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PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY
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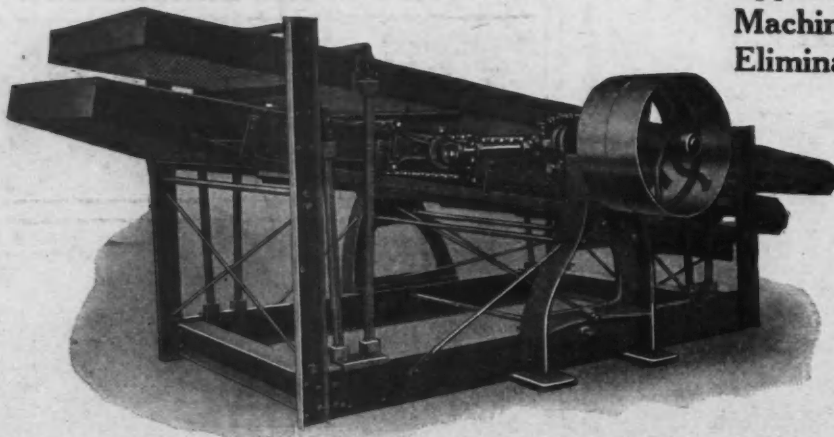
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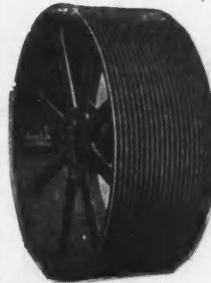
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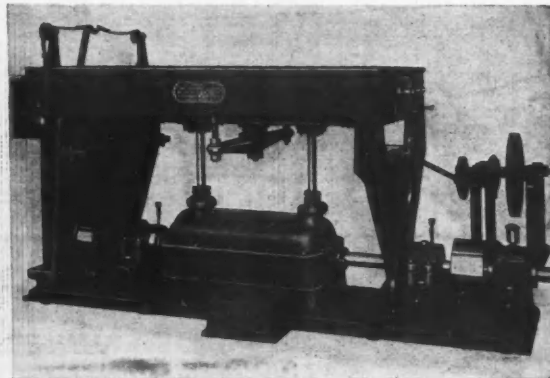
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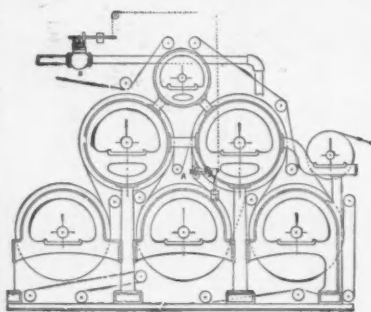
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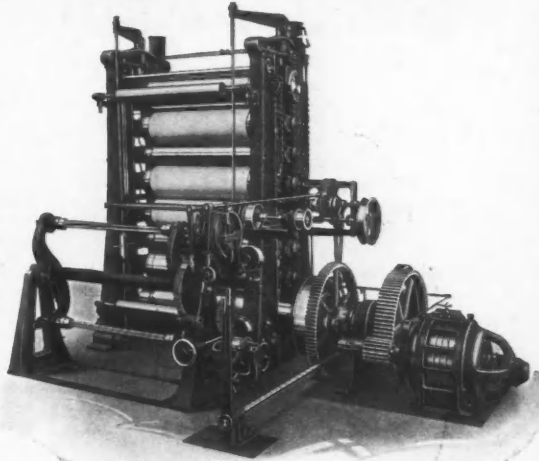
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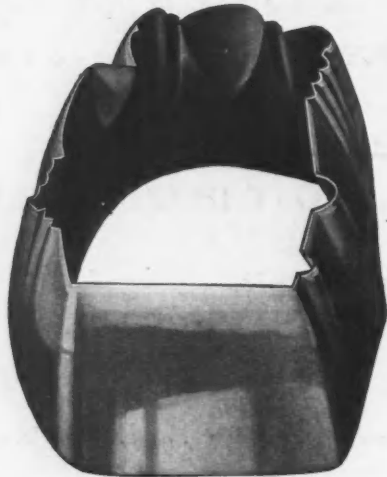
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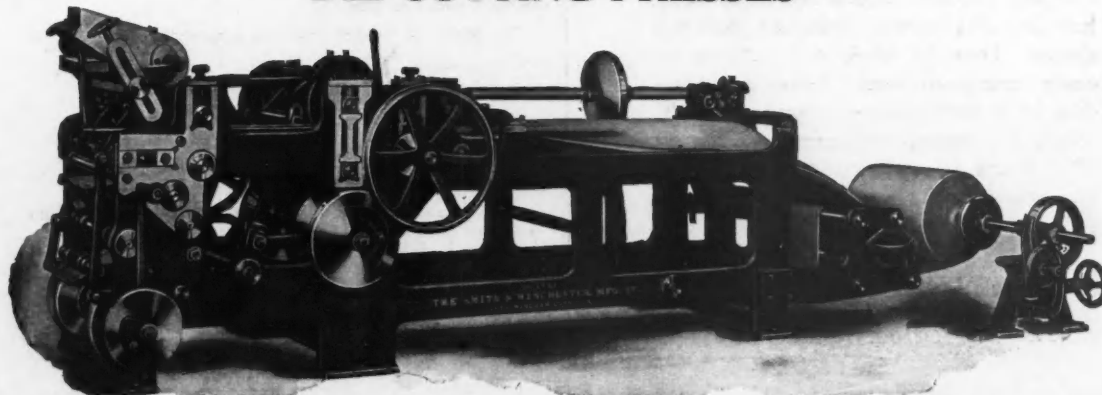
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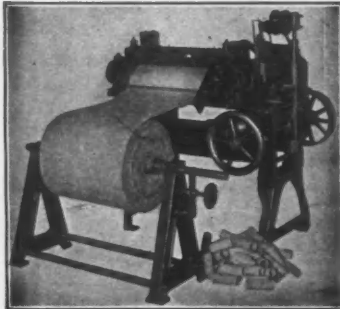
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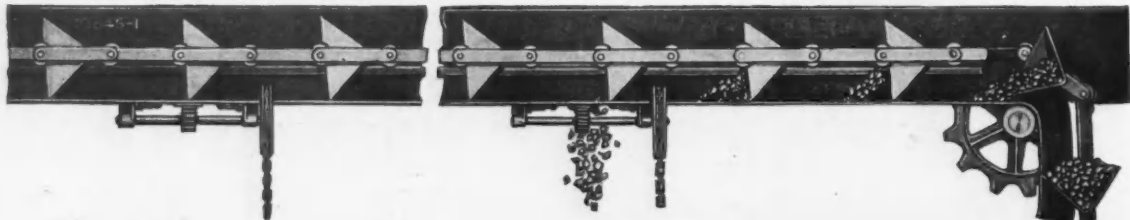
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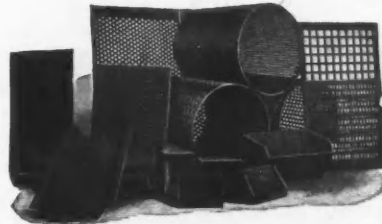
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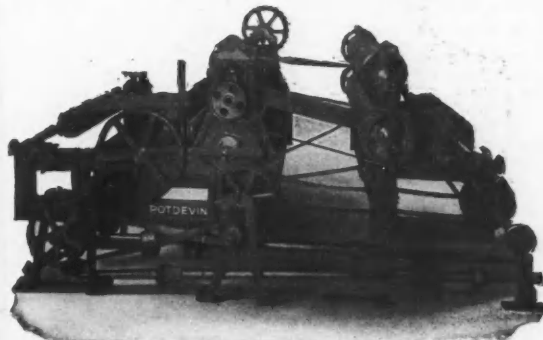
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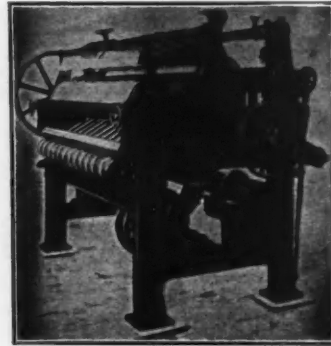
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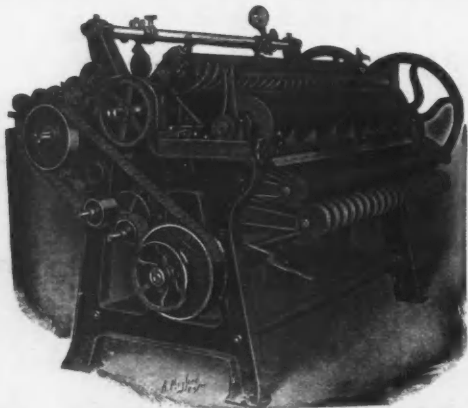


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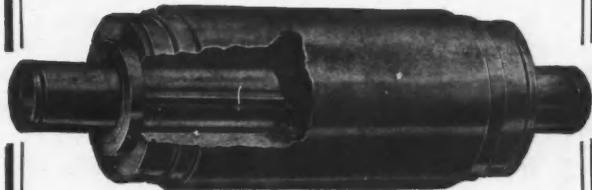


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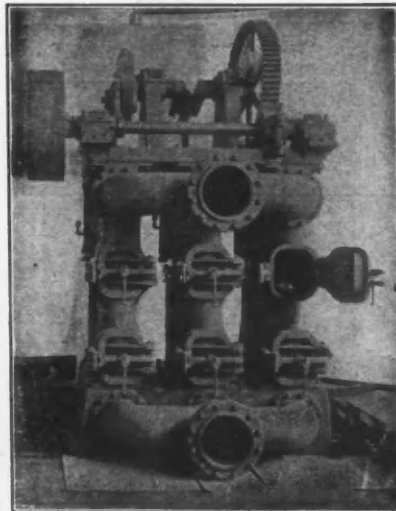
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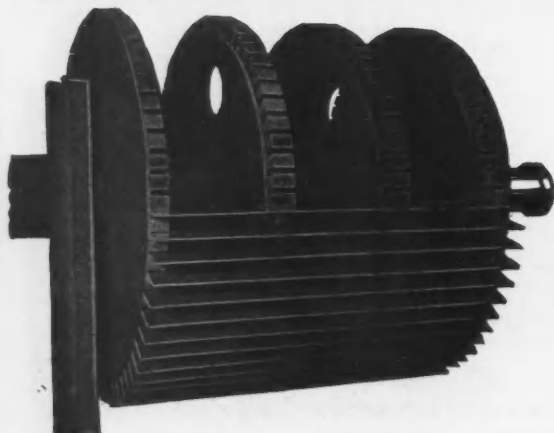
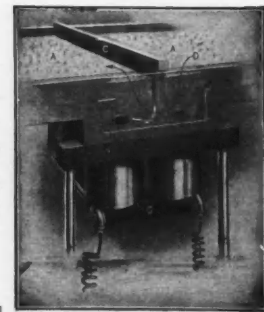
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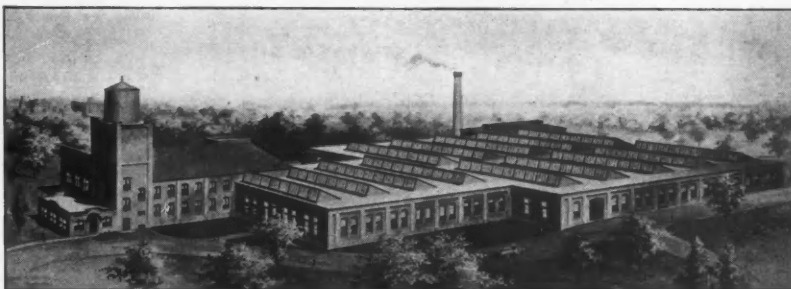
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NEW YORK AND CHICAGO

Thursday, December 7, 1922

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PRODUCTION OF NEWS PRINT FOR THE MONTH OF OCTOBER

According to Statistics Just Issued by the Federal Trade Commission the Production of News Print for October, 1922, as Compared With October, 1921, Shows an Increase Amounting to 28 Per Cent. for Both Total News Print and Standard News—The Average Price of Contract Deliveries Paid by the Publishers During October Was \$3,605 Per 100 Pounds.

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., December 6, 1922.—The following is a tabulation of the reports received by the Federal Trade Commission from domestic manufacturers of news print paper, from jobbers buying and selling news print paper, and from publishers using news print paper. Import and export statistics of the Department of Commerce are also included in the review. Whenever possible the figures for 1922 are compared with those for the corresponding period of 1921, 1920, 1919 and 1918.

The figures which follow show the results of the commission's tabulation for October, 1918 to 1922, inclusive.

	No. of mills	Stocks on hand 1st of period Net tons	Production Net tons	Shipments Net tons	Stocks on hand end of period Net tons
Total News Print:					
October, 1922	85	18,810	130,682	129,747	19,745
October, 1921	86	30,241	101,884	109,110	23,015
October, 1920	81	24,593	124,818	126,815	22,596
October, 1919	76	18,331	125,216	127,447	16,100
October, 1918	64	20,323	105,169	104,760	20,732
Total (10 mos.) 1922	..	23,934	1,200,301	1,204,490	19,745
Total (10 mos.) 1921	..	24,763	1,012,754	1,014,502	23,015
Total (10 mos.) 1920	..	15,369	1,264,118	1,256,891	22,596
Total (10 mos.) 1919	..	19,408	1,135,133	1,138,441	16,100
Total (10 mos.) 1918	..	31,713	1,057,947	1,068,928	20,732
Standard News (Included in total News Print):					
October, 1922	68	14,687	119,984	119,203	15,468
October, 1921	67	25,241	93,489	100,503	18,227
October, 1920	67	21,804	114,232	116,385	19,651
October, 1919	55	14,343	110,902	112,599	12,646
October, 1918	50	15,653	94,330	93,252	16,731
Total (10 mos.) 1922	..	19,607	1,114,065	1,118,204	15,468
Total (10 mos.) 1921	..	19,616	930,942	932,331	18,227
Total (10 mos.) 1920	..	12,338	1,157,888	1,150,575	19,651
Total (10 mos.) 1919	..	15,656	1,021,654	1,024,664	12,646
Total (10 mos.) 1918	..	26,482	958,918	960,669	16,731

Note—Above figures for total news print do not include hanging paper.

The average production of total news print and standard news, based upon the total combined production for the years 1917 to 1921, inclusive, amounted to 114,400 tons for total news print and 103,688 tons for standard news, for a period corresponding to October. The actual production for October, 1922, amounted to 130,682 tons of total news print and 119,984 tons of standard news, which for total news print was 14 per cent above the average for the five year period and for standard news 16 per cent above the average.

The production of news print for October, 1922, compared with October, 1921, shows an increase amounting to 28 per cent for both total news print and standard news.

The production for October, 1922, compared with October, 1920, shows an increase of 5 per cent for both total news print and standard news.

The production for October, 1922, compared with 1919 shows an increase of 4 per cent for total news print and 8 per cent for standard news.

The production for October, 1922, compared with October, 1918, shows an increase of 24 per cent for total news print and 27 per cent for standard news.

Mill stocks of both total news print and standard news increased during October, 1922.

Loss of Production

The following tabulation shows idle machine time reported to the commission for the month of October, 1922. This does not include mills shut down during the entire month.

Reasons	No. of Machines	Hours Idle
Lack of orders	0	0
Repairs	5	720
Other reasons	12	733

Imports and Exports

The imports and exports of printing paper not dutiable (practically all news print) and of wood pulp for the month of September, 1922, compared with the month of September, 1921, as shown by the records of the Department of Commerce, were as follows:

	September, 1922 Net tons	September, 1921 Net tons
Imports of news print (total)	66,570	72,004
From Canada	56,114	57,520
Germany	2,057	4,920
Sweden	5,990	5,791
Finland	2,178	2,490
Other countries	231	1,283
Exports of news print (total)	2,299	1,111
To Mexico	68	54
Japan	89	0
Cuba	865	721
Colombia	90	15
Philippine Islands	119	191
Central America	54	56
Argentina	847	0
Other countries	167	74
Imports of ground wood pulp (total)	19,153	29,630
Imports of chemical wood pulp (total)	71,748	43,493
Unbleached sulphite	34,797	21,980
Bleached sulphite	15,544	5,575
Unbleached sulphate	20,458	15,882
Bleached sulphate	949	56
Exports of domestic wood pulp	1,952	3,295

The imports of news print for September, 1922, were 5,434 tons less than for September, 1921. The exports for September, 1922, were 1,188 tons more than for September, 1921.

The tonnage to "other countries" under "Exports of News Print" for September, 1922, includes 22 tons to Peru, 25 tons to China, 26 tons to United Kingdom, and 33 tons to Canada.

Jobbers' Tonnage

The following tabulation shows the news print tonnage reported by jobbers during the month of October, 1922, compared with October, 1921, 1920, 1919 and 1918, together with commitments to buy and sell.

	On hand first of month Net tons	Received during month Net tons	Shipped during month Net tons	On Hand end of month Net tons	Commitments to buy Net tons	Commitments to sell Net tons
Rolls, October, 1922	1,890	11,698	11,725	1,863	17,407	17,850
Rolls, October, 1921	2,073	7,194	6,874	2,393	32,913	31,894
Rolls, October, 1920	3,370	6,167	6,255	3,282	29,831	30,501
Rolls, October, 1919	2,549	5,312	6,206	1,655	28,905	34,576
Rolls, October, 1918	3,140	2,907	3,270	2,773	21,800	24,769
Sheets, October, 1922	4,365	3,541	2,953	4,953	2,635	1,183
Sheets, October, 1921	3,412	3,304	3,649	3,067	11,145	2,892
Sheets, October, 1920	4,523	3,001	2,678	5,146	2,871	2,065
Sheets, October, 1919	5,711	3,728	4,303	5,136	3,621	1,987
Sheets, October, 1918	6,754	3,014	3,222	6,546	4,366	3,725
Total News Print:						
October, 1922	6,255	15,239	14,678	6,816	20,042	19,033
October, 1921	5,485	10,498	10,523	5,460	44,058	34,786
October, 1920	8,193	9,168	8,933	8,428	32,802	32,566
October, 1919	8,260	9,040	10,509	6,791	32,526	36,563
October, 1918	9,894	5,917	6,492	9,319	26,166	28,494

Stocks of rolls in the hands of jobbers at the end of October, were 27 tons less than the stocks in the hands of the same jobbers at the beginning of the month.

Stocks of sheets were 588 tons greater at the end of October than at the beginning of the month. The net increase in the total stocks of news print in the hands of jobbers at the end of October amounted to 561 tons.

Commitments to sell roll news were 443 tons greater than commit-

ments to buy. Commitments to sell sheet news were 1,452 tons less than commitments to buy. Total commitments to sell both rolls and sheets were 1,009 tons less than commitments to buy.

Publishers' Tonnage

Monthly tonnage reports from 693 (a) of the most important newspaper publishing concerns and associations grouped according to the principal business sections of the United States, together with a separate tabulation for the agricultural publications, show the following results for October, 1922.

Location of publishers (b)	No. of concerns	On hand 1st of month (a) Net tons	Received during month Net tons	Used and sold during month Net tons	On hand end of month Net tons	In transit end of month Net tons
New England	80	20,392	16,510	18,306	18,596	2,524
Eastern States	179	59,860	65,583	71,108	54,335	18,498
Northern States	136	47,813	40,542	43,065	45,290	10,395
Southern States	82	12,097	11,260	11,793	11,564	4,025
Middle West	152	30,812	27,462	29,724	28,550	8,030
Pacific Coast	37	18,990	15,665	16,401	18,254	3,005
Farm papers (c)	27	3,848	876	2,034	2,690	488
Total	693	193,812	177,898	192,431	179,279	46,965

(a) This number represents a larger number of publications.

(b) *New England* includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont; the *Eastern States* include Delaware, the District of Columbia, Maryland, New Jersey, New York and Pennsylvania; the *Northern States* include Illinois, Indiana, Michigan and Ohio; the *Southern States* include Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia and West Virginia; the *Middle West* includes Arizona, Arkansas, Colorado, Idaho, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, Wisconsin and Wyoming; the *Pacific Coast* includes California, Oregon and Washington.

(c) The farm papers for the most part use special grades of news print instead of standard news.

Publishers' stocks decreased 14,533 tons during the month. Average daily tonnage used during October was 503 tons greater than the average used during September.

Publishers' stocks and transit tonnage on October 31, represented 37 days' supply at the existing rate of consumption.

Publishers' and Jobbers' total stocks and tonnage in transit on October 31, aggregated 233,060 tons.

The domestic consumption of standard news by metropolitan dailies using between one-half and three-fourths of a million tons annually for October, 1922, when compared with October, 1921, shows an increase of 19 per cent and an increase of 21 per cent when compared with October, 1920.

The above metropolitan dailies held about 59 per cent of the tonnage on hand at the end of the month.

Average Prices Paid by Publishers

The weighted average price of contract deliveries from domestic mills to publishers during October, 1922, f. o. b. mill, in car load lots, for standard news in rolls was \$3.605 per 100 pounds. This weighted average is based upon October deliveries of about 57,000 tons on contracts involving a total tonnage of approximately 293,000 tons of undelivered paper manufactured in the United States.

The weighted average contract price based on deliveries from Canadian mills of about 30,000 tons of standard roll news in car load lots, f. o. b. mill, in October, 1922, was \$3.499 per 100 pounds. This weighted average is based upon the October deliveries on contracts involving about 66,000 tons of undelivered Canadian paper.

The weighted average market price for October, of standard roll news in car load lots f. o. b. mill, based upon domestic purchases totaling about 7,000 tons, was \$3.789 per 100 pounds.

Halifax Paper Corp. Makes Record Run

[FROM OUR REGULAR CORRESPONDENT.]

ROANOKE RAPIDS, N. C., December 6, 1922.—The Halifax Paper Corporation, established a new record run of Kraft paper on its 102" machine, 90" trim, by producing 988 tons during the month of October.

This is an average of 38 tons per day and beats its former record of 900 tons made in August.

W. M. Osborne Goes With Newton Falls Paper Co.

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., December 4, 1922.—Wesley M. Osborne of Carthage has just been appointed chief chemist at the Newton Falls Paper Company plant to succeed Freeland J. Morrison who left to accept a similar position with the Hummel Ross Fibre Corporation of Hopewell, Va.

Mr. Osborne is recognized as a young man of high standing in the business and is well known among paper manufacturers in this section, having worked for several years in mills in this part of the state.

He has had the technical training as a chemical engineer, and his work in the Carthage Sulphite, Pulp & Paper Company plant gave him practical experience.

As assistant chemist in charge of laboratory and tests Mr. Osborne has been employed by the Newton Falls Paper Company for about two years and has done remarkably excellent research work along the lines of sulphite pulp manufacture and the de-inking of old paper stock. His most recent achievement was the invention of a de-fibering process whereby it is made possible to remove the ground wood fiber from old paper stock. The process has been patented by him and will be introduced to practice some time in the near future. It is regarded as a process that will reduce the cost of conversion of old paper stock and reclaim much stock that is now unfit for use in quality papers. He also has patented devices for bleaching and de-inking.

Mr. Osborne will continue his research work in connection with his new position.

J. E. Smith Buys Uncas Paper Co.

At the sale of the Uncas Paper Company's plant at Norwich, Conn., which cleans up the affairs of the Defunct Ironsides Board Corporation, J. E. Smith of Baltimore, Md., was the purchaser.

In an interview with Mr. Smith after the sale was made, he stated that immediate steps would be taken to get the mill into operation at once and that he felt sure that at least two of the machines would be running before the first of the year, producing the "Old Time" Uncas board. Mr. Smith also stated that he hoped to have affiliated with him in this mill F. W. and H. P. Browning both of whom were the organizers of the Uncas Paper Company. Mr. Smith further states that the mill will be put in first class condition to manufacture high grade manila lined and patent coated boards.

Mr. Smith is president and owns the controlling interest in two other mills, which are the Marley Paper Manufacturing Company at Childs, Md., and the Chesapeake Paper Board Company, at Baltimore, Md., and he also owns two paper box manufacturing establishments and a paper stock business, besides other interests. Undoubtedly with the new ownership, the success of the Norwich mill is assured.

Columbia Valley Paper Mill Burned

[FROM OUR REGULAR CORRESPONDENT.]

HUDSON, N. Y., December 4, 1922.—Fire, breaking out very mysteriously shortly after midnight November 25, destroyed the big paper mill plant and stock of the Columbia Valley Paper Company at Mellenville. The damage is over \$200,000.

The fire department of Philmont was called but on its arrival found the entire plant such a mass of flames that it was unable to save any of the buildings. The plant had not been operated in some time.

Fire on May 24, 1921 practically destroyed this mill while it was in full operation and its output in demand. The mill was rebuilt and new machinery installed when legal and financial difficulties appeared and litigation began. Because of this the mill was never operated again.

CONSOLIDATED PAPER CO. TO EXPAND AT STEVENS POINT

While Definite Plans Are Not Yet Ready to Be Announced Officials of the Company Have Requested the City of Stevens Point to Assist in Obtaining Greater Water Power for the Project—Whiting-Plover Co. to Install Considerable New Machinery in Connection with Improvement That It Is Making at Its Mill Near Stevens Point—Stevens Point Pulp Co. Resumes Operations.

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., December 5, 1922.—The Consolidated Water Power and Paper Company of Wisconsin Rapids is working on plans to enlarge its plant at Stevens Point, it was announced last week by George W. Mead, president of the company, and T. W. Brazeau, its attorney. In order to enlarge the operations at Stevens Point, however, it will be necessary to develop greater water power, both men said. Neither Mr. Mead nor Mr. Brazeau would explain the company's plans, declaring they would be announced as soon as they are completed. Both men asked the city of Stevens Point to assist in obtaining greater water power, at the same time declaring they were not looking for financial help of any kind and would not accept it if it were offered. Friendly co-operation of the city was all that was requested.

Mr. Mead said that only recently was it found that the water power at Stevens Point was effecting a saving over steam and it is believed that if the power is increased the cost per horsepower will be lower, thereby effecting a greater comparative saving. Part of the time the plant is operated partially from power generated at Wisconsin Rapids and at other times power from Stevens Point is diverted to the Rapids mills. This is made possible by an extensive system of electric wires completed a year or so ago.

