address, Box 4431, care Paper Trade Journal. N-3.

SITUATIONS WANTED

PRACTICAL SUPERINTENDENT, desires position. 20 years' experience on Asbestos Papers, Felts, Building Papers and Combination Boards. Familiar with repairs, maintenance and operation of every department. Middle-aged, married man. Have family. Can furnish the very best of references. Address, Box 4530, care Paper Trade Journal O-20

WANTED—Position as General Superintendent or Superintendent, by a practical Pulp and Paper Maker who has been very successful in handling help and getting results. Am at present engaged as General Superintendent in a four machine Mill, also Sulphite and Ground Wood. Fast running News, Bag and Specialties. Address, Box 4540, care Paper Trade Journal. O-20.

SITUATION WANTED—Swedish Chemical Engineer, graduated from University and with two years' experience as Sulphite Engineer in Sweden, desires position as Chemist. Address, Box 4541, care Paper Trade Journal. O-27.

WANTED—Position as Paper Mill representative or Mill Salesman in New York City. Have had fifteen years' experience as manufacturer and jobber. Familiar with practically all lines of paper. Address, Box 4551, care Paper Trade Journal. O-27.

FOR SALE

FOURDRINER PART—One 90" P & J Fourdriner part with Millsaugh suction couch roll and pump, 40 ft. wire.

JORDANS—Several Horne and Emerson on way to our works. One Noble & Wood; two No. 1 Clafins.

KOLLERGANGS—One kollergang; size of stone 56" x 15" face.

PULLEYS—One 97" dia. x 34", double arm, modern pulley. Large cone pulleys. Large stock of iron pulleys, including some cone pulleys for Marshall drives. New wood pulleys with friction clutches. Also steel pulleys.

PUMPS—One dry suction, single vacuum, 12 x 22 x 18 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. Six rolls about 15" x 98" just received. Some brass and some rubber covered.

ROTARIES—Two 84" x 22" horizontal.

REELS—One two-bowl 58" face. Several new ones going through works. State which you desire.

RAG CUTTERS—One Daniels No. 2; one Taylor & Stiles.

SLITTERS—Two Dietz Slitters.

SCREENS—One 10-plate open side Packer with plates; one 12-plate open side Packer with practically new plates. Three Ruth centrifugal.

WINDERS—One 80" single drum P & J make; one 100" double drum, P & J make.

Advise us of your wants.

MILLS MACHINE COMPANY
LAWRENCE, MASS.

SITUATIONS WANTED

SITUATION WANTED—Paper Salesman with an experience of 19 years in the Importing and Exporting of Paper, well acquainted with every domestic and imported grade of paper and its sources of supply in this and European countries, and at present employed, desires to make a connection with a first class Mill or Jobbing House. Can furnish highest references from his customers and present employer. Thoroughly acquainted with all grades of Paper including Box makers' papers and imported paper mill machinery. Can speak English and German fluently and have a working knowledge of French and Spanish. Address, Box 4542, care Paper Trade Journal. O-20.

MISCELLANEOUS

WILL PURCHASE FOR CASH, small, one Machine Mill, preferably Fourdriner, within three hundred miles of New York. Must be in good condition. Send full particulars to Manitou Paper Co., Inc., Broadway, 73rd St. and Amsterdam Ave., New York City.

WANTED—2 3-Pocket Grinders, 54" diameter. Ring Oiling. 2 Stone Sharpening Devices. 2 6" Centrifugal Stock Pumps. 1 Pressure Filter, capacity 500,000 gallons, 24 hours. 1 60 lb. Pressure Pump, direct connection to motor, 200 gallons minute, 3 phase, 60 cycle, 600 volts. Address, Box 4544, care Paper Trade Journal. O-27.

WANTED—One Boiler about 60" x 16' for heating; one iron stack about 30" x 60'; two Barkers with Lombard attachment; one small Barker knife grinder for small Mill. One to take single knife will do. Address, Box 4545, care Paper Trade Journal. O-20.

WANTED—Three Beaters, preferably iron tub, capacity 1,000 lbs., to 1,500 lbs., double lighter construction without washing cylinders. Also three Jordans, about 20 tons capacity each. Address, Box 4546, care Paper Trade Journal. O-27.

WANTED TO BUY—A quantity of Paper Machine Dryers approximately 36" diameter, 68 1/2" length. Advise what you have to offer, giving full details. Address, Box 4547, care Paper Trade Journal. O-20.

CONDITIONS SURROUNDING present ownership of most modern Kraft Pulp Mill of large capacity in splendid financial shape and favored with great advantages over any other Mill manufacturing Kraft Pulp on this continent. Make sale of property desirable. Will deal direct only. Address, Box 4543, care Paper Trade Journal. O-20.

FOR SALE

FOR SALE—14 Calendar Rolls, 55" face, 8' to 16" diameter. 2 No. 1 Clafin Engines. 1 small Jordan Engine. 1 6" Horizontal Water Pump. 2 Air Fans. 5 Dryers, 48" diameter and 120" face, complete with frames and gears. Complete triple-deck frames for 44 Dryers. Will arrange terms to suit. Chesapeake Paper Board Co., Baltimore, Maryland. O-20.