Mr. Mead explained that a number of Stevens Point people have asked the company recently to enlarge its operations in their city. He said, however, that his company was using all the power that is developed at Stevens Point and more would be necessary if an enlargement is to be made possible.

Mr. Brazeau told Stevens Point businessmen that the Consolidated Water Power and Paper Company could be counted upon to do its share toward development of any city they are in.

"The Consolidated is a corporation with a soul," Mr. Brazeau said. When it was first proposed to develop the power at Stevens Point some favored taking the power to Biron and making the factory development there, but Mr. Mead took the view, and not from a business standpoint altogether, that the power should be employed where developed. At Wisconsin Rapids we have beautified our grounds, helped by contribution and otherwise in the city development and improvement generally and it would not be a bad thing for Stevens Point to have the Consolidated increase its interests there."

Paper Mills to Make Exhibit

Twenty-six of the largest paper mills in Wisconsin are co-operating in an exhibit of the paper industry which will be one of the features of the first annual Wisconsin Products Exposition which opens in the auditorium at Milwaukee December 14 and ends December 20. Twenty-one booths, with a total display space of 180 feet long have been set aside in Mechanics Hall for the exhibit.

A committee of manufacturers was selected to arrange and prepare the paper mill exhibit and they decided upon an educational rather than purely a sales boosting display. Although products of the co-operating companies will be shown, most of the emphasis will be placed on showing the industry's position as an institution in the economic and social life of the state. The committee in charge consists of L. M. Alexander of the Nekoosa-Edwards Company, F. J.

Sensenbrenner of the Kimberly-Clark Company, M. A. Wertheimer of the Thilmany Pulp and Paper Company, D. C. Everest of the Marathon Paper Mills, A. J. McKay of the Combined Locks Paper Company.

A sub-committee is in active charge of the display and has held several meetings with C. A. Fourness of Neenah acting as chairman. G. M. Hafenbrack of Port Edwards will be in direct charge of the exhibit.

The most striking feature of the display probably will be a miniature paper machine manufactured which will be operated on the floor of the auditorium. This machine turns out a sheet of paper five inches wide and during the show will make paper of a great variety of colors and grades.

One of the things which will be emphasized during the show will be the contribution made to the state by the industry from the standpoint of employment. The steady employment at good wages offered by the mills and the community development of paper mill towns, will be pointed out.

Whiting-Plover Co. Building Addition

An addition, 100 feet long by 36 feet wide, three stories high, is being built to the beater room of the Whiting-Plover Paper Company mill near Stevens Point. The structure will be completed in a few months, it is said, and considerable new machinery will be installed. It is hoped to have the building ready to begin operations early in the spring. C. R. Meyer & Sons of Oshkosh, have the structural contract.

Stevens Point Pulp Co. Resumes

The Stevens Point Pulp and Paper Company plant at McDill, near Stevens Point, resumed operations last week after a week's shutdown to make repairs. A full crew is being employed and the mill is running at near capacity.

Thilco Timber Co. Formed

A new corporation called the Thilco Timber Company, whose members include several stockholders of the Thilmany Pulp and Paper Company, was formed recently to take over the timber and logging holdings of the Land and Timber Company. About 2,000 acres of timber land was transferred to the new corporation. There is said to be no organic connection between the Thilmany Pulp and Paper Co. and the Thilco Land Co. The last named concern is a Michigan corporation. Its officers are William Boniface, Escanaba, president; Karl Stansbury, Appleton, vice-president; M. J. Rice, Escanaba, secretary; George J. Stansbury, Appleton, treasurer.

General News of the Trade

The plant of the Great Western Paper Company was quite seriously damaged by fire November 26. The blaze gained considerable headway and for a time it was feared the entire plant and other buildings in the block would be destroyed. Firemen, however, succeeded in quenching the flames before the buildings were entirely in ruin.

The two mills of the Marinette and Menominee Paper Company, at Marinette and Menominee and the plant at Oconto Falls went through the month of November without a lost time accident. About 650 persons are employed in and about the three mills.

E. F. Barthels, office manager of the Pride Pulp and Paper Co. at Tomahawk, has left that company to accept another position.

U. S. Silbar Heads the Inter-Ocean Bag & Paper Co.

CHICAGO, December 6, 1922.—In the reorganization of the Inter-Ocean Bag and Paper Company of Chicago, Ulysses S. Silbar of Silbar & Co., Grand Rapids, Mich., takes over the interests of E. J. Sexauer and assumes the presidency. B. J. Ness remains as vice-president and general manager. This concern is mill agent to the jobbing trade in the Central and Western states, distributing principally the products of The Grand Lake Company of New York.

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PAPER DEMAND IS VARIABLE IN PHILADELPHIA MARKET

Small Order Business Slows Down Some But This Is Said to Be Due to the Influence of the Thanksgiving Period—Prices, However, Continue Firm in All Lines and an Advance Is Announced in One Line of Book Paper—Adesta Paper Co. Plans to Begin Operations at Glen Mills About January 1—McDowell Mills Make Improvements—Cherry River Paper Co. Resumes.

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, December 6, 1922.—The character of business during the last seven days was quite variable. Publishers and the larger printers engaged on edition work were quite busy and the business which came from them, was entirely satisfactory. On the other hand, there was suffered a very decided slowing down in small order business from the medium sized and smaller members of the printing trade, a condition which really was not anticipated and which most in the trade regard as being directly influenced by the Thanksgiving holiday.

Prices Firm On All Lines

Prices were firmly held on all paper lines during the week and at its close announcement was made to the jobbers that mill prices on W. C. Hamilton & Sons' book papers would be advanced as of December 1. The first of the month passed without other changes of importance and the trade does not look for any in the last period of this year.

Activity in the coarse paper market was quite general and was a little better than the average in the fine paper. The market, however, was without predominating feature. In the rag and paper stock market, the condition of prices barely steady, continued. The dealers rather look forward to lower prices on some grades because of the decreasing interest on the part of mills in their offerings. However, during the week the largest local consumer of mixed and common papers offered an advance of one dollar a ton on this character of stock, but there is, of course, no certainty as to the length of time the increase will continue.

Adesta Co. to Begin Operations January 1

It is understood that the newly incorporated Adesta Paper Company, will begin operation in the mill at Glen Mills, Pa., about January 1. It will be engaged on the production of a line of Kraft papers. Inquiry at the mill brought forth a statement that it would be operated under the general direction of James B. Mortimer, 149 Broadway, New York, and that the mill equipment was all in place and ready for resumption of operation under the new ownership. The mills were closed for the past year and a half and during that time were thoroughly renovated and reconstructed in the mechanical department.

Auer & Twitchell Improvements

Concentration of production in the Lehigh paper mills which are controlled by the Auer & Twitchell Company, 20th street and Erie avenue is being made on the line of chip board and toilet papers for which the Auer & Twitchell Company is distributor and during the week, a new cutter was ordered installed for the purpose of cutting the board into sheets, provision having been made for a Davis Cutter manufactured by the Frank Davis Company with a sixty-inch knife. Expansion of the mechanical equipment was provided through the erection of two new Jordan pumps providing for a larger pulp capacity and enabling the manufacture of fifteen tons of chip on a single machine and six tons of toilet and towels on another machine. Other improvements are to be made with the new year. The consolidated paper tube de-

partment of the Auer & Twitchell Company is working overtime in order to take care of the increased demand for all sizes of spiral, straight hand roll and similar lines of tubing used in the textile linoleum, carpet, and allied industries. Large tonnage is being shipped over the special railroad siding with several carloads per week leaving the factory. With the discontinuance of the New York office, the entire business of the Auer & Twitchell Company is being conducted through the Philadelphia headquarters. Herbert S. Fox, secretary of the company is now managing both branches of the Auer & Twitchell Company with headquarters at 20th street and Erie avenue.

Windsor Locks Co. Installs Beaters

New beaters are being installed and other improvements are in course of progress at the Windsor Locks Mills Paper Co., Windsor Locks, Conn., owned by the J. L. N. Smythe Company of Philadelphia. The mills are engaged on the production of Kraft and Mr. Smythe has become a great enthusiast over its possibilities, pointing out that in his opinion, many different kinds of wrapping paper formerly used, gradually are being supplanted by Kraft.

Cherry River Paper Co. to Resume

With the opening of the new year, the Cherry River Paper Company mills of Richwood, West Va., whose vice-president, C. W. Collins occupies headquarters in the Drexel Building, Philadelphia, will be again put into operation after having been practically rebuilt. Since the first of September the West Virginia mills have been closed and the entire plant remodeled or rebuilt, especially the power plant, wet rooms, the beater plant and finishing department. Entire new equipment has been installed in the power plant and with the resumption of business, a modernized paper manufacturing plant is available for the manufacture of the line of wrapping papers, printing manilas, tag board, special grades of cover papers and a complete line of sulphite specialties for which the Cherry River long has been known.

McDowell Paper Mills Make Improvements

Additional improvements to the series which have been made throughout the year at the McDowell Paper mills, Main and Levering streets, Manayunk consists of the installation of two new rewinders in the finishing department. The new equipment is the product of the Cameron Machine Company of Brooklyn, N. Y. and will provide increased facilities for handling glassine papers in rolls, provision having been made for winders running into the sixty-two inch size. Owing to the demand for the McDowell products, two shifts of men are required, although three could be used were help available, for the manufacture of the line of glassines, grease-proof, bag, wrappings for tea, coffee and confectionery trades, which are the specialties of the McDowell mills.

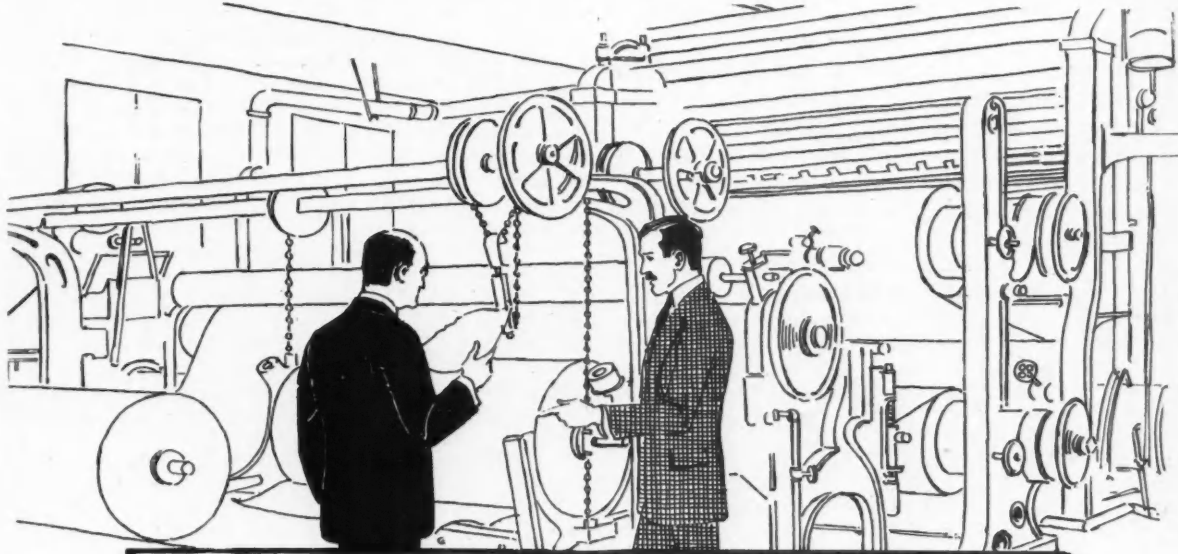
Progressive Paper Co. Formed

A new paper house has been opened under the title of the Progressive Paper Company with headquarters at 137 North Sixth street, its membership resting in Harry A. Clair and his brother Samuel Clair. The former for the past three years was associated with Nathaniel Saxe Paper Company as salesman. His brother, Samuel has been engaged in the clothing manufacturing business. The new firm occupies the first floor and basement of the building and is engaged in the sale of coarse papers and specialized lines of fine papers. A line of Krafts, wrappings, manilas, pattern papers, toiles, tissues and twines are to be included in the stock handled by the newly organized company.

E. W. Twitchell, Inc., Starts Business

Earl W. Twitchell, formerly associated in the coarse paper and manufacturing of paper tubes with the firm of Auer & Twitchell, has established himself in business, trading under the name of E. W. Twitchell, Inc., with headquarters in the old Auer & Twitchell offices in the Drexel Building. Associated with Mr. Twitchell is

(Continued on page 22)



One Way To Overcome Trouble

Rag-writings, bonds and ledgers, rope manilas and similar grades of paper present screening difficulties which require special treatment, if trouble is to be avoided.

Our recommendation is to install a

WALPOLE SCREEN

The WALPOLE SCREEN is especially designed for screening long-fibred, slow-working stocks. It maintains continuous production without breaks or shut-downs for washing up. The quality of the stock is uniform because only clean stock is discharged.

Perhaps you will be interested in learning how other mills have overcome their screening difficulties.

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 Street,
Montreal, Canada.

THE WALPOLE SCREEN

DEMAND SOMEWHAT QUIETER IN TORONTO PAPER MARKET

Lull, However, Is Generally Expected Just Previous to the Inventory Period and Is Causing No Concern—Basic Conditions are Said to be Good and the Outlook for 1923 Is Considered Encouraging—Board Trade Is Less Active Than it Has Been But No Change in Quotations Is Expected Until After the First of the Year—General News of the Paper and Pulp Trade.

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., December 4, 1922.—Business in the general paper line has shown some falling off during the past few days owing to the approaching holiday season and the fact that consumers and jobbers do not care about placing orders larger than is necessary for immediate requirements until after the inventory period. The lull is seasonable and has created no disappointment. Basic conditions are firm and the outlook for 1923 is considered good. Prices are now pretty well stabilized and, while there are rumors of advances, particularly in kraft, nothing may be done until after the end of the present year. Book and writing paper mills are well employed and there has been a jacking up in a few lines by one of the big mills to adjust its quotations to what is being asked by other producers. Orders are now accepted at whatever price they are taken at and not at the figure which may prevail at date of delivery. Heretofore all such business has had a qualifying clause to this effect but this has been eliminated during the past few days. There has been a let-up in the board trade and paper box plants are not so active. Board prices are likely to remain unchanged until the end of the month. Some envelope factories are very busy on Government work, pay envelopes and specialty stock for the holiday trade. Toilet and tissue mills report that they are not as rushed as they were a few days ago. In other lines, business continues about the same. Rag and paper stock dealers are quieter than they have been as the mills are not buying very much until the close of December. Pulp prices continue firm and the market is quite active.

Several Timber Limits Sold

Five timber limits were sold last week by the Department of Lands and Forests of Ontario. The limits were not large but contain a considerable quantity of pulpwood. Owing to their location not being as favorable as they might be, prices fell off considerably and there were not as many tenders as usual. The concessions were in Hudson, Stirling, Chisholm, McTavish and Armour townships in Northern Ontario and the successful bidders were respectively: John McChesney of New Liskeard, Oscar Styff of Port Arthur, W. J. Foster of North Bay, Pigeon River Lumber Company of Port Arthur and J. C. Murray of Katrine. The highest figure paid for spruce pulpwood was \$2.90 per cord and the lowest 80 cents per cord.

Notes and Jottings of the Industry

J. A. Bothwell, general manager of the Brompton Pulp and Paper Company, East Angus, Que., and former president of the Canadian Pulp and Paper Association, was in Toronto during the past week calling upon the trade.

P. B. Wilson, of Sault Ste. Marie, Ont., has returned from a business trip to England and was in Toronto recently. He is a former president of the Canadian Pulp and Paper Association.

The many friends of I. H. Weldon, president of the Provincial Paper Mills, Toronto, and T. A. Weldon, of Thorold, vice-president of the same company, are extended sympathy in the death of their mother. Mrs. James Weldon, of St. Thomas, Ont., who died dur-

ing the past week as a result of a fall. She was ninety-four years of age.

D. A. Scott, of Toronto, lately addressed newly formed western Ontario section of the Canadian Institute of Chemistry, giving an account of recent research work in the process of manufacturing sulphite pulp, with a description and results of semi-commercial scale experiments on improvements, giving increased yields of pulp and determinations of the various by-products of sulphite pulp.

The Thompson-Heyland Lumber Company, of Toronto, has begun shipments from Northern Ontario of pulpwood for Wisconsin and other western States on contracts for the coming year. The company will buy heavier than usual for next season and is purchasing some 20,000 cords of poplar for which there is quite a demand.

Charles Allen, head of the Allen Paper Company, Toronto, who has been residing for several months at Woodbridge, has moved into Toronto and is now occupying his fine new home on Rosehill avenue.

James Stutt & Sons, West Flamboro township, are contemplating the erection of a plant in Dundas, Ont., which will manufacture certain lines of wrapping papers.

The delivery of the new paper machine for the Port Arthur plant of the Provincial Paper Mills of Toronto, has been made by the Dominion Bridge and Engineering Works, Montreal, and is being installed. It is expected that the mill will be in operation by February next.

Morrow & Beatty have been awarded the contract for erecting a new dam for the Spruce Falls Company at Kapuskasing, Ont., on the Kapuskasing river. In the meantime, power for the operation of the firm's new sulphite mill, which is now running, will be generated by steam turbines producing 2,500 horsepower.

VARIABLE DEMAND IN PHILADELPHIA

(Continued from page 20)

his brother, S. J. Twitchell and the firm will engage in the sale of coarse papers and specialized lines. Plans for expansion of the lines carried are now under way and with the new year will have been put into operation.

Baeder Adamson Co. Busy

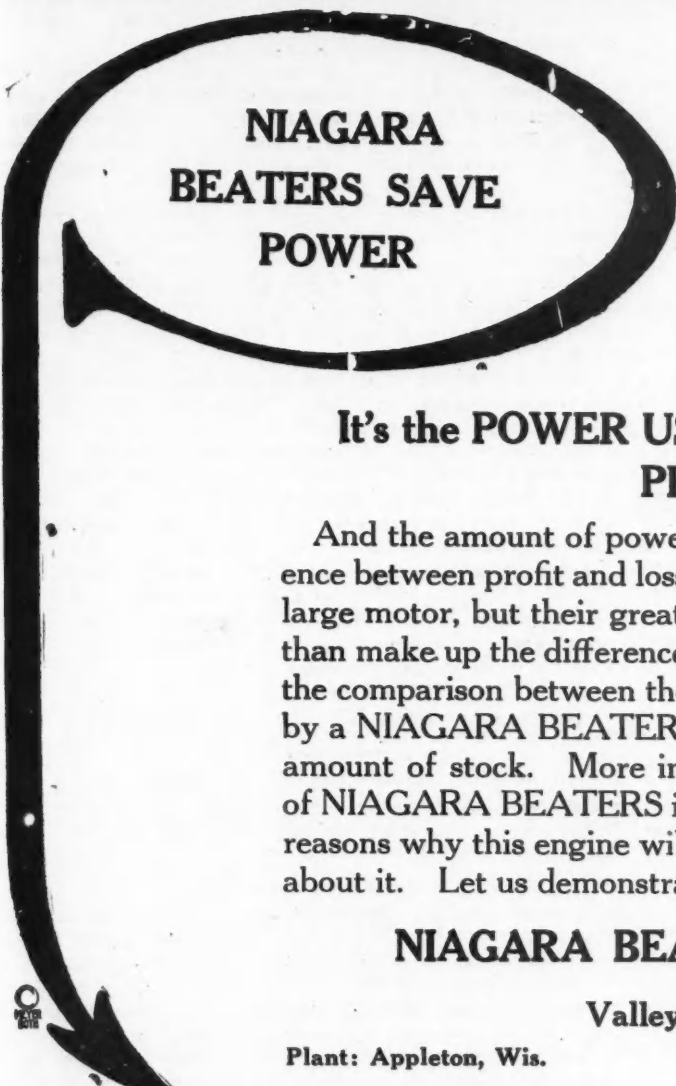
A majority of the product of the Baeder Adamson Company's mills, Richmond street and Allegheny avenue, is now being used exclusively for the firm's manufacturing plant, where large quantities of sand paper is made. Recently the mills were entirely renovated and manufacturing facilities for the increase of rope papers installed and even with the enlargement, the demand for the Baeder Adamson sand paper products is hardly adequate. A small portion of the rope papers is being distributed to the jobbing trade. However, with the incoming year, plans for the expansion of manufacturing facilities will be developed under manager Harold S. Shellington and these will provide for a larger distribution of rope papers to the jobbing trade.

General News of the Trade

The Paper House of Pennsylvania was the first in the trade to sound the note of the Christmastide, making during the week a glittering display of Strathmore papeteries and stationery for men, in the show windows of its Sixth street establishment. So successful has been the firm as a Strathmore distributor that its stock of Strathmore papers recently was doubled.

H. J. Hogg of the firm of Shuttleworth, Hogg & Mather which recently removed to the new quarters at Front and Arch streets, is confined to his home suffering from a severe cold.

The Aromingo Bond made by Dill & Collins, is attracting interest not only in the trade, but among consumers and recently delegations from public service corporations have been inspecting the process of manufacture at the Port Richmond mill, Tioga and Richmond streets.



**NIAGARA
BEATERS SAVE
POWER**

**It isn't the SIZE of
the MOTOR that
COUNTS**

**It's the POWER USED PER TON OF STOCK
PRODUCED**

And the amount of power used in beating may make the difference between profit and loss. NIAGARA BEATERS require a large motor, but their greater speed and greater capacity more than make up the difference. On this page appears an actual test, the comparison between the HORSEPOWER HOURS required by a NIAGARA BEATER and Holland type engines on a given amount of stock. More information regarding the performance of NIAGARA BEATERS is yours on request. There are many reasons why this engine will lower costs for you. Find out more about it. Let us demonstrate further that the

NIAGARA BEATER SAVES POWER

Valley Iron Works Co.

Plant: Appleton, Wis.

New York Office: 350 Madison Ave.

A POWER COMPARISON

Operation	2000 lb. NIAGARA		2000 lb. HOLLAND	
	Time in Hrs.	Power Con- in sump. in H.P. Hrs.	Time in Hrs.	Power Con- in sump. in H.P. Hrs.
Furnishing	1-4	60 15	5-12	40 17
Beating	1-5	100 20	7-12	70 41
Emptying	1-20	80 4	1-4	45 11
Total	1-2	39 1	1-4	69
	39 HP hr. used per ton of Stock produced.		69 HP hr. used per ton of Stock produced.	
	Saving $\frac{69-39}{69} = 43\%$ Saving in Total Power consumption			

KALAMAZOO PAPER CO. MAKES GOOD SAFETY RECORD IN YEAR

Mill No. 2 Has But One Accident Sufficient to Cause Loss of Time to the Victim and Is Awarded Safety Banner by President F. M. Hodge—Details Just Come to Light Regarding Interesting Land Transactions of the Bryant Paper Co.—Paper Mill May Be Erected in Lansing Where a Number of Mills Have Been Proposed in Recent Years—Other News of the Trade.

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., December 4.—Having but one accident in a year's time, that is sufficient to cause loss of time to the victim, has resulted in mill No. 2 of the Kalamazoo Paper Company receiving the Safety Contest banner. The presentation was made by President F. M. Hodge, at the company's mid-winter picnic, held Saturday evening at the Y. M. C. A., building.

The social gathering was also featured by the conclusion of the Garden Club contest and the awarding of prizes to the winners. There have been 60 to 70 contestants competing for these honors, the result being the keenest interest has been developed.

Mr. Hodge made the garden club announcements, awarding prizes as follows: Peter Terburgh, \$10; George A. Weick, \$5; W. P. Miller, \$3; C. E. Redmond, Herman Daniells, R. G. Spoor, T. R. Walters, William Buxton, E. H. Ferguson and Joe Ehrman were each awarded a year's subscription to the *Garden Magazine*, in addition to receiving honorable mention for the excellence of their gardens.

The Safety Contest banner is a feature developed by the Safety committee, which consists of A. E. Curtenius, C. E. Redmond, John Bungers, W. A. Nichols, Leonard Allen, J. C. Estes, Mesdames McDonald, Myers and Lammon and the Misses Gertrude Hacking and Gertrude Vroegindewey. The banner is a silk American flag, bearing the words "Safety Honors" beneath, with the name of the company above. It is to be framed.

Mill No. 5 was second in Safety honors, having had only two lost time accidents in the past year.

Provisions of this competition call for a return of the flag to the committee every three months, when it will in turn be given again to the mill or division having the best record.

The picnic brought out over 1,000 guests, who were treated to an excellent program of athletic stunts, games, orchestra music, singing and refreshments, compliments of the management. One of the features was an indoor baseball game, girl teams from the Kalamazoo Paper Company and Kalamazoo Vegetable Parchment Company competing. The personnel of these two organizations follow:

Kalamazoo Paper Company—Dorothy Parish, Helen Spealman, Marvel Campbell, Uldena Riley, Kate Vroegindewey, Bessie Wright, Gertie Vandervoert, Julia Jacobs, Enid DeYoung.

Kalamazoo Vegetable Parchment Company—Florence Johnson, Effie Bosker, Jeannette Welcher, Margaret Egan, Myrtle Green, Emma and Katherine Hassing, Ruth Stimpson, Lena Myers.

Bryant Paper Co. Improvements

Looking to the future expansion of that great industry, the Bryant Paper Company over a year ago purchased approximately 20 acres of land immediately adjacent to its plant. The details of this transaction have just come to light.

The land involved was purchased from the Grand Trunk and Chicago, Kalamazoo & Saginaw Railroads and consisted of two pieces. They are located south of Reed street and west of Bedford street, also property, some 13 additional acres east of the present race and mill pond.

These deals were actually consummated during the lifetime of the late Frank H. Milham. It was made known that he bought from the Grand Trunk Railroad the site of the Bryant administration building, but no mention was made of the other purchases, all concluded at about the same time.

The acquisition of the administration building site and the erection of that structure was one of the most notable improvements made in years to southside property. It removed an unsightly knoll of sand, a plat used only for dumping purposes and transformed it into a beautiful park, a suitable setting for Kalamazoo's most stately office structure.

Another structure is now being erected on the recently acquired property, that being the great central power plant, which will be located immediately north of Bryant street and about half way between the Milham and Bryant divisions. H. L. Vanderhorst, contractor, has his forms erected and is pouring the concrete foundations, piers and abutments. This is the first step in the Bryant Paper company's two programs of expansion and re-equipment, which it is estimated will require fully \$3,500,000 to complete.

The acquisition of all this real property recalls the fact that the land secured by the Bryant Company was once involved in carrying out interesting railroad extensions to the south of the city. The original owners of the Chicago, Kalamazoo & Saginaw Railroad at one time contemplated the extension of that road to the southwest, connecting with the Grand Trunk at either Marcellus or Leesburg. With that end in view, W. S. Dewing bought several acres from James A. Taylor, together with a right of way south of Alcott street and east of the present Bryant ponds. This was secured from the Myron estate. Mr. Dewing sold this land to the C. K. & S. R. R., giving them an outlet to the south.

When Michigan Central interests acquired the C. K. & S., thoughts of a Grand Trunk connection immediately went glimmering and it was not until Frank H. Milham purchased the property in question that the land was used for any purpose.

The Grand Trunk at one time seriously contemplated tapping the Bryant property, but inasmuch as the New York Central furnished all the service required, the project was abandoned.

May Erect Mill in Lansing

Parties unknown to the paper industry in this city are reported to be interested in the organization of a company and the erection of a mill at Lansing. The first intimation of their intentions was in a form of an advertisement in the *Kalamazoo Gazette*, asking for the services of a competent construction foreman on such a job.

Numerous business interests have been questioned regarding the proposition, but no definite information is as yet forthcoming. It is intimated in one quarter that the proposition has the endorsement of a paper jobbing concern.

In the past five years three or four paper mills have been proposed in Lansing, but none of them have as yet developed.

General News of the Trade

The Consolidated Paper Company of Monroe has paid a 1½ per cent quarterly dividend and hopes, at least to continue to pay a like quarterly dividend.

A. E. Curtenius, secretary of the Kalamazoo Paper Company, has returned from a six weeks' outing in London and Paris.

The Wolverine Carton Company, Grand Rapids, has filed articles of incorporation. The capital is \$300,000 and the business will be the manufacture of cartons. The original incorporators are Thomas V. Spees and C. U. Clark, Grand Rapids and W. A. Mockler, Milwaukee.

The Dudley Paper Company, of Lansing, with branches in Saginaw, Bay City, Jackson and Traverse City, held a meeting of branch managers and salesmen the past week in Lansing. The largest annual business in the history of the concern will be the result of 1922 activities.



Lime Mud Filter with Repulper

OTHER OLIVER PRODUCTS

Oliver Vacuum Pumps.
Oliver Air Compressors.
Oliver Centrifugal Pumps,
Oliver Worm Gear
Speed Reducers.
Olivite Acid-Proof
Centrifugal Pumps.

The OLIVER

Serves Four Purposes
in the Modern

PAPER MILL

Repeated successes in many modern paper mills have proven the worth of the Oliver Continuous Filter in four important processes.

Brown Stock Washing

Weak liquor and hot water washes are applied evenly to each particle of a thin cake of pulp. High vacuum removes liquor continuously from the cake preventing diffusion or mixing of wash water and liquor. Soda losses are decreased and dilution of liquor reduced to a minimum.

Caustic Recovery

Cake of uniform moisture content is continuously delivered at an exact and non-varying rate. Caustic losses are cut in half, labor is saved, floor space is economized, and washing is efficiently performed by displacement rather than dilution.

Thickening Before Bleaching

Felt costs alone per ton pulp on wet machines exceed total cost of operating Oliver's. Output of one Oliver operator is equivalent to that of six wet machine tenders.

Decking

As a decker and save-all the Oliver removes all fibre and filler from the waste water.

Complete details on any of these processes will be gladly furnished by

Oliver Continuous Filter Co.

San Francisco
503 Market St.

New York
33 W. 42nd St.

London
11-13 Southampton Row, W. C.

CANADIAN PAPER MEN MAKE PLANS FOR MEETING JAN. 24

Tenth Annual Convention of the Canadian Pulp and Paper Association Will Be Held Jan. 24-26 at the Ritz Carlton, Montreal—Take Evidence in \$1,020,000 Claim of the Chicoutimi Pulp Co. for Fire Loss on Pulp Sustained July 8—Sir Frederick Becker Expresses Great Confidence in Future of Canada as Producer of Wood Pulp—Montreal Paper Club Holds Meeting.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., December 6, 1922.—The Executive Council of the Canadian Pulp and Paper Association has fixed upon Wednesday, Thursday and Friday, January 24-26, 1923, as the dates for the Tenth Annual Meeting of the association.

The Technical Section will meet on the 24th and 25th, the Woodlands Section on the 25th and the association proper on the 26th.

Meetings of the various trade sections will be arranged to fit in with the above and will be announced in due time.

All meetings will be held at the Ritz Carlton Hotel, Montreal.

The annual luncheon and the annual dinner will be held, as usual, on Friday, January 26, with some variations as to program.

This preliminary notice is given in order to permit of early hotel reservations. In addition to the Ritz Carlton, which will make special provision for members and guests, the new Mount Royal Hotel will be available. The Windsor Hotel is also better equipped to take care of visitors this year, many new rooms having been added.

Arbitrate Chicoutimi Pulp Loss

A Court of Arbitration, composed of the Right Hon. C. J. Doherty, K. C., the Hon. A. W. Atwater, K. C., and A. F. C. Ross, C. A., has commenced taking evidence here in relation to a claim by the Chicoutimi Pulp Company, Limited, to recover from thirty-two insurance companies \$1,020,000 for loss sustained through the fire which on July 8 last destroyed about 28,000 tons of mechanical pulp in the yards of the Chicoutimi Pulp Company at Port Alfred, not far from the shore of Ha Ha Bay.

The insurance companies considered the demands made on the policies were too high, and arbitration has been resorted to under the provision of the Quebec insurance law. Becker & Co., of London, and the Molson's Bank are interested with the Chicoutimi Pulp Company in the insurance claims. The evidence goes to show that a pile of mechanical pulp running hundreds of feet in length and fifty feet high were destroyed by the fire which broke out in the company's yards on July 8 last, and continued smouldering for two days. Mills, wharves and sheds filled with sulphite were saved, but of the pulp which was stored there to the value of \$1,100,000 the arbitrators were informed that about 28,000 tons were destroyed in a few hours, representing a loss which the company assessed in its present claim at \$1,020,000. Valuation was based at \$37 a ton. Port Alfred, where the fire took place, is a newly-constructed town at the end of Ha Ha Bay. It is the shipping point for the products of three of the largest sulphate mills in the Chicoutimi district, and the pulp which was destroyed, was the production of a hundred days of work in the Chicoutimi and Val Jalbert Mills. The pulp was awaiting shipment to Europe.

Greater Plants for Chicoutimi

Becker & Co., London, of which Sir Frederick Becker is head, are issuing in Great Britain 300,000 pound sterling per cent notes at 99, covering the deal with Saguenay Pulp and Power Company for 1,700,000 tons pulp which they have resold. They are furnishing

\$1,473,600 to the Saguenay Pulp and Power Company. A statement made by Sir Frederick Becker who with his associates control the Chicoutimi Pulp Company is of considerable interest.

"I have the greatest confidence," Sir Frederick said, "in the future of Canada as a producer of raw materials in the form of wood pulp for the world. At the present moment Canada supplies only about one-fifth of the total consumption of wood pulp in the United Kingdom. I look forward to a time and that not far distant, when the British Empire will produce at least 50 per cent of the wood pulp required within its boundaries. In view of what I consider is to be a sure and increasing demand for wood pulp from Canada, I am making the necessary arrangements so as to be ready at short notice to increase the production of our mills, and in this respect we have been greatly assisted by the Provincial Government, of Quebec, to whose sound business sense and commercial foresight too great a tribute cannot be paid.

"They have not only offered to raise a large dam on Lake Kenogami for the Chicoutimi mills, which, with a constant and regular supply throughout the year, will thus be able to increase their production by 30,000 tons of wood pulp per annum, but are also supporting the industry by isolating certain forests adjoining our present limits and reserving us the option to take up these lands when we are ready for further development. The finest pulpwood lands in the world are at Quebec—they replant themselves and fire is their only but deadliest foe."

Montreal Paper Club

An interesting meeting of the Paper Club of Montreal was held during the week, the first of the 1923 season. Representatives of all the paper houses in Montreal were present and an exceedingly constructive talk was given by H. Trill, of the Federated Press. Mr. Trill based his talk on the relationship between direct by mail advertising and the consumption of paper. In explaining the meaning of "direct by mail advertising" and its objects, Mr. Trill gave many valuable pointers to paper salesmen as to how they might benefit their companies by enlarging the scope of the various kinds of paper which are made in Canada. Mr. Trill, also, offered a novel suggestion as to a very comprehensive scheme of co-operation between the various interests involved, and which will undoubtedly lead to some further action in the future. It is the intention of the executive of the Paper Club to invite prominent members of the ink and printing machinery industries to address the club in the near future believing that a knowledge of these allied interests will be of great benefit to young salesmen. The president, R. M. MacLean, occupied the chair and among others present was Edward Beck, manager of the Canadian Pulp and Paper Association.

Bookings of News Print for Australia Show Increase

News print mills on the Pacific Coast are working to capacity on United States orders, but Australian business will be small next year, only some 2,700 tons having been booked so far, as against a normal of between 25,000 and 30,000 tons. Pulp mills also report better demand with rising prices.

Pulp Mills for Queen Charlotte Islands

The Buckley interests at Massett, Queen Charlotte Islands, are entering the pulp and paper business and, amalgamating recently with Los Angeles capital, have put freighters on the run between the islands and California taking raw lumber south to be finished at the mills of the company. Pulp is to be made at Massett and shipped to a paper plant the company is to build at Los Angeles, according to the latest reports.

Cost of Production Is Increasing

From Northern Ontario comes word that men are still scarce for the pulpwood camps and that operators are offering higher wages all the while in order to secure sufficient help. As high as \$50 to \$60 a month is being paid in some instances.

FOR INCREASED FUEL ECONOMY

THE protracted coal strike of the past months emphasizes the ever-present need for fuel economy. The importance of obtaining the utmost return from every fuel dollar is no less in times of industrial peace.

Fuel economy begins and centers in the boiler room. The boilers themselves are the most important factor in any program of fuel saving.

Edge Moor Water Tube Boilers are built for the express purpose of utilizing every possible B. T. U. in the fuel burned under them. The unrestricted connection between header and drum that is a feature of Edge Moor Boilers gives them exceptional capacity for quick steaming. Fluctuating loads and high overloads can be carried without damage or loss of efficiency.

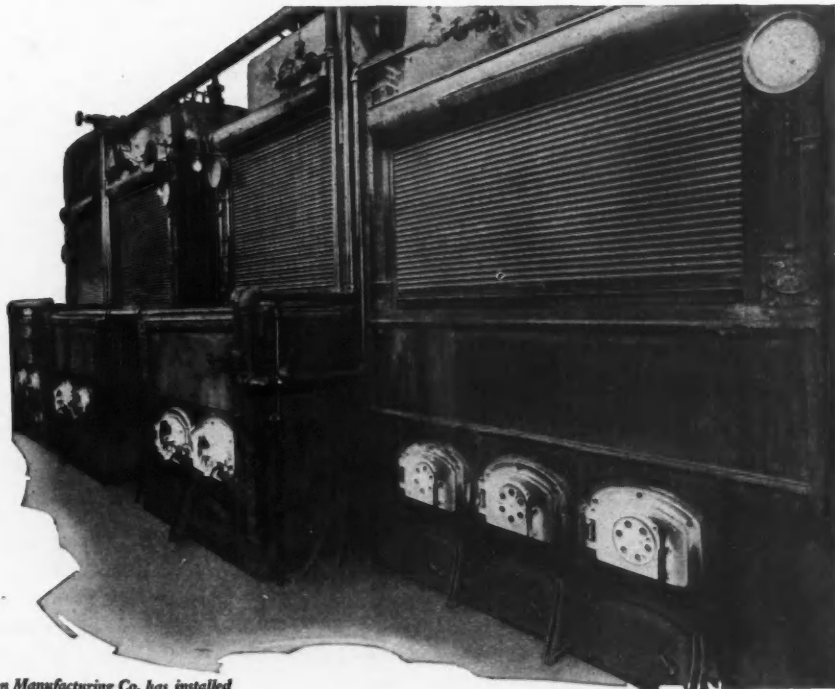
The Edge Moor catalogue explains the important features of this boiler that contribute to fuel economy. Your request will bring a copy promptly.

EDGE MOOR IRON COMPANY

Established 1868

EDGE MOOR, DELAWARE

New York Chicago Boston Pittsburgh St. Paul Charlotte



The Warren Manufacturing Co. has installed eight Edge Moor Boilers totalling 1986 H. P. in three of its plants. Four 250 H. P. boilers in the Milford, N. J., plant are here shown.

EDGE MOOR Water Tube BOILERS



PRODUCTION OF WOOD PULP FOR THE MONTH OF OCTOBER

Federal Trade Statistics Show That the Stocks on Hand at the Mills at the End of the Month of Ground Wood Equaled Twenty-one Days' Average Output, News Grade Sulphite Eight Days' Average Output, Bleached Sulphite Four Days' Average Output, Easy Bleaching Sulphite Six Days' Average Output and Mitscherlich Sulphite Nine Days' Average Output—Output of Other Grades.

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., December 6, 1922.—In connection with the Federal Trade Commission's statistics of the paper industry, a summary of the monthly reports from manufacturers of wood pulp and other kinds of pulp used in paper making is submitted herewith for the month of October, 1922. The table shows the kind of pulp, the stocks, production, pulp used and shipments for the month. The pulp shipped during each month represents only pulp shipped to a concern different from the one producing it. Loss of production is shown by giving the idle time reported by each company for each kind of pulp.

Pulp Production

The following is a tabulation of the production, pulp used by the company producing it, shipments to outside concerns, and stocks of finished pulp in tons of 2,000 pounds on an air-dry basis, for October, 1922, compared with October, 1921, for the operating mills. The average production is based upon the reports covering the years 1917 to 1921, inclusive, and the average stocks are based upon the stocks carried for the years 1919, 1920 and 1921.

	Number of mills	On hand 1st of month	Production for month	Used during month	Shipped during month	On hand end of month
Ground Wood Pulp:						
October, 1922	158	127,198	102,934	124,557	10,236	95,339
October, 1921	163	137,672	82,511	93,400	7,377	119,406
October, 1920	160	92,823	125,518	113,056	11,135	94,150
October, 1919	159	130,880	119,073	117,930	9,796	122,227
Average			119,756			147,073

	Number of mills	On hand 1st of month	Production for month	Used during month	Shipped during month	On hand end of month
Sulphite, News Grade:						
October, 1922	60	22,372	62,578	60,385	5,925	18,640
October, 1921	68	23,523	55,234	48,632	7,683	22,442
October, 1920	62	13,151	72,412	38,717	9,707	17,139
October, 1919	62	19,493	71,000	59,507	11,228	19,758
Average			62,530			20,685
Sulphite, Bleached:						
October, 1922	33	10,187	47,519	28,010	23,880	5,816
October, 1921	32	6,725	41,315	22,457	21,002	4,581
October, 1920	30	4,826	49,504	26,493	23,389	4,448
October, 1919	30	10,383	51,915	27,425	25,790	9,083
Average			41,392			9,507
Sulphite, Easy Bleaching:						
October, 1922	12	1,362	4,610	4,174	454	1,344
October, 1921	8	689	4,403	3,492	961	639
October, 1920	8	1,386	6,069	4,173	2,521	1,761
October, 1919	8	1,895	6,089	3,525	2,728	2,721
Average			6,240			1,346
Sulphite, Mitscherlich:						
October, 1922	7	2,101	6,375	4,207	2,130	2,139
October, 1921	6	1,574	5,891	3,861	2,540	1,064
October, 1920	7	915	7,433	4,438	2,768	1,142
October, 1919	7	1,672	2,232	4,694	2,851	1,359
Average			6,370			1,831
Sulphate Pulp:						
October, 1922	24	8,478	23,635	18,298	7,070	6,745
October, 1921	21	7,612	16,396	10,443	6,156	7,409
October, 1920	21	3,537	20,099	14,066	4,812	4,758
October, 1919	20	6,641	17,499	10,209	6,249	7,682
Average			13,572			6,499
Soda Pulp:						
October, 1922	28	6,535	36,120	21,019	15,090	6,546
October, 1921	27	8,612	27,868	19,564	10,635	6,281
October, 1920	27	4,655	38,237	19,703	17,363	5,826
October, 1919	27	6,876	35,037	18,218	16,355	7,340
Average			30,992			6,931
Other than Wood Pulp:						
October, 1922	5	284	871	670	123	362
October, 1921	5	47	592	548	76	15
October, 1920	3	45	605	325	87	238
October, 1919	6	182	865	785	134	128
Average			832			154
TOTAL—For All Grades:						
October, 1922		178,517	284,642	261,320	64,908	136,931
October, 1921		186,454	234,210	202,397	56,430	161,837
October, 1920		121,338	319,877	240,971	71,782	128,462
October, 1919		178,022	308,710	242,293	75,131	169,308
Average			281,684			194,026

Total stocks of all grades of pulp in the mills on October 31 amounted to 136,931 tons. Mill stocks of Mitscherlich, soda pulp (Continued on page 30)

Loss of Production

Month of October, 1922, (with October, 1921, for comparison).

Grade	Lack of Orders		Repairs		Other Reasons		Total	
	1922	1921	1922	1921	1922	1921	1922	1921
Ground Wood Pulp:								
Number of grinders	14	25	179	58	601	505	794	588
Total hours idle	4,664	8,423	14,924	13,771	67,348*	149,396	86,936	171,590
Sulphite, News Grade:								
Number of digesters	11	9	19	69	25	71	55	149
Total hours idle	6,154	1,638	1,489	3,238	1,798	6,016	9,441	10,892
Sulphite, Bleached:								
Number of digesters	2	26	7	6	0	26	9	58
Total hours idle	700	1,106	1,175	534	0	1,097	1,875	2,737
Sulphite, Easy Bleaching:								
Number of digesters	0	3	0	2	0	0	0	5
Total hours idle	0	32	0	64	0	0	0	96
Sulphite, Mitscherlich:								
Number of digesters	0	0	0	7	9	0	9	7
Total hours idle	0	0	0	257	68	0	68	257
Sulphate Pulp:								
Number of digesters	0	12	14	9	3	9	17	30
Total hours idle	0	864	769	234	654	864	1,423	1,962
Soda Pulp:								
Number of digesters	6	61	4	9	19	43	29	113
Total hours idle	864	11,060	117	234	2,771	4,805	3,752	16,099
Other Grades:								
Number of digesters	2	2	0	0	5	2	7	4
Total hours idle	96	682	0	0	1,134	552	1,230	1,234
Total number of machines	35	138	223	160	662	656	920	954
Total hours idle	12,478	23,805	18,474	18,332	73,773	162,730	104,725	204,867

* Includes 57,530 hours due to water and power conditions.

Established 1886

Faith

The ever-recurring names of the largest paper mills on our contract records from year to year are evidence of the implicit faith of these firms in our ability to serve them in the most reliable, responsible and efficient manner.

Our organization, trained to the minute in every respect, is the bulwark of their faith.

M. GOTTESMAN & COMPANY

—INCORPORATED—

18 East 41st Street

New York, N. Y.

U. S. A.

HOLYOKE OFFICE

185 Pine Street

KALAMAZOO OFFICE

No. 1 Humphrey Block

STOCKHOLM OFFICE

Stureplan, 13

Obituary

Alexander T. MacFarlane

APFLETON, Wis., December 5, 1922.—Alexander T. MacFarlane, 57, superintendent of the fiber division of the Hoberg Paper and Fibre Company, at Green Bay for 18 years, died suddenly of heart trouble at his home Tuesday night, November 26. He had been suffering from high blood pressure for some time and Sunday he complained of a pain in the region of his heart, Tuesday Mr. MacFarlane went to work as usual and that evening he retired early. Shortly after he went to bed he became seriously ill and died in a few minutes.

Mr. MacFarlane was one of the most respected paper mill officials in the Fox River Valley. Prior to taking up his work in Green Bay he held positions as superintendent in Canada and in Maine.

He is survived by his widow, one daughter, one son, two brothers, John MacFarlane of Boston, and William of Bar Harbor, Me.; two sisters, Mrs. F. Clark of Sullivan and Mrs. M. Goodman of Franklin, Me.

Funeral services were held last Saturday.

WOOD PULP PRODUCTION IN OCTOBER

(Continued from page 28)

and "other than wood pulp" increased during the month; stocks of all other grades decreased.

Ratio of Stocks to Average Production

Comparing the stocks on hand at the domestic pulp mills at the end of the month with their average daily production based on the reports covering the years 1917-1921, inclusive, the figures show that:

Ground wood pulp stocks equal 21 days' average output.
 News grade sulphite mill stocks equal 8 days' average output.
 Bleached sulphite mill stocks equal 4 days' average output.
 Easy bleaching sulphite mill stocks equal 6 days' average output.
 Mitscherlich sulphite mill stocks equal 9 days' average output.
 Sulphate mill stocks equal 13 days' average output.
 Soda pulp mill stocks equal 5 days' average output.
 Mill stocks of "other than wood pulp" equal 11 days' average output.

Total mill stocks of all grades equal 13 days' average output.

Loss of Production

The idle machine time of grinders and digesters reported to the Commission for the month of October, 1922, is shown in the attached tabulation. The number of grinders and digesters include only those for which idle time was reported during the month. The total number of machines may include duplications because the report may count the same machine twice if idle for different reasons during the different parts of the month. The reasons tabulated for lost time are "lack of orders" and "repairs." "Other reasons" include water conditions, etc. The time lost in October, 1921, is shown by grades and reasons, for purposes of comparison. Neither the number of machines nor hours idle include idle machines and the time lost in 18 mills not in operation during the month.

White & Wyckoff Salesmen Meet

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., December 6, 1922.—The eighth annual sales conference of the White & Wyckoff Manufacturing Company, of Holyoke, Mass., was held at the recreation rooms of the company Tuesday and Wednesday, December 5 and 6, at which salesmen were in attendance from all parts of the United States. Preliminary to the conference which started Tuesday morning, a banquet was held Monday evening at the Hotel Nonotuck in a sort of get-together meeting of the executives and department heads with the salesmen.

Vice-president and Sales Manager George R. Burkhardt of the White & Wyckoff Manufacturing Company, was in charge of the Tuesday morning session which was largely devoted to the sales speakers for 1923. Advertising Manager Albert H. Sampson was in charge of the afternoon session which was devoted to a discussion of advertising plans, policies and methods for 1923. The men were greeted by President J. L. Wyckoff and Treasurer E. N. White.

Charles C. Parlin, Manager of the Commercial Research Bureau of The Curtis Publishing Company of Philadelphia, publishers of *Ladies' Home Journal* and *Saturday Evening Post*, was the principal speaker of the afternoon. Another speaker was A. E. Andrews of N. W. Ayer & Son, of Philadelphia.

The conference was resumed Wednesday morning at the factory, Vice-president Burkhardt being in charge. Robert O. Nicolai, manager of the Department of New Goods, spoke on the new line of wedding goods the company is developing. L. J. Epply, sales manager, and C. W. Chabot, advertising manager, of the Hammermill Paper Company of Eric, Pa., gave short talks.

Luncheon was served at the Hotel Nonotuck both Tuesday and Wednesday noon when informal discussions took place. Tuesday evening the salesmen, office staff and executives and department heads with their wives were the guests of Mr. and Mrs. Edward N. White at an informal reception at their home, Grey Birches, on Northampton street.

The convention closed with a banquet at the Hotel Nonotuck Wednesday evening at which about 100 were in attendance. The guests present included the salesmen, executives, department heads, foremen as well as the members of the White & Wyckoff Service Club. Several unusual novelties and stunts were instituted by the W & W staff and which provided excellent entertainment for all.

The visiting salesmen in attendance at the conference included Peter Peterson, manager Chicago Office; C. A. Warner, of San Francisco, Cal., representing the Pacific Coast; J. R. Brundage, manager New York office; Carl Peterwitz, of Petosky, Mich., salesman for the Southwest; E. A. Bachtler and C. J. Cleary, New York City salesmen; H. M. Griest, of Jersey City, salesman for New Jersey; L. C. Wythe, of Syracuse, salesman for the Eastern States; H. W. Bush, of Rochester, representative for New York State; C. A. Milford, of Abbeville, S. C., and C. C. Abbott, of Baltimore, sales representatives for the South and Southeast; Harold Peterson, of Chicago, salesman for the Central West; G. F. White, of Worcester, as also E. J. Ayen and R. B. Doane, of Holyoke, who cover the New England territory; W. J. Maiden, salesman for the Central West.

Paper Market in Norway Slow

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., December 6, 1922.—With the exception of Kraft, the paper market in Norway is at present quite dead, according to a report received by the Paper Division of the Department of Commerce from the American Consul General at Christiania. The report continues:

Kraft paper has been purchased by the United States in considerable quantities lately, while at the same time Great Britain has taken considerable of the same article. Great Britain has for the time being taken a reserved attitude in regard to purchases of paper, due doubtless to the prominent part she is now taking in serious international questions. Competition from Germany and Finland continues to be felt, especially in the South American markets where prices have been forced to unreasonably low figures.

With the exception of Japan, the Far East has recently purchased large quantities of thin printing paper and M. G. Cap. The fact that Japan assumes an independent position with respect to paper is due doubtless to increased domestic production and possibly low freight rates secured on the Pacific by Norway's competitors.

FOR QUALITY PAPERS
USE

A-1 Bleached Sulphite Pulp

MANUFACTURED BY

Kellner-Partington Paper Pulp Co., Ltd.
Borregaard Norway

SOLE AGENTS FOR U. S.

J. Andersen & Co.

21 East 40th Street

New York, N. Y.