FOR SALE

FOR SALE—Roofing and Saturating Machines, 72"x36" wide. Chilled steel rolls. Also Painter Mixing Machine, Grinders, etc. Address Box 4310, care Paper Trade Journal. O-20.

FOR SALE—9 Dryers, 28" x 52", complete with frames, felt and rolls, gears, two cone pulleys and steam connections. Address, Box 4386, care Paper Trade Journal. O-20.

FOR SALE—One 600 H.P. Sarge-Cochrane Hot Water Softener, capacity 2,000 gallons per hour, complete with chemical solution tank, feed apparatus, filter, etc. Address, Draycott Mills, Inc., Fulton, New York. O-20.

FOR SALE—Two Hoffman Couch Rolls, seventy-eight inches in diameter, need recovering. Address, Box 4548, care Paper Trade Journal. N-10.

COAL—Moshannon and "E Seam" bituminous coals, low sulphur, low ash. Lowest freight rate east and north. \$2.35 net ton, f. o. b. mines. Halden-Kelley Coal Company, 209 Market St., Clearfield, Pa. O-20.

Rebuilt Paper Mill Machinery
-In Stock and Guaranteed
Not Where Is and As Is

FOURDRINER PAPER MACHINE: One 112", one 96", one 72".

FOURDRINER PARTS: Pusey & Jones 137", 113", 112", 100".

PRESS PARTS FOR PAPER MACHINES: Pusey & Jones Bell Crank housing two sets 18" x 114", three sets 18" x 110", two sets 18" x 96", Black & Clawson Swing Arm housings with rolls.

DRYERS: Four 48" x 111", sixteen 48" x 106", ten 48" x 68", one 84" x 67".

MARSHALL DRIVES: 8 Black & Clawson self-contained stand with friction clutch cone pulley and 6" x 7" mortise gears. Mortise gears and pinions for Pusey & Jones Marshall drives 5" to 8" face.

CHILLED CALENDERS: One 66" face, five roll; one 41" face, five roll.