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

Recent Incorporations

PUBLICITY PAPER CORPORATION, Manhattan, New York. Capital, \$30,000. Incorporators: J. J. Jacobs, C. Somlo, R. Paguillani. Attorney, G. Feinberg, 171 Madison avenue, New York.

PREMIER PAPER COMPANY, Manhattan, New York. Capital, \$50,000. Incorporators: Samuel Greenberg, Henry Gold and Joseph Gold. Attorney S. S. Kogan, 299 Broadway, New York.

NAVY WASTE PAPER Co., Brooklyn, New York. Capital \$5,000; Incorporators G. Del Pezzo, L. Gaeta, C. Quagliariello. Attorneys, Wechsler & Wechsler, 150 Nassau street, New York.

CAPITAL INCREASE

CLIFF PAPER COMPANY, Niagara Falls, New York. Capital, \$400,000 to \$700,000.

Preferential Transportation Rates

WASHINGTON, D. C., December 6, 1922.—The Tariff Commission has recently issued a report entitled "Preferential Transportation Rates." This report is the result of an investigation conducted by the commission to ascertain to what extent, if any, preferential transportation rates affect the country's customs tariff, when such transportation rates as applied from the various ports to interior points in the United States, on imported commodities, are lower than those applicable on like domestic traffic from the same ports to the same interior points; also to what extent the import rates from interior points in the country of export are lower to the foreign port on traffic destined to this country, than applied to similar domestic traffic.

It is found that such preferential rates do exist. The principal ports in this country from which such rates apply are the South Atlantic, Gulf and Pacific Ports and Portland, Me. (when routed via the Grand Trunk System). Similar preferential rates are also applied from various Canadian ports on traffic imported through those ports destined to points in the United States.

The conclusions reached by the commission are, that, while it is evident that preferential transportation rates do exist, the carriers have established such rates primarily for the purpose of equalizing the commercial advantage of the rival ports of the alternative routes over which the foreign trade is carried, rather than an attempt to offset in whole or in part the duties imposed by the customs tariff. As an illustration, the pivotal or basic port in most instances on traffic to the central west appears to be New York, from which port the imports and domestic rates are generally the same. From other ports the rates are ordinarily established with relation to the rates from New York.

Ingerois Wood Pulp Mills Enlarged

WASHINGTON, D. C., December 6, 1922.—The Ingerois Wood Pulp and Pasteboard Mill has been enlarged in conjunction with the building of a second and larger power station at the Anjala Falls in the south of Finland, according to word received by the Paper Division of the Department of Commerce. The original mill was built in 1872, and has undergone periodic enlargements between that time and 1919.

The new electric power station is equipped with four horizontal twin turbine motors each with a bearing distance of 31 feet 2 inches and an axle diameter of 19.69 inches. The plant develops a total of 17,000 horse power from a fall of 28 feet 6 inches. The system is built for a tension of 77,000 volts. Of this total only 22,000 are now transmitted to Helsingfors, Kotka and other places in the south of Finland, while 6,000 volts are supplied to the pulp mill to run three 1,300-horse power grinders and 500 volts to operate smaller motors. All surplus energy is converted into steam in electric boilers and used in the manufacturing. The mill now has a capacity of about 18,000 tons of wood pulp and pasteboard of various kinds annually, but is capable of considerable expansion.

New Head of Canadian Paper Trade Association

A picture is presented herewith of George Wilson, vice-president of Clark Bros. & Co., Ltd., Winnipeg, Canada, who was recently elected president of the Canadian Paper Trade Association. Mr. Wilson was born in Edinburgh, Scotland. He was educated at the celebrated Royal High School and later studied art at the Royal Scottish Academy and Royal Institute. He went to the Canadian North West with his family in the early days and had some varied



GEORGE WILSON

and interesting pioneering experiences. He knows the West thoroughly. He has always been an enthusiastic supporter of all kinds of sports and is a well known golfer. He entered the paper business twenty-six years ago and was one of the enthusiastic organizers of the Canadian Paper Trade Association. He is chairman of the Bureau of Arts Board of Trade and is interested in and collects books, water colors, etchings and wood cuts.

Bids and Awards for Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., December 6, 1922.—The purchasing officer of the Government Printing Office has received the following paper bids:

500,000 pounds 24 x 36—32 White News Print Paper, 48" rolls: International Paper Company, \$.043 per pound; Interstate Pulp and Paper Company, \$.04405; Maurice O'Meara Company, \$.0403.

The purchasing officer of the Government Printing Office will receive bids on December 11 for the following:

17,500 pounds (350 reams) 20½ x 29—50 White Laid Antique Printing Paper, Deckle Edge.

The R. P. Andrews Paper Company has been awarded the contract by the Purchasing Officer of the Government Printing Office for furnishing 4,375 pounds (50 reams) of 21 x 32½—87½ No. 48 buff commercial ledger paper at \$.1885 per pound, bids for which were opened on November 24.

The Maurice O'Meara Company has been awarded the contract by the purchasing officer of the Government Printing Office for furnishing 10 reams of 40 x 60 rope Manila paper at \$.1023 per pound, bids for which were opened on November 24.

The Whitaker Paper Company has been awarded the contract for furnishing the Government Printing Office with 1,000,000 pounds of U. S. postal card cream bristol board in 44½" rolls at \$.0724 per pound, bids for which were opened on November 24.



Forced to the Limit

Making Paper at High Speed the Machine Tender often forces his machine to the Limit.

At such times it is a test of the design, workmanship and material.

In the recent record Speeds of Beloit Machines, maintained for days and weeks at a time, the above elements have withstood the Limit successfully.



BELOIT IRON WORKS
BELOIT, WIS., U. S. A.



New York Trade Jottings

R. S. Kellogg, secretary of the News Print Service Bureau, 342 Madison avenue, New York, left for Washington, D. C., on business Wednesday night of this week.

* * *

The Canfield Paper Company, 62-64 Duane street, New York, has distributed to the trade an attractive folder describing its new paper, Silverplate Super. Prices quoted to the trade range from 10 to 11 $\frac{3}{4}$ cents a pound, depending upon the quantity.

* * *

The Frederick Iron and Steel Company, engineers, founders and machinists, announce that it has recently developed a rotary vacuum pump, known as the Frederick Rotary Epirex Pump, and will exhibit it at the Power Show, Grand Central Palace, New York, this week.

* * *

T. J. Burke, secretary of the Cost Association of the Paper Industry, will attend a meeting of the Berkshire Local Division of the Association to be held at the Wendell Hotel, Pittsfield, Mass., Thursday night of this week. He will deliver a short address on the recent Holyoke convention.

* * *

G. A. Ware, cost-accountant of the News Print Service Bureau, 342 Madison avenue, New York, left the city Tuesday night of this week on one of his regular trips through the lake states. He will visit the Wisconsin and Spanish River mills en route and plans to return to New York before Christmas.

* * *

Harry and Ben L. Gerofsky, dealers in paper makers' supplies, of 280 Boerum street, Brooklyn, announce that they have severed their former connections with Gerofsky Brothers, Inc. Until they take possession of their new building they will temporarily conduct business at their Brooklyn warehouse. The phone number is Stagg 9515.

* * *

The "Return to Normal" circular issued recently by the American Paper and Pulp Association has had the most extensive demand of any publication ever printed by the Association, according to Warren B. Bullock, Director of the Information Service. Over ten thousand additional pamphlets have been printed, many paper concerns having sent copies to their entire trade.

* * *

The National Exposition of Power and Mechanical Engineering will be held at Grand Central Palace, New York, from Thursday of this week until Wednesday, December 13. The exhibition, which includes various types of machinery used in paper mills and power plants, will be open to the public from 12 noon to 10:30 p. m. daily, an admission fee of fifty cents being charged.

* * *

"Seeing a truck load of print paper rolls is pretty discouraging to a man who at the moment of gazing is hard put to it for a single paragraph," asserts F. P. A. in the "Conning Tower" of Tuesday's New York *World*, "but the news from Newfoundland that its output of paper is about to be trebled just about gives him vertigo. This news about the paper output is a symphony to the ears of circulation managers."

* * *

A meeting of the Waste Paper Division of the National Association of Waste Material Dealers, Inc., Times Building, New York, has been called for Wednesday, December 20, at 10 a. m., Hotel Astor. The Paper Stock Division of the Association will be held the same morning at 11 o'clock and will be featured by the report of a committee which conferred with the Writing Paper Manufacturers' Association, Wednesday of this week.

Joseph Gatti, formerly president of the Gatti-McQuade Company, recently forced into bankruptcy, announces the organization of the Gatti Paper Stock Corporation for the purpose of continuing all branches of the business for many years carried on by the former company. The new incorporation, the announcement says, will begin business without indebtedness of any kind and with ample facilities, according to Mr. Gatti, to give its customers the most satisfactory service in every respect.

* * *

"Go to Grass" is the unique title of an advertising circular distributed last week by Blake & Decker, Inc., 50 East 11th street, New York. The folder is printed on First Grade Esparto Medium Finish Antique paper and deals with the adaptability of esparto grass paper to general trade usage. Blake & Decker, Inc., have recently secured the New York representation for Esparto Papers, Inc., of Philadelphia and are now prepared for immediate delivery in any quantity. Samples and dummies will be furnished on request.

* * *

Formation of the Sulphur Export Association by the three large American producers, Texas Gulf Sulphur Company, Union Sulphur Company and Freeport Sulphur Company, says the *Wall Street Journal*, is another step to make available new outlets for sulphur to absorb production which for some years has been in excess of demand. Rearrangement of the agencies to handle export business in Europe will be followed by an intensive campaign to reconvert European manufacturers of sulphuric acid to the use of free sulphur in place of pyrites. A more general use of sulphur in industry and agriculture will also be advocated.

Lignistra Fibre Products Co. Sold

BARBERTON, Ohio, December 4, 1922.—The business of the Lignistra Fibre Products Company has been sold to a new company which will operate under the name of the Monroe Board and Lining Company.

The business will be carried on for a few months at the same location in Barberton, Ohio, as in the past. After that time it will be removed to Monroe, Mich. A new building, it is reported, will be erected in Monroe to house the new company.

Fred Motz, who has been the manager of Lignistra, goes with the new company in an executive capacity, so the customers of Lignistra can be assured of good service and good quality of material.

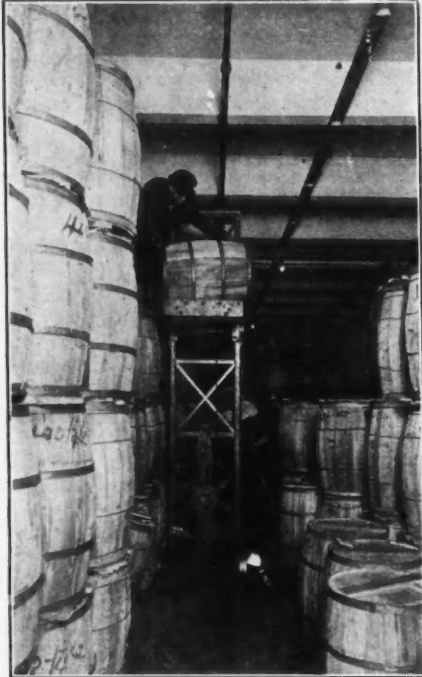
Paper Specifications Committee Completes Work

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., December 5, 1922.—The specifications committee of the Joint Committee on Printing completed its work on the specifications for paper for the Government Printing Office on Monday. The report of the specifications committee will be made to the Joint Committee on Printing on Wednesday. A number of interesting changes are understood to have been made, although the report itself is not available at this time. The changes of greatest interest to the paper contractors deal with overweight and underweight of paper delivered at the printing office. The new arrangement will probably be more satisfactory to the paper contractors than the one now in use.

Nilsen, Lyon & Co. Take New Agency

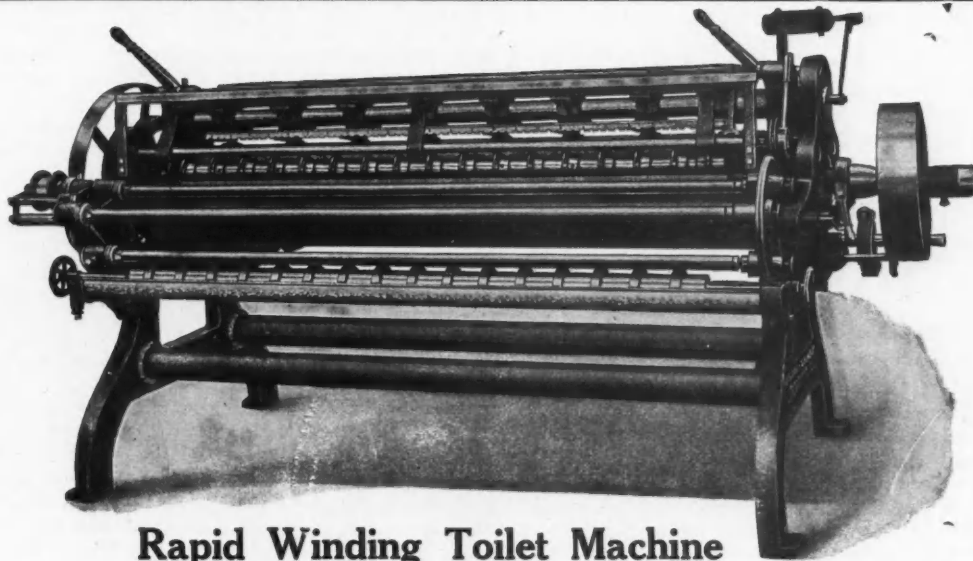
Nilsen, Lyon & Co., Inc., 140 Nassau street, New York, wish to announce that they have been appointed exclusive selling agents in the United States for Tofte-Cellulosefabrik, A/S, Christiania, Norway, manufacturers of bleached sulphite. This mill has a yearly production of 25,000 tons of high grade bleached sulphite that can be shipped throughout the year to any Atlantic or Pacific port.



The Most Satisfactory Portable Elevator You Can Buy

- Reversible flat and roller platform.
- Lever for raising and lowering top section.
- Quick speed lowering device.
- Automatic brake.
- Ability to lower on hoisting spindle as well as quick speed.
- Cut Gears.
- Ball bearing wheels.
- Rugged construction throughout.
- Electric machines have regular hoist type motor, line switch, reversing controller, upper and lower limits, heavy silent chain drive.

**NEW JERSEY FOUNDRY & MACHINE CO. 90 West Street
New York City**



Rapid Winding Toilet Machine

This Toilet and Towel Roll machine does very rapid work and is as continuous as possibly can be made. The triple winding shaft arrangement, which is a special feature, enables rapid manipulation. The standard machine perforates sheets 5 inches in length, and can be readily changed for different widths of toilet or towel rolls.

Capacity of a 72 inch machine: 120 cases in eight hours.

We also manufacture Pneumatic Bundling Machines, Baling Presses, Soft Roll Winders, Crepe Machines and Twin Napkin Folders.

Write for Complete Catalog

HUDSON-SHARP MACHINE COMPANY,

Green Bay, Wis.

Connecticut Valley Cost Men Meet

HOLYOKE, Mass., December 5, 1922.—Chapter One of the 1922-23 program prepared by the Connecticut Valley Branch of the Cost Association of the Paper Industry was carried out last night when "The Relationship of Costs and Industrial Engineering in Paper Manufacture" was discussed at the meeting held in the Nonotuck Hotel of this city.

Sanford E. Thompson, an industrial engineer of Boston, Mass., was the principal speaker on the above subject, various phases of the subsequent discussion being led by A. H. King and A. M. Chadwick, of the Crocker-McElwain Company, and C. H. Gardner, John Hazen and A. S. Thompson, of the Taylor-Logan Company, the last five named constituting the program committee for this meeting.

The program committees and subjects of discussion for the 1922-23 season of the Connecticut Valley Branch have been divided into six chapters, the remainder of which are as follows: Chapter Two, January 8, 1923, "The ordering of Raw Material and Conversion of Same"; A. C. Locke, of the Valley Paper Company and E. B. Cooley, of the Parsons Paper Company.

Chapter Three, February 5, "Production and Finishing Records"; F. H. Webster, of the Carew Manufacturing Company, and J. E. Barrett and E. M. Walker, of the American Writing Paper Company.

Chapter Four, March 5, "Analyzing Variation in Pay Roll, Personnel and Value"; G. A. Wilms, Otto Ostregren and F. H. Foerster, of the White & Wyckoff Manufacturing Company.

Chapter Five, April 9, "Closing of Books"; R. H. Morrill, of the Chemical Paper Manufacturing Company and J. A. Reilly, of the American Writing Paper Company.

Chapter Six, May 14, "Analysis of Profit and Loss by Grades"; R. M. Mudgett, R. F. Dutcher and D. E. Davis, of the Strathmore Paper Company.

A short address on the recent Holyoke Convention by Thos. J. Burke, secretary of the Cost Association of the Paper Industry will be a feature of the meeting of the Berkshire Local Division of the Association, to be held at the Wendell Hotel, Pittsfield, Mass., this Thursday night, December 7. James A. Reilly, manager of the Cost and Inventory Department of the American Writing Paper Company, has been asked to give another talk on the "Standard Cost Estimate Form" including the revisions made in this form as a result of the discussions at the recent Cost Convention at Holyoke.

"Standard Cost Estimate Form" as well as other forms of estimate sheets, it was announced by T. J. Burke, were to be the subjects of discussion at the meeting of the Kalamazoo Local Division, the meeting being held Wednesday night, December 6.

Finland Pulp and Paper Situation

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., December 5, 1922.—A report on the situation in Finland's paper and pulp industry during September has been forwarded to the Department of Commerce by the American Consul at Helsingfors. The Consul, in his report, says:

"According to a current report in Finnish paper circles, it is understood that a conference between Swedish and Norwegian paper manufacturers took place during the month of September, at which it was decided to increase the prices of certain of their products, because of improvements in various foreign markets. While, as far as can be learned, there does not seem to be any evidence of this decision and competition remains as keen as ever, it is the feeling among Finnish producers that prices will be increased, particularly because for some time they have not been in proportion to the cost of production. The Finnish exporters report a tendency toward higher prices for their products in the United States, with a fairly brisk demand for news print paper and kraft. On the other hand, in England prices have declined to such an

extent that the producers are unwilling to sell their products in that market.

"The exports of paper for September amounted to 19,890 short tons, of which 15,310 tons were exported by the Finnish Paper Mill Association and 4,580 by the Kymmene Aktiebolaget. The total exports of paper for the nine months ending September 30 amount to 158,500 short tons.

"While the cardboard section of the industry shows improvement, trade has not revived to the same extent as that in the paper lines. However, exports show a decided improvement over last year, the volume amounting to 18,460 short tons for the first nine months of 1922, as compared with 6,200 short tons for the same period in the previous year.

"The demand for sulphite and sulphate pulp has increased and prices have consequently advanced somewhat. This is also true in regard to the groundwood market. As a result of brisk sales during the last few months, the Finnish mills have practically disposed of their entire output for the year and are only able to take care of small orders. Some contracts have been made for early 1923 delivery. Producers express the opinion that there will be a shortage of pulp throughout the world during the coming winter and there will be a tendency toward further increase in prices. The prices ruling during September were as follows: Bleached sulphite, \$4.25 per 100 pounds; easy bleaching, \$3.00 per 100 pounds; strong sulphite and sulphate, \$2.75 per 100 pounds.

"Exports of sulphite and sulphate pulp during the month amounted to 15,870 and 8,370 tons, respectively, bringing the total for the year up to 153,630 short tons of sulphite and sulphate. The bulk of the exports went to the United States, with England, France and Belgium taking fair quantities. Small quantities of cellulose were shipped to Japan via Hamburg, and some to South America by direct shipment."

Large Transit Trade in Paper in Germany

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., December 4, 1922.—In the year 1921, Austria's transit commerce in paper and paper manufactures amounted to 26,117 metric tons, according to a report received by the Paper Division of the Department of Commerce. Of this amount 13,457 tons came from Germany, 11,091 tons from Czechoslovakia, and 890 tons from Jugoslavia. The principal countries of destination and amounts received by them were as follows: Italy, 12,588 tons; Hungary, 5,351 tons; Jugoslavia, 4,401 tons; Rumania, 1,314 tons; Bulgaria, 587 tons.

Austria's large transit trade in paper, as in other goods, is attributable largely to Austria's favorable position in the heart of the old Monarchy and its possession of Vienna, a long established transit center. In part, also, it is said to be due to the action of the neighboring states in trying to profit by the low freight rates charged on Austrian railways under the provisions of the Peace Treaty.

Thos. W. Cole Goes With Hummel-Ross Corp.

[FROM OUR REGULAR CORRESPONDENT.]

HOPEWELL, Va., December 4, 1922.—The Hummel-Ross Fibre Corporation, has secured the services of Thos. W. Cole to sell its sulphate pulp now manufactured at Hopewell. Mr. Cole is too well known to need an introduction, as he has specialized in the sale of pulp and paper made from Southern woods. The association of Mr. Cole with the Hummel-Ross Fibre Corporation will mean a new activity in the sale of its pulp, and with his knowledge of their customers' requirements, it will mean that its pulp will continue to be manufactured as a standard high-grade pulp. Before Mr. Cole establishes his permanent office in New York city, he intends to visit the mills and renew acquaintance with his many friends.

Agents
SUNDS AKTIEBOLAG
STRONG SULPHITE
indirect cooking

PERKINS-GOODWIN CO.
 NEW YORK
PULP and PAPER

Agents
A/S Toten Cellulosefabrik
BLEACHED AND
EASY BLEACHING
SULPHITE

ALFRED LEEDS, President
KARL BECKER, Vice President

ERNEST R. COLLINS, Secretary
EDWARD M. MILLER, Treasurer

Becker Paper Corporation

350 Madison Ave., New York, N.Y.

317 Main Street, Springfield, Mass., Branch Office for New England States

Dealers in All Grades of Paper

SPECIALISTS IN

**BOOK PAPER, GLASSINE and EMBOSSED
GLASSINE PAPERS**

Exclusive Distributors for

**WESTFIELD RIVER PAPER COMPANY
RUSSELL, MASS.**

Plans for New Paper Mill at Ogdensburg

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., December 4, 1922.—Final organization of the new paper company that is to be located in Ogdensburg will be perfected at a meeting scheduled for Tuesday or Wednesday of this week. The closing of a suitable contract with the St. Lawrence Transmission Company has been the feature upon which the success of the plan hinged, and it is said that an agreement has been practically reached as a result of a conference held Saturday between F. A. Augsbury, S. D. Lansing and G. M. McKee of the new company and F. A. Stoughton of the electric concern. It is understood that the basis of a contract was agreed upon.

On Tuesday or Wednesday the stockholders of the new company will meet to elect directors and sign a power contract. At that time the name of the concern will be selected officially. The promoters hold an option on the property of the Ogdensburg Paper Mill Company and this option will be exercised at that time.

Frank A. Augsbury, who will probably be named president of the new company, said in an interview Saturday, that the financing had been accomplished and with the power made available at a figure which permits operation the company will proceed at once to transform the Continental building into a plant that will be turning out news print paper by June 1 at the rate of 80 tons daily.

The present plant will be entirely remodeled under plans already worked out. The docks will be rebuilt with a 120 foot extension to accommodate the unloading of boats bringing pulpwood from points down the St. Lawrence river. In the enlargement of the building it will be widened by 15 feet so as to make it 60 feet wide throughout. Among the new equipment to be installed will be a 194-inch Bagley & Sewall paper machine.

From every angle the location is considered ideal for the manufacture of paper. The only exception is the lack of power, and the contract for a long period of years with the St. Lawrence Transmission Company at a low figure guarantees this feature.

The principal stockholders are men of large interests. F. A. Augsbury has been prominent in the business for years; Stuart D. Lansing is head of the Bagley & Sewall Company; G. M. McKee who becomes general manager, is a prominent practical paper manufacturer; Alvah Miller, paper broker of New York and a director of the St. Regis Paper Company, is also a man of prominence in the trade.

As soon as the meeting is held and the deal definitely consummated this week, the contract for putting the mill in shape for production next spring will be awarded.

Government Saves on Envelope Contracts

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., December 6, 1922.—The Postmaster General in his annual report to Congress on Monday had the following to say regarding envelope contracts:

"Last year negotiations with the stamped-envelope contractors resulted in the cancellation of their existing four-year contract and a new agreement for the balance of the term. A saving of \$6,276,194.80 was effected.

"Mention was made in the last annual report of the revision of the specifications of envelopes of the executive departments and independent establishments of the Government whereby 95 of the 289 items which were previously listed were eliminated by consolidations. During the past fiscal year this subject has been given further attention by a committee consisting of representatives of the various executive departments and independent establishments of the Government, and 49 additional items have been eliminated, reducing the total number of items on the schedule of envelopes to 139. The prices quoted for furnishing the envelopes under the new schedule show a saving for the year, based upon the estimated quantities that will be ordered, of \$53,000.

"During the fiscal year the department purchased 2,653,994

pounds of jute twine for use in the Postal Service. It has been the policy of the department for years to make contracts for jute twine for a period of the year, beginning on the first day of November on account of crop conditions. However, at the expiration of the contract during the last year, advertisements were issued to cover a specified quantity for immediate delivery, with the result that the prices quoted were approximately 35 per cent lower than those quoted for the three previous years.

"The policy of using surplus supplies of other departments, which was adopted by this department after the appointment of the chief co-ordinator, was continued during the past year. No purchases were made from commercial firms until it was ascertained from the chief co-ordinator that none of the supplies desired was obtainable from other departments of the Government. It is estimated that the Post Office Department saved approximately \$86,000 by purchasing the supplies which other departments had on hand as surplus during the past year."

The W. G. N.—An Interesting Book

Attracting unusual attention from its very cover, bearing the cryptic initials W. G. N., which, the reader discovers later stands for "World's Greatest Newspaper," the new book, published by the Chicago *Tribune* in commemoration of its seventy-fifth birthday, succeeds in holding that interest throughout its 300 pages of well illustrated text matter. Centering around the activities of the *Tribune* itself, this unique volume succeeds in presenting a compendium of the varied processes which enter into the making of a modern newspaper as well as the bearing of allied industries upon newspaper publishing.

The first five chapters are devoted to the past history of the Chicago *Tribune*, from 1847 to 1922. They are interwoven with the high lights of American history during that period, related from a thoroughly entertaining newspaper perspective. The balance of the volume deals with the editorial, advertising, production, circulation, auditing and controlling divisions of the W. G. N.

Of especial interest to paper men should be the chapters dealing with the Chicago *Tribune's* pulpwood forests and the colorful description of news print manufacturing as carried on in its mill at Thorold, Ont.

The touch of romance throughout the W. G. N. makes vivid and realistic drama out of the matter-of-fact machinery that enters into the building of a great daily newspaper. The "newspaper style" of relating and co-ordinating the different phases of the industry commands interest where expository technical phraseology would allow the reader's attention to lag. "Driving logs down the river," says one paragraph, "is a dashing, picturesque phase of the work to which the men take more readily than to the other duties."

Finally, the W. G. N. can be read, understood and enjoyed by the layman. Its human interest and educational value recommend themselves not only to every newspaper reader in the country but to all who are influenced by that all-powerful moulder of public opinion—the daily press. The American citizen is herein afforded inspiring panorama of modern journalism as it really is.

Copies of the W. G. N. may be obtained from the Tribune Company, Chicago, at \$2 each.

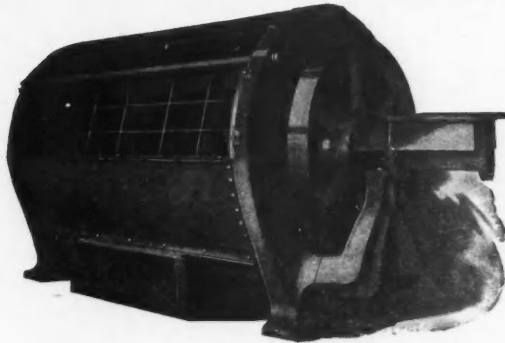
Building New Paper Carton Factory

The Lawrason-Doughty Company, 42 Church street, Toronto, manufacturer of paper cartons, has awarded the contract for a new factory on Hamilton street, which will cost \$150,000. The building will be three stories high with basement, 50 x 100 feet, of mill and brick construction, with concrete floors and steam heating. The company has been very busy of late and more room has become a necessity.

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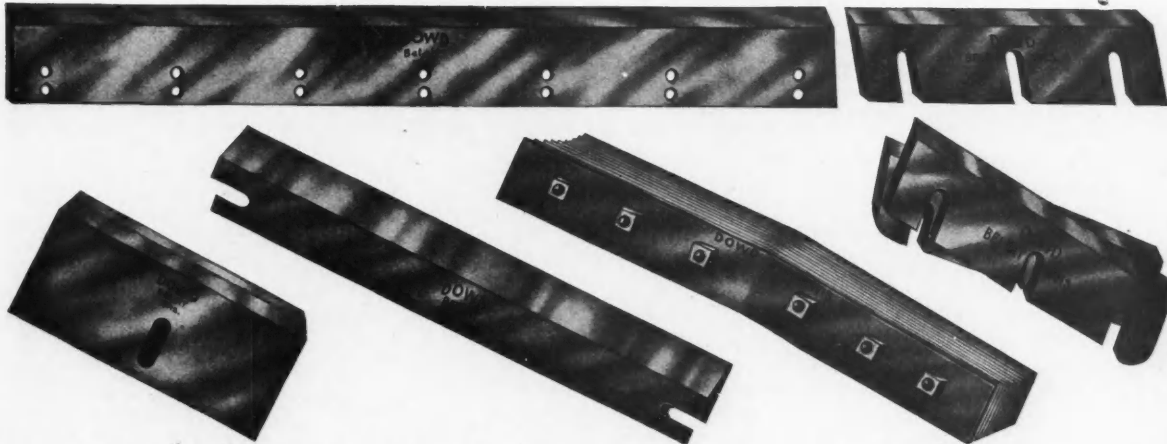
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Your purchase must be right and you must be pleased. Otherwise the transaction is not in our judgment a success. Let us have your inquiries.

R. J. DOWD KNIFE WORKS

Beloit, Wis., U. S. A.

Urges Comprehensive Forest Policy

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., December 6, 1922.—The urgent need of developing a comprehensive forest policy, without further delay should be recognized by every man in a position of legislative or administrative responsibility says Secretary of Agriculture Wallace in his annual report to the President, made public here today. We now consume timber four times as fast as we grow it, and the necessity for working out a plan for protecting, regrowing, and utilizing our forests becomes more obvious with each succeeding year.

The secretary expresses the hope that some legislation would be enacted very soon which would give the opportunity for the working out and application of a forest policy suited to the needs of the nation. He outlines the essentials of such legislation and suggested the following five provisions:

First, for the extension of Federal co-operation with the States in the protection of forests in State or of private ownership. The annual loss of about \$20,000,000 from forest fires can be reduced by such co-operation and the use of Federal funds for protecting the forests is justified to the same degree as the use of city funds for the maintenance of a fire-fighting department is justified.

Second, more complete co-operation with the States in growing and distributing forest-planting material. New forests should be established where they are most needed and the soil is adapted.

Third. Purchase of timber land should be extended as rapidly as the condition of the Public Treasury will permit. Such lands purchased are an investment, increase in value and become a continuing source of national income.

Fourth. All lands in the unreserved public domain and in Indian reservations which will ultimately be thrown open for other disposition, and suited to timber growth, should be included in the national forests.

Fifth. Provision should be made for research in the growing and utilization of timber on a scale adequate to present needs. While we are advancing rapidly in acquiring technical information, our present research agencies cannot meet the demands of the existing situation as to timber use or new timber growth.

Legislation which would include the five matters mentioned ought to be enacted at the earliest possible date, said the secretary.

"The establishment of additional forest experiment stations, especially in the Lake States and in the New England area, is much to be desired. At such stations we are able to make close-at-hand studies of matters affecting forest growth which can not be made so well in any other way."

While considerable progress has been made during the fiscal year in checking the inroads which forest fires are making in the timber resources of the nation—about one-half of the forest lands of the country outside the national forests receiving some form of systematic fire protection—there are still 166,000,000 acres of forest lands wholly unprotected from fire, and the annual loss is appalling.

Promotions by Nekoosa-Edwards Paper Co.

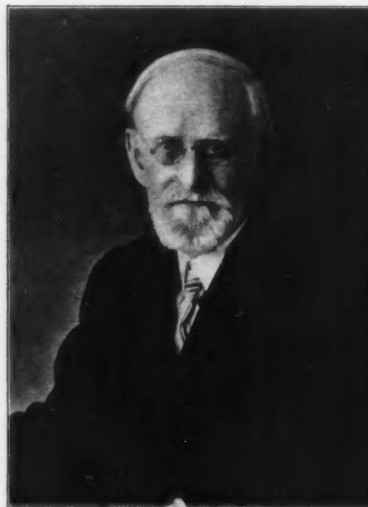
PORT EDWARDS, Wis., December 6, 1922.—C. A. Wiley, who has been superintendent of the Nekoosa paper mill of the Nekoosa-Edwards Paper Company for the past twelve years, has been promoted to the position of assistant director of manufacturing to assist B. T. McBain as director of manufacturing the charge being effective Monday, November 20, 1922. Mr. Wiley entered the company's employ as a machine tender some eighteen years ago and went up in the usual manner to the position he has held so long.

C. E. Youngchild, former assistant superintendent at the Nekoosa paper mill, has been made superintendent of this plant.

Mr. Wiley will continue to reside at Nekoosa, but will make his headquarters at the head office of the company in Port Edwards.

Col. King Fifty-Six Years in Paper Trade

Following active service throughout the Civil War, Col. David King entered the paper business in 1866, and has been connected with it continually ever since that time, for many years being the owner of a paper mill. Colonel King is now president of the



COL. DAVID KING

Springfield Paper and Merchandise Company, of Springfield, Ohio, and has just celebrated his eighty-fourth birthday. He is to be found in his office every day, taking an active interest in all that concerns the business, with which he has been connected for 56 years.

"Markets of the World"

The First National Bank of Boston is publishing a supplement to the booklet which it issued two years ago, entitled "Markets of the World." It is made up of a series of commercial maps and statistical data concerning the United States and Canada, and embraces an unusual compilation of useful commercial information conveniently presented. While it contains an immense amount of information of interest to the student of commercial geography, it has been prepared especially for the use of the sales manager, in determining the market possibilities of any given State, province or territory. There are detailed figures covering area and topography, population, education, minerals, timber, fisheries, water-power, agriculture, industry, transportation, finances, principal cities and legal holidays.

Like the former series, it is in loose-leaf form and designed to be inserted in the original binder. The supplement is being sent to all holders of the first edition, and a limited number of copies is available for general distribution, upon application to the service department of The First National Bank of Boston.

Twin City Paper Houses Buy Whitaker Division

MINNEAPOLIS, Minn., December 6, 1922.—The Wright, Barrett & Stillwell division of the Whitaker Paper Company, Hampden and University avenues, St. Paul, has been sold to a group of Twin City paper houses and will be operated as the Twin City Paper Company until the purchase price has been liquidated. The transaction involves a \$300,000 turnover. Companies participating in the deal are: John Leslie Paper Company, Minneapolis Paper Company, McMillan Paper Company, The Paper Supply Company, Seaman Paper Company of Minnesota and the Leslie-Donahower Supply Company, St. Paul. The plant of the old company will be leased for others purposes in the near future.

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each drink a cup—each cup a sale for you and at lowest cost of any cup on the market.

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Editorial

Vol. LXXV New York, December 7, 1922 No. 23
FIFTY-FIRST YEAR

Paper Exports Not Encouraging

The exports of paper in general, according to the latest statistics given out by the Department of Commerce at Washington, are not of an encouraging character. The figures for September, which are the latest available, show a slight decline as compared with August. The figures for the former month were only \$1,954,298 as against \$2,079,436 for the latter. The figures for September a year ago were \$1,558,988. The exports of all varieties of paper for the nine months ending with September amounted to \$17,857,132 as compared with \$24,518,441 for the same period last year.

In the case of news print, however, the figures for September as compared with August showed a slight increase, those for the former month being \$201,736 and for the latter \$181,077. The figures for September of last year were \$116,175. The figures for the nine months ending with September were \$1,906,821 as compared with \$1,829,047 for the same period in 1921.

The exports of Kraft and other varieties of wrapping paper for September were valued at \$177,857 as compared with \$146,747 for August. The exports of all varieties of wrappings for the nine months ending with September amounted to \$1,626,739.

The exports of writing paper, except in papeteries, for September were valued at \$113,131 as compared with \$111,913 in August. The exports of writing paper, except in papeteries, for the nine months ending with September were valued at \$890,188.

The exports of paper board and strawboard for September amounted only to \$155,078 as compared with \$244,096 for August. The figures for September of last year were \$88,086. The exports of paper board and strawboard for the nine months ending with September were valued at \$1,546,690 as compared with \$1,901,530 for the same period last year.

The exports of tissue and crepe paper for September were valued at \$72,894 as compared with \$70,732 in August. The exports of this variety of paper for the nine months ending with September were valued at \$487,003.

The exports of cover paper for September were valued at \$18,988 as compared with \$20,958 for August and the exports for the nine months ending with September were valued at \$158,725.

The exports of grease and waterproof paper for September amounted to \$10,854 as compared with \$13,302 for August and for the nine months ending with September amounted to \$104,004.

The exports of surface coated paper for September were valued at \$43,463 as compared with \$35,723 for August and for the nine months ending with September amounted to \$424,615.

The imports of paper also showed a considerable decline for September, the figures amounting only to \$5,971,013 as compared with \$7,096,421 for August and \$7,169,795 for September of last year. The imports of paper for the nine months ending with September were valued at \$61,636,152 as compared with \$71,506,125 for the same period in 1921.

The imports of rags for paper making purposes in September

were valued at \$552,791 as compared with \$516,538 for August, and only \$90,121 for September of last year. The imports of rags for the nine months ending with September were valued at \$3,219,476 as compared with \$1,353,863 for the same period last year.

The imports of all other kinds of paper stock for September were valued at \$389,550 as compared with \$414,116 for August and \$153,110 for September a year ago. The imports of all other kinds of paper stock for the nine months ending with September were valued at \$2,880,503 as compared with \$1,567,208 for the same period last year.

The imports of ground wood for September showed a decided increase over August, the figures for the former month being \$492,244 as compared with \$358,938 for August and \$695,561 for September of last year. The imports of ground wood for the nine months ending with September were valued at \$3,298,112 as compared with \$3,080,849 for the same period in 1921.

The imports of unbleached sulphate for September were valued at \$993,729 as compared with \$1,311,751 for August and \$906,214 for September of last year. The imports of unbleached sulphate for the nine months ending with September were valued at \$10,373,316 as compared with \$6,046,716 for the same period in 1921.

The imports of unbleached sulphite for September amounted to \$1,559,612 as compared with \$1,560,603 for August and \$1,132,281 for September of last year. The imports of unbleached sulphite for the nine months ending with September were valued at \$13,577,437 as compared with \$8,589,184 for the same period last year.

The imports of bleached sulphate for September were valued at \$44,289 as compared with \$28,023 for August and \$3,905 for September of last year. The imports of bleached sulphate for the nine months ending with September amounted to \$516,313 as compared with \$77,643 for the same period in 1921.

The imports of bleached sulphite for September amounted to \$1,121,079 as compared with \$1,682,188 for August and \$422,457 for September of last year. The imports of bleached sulphite for the nine months ending with September were valued at \$12,050,355 as compared with \$6,255,329 for the same period in 1921.

Public Opinion and Business

We are hearing a lot nowadays about business cycles, or the theory that prosperity and depression move in alternating waves or circles which can be very nearly forecasted by a careful study of past conditions and present probabilities.

On the other hand, there are some very successful captains of industry who are ready to go on record that, in their opinion, these cycles are "effects" rather than "causes," and represent, in a measure at least, the contagion of public opinion.

For example, everybody is optimistic; everybody is talking about good times and the inevitable boom ahead. The general mental attitude of business reflects this sentiment and people spend freely and enjoy life as they go along. People acquire for the time being at least, a cheerful outlook and business is good and the country is prosperous. Then the crops are poor, or a war upsets industrial and commercial relations, and people become a little frightened and dubious, and this condition communicates itself to others.

In short, a spirit of caution develops; financiers go slowly; and those who are living on limited means stop spending, and so the

demand for many things falls off. As a result, manufacturers are compelled to cut down on their production, and we have a period of depression which lasts until circumstances and good common sense really assert themselves.

Without doubt, there are fundamental causes which contribute to the cycle theory, but we must also admit that public opinion is contagious to a surprising degree, and we are likely to repeat and to feel what everybody else is saying and thinking.

U. S. Exports of News Print and Book Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., December 4, 1922.—Constant Southworth, Chief of the Paper Division of the Department of Commerce, in discussing the United States paper export trade, says that the world's export of paper mill products compiled from the official foreign trade statistics of each country concerned, shows that in 1921 United States exports of news print, book paper and wrapping paper (the only kinds of paper for which quantity figures are available) amounted to 2.2 per cent of the world's export trade in flat papers. In continuing his discussion on this subject, Mr. Southworth says:

"The 1913 proportion was 3.8 per cent. On the basis of value, however (including all other kinds of flat papers in addition to news print, book and wrapping), the figures give the United States about 10 per cent of the world's flat paper export trade in 1921, in comparison with about 7 per cent in 1913. Unstable conditions of exchange prevailing in 1921 probably somewhat depressed the total dollar value of exports of certain European countries below what the actual goods shipped would have been worth had the exchange been stable. Consequently, the United States' share in the world's flat paper export trade in 1921, both on a quantity and on a value basis, was somewhere between 2.2 per cent and 10 per cent. It is impossible to determine the exact proportion.

"The growth in Canadian exports of news print to the United States is the only reason for the increase in the world's paper exports in 1921 compared with 1913. The world's exports of flat paper increased from about 1,200,000 short tons and 1,900,000 short tons in 1908 and 1913, respectively, to 2,150,000 short tons in 1921.

"The total world's export figures given represent the combined exports of the following countries:

"United States, Canada, Germany, The Netherlands, United Kingdom, Sweden, Norway, Finland, Austria-Hungary (including Czechoslovakia), France, Belgium, Italy and Japan.

"Canadian exports of printing and wrapping paper (which represent practically all Canada's exports) increased from 148,000 short tons in the year ended March, 1913, to 878,000 short tons in the year ended March, 1922.

"In the year 1921, the world's flat paper exports on the basis of quantity were divided among various countries as follows: United States, 2.2 per cent (as noted above; this figure represents only a part of the United States exports); Canada, 40.8 per cent; Germany, 14.9 per cent; Sweden, 10 per cent; Finland, 6.8 per cent; The Netherlands, 6.9 per cent; Norway, 4.2 per cent; United Kingdom, 3.6 per cent; Austria and Czechoslovakia combined, 5.3 per cent; (the percentage for Austria was computed from Austrian exports in 1920)."

To Report on Use of Rubber Latex in Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., December 6, 1922.—The paper machine runs of the Paper Laboratory of the Bureau of Standards of the investigation of the use of rubber latex and paper have been completed, it is understood, and a report of the results of this study will be available in the near future. It is proposed to indicate the effect of the addition of rubber latex in the report on both book and kraft paper.

Arbitrators for Pulpwood Buying

Selection of official arbitration scalers to carry out the pulpwood customs tentatively formulated for the handling of pulpwood contracts in New York State is the suggestion which has been made following the receipt of commendatory letters on the work already done.

The three grades which were tentatively suggested by the New York Committee of the Woodlands Section of the American Paper and Pulp Association, under the chairmanship of W. S. Smith, have met with such favor that it is now proposed to not only adopt these grades as the recognized three grades for spruce, but also to use them as a basis for purchases of other wood, with proper differentials between the going prices for spruce and hemlock, long logs, burned rough and old wood, etc.

The New York Committee of the Woodland Section of the American Paper and Pulp Association has further recommended the desirability of the employment of an official check scaler "for the purpose of settling disputes between pulpwood sellers and buyers, since it appears that, under the present systems, while most companies have adequate and comprehensive pulpwood contracts, there is no unified attempt to enforce the contract specifications. The committee recommends that one or more experienced official arbitration scalers be employed by the mills of a given locality and that he be a well paid man, with considerable experience both in the woods and in the wood room of the mill, in order that he might judge intelligently as to the condition in the pulpwood as indicated by the outward appearance of the rot, knot or other defect."

It was suggested that, while not employed in actual scaling, these men might be used to advantage in educating the shippers, in making investigations as to the amounts of shrinkage when 4 foot lengths are cut from logs, and other investigations of a similar nature.

May Erect Paper Mill at West Sacramento

[FROM OUR REGULAR CORRESPONDENT.]

SACRAMENTO, Cal., December 5, 1922.—That a San Francisco paper company is negotiating for the construction of a paper pulp mill to be established near West Sacramento, is the announcement made by Harold Van Tassel, county horticultural commissioner. Surveys have already been made of a strip of land near the rice mills, which is a portion of the tract purchased by the Virden Packing Company, it is said.

Mr. Van Tassel declared he met the head of the San Francisco concern at the state fair during which time the matter was discussed. Yolo county was named as a possible location, as the rice mills might be utilized in the manufacture of paper. It is said the rice refuse is ideal for paper manufacture, and with transportation facilities available the location of the plant for the district is feasible.

Forestry Report Held Up

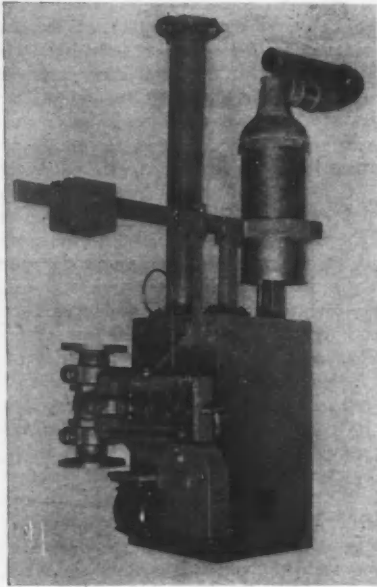
[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., December 6, 1922.—While officials of the United States Chamber of Commerce refuse to discuss the situation, it is understood that a spirited controversy took place at the Houston, Tex., meeting of the board of directors over the forestry report which was submitted by the special committee some time ago.

The forestry report was first laid before the Board at the meeting some two months ago at Omaha, Nebr., at which time no agreement could be reached, and it was announced that action would be taken at the Houston meeting the latter part of last week. No agreement could be reached at Houston, and the whole matter has been placed before Julius Barnes, president of the National Chamber, for his decision.

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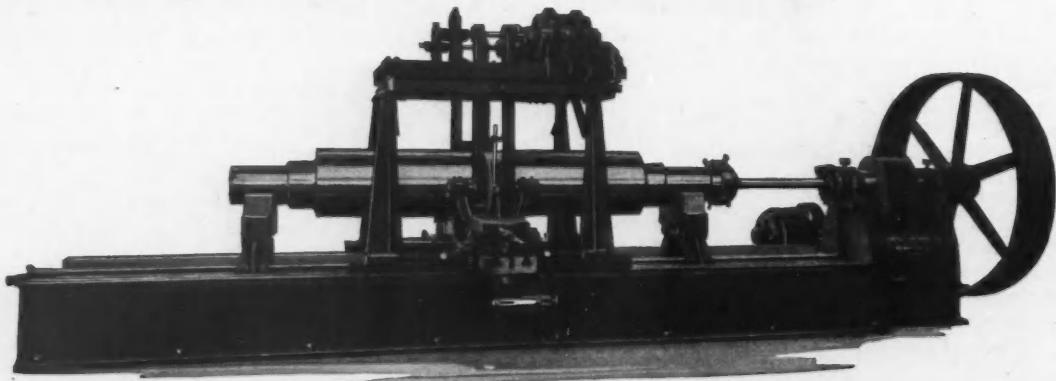
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Conducted by **W.G. MacNAUGHTON**, Secretary

DISCUSSION ON PAPER TESTING AT THE FALL MEETING OF T. A. P. P. I. AT DETROIT

(Continued from last week)

Folding Endurance

CHAIRMAN CURTIS: If there is no further discussion, we will go to the question of Folding Endurance.

As the result of some work done, it is indicated that the various folding testers weren't giving concordant results, so the committee sent out some samples to a number of laboratories to run on their folding testers. I have asked Miss Kiely to prepare the data and report on the investigation.

Report on Folding Tester

Recent results obtained on six different folding machines show a very great difference in results that could not be explained by differences in humidity and temperature. The Paper Testing Committee, therefore, decided to study the folding machine test further in an effort to ascertain its commercial value for testing papers, the tolerance to be allowed on tests, the correct procedure for operating and standardizing the machine and preparation of the sample.

PROCEDURE

Three sets of papers were chosen for this purpose and two hundred strips in each direction were cut as carefully as possible under atmospheric conditions of 73° F. temperature and 65 per cent relative humidity. These strips were then mixed up thoroughly and divided into groups at random in an attempt to get representative samples.

It was recommended that the folding machines be adjusted as far as possible in the same way—reference to article by Veitch, Sammet & Reed appearing in Paper, May 30, 1917, and Paper Testing Methods, 1922 (PAPER TRADE JOURNAL, July 27, 1922), was advised.

The relative humidity of 65 per cent was recommended. The springs should have a tension of one kilogram when the jaws were extended. The distance between the slotted sliding plate and four upright rollers—.015 and .020. The rollers and small discs should be working freely and not worn. The speed of the machine should be about 120 double folds per minute.

CONCLUSIONS

Reports were received from twelve machines and data received which indicate that the procedure recommended for adjusting the machines was followed and was very nearly the same for all machines. The variation in results could not, therefore, be attributed to this cause.

It was noticed that when the humidity was not controlled or varied during the tests the results showed a greater deviation from the average mean.

The importance of uniform humidity control was again emphasized. With the exception of humidity, no reason for the discrepancies in results could be given.

The twelve sets of results varied from a 1 per cent to a 72 per cent deviation from the average number of folds. An outstanding fact was that the number of folds in the cross direction ran very much more uniform than the paper cut in the machine direction, the difference between the maximum and the minimum tests being much less in the cross direction. It seems that the cross fold gives more accurate information than the machine.

Another fact was that the variation in the test was not always in the same way. A single machine would not run consistently higher or lower than the average even on the same paper. For instance, the result in the machine direction in one case would be higher than the average and the cross direction would be lower than the average, but on the whole any given machine seemed to run consistently above or below the average.

It does not seem that we have sufficient data to draw any general conclusions. The papers, I think, were not wisely chosen. Sample No. 4954, averaging about 14, shows very little about the accuracy of the machine. Sample No. 4975, folding approximately 5,000, has little value unless the humidity control is very accurate, as the strips folded for nearly an hour and humidity variation between that time would be reflected in the results. The tolerance on a 5,000 fold must necessarily be very high so it is very hard to judge the accuracy of such strips. Sample No. 4988 gave the best results for judging the accuracy of the machine and on this sample the results, with three exceptions, seemed to be the best, especially in the cross fold. It seems that more samples folding between 200 and 1,000 should be run before definite conclusions could be drawn.

It is also hard to draw conclusions because we have no data on how closely a given machine checks itself. It seems advisable to run several sets of the same papers on a single machine and find the accuracy of a given machine (the per cent deviation in a single machine from the average).

If all of the individual tests had been collected on these papers instead of just the maximum and minimum, something might have

been seen. Possibly the change in humidity would be reflected, the first five tests being higher or lower. It would seem advisable to collect all the information in such a case, not just the highest and the lowest.

It is recommended that the tests all be run on the same type of papers so that the formation of the sheet would not have anything to do with the results,—a bond, ledger or writing be selected and all tests run on that type of paper.

We have also obtained very satisfactory results by drawing a line vertically or at right angles through the sheet as the case may be and cut the strips so that the papers will be folded on that line. This does away as far as possible with any non-uniformity due to the papers and in checking the accuracy of machines it seems that the non-uniformity of the paper should be eliminated as far as possible.

Considering the results on the five machines that checked the closest, the results looked very encouraging and it seemed that if the strips were carefully cut and humidity watched that the folding machine has a distinct value and results from one laboratory should agree very closely with another.