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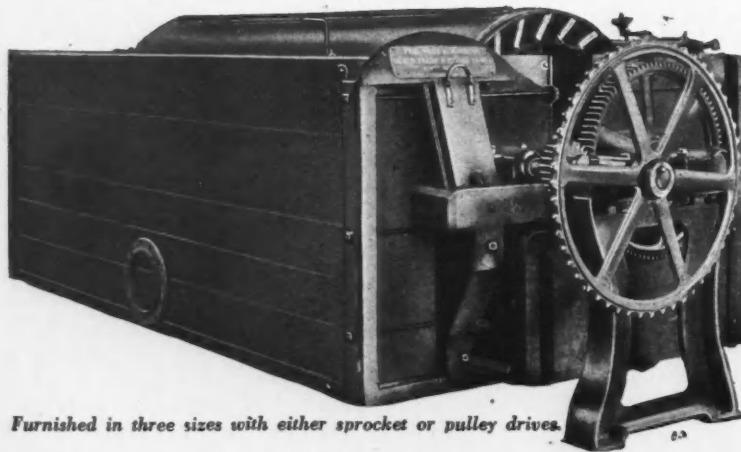
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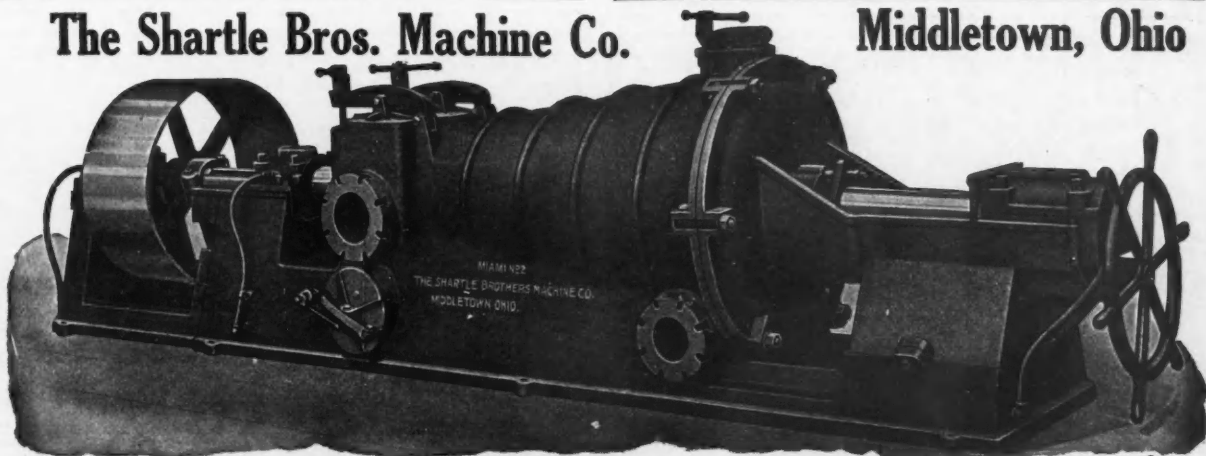
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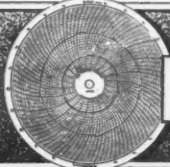
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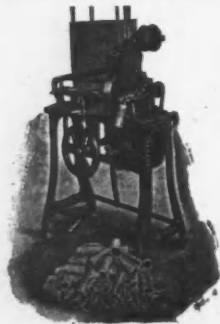
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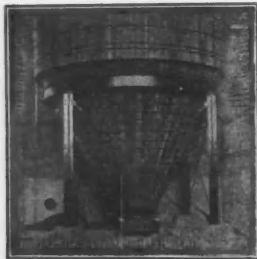
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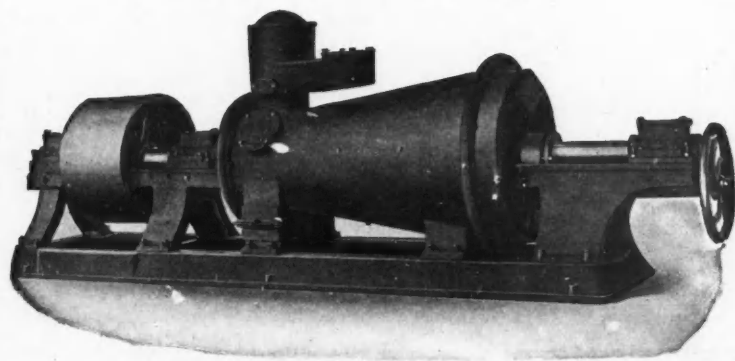
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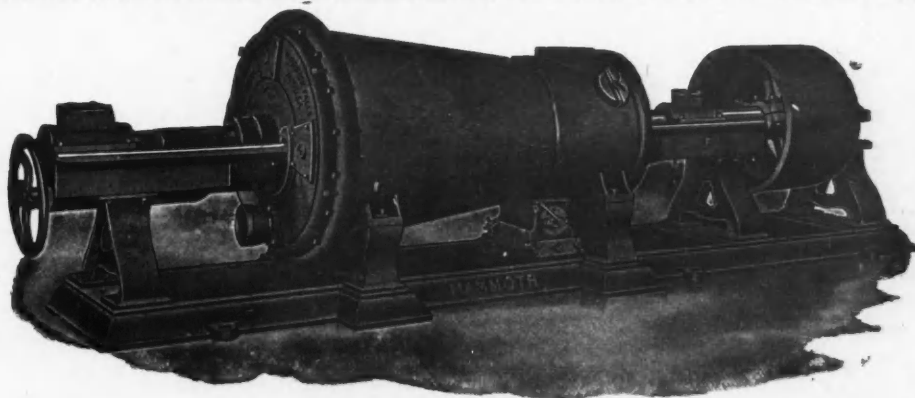
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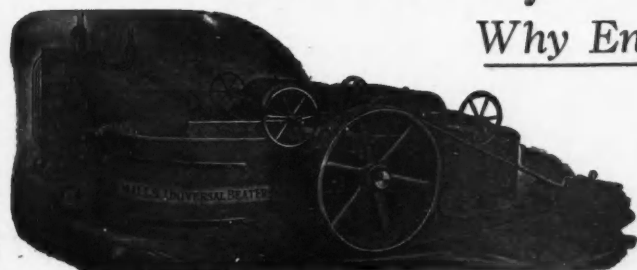


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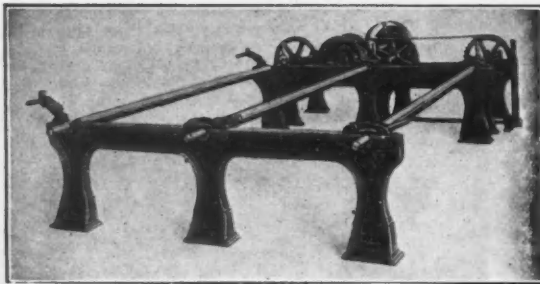
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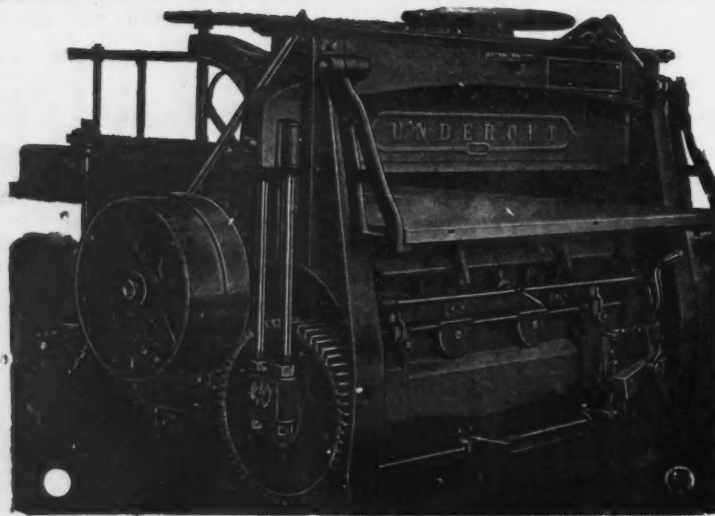
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