It cannot be concluded that there is any difference between the old folding machines and the new machines now being put out in this country.

In 1907 Mr. Reed drew up some standard tolerances on the folding tests. If paper folded, for instance, between a hundred and two hundred, he recommended a tolerance allowance of fifty folds. All of these papers checked those standards, and the five machines of the twelve that checked the best, checked within two per cent.

CHAIRMAN CURTIS: I might say in connection with the selection of the samples, that they were picked to find the effect of composition; that is, the low folding, medium and high. We have occasion to test papers over 10,000 double folds, and a number of papers around 4,000 and 5,000 folds. Book papers run very low. I think the criticism of the taking of those samples was very good in that we tried to do too much at once and, as a result, have insufficient data.

I believe the problem is of sufficient importance to continue, and, if it is agreeable, I am going to plan to have further work done this winter and report at the April meeting. The samples will be prepared, I hope, by Miss Kiely herself and prepared according to the best practice and all on one sheet, and see if we cannot also have four or five tests on each machine, so that we get the deviation of an individual machine.

The personal factor is limited to two things: The cutting of the sample and the placing of the sample in the machine. Otherwise, I don't think there is any.

MR. NORRIS: There are one or two questions I would like to ask in connection with the sampling. How are the strips cut? If the strip is cut machine direction, you fold it cross machine. For the machine direction, do you absolutely cut that machine direction or do you cut that strip cross machine? You report it as machine direction, yet your fold is cross machine.

On the tearing machines you cut the strip the same way and yet you tear the other way. Now, how do you report that?

H. U. KIELY: It is just the opposite.

R. H. NORRIS: In connection with high folding papers, we have occasion to use the folding machine on stocks that would fold a day and a half before failure. We don't attempt to fold them that way; we have the standards set for a certain tensile strength after a standard number of folds. I was just going to suggest that that might be a good thing in connection with the sending out of these samples, in case we did want to take some that were high folding, to specify a number of folds and the tensile strength afterwards.

The question was brought up quite a number of times as to what we meant when we reported that a sample folded so many times machine direction or had such a tensile strength after so many folds machine direction or cross machine, and we have in consequence standardized on the one way of reporting; that is,

every sample that we report as machine direction has been cut from the machine direction of the paper, whether the tear has been across or not; we report it in the one way to avoid confusion.

CHAIRMAN CURTIS: I think on high folding papers that suggestion is a very good one. We have done a little work along that line, although not enough to draw any conclusions. I don't think anything over 10,000 means anything.

J. N. STEPHENSON: Mr. Chairman, I would like to just bring up that point as to what the folding test means and represents. There are various kinds of paper folding anywhere from two folds to two days, as somebody has said. Now, it seems to me that the paper that you are most interested in, as having folding properties, is the book paper, and that is the one that gives the fewest folds.

A factor that might be considered by the Committee is the relation of strength on folding to wearing quality, and it would be up to the Committee then to establish for various grades of paper how many folds should be obtained from the sample before the tensile strength test is applied.

Another mighty good suggestion that Mr. Norris made here is to standardize the meaning of the term "machine" and "cross" direction, and I think his suggestion that when machine direction is stated the sample is cut in the machine direction is also very good. It would be well to have a standard interpretation of those terms.

R. H. NORRIS: Mr. Chairman, in that connection I would like to state that in making these reports on a certain amount of tensile strength, after so many folds, we not only report so many pounds tensile strength on a 15 millimeter strip, after so many folds, but we calculate that in terms of percentage retention strength after so many folds. We do that with the folding machine.

H. BELL: I would suggest that commercial laboratories report instead of "With and 'cross," "Strips cut with" and "Strips cut across." That is the policy we have adopted, and it makes it very clear.

CHAIRMAN CURTIS: If there is no further discussion the Committee will plan to follow out this work and report in April, and I will ask them to go ahead with it and particularly get a method of calibrating the machine. It is a problem we are up against in all our paper testing: An independent calibration of the paper-testing instrument.

(To be continued)

Motion Pictures in the Industry

On account of the proximity of the original date of meeting, the usual monthly gathering of the American Section of the Society of Chemical Industry, to be held at Rumford Hall in the Chemists' Club, 52 East 41st street, New York, has been postponed from Friday, December 1, to Friday, December 15. The evening will be devoted to papers dealing with some of the chemical or physical aspects of photographic science, with special reference to the uses of photography and motion pictures in the industries. A paper dealing with the last-named aspect—the application of photography and motion pictures to industry—by Dr. A. B. Hitchins, director of the Research Laboratory of the Ansco Company, Binghamton, N. Y., will open the proceedings and this will be followed by an address on "Some Chemical Aspects of Photographic Science," by Dr. F. F. Renwick, director of the Redpath Laboratory of E. I. du Pont de Nemours & Co., Parlin, N. J. The third paper will be by Dr. Herbert E. Ives, Research Engineer of the Western Electric Company, New York, who is to take for his subject "Color Measurement as Utilized in Color Photography." This paper will be illustrated by lantern slides.

The members of the Technical Photographic and Microscopical Society are invited to attend this meeting, which has been planned for their benefit as well as for the members of the American Section of the Society of Chemical Industry, and it is hoped that the attendance will be a large and representative one.

MOISTURE INFLUENCE ON TESTS OF CONTAINER BOARD*

By SIDNEY D. WELLS, ENGINEER IN FOREST PRODUCTS, FOREST PRODUCTS LABORATORY, MADISON, WISCONSIN.

The growth of the consumption of fiber board is probably most phenomenal of any major product of the paper industry. We have constantly brought to our attention the inroads of the newspaper into our forests but compared with fiber board the growth of the consumption of news print is slow as is shown by an average increase of 9 per cent per year during the last twenty-three years for the former against 5 per cent annually during the last seventeen years for the latter. Between the years of 1899 and 1920 the re-

represents a growth in round numbers of from ten per cent to sixty per cent of the total. This growth does not represent a tax on the forests, however, but a saving of what would otherwise have been wasted. It is our concern not only from the standpoint of conservation but from the purely mercenary motive of personal income that the growth of the use of fiber containers continues to increase and the main factor determining that is to deliver the service expected. There was a period of several years some ten or more years ago when the hostility to the fiber box was very keen and it would undoubtedly have been legislated out by the railroads if the fiber box associations had not met the issue by backing the efforts to formulate and maintain standards. Standards, however, are a matter of slow growth and we occasionally come upon instances where they are not comprehensive enough on one hand or specific on the other.

A Factor of Vital Importance

The influence of humidity or moisture is a factor of vital importance and while we all will acknowledge such an influence we usually pay no heed to it when making or testing paper board and even in cases of dispute it is often not considered. For this reason I may be justified in bringing to your attention some of the work at the Forest Products Laboratory which bears on the subject. Some of this work has already been published in an article by Kress and Silverstein in the *Journal of Industrial and Engineering Chemistry*, March, 1917, and one by Kress and McNaughton in *Paper*, May 27, 1918. Some of this work was on paper but on account of the difficulty of testing board in such machines as are commonly used for folding and tearing tests on paper, they are also included. The influence of humidity is the same, however, and general conclusions will apply to both.

What the Figures Show

Both board and paper show a considerable variation in bursting strength as indicated by the Mullen Test. Figures 2, 3 and 4 show how the test varied on typical samples of liner, filler and chip board. They all indicate that after 80 per cent humidity is exceeded the pop test rapidly falls off. Such humidities are

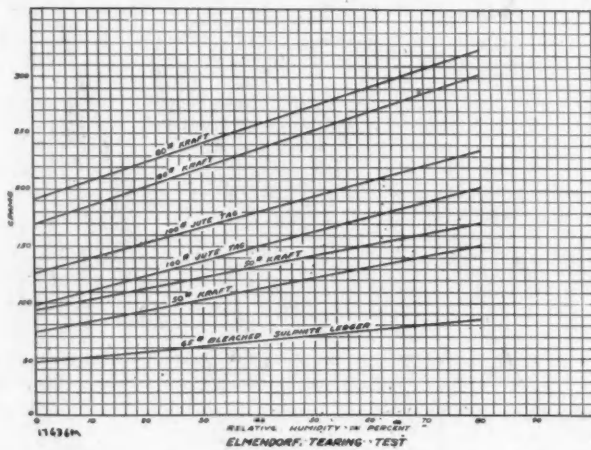


FIG. 1.

ported tonnage increased from 366,000 tons per year to 2,313,000 in 1920. The amount actually used for fiber containers has increased from something like one-eighth of a million tons in 1907 to around one and one-third million tons in 1920. In terms of total box consumption including both fiber and wooden boxes it

*Delivered at the meeting of the Western Board Division of the American Pulp and Paper Mill Superintendents' Association, Chicago, November 25, 1922.

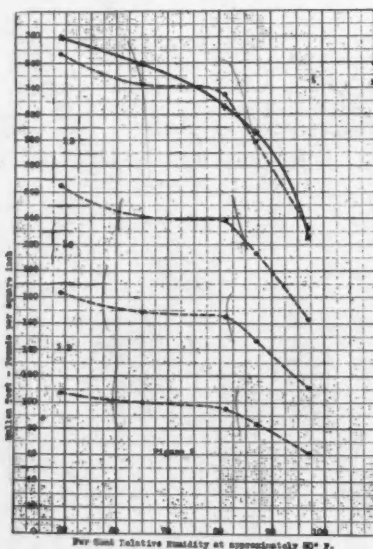


FIG. 2.

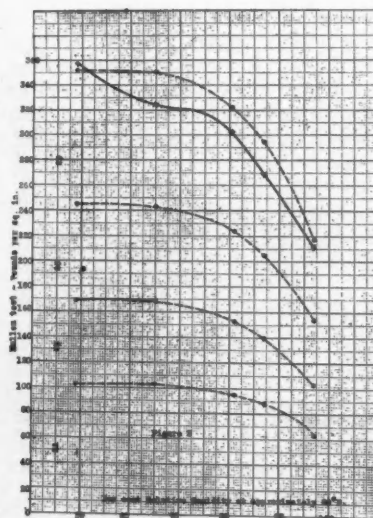
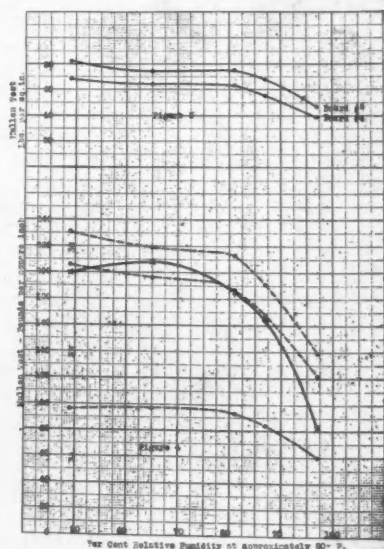


FIG. 3.



FIGS. 4. AND 5.

not uncommon in unheated warehouses, freight cars, or store rooms and would explain how excellent board may sometimes be rejected and at the same time inferior board pass if fortunate in the surroundings in which it was tested. Figure 7 curves A show the influence of moisture on the weight of the boards and curves B the influence of humidity on strength. Figure 6 shows the relation of strength to change in weight or moisture in the boards. The straightness of the curves would indicate the change in pop test to be directly proportional to the change in moisture content of the board. Figures 8 and 9 show the effect of humidity on papers made from typical stocks which find their way into board manufacture. The pop test increased as the paper leaves the oven dry state until it reached a maximum relative humidity of forty per cent. From there until a relative humidity of 65 or 70 per cent was reached the drop was slow but after that point in the case of many kraft or sulphite papers it rapidly increased in amount.

Figure 10 shows how tensile strength as shown by the Schopper Tester is affected by humidity. The effect is shown to be similar to the effect on bursting strength. On the Schopper we also obtain the stretch of the paper under breaking strain and that is seen

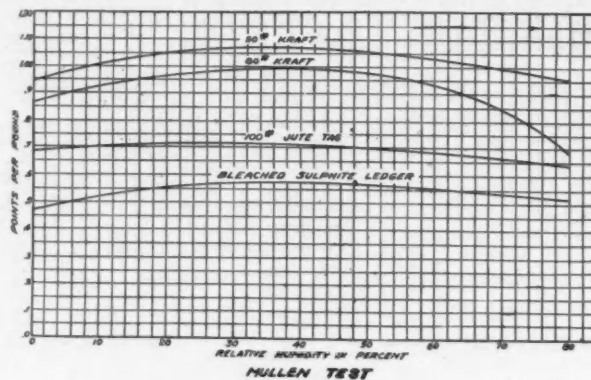


FIG. 9.

we note a drop which increased in degree and if a humidity of 85 per cent or greater had been reached the paper would have

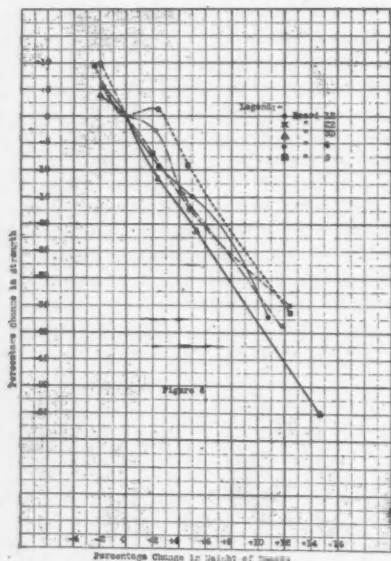


FIG. 6.

to act quite differently from bursting and tensile strength and increase with increasing relative humidities.

Figure 12 shows how humidity affects the folding properties of paper as indicated on the Schopper folding instrument. Here again we note an increase with increasing humidities, very rapid in the case of kraft after a relative humidity of about 70 per cent was reached. In sulphite after about 77 per cent was reached

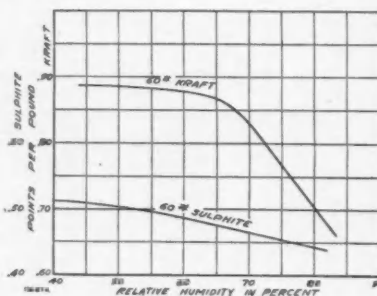


FIG. 8.

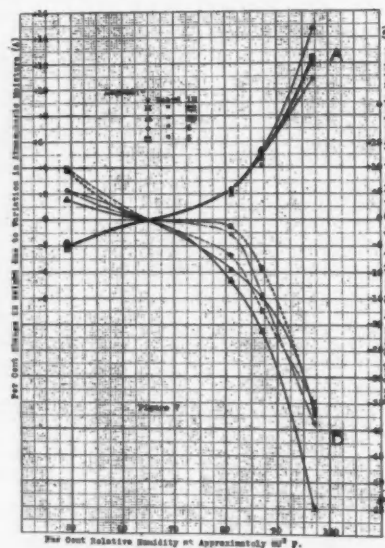


FIG. 7.

probably proven too sodden to give any test at all. These tests, however, indicate quantitatively what is well known to the paper-maker in a general way and that is the flexibility of paper is benefited by coming to equilibrium in air of fairly high humidity.

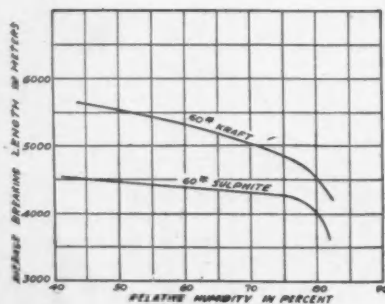


FIG. 10.

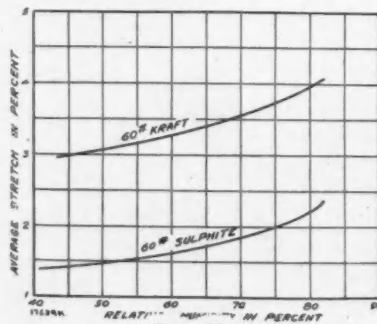


FIG. 11.

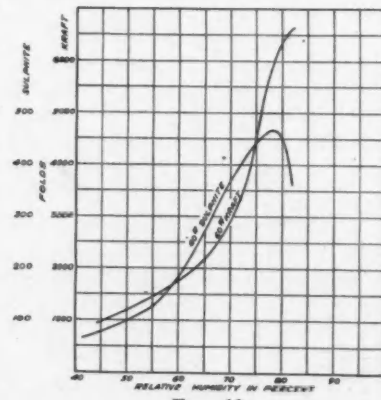


FIG. 12.

Toughness Is Also Benefited

Not only does the flexibility of paper increase with moisture but the toughness is also benefited as is shown by Figure 1, showing the results obtained with the Elmendorf Tearing Tester. The upper curve of each pair is for tearing across the machine direction, the lower curve in the machine direction. In so far as the range observed we found a consistent increase in the tearing test as relative humidity was increased. In fact if a test made at any humidity was plotted and a straight line drawn through it and a point on the bottom line 100 per cent by scale to the left of the zero point it would give the tearing test at any other relative humidity within the limits of experimental error. The results express graphically what has been common observation as to the benefits arrived by seasoning paper. While the pop test and tensile strength determinations give a measure of the rigidity and tensile strength of paper they give no indication of its brittleness, flex-

ibility, or toughness. The latter are indicated more by the stretch, folding resistance, and resistance to tear and while the former are all increased as the air approaches the extreme dryness of the heated office the latter are favored by the more normal humidities of from 70 to 80 per cent. While sizing may slightly retard the time taken by paper to come to equilibrium it exerts no permanent effect so far as we know and the ultimate amount of moisture taken up is the same as for the unsized sheet. Coating with pitch or paraffine will retard the time necessary for equilibrium from the two or three hours required for a sheet hanging in the air to several days. The reuse of such board, however, is problematical and so far as we can see the humidity of the atmosphere will continue to exert its influence on the strength of board and paper products. Since it plays so large a factor we should recognize it by either testing under standard conditions or determining what the conditions are at the time of the test and interpolating.

THREE ROLL BEATER*

Up to the present time, in three-roll beaters each roll worked absolutely independently of the others, and the results were the same as would have been obtained by three beaters. As the stock circulates at a low velocity in the trough, the only action which makes it enter the spaces between the bars of the rolls is the pressure due to the height of the stock in front of the roll and, consequently, these spaces are not completely filled and the stock has a considerable retarding action on the roll, involving a loss of power which is far from negligible.

One of the main purposes of this invention is to effect a more thorough trituration of the stock and at the same time a decrease in the power consumption by reducing the retarding action of the stock on the rolls.

Figure 1 is a cross sectional elevation of the beater, and Figure 2 a plan with the hoods removed from over the rolls.

In the Figures 1 is a trough containing three rolls; only the rolls 2 and 4 have a bedplate, the middle roll, 3, acting as a special mixer and propeller. Rolls 2 and 4 turn in the same direction and roll 3 in the opposite direction.

Between rolls 2 and 3 and between 3 and 4 the floor of the trough follows the shape of the rolls, thus forming two secondary backfalls

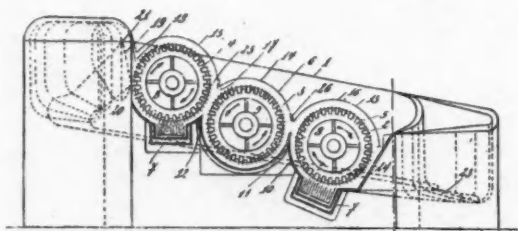


FIG. 1.

and which, together with the hoods and doctors, contribute to make the stock travel in a definite path. The height of the backfall, 19, is equal to the axis of roll 4, next to the midfeather. The inclination of the floor of the trough from the outside of the midfeather gradually decrease, and at the straight portion of the trough the bottom is level in the cross section, while at the opposite end there may be a slight inclination in the opposite direction. The main purpose of this form of floor is to give uniform circulation of the

stock, so that the portion next to the outside wall does not lag behind the portion next to the midfeather, thereby ensuring a regular and uniform trituration of the fibers.

In front of roll 2 there is an adjustable partition 24, which prevents the full height of stock from coming in contact with the roll, except as a thin layer of suitable thickness. By lowering the partition completely no stock can come to the rolls, and they turn empty.

The working of this beater can best be explained by following what takes place when it is furnished.

The stock which passes under the partition 24 is taken by the roll 2 and projected in a thin layer towards roll 3, over which it passes.

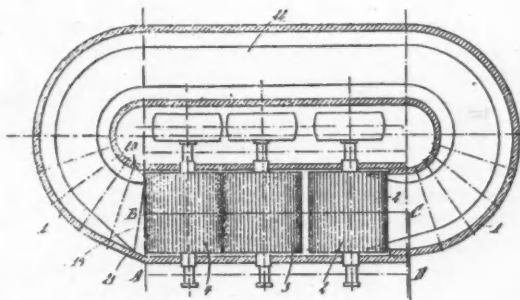


FIG. 2.

It then passes completely under roll 4 and finally over the backfall 19. This continues as long as the stock is fairly thin. But when it reaches a certain consistency part of the stock which passes under 4 will begin to pass over this cylinder, and in time the space between the top of the roll and the hood will be filled with stock. A certain amount of stock will then pass under roll 3, and the space under this roll will also fill up with stock, and also the space between rolls 2 and 3. Finally, some of the stock passes over roll 2 and mingles with the pulp passing under partition 24. As the spaces between the rolls in which the stock is mixed are quite small, there results a very thorough and energetic stirring, and at the same time the centrifugal force is neutralized, which helps better to fill up the spaces between the bars. Moreover, as the stock leaves each roll as a thin layer at a speed sensibly equal to the peripheral speed of the roll the filling of the spaces does not tend to slow down the roll, as occurs when there is a considerable height of stock in front of the roll. This effect is further increased by the partition 24 in front of the first roll, so that there is a very appreciable saving in power.

*French patent No. 522,794, delivered to E. and O. Massart, Aug. 23, 1920. Translated from *Le Papier*, xxiv, No. 10, 453-455, October 1921, by A. Papineau-Couture.

THE TESTING OF PAPER*

BY RAYMOND FOURNIER

The principal tests applied to paper by both manufacturers and users have always been the determination of tensile strength and of elongation. Although a complete investigation of the mechanical properties of paper require quite a number of different tests (tensile and tearing strengths, folding endurance, porosity, etc.) as a rule only the tensile strength and elongation are determined; the reason for this being that they can be easily and quickly carried out, and they give sufficiently accurate results, especially when compared with results obtained on a standard sample.

It might reasonably be concluded that these tests are so simple that they are made with care and that the results obtained are accurate; but such is not the case, and oftener than otherwise they are carried out under such poor conditions that different results are obtained by testing different parts of the same sheet of paper. This is doubtless due to lack of familiarity with the instruments which are actually in general use. In order to obtain results which would be comparable, or nearly so, the instrument used should be simple to operate (or even automatic if possible) so as to allow of rapid testing of much wider test strips than are used at present.

Theory and Practice

Theoretically, a sheet of paper consists of more or less purified cellulose fibers, which are more or less regularly felted and bound together by means of a sizing agent, usually rosin. In practice the fibers very seldom consist of a perfectly purified cellulose, and their affinity for the size varies with their cellulose content and with the nature of the impurities. And the length of the fibers—which are really fragments of fibers and of fiber bundles—also varies, and the strength of the paper is a function of this length and of the ratio of the length of the diameter of the fiber fragments. The felting of the fibers will vary with the method used for, and care taken in, mixing the fibers, with the nature and uniformity of the beating, and, for a given thickness of paper, with the consistency at which the stock was delivered to the wire on the machine. The strength of the sheet will also vary with the temperature, the atmospheric humidity, the composition of the water, the speed of the machine, the condition of the machine clothing, etc. The last-mentioned point is particularly interesting, for the condition of the wire is continually changing according to the composition of the water used (and more particularly the content of calcium salts), the amount of size used, the temperature, etc. The washing of the wire is often more or less satisfactory, the meshes become clogged up, and the draining of the water from the stock varies with the extent of this clogging up. Finally, numerous irregularities can be caused at the presses and at the dryers.

This brief enumeration shows that even a carefully made sheet of paper is an agglomeration of fiber fragments and of binder which is not uniform throughout, the quality and amount of fiber and the amount of size varying within wide limits in various parts of the mass.

The average strength of the paper will depend to a certain extent on the number of individual determinations made, being more accurate the greater the number of determinations. It may therefore be considered that, other things being equal, the accuracy of the results obtained are a function of the total volume of the sample tested.

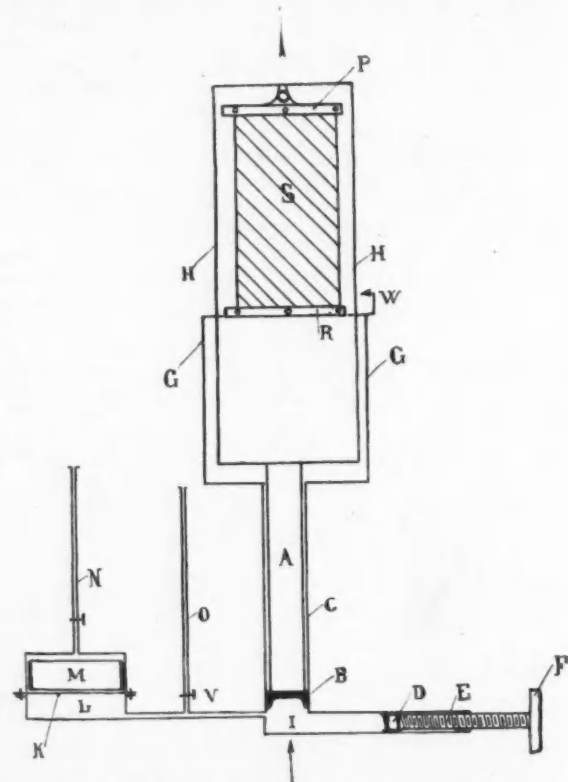
Great Care in Making Tests Required

At present the tests are always carried out on strips 180 mm. long (between the jaws of the tester) by 15 mm. wide, and unless great care is taken in cutting them the edges may be nicked or

* (Translated from *Le Papier*, xxv, 437-440, October, 1922, by A. Papineau-Couture.)

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indented, which naturally throws out the results. Further, all instruments have a certain inertia, the relative value of which is greater the smaller the test strip. It would thus appear advisable to use much larger test strips than are used at present, and, without going to extremes, the use of strips 18 to 50 cm. long and 10 to 25 cm. wide could certainly be considered. In order to have results easily comparable with those obtained at present, strips 18 cm. long by 15 cm. wide could be used. With strips 18 cm. by 15 mm., the actual breaking load with the instruments used at present varies from a few grams up to 30 kilos, according to the



SKETCH OF HYDRAULIC DYNAMOMETER FOR TESTING PAPER.

A piston, N heavy leather washer, C pump cylinder, D end of plunger, E screw for driving in plunger, F hand wheel for operating E, G fixed frame attached to C, R fixed clamp, H movable frame attached to A, P movable clamp, I cylinder for plunger D, K rubber diaphragm, L two-piece cylindrical box, M metal piston, N and O manometer tubes, V cock, S test strip, W indicator for measuring elongation.

thickness and quality of the paper. If strips 150 mm. wide were used in this type of instrument, it should have a capacity of 300 kilos. It is evident that it would be a difficult matter to construct such an instrument and have it as accurate as the ones which are now on the market. The scale of readings, which now extends from 0 to 30, would have to be lengthened to 300. The inertia would be greatly increased, and with it the difficulty of obtaining a sufficient and uniform sensitiveness and accuracy. Owing to its great weight the instrument would have to be securely mounted in a fixed position. The wear on the parts by means of which the load is applied would also have to be considered. These difficulties can all be overcome, but only provided that the cost of the instrument is left out of consideration.

Use of a Dynamometer

We think that it would be worth while to use a dynamometer of simpler construction, based on the same principle as those which are used for determining the tensile strength of metals, in which the load is applied by means of a suitable liquid. Such an instrument would be easy to construct, for it does not require any complicated parts and all spur and bevel gears are eliminated. The load is applied by means of a pump cylinder (without any valves) filled with a suitable liquid, in which moves a piston, to the upper end of which is fixed a clamp to hold one end of the test strip. The piston is displaced by screwing a plunger into the cylinder. Liquids being practically incompressible, as the plunger is screwed into the cylinder the piston is forced out and stretches the paper.

Such an instrument can be made with a satisfactory sensitiveness; it would be at least as accurate as instruments in which the load is applied by purely mechanical means; and it would possess the great advantage that it practically cannot be thrown out of adjustment. In certain cases the load could be applied automatically by means of a constant head of liquid, thus applying the load evenly and uniformly during the whole test. The elongation could be measured more accurately than with purely mechanical instruments, as in the latter case the reading may be out by the thickness of one tooth of the rack which controls the pendulum.

We give herewith a diagrammatic sketch of the principal parts of such an instrument, and should any of our readers wish to construct one (which is really an easy matter) we shall be quite pleased to give him such indications as he may desire.

Explanation of the Diagram

C is a strong metal cylinder (iron or steel if mercury is used) which carries at its upper end a metal frame G with clamp R. Within the cylinder is the piston A, which has a heavy leather washer B at the lower end and which carries the frame H with clamp P. The two uprights H pass through openings made for the purpose in the top of frame G. The test strip S is held by the clamps P and R. The fixed frame G carries an indicator W to read the displacement of frame H, which carries a suitable scale, thereby giving the elongation when the sheets break. The manometer tubes N and O are used for obtaining the breaking load; but any other suitable indicators can be used for the purpose.

Method of Operation

The apparatus is filled with mercury, the piston is lowered by withdrawing plunger D as far to the right as it will go, and the test strip is clamped so as to be fully stretched but under no tension. The hand wheel F is then turned so as to screw the plunger in the cylinder, thereby displacing piston A and the frame H which is attached to it. As the lower frame G and clamp R are fixed, the test strip is stretched by the upward motion of P. When the strip breaks the motion of D is stopped, the height of the mercury in the manometer is observed, and the tensile strength calculated therefrom. The elongation is read off on the scale of frame H.

Calculation of the Tensile Strength

The principle of the apparatus which we have just described is the same as that of the hydraulic press. The force required to break the test strip is obtained by multiplying the pressure per unit area of the liquid (obtained from the height of liquid in the manometer tube) by the cross section of cylinder C. This result is not quite accurate, and it must be corrected for the expansion of the metals (especially of the mercury), which varies with the temperature, and for atmospheric pressure. These corrections are quite simple, and can be found in any engineers' handbook.

Importations of printing paper over 30 grammes in weight rose from 6,259 metric tons in January to 12,140 in May, making a total of 47,867 metric tons for the first five months of 1922 as compared to 32,084 tons for the same period in 1921. Of the 1922 im-

portations, those from Norway ranked first in quality, those from Germany second, while Czechoslovakia, Sweden and Finland were almost equal in the third position. Of the balance from other countries, the United States contributed an almost negligible amount.

There is another very important correction to apply, namely, a correction for the friction of the piston on the walls of the cylinder, which varies according to the pressure in the cylinder. This correction is generally calculated by means of Hicks' formula. Theoretically, in a well-built instrument, the variation in force due to friction should be felt only at the washer B; and, according to Hicks' experiments, the friction is independent of the thickness of the washer between limits of 20 to 30 mm., which thicknesses are quite frequently used. Let F be the amount of friction. Then we have

$$F = \frac{P}{D} = \frac{\pi}{4} D p$$

in which P is calculated in kilos and represents the product of the pressure per unit area by the cross sectional area of the cylinder, F is the friction in kilos, p is the pressure of the liquid in kilos per sq. mm., and D is the diameter of the cylinder in sq. mm.

Example

Suppose we have a cylinder of 100 mm. internal diameter and 7,854 sq. mm. cross section, and that the pressure at a given moment is 5 kilos per sq. cm., i. e., 0.05 kilos per sq. mm. We then have

$$P = 0.05 \times 7,854 = 392.7 \text{ kilos}$$

and

$$F = \frac{\pi}{4} \times 100 \times 0.05 = 3.927 \text{ kilos.}$$

so that the net pressure on the piston is equal to

$$392.7 - 3.927 = 388.8 \text{ kilos}$$

and the efficiency is $\frac{388.8}{392.7} = 0.99$.

Evidently the efficiency will vary with the value of p; but it has really very little effect on the results as the pressure rarely exceeds 5 kilos per sq. cm. And at any rate it is not difficult to increase the efficiency, and even practically to eliminate the effects of the loss of pressure due to the inertia of the moving parts and to pressure by means of special devices.

It is also advisable to determine, by means of weights, the resistance (or inertia) of the various parts of the machine.

French Paper Industry Facing Crisis

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., December 5, 1922.—According to information supplied by the "Office National du Commerce Extérieur," from data printed in *Papyrus*, the organ of the French paper industry, and gathered by interviewing several leading manufacturers, the French paper industry is facing a serious crisis due to the increasing importation of pulp and paper, particularly from Norway and Sweden.

Not only are manufacturers taking steps to have the tariff on these commodities increased but are turning their attention to the resource of Alfa grass in the French colonies of northern Africa, in the hope of obtaining there a fiber with which to meet foreign competition in supplying the home demand.

In 1913, 2,054,995 metric quintals of chemical and 2,594,489 quintals of mechanical pulp were imported into France. These amounts were decreased in 1921 to 705,461 and 835,223, respectively. Instead of having the balance of tonnage taken up by domestic production, the demand is supplied by the importation of finished paper.

CURRENT PAPER TRADE LITERATURE

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

Properties, Chemistry and Testing of Raw Materials and Finished Product

Lignin from Rye Straw.—E. Bechmann, O. Liesche, and F. Lehmann. *Z. angew. Chem.*, xxxiv, 285-288 (1921); *Paper Trade J.*, lxxiii, No. 20, 48, 50 (Nov. 17, 1921).—The character of lignin extracted from straw is dependent on the method of treatment and of its separation from pentosan and hexosan in the extract. The best method consists in digesting straw with a mixture of 600 cc. of 96 per cent alcohol and 400 cc. of 2 per cent sodium hydroxide solution; after neutralization with acid and distillation of the alcohol, the lignin is precipitated by means of hydrochloric acid and a good product is obtained. Considerable divergence exists with regard to the composition of lignin. From determinations of its molecular weight and examination of benzoyl, *p*-bromobenzoyl, and *p*-nitrobenzoyl derivatives and sodium salt, the authors conclude that the most appropriate formula is $C_{10}H_{10}O_3$.—A. P.-C.

Sodium Silicate as an Adhesive.—Rex Furness. *J. Soc. Chem. Ind.*, xli, 381R-384R (Sept. 30, 1922).—A review covering the advantages, properties and applications of silicate adhesives. The author concludes that sodium silicate solutions can be prepared to meet all the requirements of a good adhesive; that they are superior to animal and vegetable adhesives in that they are fire-resistant, do not become rancid and are vermin repellent. They are odorless, produce damp-proof articles, have a relatively high bond strength, and their setting time can be varied over a wide range. They are ever ready, requiring no heat before or during application, and they give consistent results. The apparatus required for their application to wood, paper, etc., is extremely simple.—A. P.-C.

Microscopic Analysis of Fibers in Paper.—*Paper Ind.*, iv, 928f-928g (Oct., 1922).—A description of the procedure to be followed in the co-operative study of various methods with a view to establishing a standard procedure. The quick estimation, Gravatt, Spence, Graff, and count methods are being investigated.—A. P.-C.

Tearing Tester.—S. D. Wells. Can. patent 223,809. Sept. 19, 1922.—The clamped paper is pressed against the apex of a triangular shaped piece, the apex being pointed to pierce the material and the sides rounded to tear rather than cut the paper. The tearing device is supported on a resilient member, the displacement of which measures the force required to tear the paper. Means are provided for indicating the movement of the paper in relation to the force necessary to tear it, which gives a measure of the work done in tearing.—A. P.-C.

Refractive Index and Mounting of Cellulose.—James Strachan. *World's Paper Trade Rev.*, lxxviii, 374 (1922); *Chem. Abs.*, xvi, 3392 (Oct. 10, 1922).—Cellulose of fibers is doubly refracting and because of this as well as of its minute structure it is extremely difficult to determine the refractive index by the immersion method. Pure cellulose appears to have a refractive index of approximately 1.555 for daylight, so that its index of visibility in Canada balsam is low. For temporary mounts unstained fibers in water or iodine stained fibers in sodium chloride solutions are most convenient. For permanent mounts pure bleached cellulose is best stained with a basic aniline dye and mounted in xylol balsam. Magenta, on account of its high reflective index, is a suitable basic dye.—A. P.-C.

Determination of Sizing Quality.—F. T. Carson, Bureau of Standards, Washington, D. C. *Paper Trade J.*, lxxv, No. 10, 44-45 (Sept. 7, 1922).—The Okell electrolytic method is valuable in helping check qualitative results and in giving information concerning

the nature of the absorption process. The original promise of the method for testing and research has not been justified. It is to be considered of doubtful value for the determination of sizing quality.—I. G. (Compare this journal, lxxiv, No. 25, 57, June 22, 1922.)

Flying Services Rendered to Canada's Forests in 1921.—J. A. Wilson, Secretary Air Board, Ottawa. *Can. For. Mag.*, xvii, No. 10, 525 (Dec., 1921).—C. L.

Canada's Gravest Menace Is the Forest Fire.—C. D. Howe. *Can. For. Mag.*, xvii, No. 10, 535 (Dec., 1921).—More than 1,000,000 square miles of forest land in Canada have been burned over within the last 75 years. Fire protection is the most vital problem in forestry policy today.—C. L.

Actual Cost of Aerial Cruising.—R. Leckie. *Can. For. Mag.*, xviii, 572 (Jan., 1922).—C. L.

Canada Must Take Out a Timber Insurance Policy.—R. O. Swezey. *Can. For. Mag.*, xviii, No. 2, 614 (Feb., 1922).—C. L.

The Railways and Forest Protection.—Clyde Leavitt. *Can. For. Mag.*, xviii, No. 3, 657 (March, 1922).—A description of the requirements relative to the prevention and control of fires imposed upon railways by the Railway Commission. In general, the railways are showing splendid results in work of this character.—C. L.

Acid Processes of Pulp Manufacture and Equipment

Utilization of Sulphite Waste Liquors.—A. G. Für Anilin Fabrikation. U. S. A. patent 1,419,497, June 13, 1922.—The liquors are used as an addition to the alkaline liquors employed in the treatment of animal fibers in the textile industry.—I. G.

Manufacture of Sulphurous Acid from Sulphates of the Alkaline Earths.—Rhenania Verein Chemischer Fabriken A. G. Ger. patent 352,125.—A mixture of alkaline earth sulphate and of heavy metal sulphide, eg., 5 kilos of anhydrous gypsum, 1 kilo of pyrites and 3 kilos of iron oxide, are heated to 900 to 950° C.—I. G.

Paper Manufacturing and Equipment

Beater.—W. Luetzenkirchen. Ger. patent 352,751. The beater is provided with axial introduction of the stuff into the roll. A circular canal is built in the roll which permits the deflection of the stock without any disturbance from the axial to the radial direction.—I. G.

Cleaning Up Debris in Pine Forests.—R. D. Craig. *Can. For. Mag.*, xviii, No. 3, 664 (March, 1922).—A description of the disposal of logging slash on a pine operation in Northern Ontario. Slash should not be burned broadcast, but should be piled up and burned.—C. L.

Insect Armies That Follow in the Wake of Fire.—J. M. Swaine, Dominion Entomological Branch. *Can. For. Mag.*, xviii, No. 3, 666 (March, 1922).—C. L.

Some Wood-Boring Insects.—Fred. J. Seaver. *Am. For.*, xxvii, 769 (Dec., 1921).—C. L.

Forest Fires in Canada.—Elwood Wilson. *Empire Forestry*, i, No. 1, 43 (March, 1922).—C. L.

Progress in Fire Retardant Treatment of Canadian Woods.—J. H. Coderre, Forest Products Laboratories, Montreal. *Can. Lumberman*, xlii, No. 5, 44 (March 1, 1922).—Discussion of the need for the discovery of a suitable process for fire-retardant treatment of wood used as a construction material. Promising results have been secured with a treatment precipitating zinc ammonium phosphate in the wood after evaporation of the excess of ammonia.—C. L.

Timber Testing in India.—L. N. Seaman. *Empire Forestry*, i, No. 1, 47 (March, 1922).—Outline of the work of the timber testing section of the Forest Research Institute at Dehra Dun.—C. L.

The Motor Truck in Forest Operations.—F. M. Knapp. *Can. For. Mag.*, xvii, No. 9, 494 (Nov., 1921).—C. L.

Our Yukon, Its Forest Wealth and Future Development.—H. H. Rowatt. *Can. For. Mag.*, xvii, No. 9, 471 (Nov., 1921).—C. L.

The Forest as a Perpetual Wood Factory.—C. D. Howe. *Can. For. Mag.*, xvii, No. 9, 473 (Nov., 1921).—"The function of foresters is to improve upon nature as expressed in the forest and guide her into economic channels, just as the farmer has improved upon nature in his work and compelled her to serve his economic purposes."—C. L.

Dominion Forest Reserves Are the People's Forests.—James Lawler. *Can. For. Mag.*, xvii, No. 10, 520 (Dec., 1921).—The National Forests protect stream flow and provide timber, fuel, hay, pasturage and recreation for the prairie residents.—C. L.

A Forest Policy for Canada.—Edward Beck. *Can. For. Mag.*, xvii, No. 9, 492 (Nov., 1921).—C. L.

With a Canadian Observer in Scandinavia.—Edward Beck. *Can. For. Mag.*, xviii, No. 1, 575 (Jan., 1922).—A discussion of the power of favorable public sentiment in the building of forest policies in Norway, Sweden and Finland, with a brief account of the status of forestry development; together with a description of the exclusive program for reforestation in Great Britain.—C. L.

Pulp and Paper Industry Requires Permanent Forests.—George McKee. *Can. For. Mag.*, xviii, No. 3, 661 (March, 1922).—C. L.

England's New Forestry Policy.—A. N. Pack. *Am. Forestry*, xxvii, 751 (Dec., 1921).—A description of the progressive and extensive campaign of reforestation now under way in Great Britain, under the British Forestry Commission.—C. L.

The Foundation for Forestry in New Jersey.—C. P. Wilber. *Am. For.*, xxviii, 20 (Jan., 1922).—A strong argument for fire protection. The system in use in New Jersey is described and the results obtained are outlined.—C. L.

The Vanishing Trail.—A. N. Pack. *Am. For.*, xxviii, 67 (Feb., 1922).—A description of present conditions in forest areas in France cut over by the American forestry troops during the war. Regeneration to valuable timber species has been and is being secured by natural means, as well as by replanting and by the sowing of seed. Thorough protection from fire is the foundation of all this.—C. L.

A German Forester's Views.—C. A. Schenck. *Am. For.*, xviii, 70 (Feb., 1922).—A description of the forestry situation in Germany since the war. German forests came through comparatively unscathed. Without her forests Germany would have been beaten in 1915, and had she won the war the German foresters might have claimed that the German forests were responsible for the victory. Forestry in America must be made to pay, or it can not and will not be practiced. Every country has as much forestry as its inhabitants have been willing to pay for. Ninety-five per cent of all American forestry is fire-protection.—C. L.

Town Forests.—J. W. Toumey. *Am. For.*, xxviii, 96 (Feb., 1922).—A strong and convincing argument for the establishment on this continent of thousands of community forests by villages, cities, townships, schools, public institutions, etc.—C. L.

New York's Depleted Forest Wealth.—*Am. For.*, xxviii, 209 (April, 1922).—An analysis of the consumption and actual and possible production of lumber, showing that under management the State is capable of producing enough timber annually to more than meet the needs of the State's secondary wood-using industries.—C. L.

Simple Forest Conservation.—A. V. S. Pulling, University of New Brunswick. *Am. For.*, xxviii, 211 (April, 1922).—A general

survey of the field, with particular reference to the use of shingles and substitutes, and of news print and other papers.—C. L.

Report of Inaugural Meeting of the Empire Forestry Association.—*Empire Forestry*, i, No. 1, 3 (March, 1922).—Account of the meeting held at London, November 16, 1921. The organization is an outcome of the Imperial Forestry Conference held at London in 1920.—C. L.

Forestry in the Empire.—R. L. Robinson. *Empire Forestry*, i, No. 1, 11 (March, 1922).—Summary of the proceedings of the British Empire Forestry Conference, 1920.—C. L.

First Annual Report of the Forestry Commission of the United Kingdom.—A. W. Borthwick. *Empire Forestry*, i, No. 1, 72 (March, 1922).—A summary of the report for the year ending Sept. 20, 1920, comprising an outline of the program of the Commission.—C. L.

State Regulation of Cuttings on Privately Owned Lands.—C. D. Newton, Attorney General of New York. *J. For.*, xix, No. 7, 707 (Nov., 1921).—An opinion as to the extent of the constitutional authority of the State Legislature to regulate the cutting of trees on private lands, in which the author considers the Legislature is within its constitutional powers to make such regulations when they are proved to be in the general interests of the community.—C. L.

Trees in Winter.—H. T. Stephenson. *Am. For.*, xxviii, 79 (Feb., 1922).—Identification of trees by winter characteristics.—C. L.

Ground Wood Manufacturing and Equipment

Device for Regulating the Feed of Pistons in Grinders.—J. M. Voith. Ger. patent 350,543. Same as Fr. patent 532,702. See *Pulp and Paper*, xx, 634, July 27, 1922.—I. G.

Method of Fastening Pulp Stones.—G. Hohmann. Ger. patent 357,364.—I. G.

Process for the Manufacture of Wood Pulp.—L. Enge. Ger. patent 353,105.—Attempts to bleach steamed ground wood have not been commercially successful owing to poor results and high cost of bleaching. According to the patent, the wood is treated with the bleaching agent directly after steaming, and is then ground. The bleaching liquor can be introduced into the bleaching apparatus after the air has been exhausted from the latter, or gaseous or gas-forming bleaching agents may be used. With aqueous solutions of acid sulphites, for instance, sodium bisulphite, the wood must be allowed to remain for several days so as to complete the action of the chemical, before it is ground up. This may also be applied to unsteamed wood. In either case a very tough fiber is produced. (Compare Eng. patent 169,802. This journal, lxxv, No. 6, 54, Aug. 10, 1922).—I. G.

List of Abbreviated and Full Titles and of Addresses of the Journals from Which Abstracts Have Been Prepared for This Issue

Am. For.	American Forestry. 1214 Sixteenth St., Washington, D. C.
Can. For. Mag.	Canadian Forestry Magazine. Jackson Building, Ottawa, Canada.
Can. Lumberman	Canada Lumberman. 347 Adelaide St. W., Toronto, Canada.
Chem. Abs.	Chemical Abstracts. E. J. Crane, Ohio State University, Columbus, Ohio.
Empire Forestry	Empire Forestry. Empire Forestry Association, 17 Victoria St., London, S.W. 1, England.
J. For.	Journal of Forestry. Society of American Foresters, Atlantic Building, Washington, D. C.
J. Soc. Chem. Ind.	Journal of the Society of Chemical Industry. Central House, 46 and 47 Finsbury Square, London, E.C. 2, England.
Paper Ind.	The Paper Industry. 356 Monadnock Block, Chicago, Ill.
Paper Trade J.	Paper Trade J. 10 East Thirty-Ninth St., New York City.
World's Paper Trade Rev.	The World's Paper Trade Review. Stonhill and Gillis, 58 Shoe Lane, London, E.C., England.
Z. angew. Chem.	Zeitschrift für angewandte Chemie. Verlag für angewandte Chemie, G.m.b.H., Nürnberger Str. 48, Leipzig, Germany.

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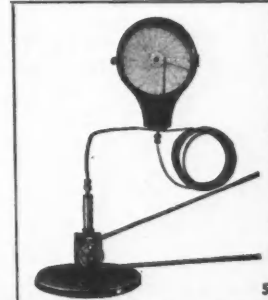
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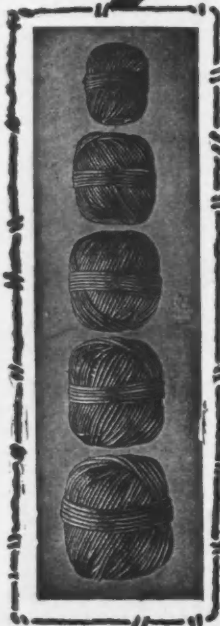


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Finnish Paper Trade Picking Up

According to a current report in Finnish paper circles, says Consul Davis, Helsingfors, in a report to the Department of Commerce, it is understood that a conference between Swedish and Norwegian paper manufacturers took place during September at which it was decided to increase the prices of certain of their products because of improvements in various foreign markets. While this report remains unconfirmed, it is the feeling among Finnish producers that prices will be increased particularly because for some time they have not been in proportion to the cost of production. Finnish exporters report a tendency toward higher prices for their products in the United States with a fairly brisk demand for news print paper and kraft. On the other hand, in England prices have declined to such an extent that producers are unwilling to sell their products in that market.

Exports of paper for September amounted to 19,890 short tons. Total exports of paper for the nine months ending September 30 amount to 158,500 short tons.

While the cardboard section of the industry shows improvement, trade has not revived to the same extent as that in the paper lines. However, exports show a decided improvement over last year, the volume amounting to 18,460 short tons for the first nine months of 1922 as compared with 6,200 short tons for the same period of 1921.

The demand for sulphite and sulphate pulp has increased and prices have improved a little. Some contracts have been made for early 1923 delivery. Producers express the opinion that there will be a shortage of pulp throughout the world during the coming winter and there will be a tendency toward further increase in prices. The prices ruling during September were as follows: Bleached sulphite, \$4.25 per 100 pounds; easy bleaching, \$3.00 per 100 pounds; strong sulphite and sulphate, \$2.75 per 100 pounds.

Exports of sulphite and sulphate pulp during the month amounted to 15,870 and 8,370 tons, respectively, bringing the total for the year up to 153,630 short tons of sulphite and sulphate. The bulk of the exports went to the United States, with England, France, and Belgium taking fair quantities. Small quantities of cellulose were shipped to Japan via Hamburg and some to South America by direct shipment.

Chicago Demand Somewhat Slower

CHICAGO, December 4, 1922.—There has been a noticeable easing of demand in this market during the past ten days. It has not been caused by any great change in conditions. The usual slump does not occur until December 15, so the present quietness of the market is not due to the completion of holiday orders. Among the paper supply houses it is believed that printers and other large purchasers of paper, while not jeopardizing their interests by reducing stocks too greatly, are limiting their purchases to the extent that only a normal supply will be on hand when inventory takes place the latter part of this month.

The demand for paper box board has been good, but is easing up now. It has been exceptionally good during October and the first three weeks in November, with the first indication of a slump appearing just before the Thanksgiving holiday. It is believed that this particular branch of the paper industry will remain quiet until the middle of January when the usual seasonal demand is expected.

H. M. Gimlin of Dwight Brothers reports that business is slowing up a little, adding that it is rather early in the season for this quietness, but attributes it to the fact that printers and other large purchasers of paper are desirous of reducing their stocks to a normal condition rather than carrying too great a supply on hand.

The same sentiment was expressed by H. A. Raleigh of the Chicago Paper Company. Mr. Raleigh states that the month of November began to show signs of a let up in the demand for various papers. The mills are reporting a falling off of orders.

Prices are fairly firm with a prospect of stiffening on coated paper due to the great scarcity of casein.

According to M. M. Fallensbee, of the Western Paper Stock Company, prices of old papers are rapidly declining, No. 1 hard white shavings bringing \$3.75 @ 4.00; old newspapers, \$1.00 @ 1.05; ledgers and writings firm at \$2.75. Quotations on other papers are likewise down. December is always a bad month with paper mills, as purchases are restricted. No improvement in the old paper stock market is anticipated until the middle of January.

Ray McCormack Tendered Farewell Banquet

Belated word comes that, on the evening of October 30, an unusual honor was paid to Ray McCormack, until recently paper mill superintendent at St. Maurice Paper Company's plant at Cape Madeleine, Que.

It is quite customary for a banquet to be tendered an executive or department head on the occasion of his joining an organization, but a testimonial dinner at the time of a man's departure is unusual enough to be heard of with pleasure by Mr. McCormack's many friends and admirers in the industry.

The dinner in question was held in the company's boarding-house which was tastefully decorated for the occasion. About forty members of the organization attended. T. A. Wark, general superintendent, acting as toastmaster, opened his remarks by paying an impressive tribute to Mr. McCormack's record and character—incidentally introducing Mr. McCormack's successor, George Diamond. Mr. McCormack was then presented with a silver teaset, a memento from his associates.

In addition to Mr. Wark, remarks were made by Messrs. O'Riley, Leo Sanders, C. D. Jentz, Dalton, Gately, Cressy, Harris and others. Reports from the scene of action are that "Mac" was so overcome by the bouquets that, for once, he lacked his customary command of both the French and English languages.

Armed with the good wishes of the St. Maurice organization to a man, Mr. McCormack goes to take charge of the papermaking unit in the new plant of St. Lawrence Paper Mills Limited at Three Rivers.

Germany Regulates Exports of Rags

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., December 5, 1922.—An embargo has been placed on the exportation from Germany of new white linen; bleached and unbleached cotton, etc., according to a report received by the Department of Commerce from the American Consul General at Berlin. Of the different kinds of rags used in the manufacture of pasteboards there may be exported in one month an amount not to exceed 950 tons. Further discussion of these export regulations is scheduled for January, the report states, when a further decision will be made.

K. V. P. Co. Orders Manufacture of Pulp and Paper

An order has just been received from Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich., for 25 copies of Volume I of the *Manufacture of Pulp and Paper*. Under present arrangements, classes are being held on one evening a week under the charge of a competent teacher. It is expected that other classes will be opened in Kalamazoo along similar lines.

Discuss Specifications for Blotting

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., December 6, 1922.—The third meeting of the technical paper committee of the Federal Specification Board discussed and recommended specifications for blotting paper. These specifications will be submitted to paper manufacturers in the near future for their criticisms and suggestions.

ROGERS WET MACHINE

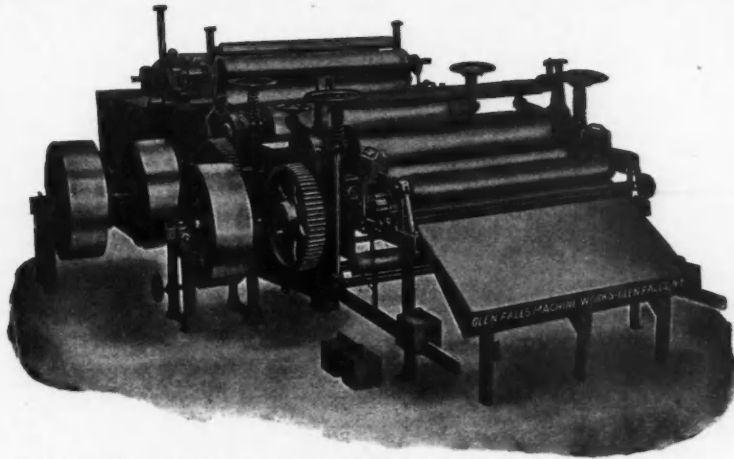


Illustration Shows Rogers Double Press Wet Machine

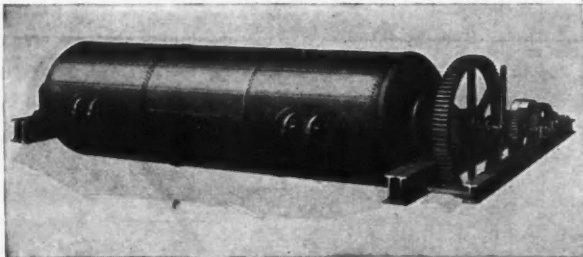
FOR CHEMICAL PULP—including Sulphite, Sulphate, Soda, also Cotton and Waste Paper fiber.

TYPES—Single and Double Press 72" wide.

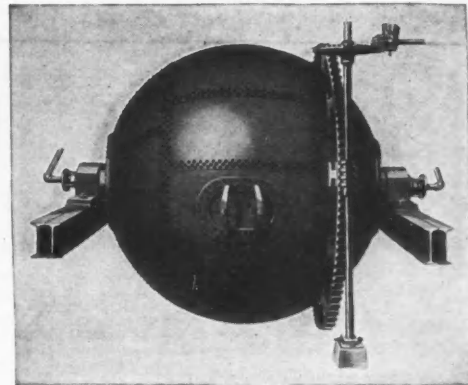
CAPACITY—either type 25-30 tons air dry stock per 24 hours.

SHEETS produced by the Double Press Machine uniformly 48% dry. By the Single Press Machine uniformly 40% dry. There is no fold to contain excessive moisture. Sheets are handy size, 33"x36", and are folded once into most convenient bundles for storage, for the beater or for shipping. By this great capacity, high dry test, small amount of floor space per ton pulp produced, exceedingly low cost for labor and maintenance, users are assured that the machine will completely pay for itself within one year, and are promised a handsome return on their investment.

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"Biggs Rotaries" cover the whole range of paper mill output. Profit by Biggs' long experience studying and solving paper plant engineering problems.

Biggs' equipment in practically every important paper plant in the country; repeat orders for Biggs again and again whenever new Rotary Boilers are needed: doesn't that suggest merit that's worth your while to investigate? "Many installations have been in constant service for over twenty-five years with practically no expense for upkeep."

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THE BIGGS BOILER WORKS COMPANY
 Established 1887 Akron, Ohio

Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING DECEMBER 2, 1922

SUMMARY

News print	.....	2,230 rolls, 138 bls.
Printing paper	.....	128 cs., 208 cs.
Cigarette paper	.....	.....339 cs.
Wall paper	.....	14 cs., 658 bls., 2,659 rolls
Writing paper	.....	.....100 cs.
Copy paper	.....	.....19 cs.
Litho paper	.....	.....15 cs.
Photo paper	.....	.....18 cs.
Surface coated paper	.....	.....65 cs.
Parchment paper	.....	.....22 cs.
Straw paper	.....	.....242 rolls
Wrapping paper	.....	3,194 bls., 5,334 rolls
Tracing paper	.....	.....2 cs.
Tissue paper	.....	.....11 cs.
Metal paper	.....	.....27 cs.
Drawing paper	.....	.....6 cs.
Packing paper	.....	.....915 bls.
Filter paper	.....	.....54 cs.
Miscellaneous paper	.....	1,722 bls., 125 cs., 7,855 rolls

CIGARETTE PAPER

British-American Tobacco Company, Cedric, Liverpool, 38 cs.
 J. V. Sago, W. Lashaway, Alicante, 2 cs.
 De Manduit Paper Corporation, La Savoie, Havre, 80 cs.
 De Manduit Paper Corporation, Bankdale, Marseilles, 20 cs.
 P. J. Schweitzer, by same, 31 cs.
 American Tobacco Company, Collamer, Bordeaux, 120 cs.
 Rose & Frank, Olen, Havre, 48 cs.

WALL PAPER

W. H. S. Lloyd & Co., Cedric, Liverpool, 1 cs.
 A. Murphy & Co., by same, 4 bls.
 A. L. Diamant & Co., La Savcie, Havre, 4 cs.
 Judson Freight Foundry Company, by same, 2 cs.
 Independent Foundry Company, by same, 3 cs.
 Prager Company, Kroonland, Antwerp, 2,659 rolls.
 A. Murphy & Co., Olympic, Southampton, 1 cs.
 National City Bank, Yarek, Bremen, 320 bls.
 W. H. S. Lloyd & Co., Verbania, London, 7 bls.
 A. Murphy & Co., Adriatic, Liverpool, 7 bls.
 A. Murphy & Co., Lapland, Antwerp, 1 cs.
 A. L. Diamant & Co., by same, 2 cs.
 National City Bank, Pr. Fillmore, Bremen, 320 bls.

WRITING PAPER

Carl Steiner, Pr. Fillmore, Bremen, 38 cs.
 L. Dejonge & Co., Bankdale, Marseilles, 61 cs.
 Lionel Trading Company, Olympic, Southampton, 1 cs.

COPY PAPER

Japan Paper Company, Lyons Maru, Yokohama, 15 cs.
 H. Reeve-Angel & Co., by same, 4 cs.

LITHO PAPER

B. C. Ritchie, Lyons Maru, Hongkong, 15 cs.

PHOTO PAPER

Geneart Company of America, Lapland, Antwerp, 5 cs.
 Geneart Company of America, Kroonland, Antwerp, 9 cs.
 J. J. Gavin, Adriatic, Liverpool, 4 cs.

SURFACE COATED PAPER

Globe Shipping Company, Pr. Fillmore, Bremen, 65 cs.

PARCHMENT PAPER

F. C. Strype, Kroonland, Antwerp, 22 cs.

NEWS PRINT

Newark Star Publishing Company, Noordam, Rotterdam, 201 rolls.
 A. G. Nelson Paper Company, by same, 169 rolls.
 Chemical National Bank, by same, 665 rolls.
 Hudson Trading Co., Archer, Hamburg, 782 rolls.
 Chemical National Bank, Mt. Clinton, Hamburg, 194 rolls.
 Bankers Trust Company, Drottingholm, Gothenburg, 219 rolls.
 M. O'Meara Company, by same, 138 bls.

PRINTING PAPER

Carl Steiner, George Washington, Bremen, 26 cs.
 Reddin & Martin, Maine, London, 77 rolls.
 B. F. Drakenfeld & Co., Cedric, Liverpool, 7 cs.

B. F. Drakenfeld & Co., Adriatic, Liverpool, 10 cs.
 H. Lips, Lapland, Antwerp, 85 cs.
 J. H. Scott Paper Company, Kroonland, Antwerp, 74 rolls.
 W. V. Bowater Sons, Ltd., Rotterdam, Rotterdam, 57 rolls.

STRAW PAPER

Bank of United States, Rotterdam, Rotterdam, 242 rolls.

WRAPPING PAPER

Carl Steiner, George Washington, Bremen, 10 bls.
 D. S. Walton & Co., Reliance, Hamburg, 308 rolls.
 Foreign Paper Mills, Inc., by same, 116 rolls.
 Wilkison Brothers & Co., Inc., Indep. Hall, Rotterdam, 2,175 rolls, 848 bls.
 Republic Bag & Paper Company, Fred. VIII., Copenhagen, 677 rolls.
 Irving National Bank, by same, 102 rolls.
 Chemical National Bank, Drottingholm, Gothenburg, 18 bls., 1,671 rolls.
 Arkell Safety Bag Company, by same, 285 rolls.
 M. O'Meara Company, by same, 1,007 bls.
 Bankers Trust Company, by same, 657 bls.
 Atlantic & Pacific Tea Company, by same, 354 bls.

TRACING PAPER

R. F. Downing & Co., Aquitania, Liverpool, 2 cs.

TISSUE PAPER

F. C. Strype, Cedric, Liverpool, 11 cs.

METAL PAPER

Hensel, Bruckman & Lorbacher, Mt. Clinton, Hamburg, 27 cs.

DRAWING PAPER

H. Reeve, Angel & Co., Maine, London, 6 cs.

PACKING PAPER

Wilkison Brothers & Co., Inc., Noordam, Rotterdam, 915 bls.

FILTER PAPER

H. Reeve, Angel & Co., Maine, London, 4 cs.
 H. Reeve, Angel & Co., Aquitania, Liverpool, 3 cs.
 E. H. Sergeant Company, Drottingholm, Gothenburg, 2 cs.
 E. Fougere & Co., Olympic, Bordeaux, 40 cs.
 Scientific Materials Company, Yarek, Bremen, 5 cs.

PAPER

Birn & Wachenheim, George Washington, Bremen, 100 bls.
 M. G. Lange & Co., by same, 8 cs.
 H. Reeve, Angel & Co., by same, 58 rolls.
 W. Wrigley, Jr., & Co., Pr. Adams, London, 10 cs.
 F. L. Kraemer & Co., by same, 11 cs.
 E. C. Melby, Fred. VIII., Copenhagen, 178 rolls.
 Wilkinson Brothers & Co., Inc., by same, 1,144 rolls, 126 bls.
 International Acceptance Bank, Fred. VIII., Kristiania, 112 rolls, 436 bls.
 H. Reeve, Angel & Co., Drottingholm, Gothenburg, 3 cs.
 Mugler & Umlauf, by same, 61 bls., 309 rolls.
 C. G. Winans & Co., by same, 7 bls., 630 rolls.
 M. O'Meara Company, by same, 118 bls., 250 rolls.
 C. K. MacAlpine & Co., by same, 24 bls., 223 rolls.
 Coy. Disbrow & Co., Inc., by same, 45 bls.
 Bank of America, by same, 386 bls.
 A. E. MacAdam, by same, 127 bls., 3,301 rolls.
 Wilkison Brothers & Co., Inc., by same, 115 bls.
 T. Barrett & Son, by same, 49 bls.
 Japan Paper Co., Arabic, Genoa, 54 cs.
 Parsons & Whittemore, Yarek, Bremen, 32 bls., 554 rolls.
 New York Tribune, by same, 418 rolls.
 I. B. Harris & Co., Inc., by same, 114 rolls.
 Irving National Bank, by same, 96 bls.
 Virginia Paper Company, by same, 153 bls.
 Republic Bag & Paper Company, Pres. Wilson, Trieste, 484 rolls.
 H. Reeve, Angel & Co., Verbania, London, 4 cs.
 Japan Paper Co., Lyons Maru, Yokohama, 18 cs.
 F. C. Strype, Adriatic, Liverpool, 7 cs.
 P. C. Zuhke, Lapland, Antwerp, 59 cs.
 Parsons & Whittemore, Pr. Fillmore, Bremen, 956 rolls.

Street & Smith Corporation, by same, 594 rolls.
 Diem & Wing Paper Co., by same, 44 rolls.

RAGS, BAGGING, ETC.

Katzenstein & Keene, Inc., Editor, Havre, 356 bls. rags.
 Katzenstein & Keene, Inc., Verbania, London, 9 bls. rags.
 Salomon Brothers & Co., Nervier, Antwerp, 134 bls. rags, 42 bls. new cuttings.
 Salomon Brothers & Co., Innoko, Antwerp, 142 bls. rags.
 Salomon Brothers & Co., M. Mariner, Hull, 81 bls. rags.
 Salomon Brothers & Co., W. Scout, Hamburg, 180 bls. rags.
 Salomon Brothers & Co., Burgerdyk, Rotterdam, 71 bls. rags.
 Salomon Brothers & Co., Saxonia, Hamburg, 325 bls. rags.
 E. J. Keller Company, Inc., Noordam, Rotterdam, 122 bls. rags.
 M. O'Meara Company, by same, 63 bls. cotton waste.
 Royal Waste Manufacturing Company, by same, 184 bls. cotton waste.
 Chemical National Bank, by same, 22 bls. paper stock.
 Equitable Trust Company, Norfolk Range, Leith, 85 bls. waste paper.
 American Woodpulp Corporation, Indep. Hall, Rotterdam, 45 bls. rags.
 Goldman, Sachs, & Co., W. Lashaway, Marseilles, 427 bls. rags.
 E. J. Keller Company, Inc., by same, 266 bls. rags.
 E. J. Keller Company, Inc., Maine, London, 110 bls. bagging.
 Equitable Trust Company, by same, 46 bls. waste paper.
 Katzenstein & Keene, Inc., Bankdale, Marseilles, 137 bls. paper stock.
 Castle, Gotthel & Overton, Bankdale, Barcelona, 150 bls. rags.
 Lenin & Rosenberg, Italia, Glasgow, 134 bls. paper stock.
 Brown Brothers & Co., by same, 190 bls. waste.
 American Woodpulp Corporation, Breiz Izel, Havre, 321 bls. bagging.
 Brown Brothers & Co., by same, 10 bls. bagging.
 State Bank, by same, 29 bls. bagging.
 Mechanics & Metals National Bank, by same, 257 bls. bagging.
 E. J. Keller Company, Inc., by same, 66 bls. new cuttings.
 E. J. Keller Company, Inc., Niagara, Bordeaux, 174 bls. rags.
 E. J. Keller Company, Inc., Mt. Clinton, Hamburg, 52 bls. flax waste.
 E. J. Keller Company, Inc., Idaho, Antwerp, 57 bls. paper stock.
 Equitable Trust Company, by same, 66 bls. paper stock.
 American Exchange National Bank, by same, 166 bls. paper stock, 95 bls. bagging.
 Mechanics & Metals National Bank, Verbania, London, 309 bls. rags.
 Albion Trading Company, Adriatic, Liverpool, 14 bls. rags.
 American Express Company, by same, 100 bls. rags.
 American Woodpulp Corporation, Edgehill, Rotterdam, 155 bls. rags.
 F. P. Gaskell, Pr. Fillmore, Bremen, 315 bls. rags.

OLD ROPE

Brown Brothers & Co., Lapland, Antwerp, 151 coils.
 Brown Brothers & Co., Idaho, Hull, 451 coils.
 Brown Brothers & Co., Noordam, Rotterdam, 26 coils.
 Brown Brothers & Co., Indep. Hall, Rotterdam, 65 coils, 18 bls.
 New York Trust Company, Yarek, Bremen, 129 coils.
 W. Schall & Co., Bankdale, Barcelona, 59 coils.
 Katzenstein & Keene, Inc., Sinsinawa, Naples, 94 bls.
 Katzenstein & Keene, Inc., Bacchus, Leghorn, 38 coils.
 Salomon Brothers & Co., Nervier, Antwerp, 34 bls.

CASEIN

A. Klipstein & Co., Steel Seafarer, Auckland, 330 bags.
 J. A. & W. Bird & Co., by same, 200 bags.
 J. A. & W. Bird & Co., Steel Seafarer, Melbourne, 1,000 bags.
 Atterbury Brothers, LaSavoie, Havre, 63 bags.
 (Continued on page 64)

Howard Bond



Howard Ledger

“The Paper of Many Uses”

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THE HOWARD PAPER COMPANY,

Urbana, Ohio

West Virginia Pulp and Paper Company

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(Write for Samples and Quotations)

MILLS AND GENERAL OFFICES

125 Forest Street, Lee, Mass.

New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
TUESDAY, DECEMBER 5, 1922.

The New York paper market apparently did not slacken in tone even under the pressure of the Thanksgiving holidays. Activity has been regular throughout the past week and both dealers and manufacturers anticipate a continuance of good business well into 1923. While in a few lines buying has sagged off a trifle, purchasing in general is being carried on with more briskness than has been evidenced in the last six weeks. Producers, adjusting themselves in so far as it is possible to the car shortage and transportation tieups, have reported business as being unusually active, with prices holding firm.

Aside from two or three highlights upon which considerable attention is being focused by the paper industry, business has been comparatively normal. The exceptions to this rule may include the paper stock depression, the casein shortage and the boom in news print. Reports from dealers during the past week would indicate that the lower grades of waste paper have ceased to decline in price and are in much better demand by paper manufacturers than they have been for the preceding month. The condition of this market has been sub-normal, owing to the fact that while the volume of paper manufacturing increased and raw pulps enhanced in value, waste paper continued to decline. Producers have laid their lack of participation in this market to the shortage of railway cars, and with the amelioration of this condition it is felt that the paper stock market will adjust itself automatically. The scarcity of casein was felt acutely in the coated paper industry during the week, this situation being reflected in steadily rising prices. Spot lots of the milk product are almost unavailable.

News print has consistently remained in the foreground for the past half year, each week adding further impetus to the momentum of the market. The following circulation-building media employed by various newspapers the country over may account to a large extent for the record-breaking demand for this commodity.

The undertone of the book paper market has shown marked signs of improvement within the last few weeks, prices remaining steady to firm. Demand has not increased in leaps and bounds, but increased holiday needs of magazine and book publishers have swelled the total consumption appreciably, while book exports have taken also a slight turn for the better.

Fine paper continues to move to consumers in regular amounts, although the bulk of heavy buying has been done for the current year. Mills are generally booked up from 30 to 60 days ahead on contract and dealers report the prospects for the first quarter of 1923 as being very favorable.

Tissues have been very active, the strong demand persisting and available stocks remaining decidedly low. The Christmas trade is making heavy inroads on this market and bids fair to exhaust the supply in the hands of dealers.

Rail congestion is proving a serious menace to manufacturers of this commodity.

Wrapping paper is still maintaining an even stride in its movement to consumers, domestic dealers reporting a steady volume of business and firm prices. A few large kraft importers have expressed alarm over the diminishing spot imports of this commodity, attributing this condition to governmental delay in undervaluation investigations and the resulting increased cost of imported kraft.

Board has been in active demand throughout the past week, prices having held exceptionally firm. Mills are beginning to take more interest in the paper stock market and are covering themselves on contract up through the early part of 1923. The numerous obstacles to normal production are gradually being eliminated and with an easing up in the traffic congestion it is felt that this market will make rapid progress.

Mechanical Pulp

Although the tone of the ground wood market faltered somewhat in the past week, there was nothing in either volume of business or price alterations to indicate a diminution in demand from consuming quarters. Foreign and domestic mechanical pulps of No. 1 quality are now being quoted at practically the same price levels, the average range of sales coming between \$38 and \$42 per ton. Grinding conditions in Wisconsin were reported to have improved to a great extent, but grinders in New England and Canada have been seriously handicapped to date through a shortage of water.

Chemical Pulp

For the first time in several months, the chemical pulp market has been visited by a series of price recessions which, however slight they may have been, would indicate that the market is easing off a trifle owing to the fact that the bulk of contract business has been done for the present year. The taking of inventories may also have had something to do with the slackened interest of paper manufacturers in the raw material markets at this time of the year. Imported bleached sulphite dropped from the 5.00 cent mark to a range of 4.50 to 4.75, while both imported and domestic kraft pulps moved down to a level of 2.85 to 3.15 cents a pound.

Old Rope and Bagging

Old rope has remained practically at a standstill throughout the past week, prices holding steady and demand fair. No. 1 old domestic manila has been in good call by paper mills, while mixed strings have been moving regularly.

The demand for No. 1 scrap bagging has been of a routine type, and dealers do not anticipate any substantial increase in buying on the part of tissue mills until after the holidays.

Waste Paper

A halt in the downward swooping prices of the lower grades and slight stiffening in tone together with an equally slight falling off in the quotations on the better grades has characterized the waste paper market of the past week. Business with western manufacturers has ameliorated considerably, but the demand in the East has shown but few evidences of regaining its former vigor before the end of the year. The approach of the season for taking inventories makes manufacturers disinclined to load up with any more raw materials than is absolutely essential. The demand for book stock has been relatively strong in the East, prices having held up better on this commodity than on any other grades. Hard white shavings of No. 1 quality eased off to a level of 4.20 to 4.40 cents a pound, several grades of flat stock and manilas registering corresponding declines.

Rags

Rags have continued easy during the week, demand for a few listings of whites and blues being but fair. Roofing rags are still practically inactive, but dealers anticipate a considerably enhanced volume of trade in this line in the near future owing to the fact that building operations are progressing at a lively gait and mills are busy at present. Fine paper mills have been absorbing small but regular consignments of whites and blues, but the competition for these grades has not been keen. Rag importers report that the market is now in a state of coma from which it is not likely to emerge until after the first of the year.

Imports continue to accrue in goodly volume, but the paper mill demand is negligible.

Twine

Steady-to-firm prices ruled throughout the last week in the twine market, the bulk of business consisting of a hand-to-mouth demand on the part of consumers. The raw jute market has continued to be quiet, but with the coming of 1923 business it is freely anticipated that twines will be subject to a greatly increased demand and with prices at a higher level.

Market Quotations

Paper Company Securities

New York Stock Exchange closing quotations December 5, 1922:

Table with columns for company names (American Writing Paper Company, etc.), BID, and ASKED prices.

Paper

F. o. b. Mill

Table listing various paper products like Ledgers, Bonds, Writings, and News-f. o. b. Mill with prices.

Table listing products like Book, Cased-f. o. b. Mill, Coated and Enamel, and Tissues-f. o. b. Mill.

Table listing products like Kraft-f. o. b. Mill, Manila, and Fiber Papers.

Table listing products like Boards-per ton, Wax Paper, and Glassine.

Mechanical Pulp

(Ex-Dock)

Table listing mechanical pulp products like No. 1 Imported and No. 1 Domestic.

Chemical Pulp

(Ex-Dock, Atlantic Ports.)

Table listing chemical pulp products like Sulphite (Imported), Sulphite (Domestic), and Easy Bleaching.

Domestic Rags

New

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

Table listing domestic rag products like Shirt Cuttings, Cotton, and Men's Corduroy.

Old

Table listing old rag products like White, No. 1, Repacked, and Roofing Rags.

Foreign Rags

Table listing foreign rag products like New Light Silesias, Light Flannelettes, and New White Cuttings.

Bagging

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

Table listing bagging products like Gunny No. 1, Foreign, and Domestic.

Twines

Table listing twine products like Cotton-(F. o. b. Mill) No. 1, 2, and 3.

Old Waste Papers

(F. o. b. New York)

Table listing old waste paper products like Shavings, Flat Stock, and Manila.

CHICAGO

(FROM OUR REGULAR CORRESPONDENT)

Paper

F. o. b. Mill

Table listing paper products like All Rag Bond, No. 1 Rag Bond, and Water Marked Sulphite.

Old Papers

Table listing old paper products like No. 1 Hard White, No. 1 Soft Shav., and No. 1 Mixed.

PHILADELPHIA

(FROM OUR REGULAR CORRESPONDENT)

Paper

Table listing Philadelphia paper products like Bonds, Ledgers, Writings, and Sulphite.

Table listing Philadelphia paper products like Best Tarred, 1-ply, Best Tarred, 2-ply, and Best Tarred, 3-ply.

Bagging

F. o. b. Phila.

Table listing bagging products like Gunny No. 1, Foreign, and Domestic.

Old Papers

F. o. b. Phila.

Table listing old paper products like No. 1, Hard White, No. 2, Hard White, and No. 1 Soft White.

(Continued on page 66)

Imports and Exports of Paper and Paper Stock

(Continued from page 60)

CASEIN—Continued

Kalbfeisch Corporation, Pan America, Buenos Aires, 834 bags.
National City Bank, Collamer, Bordeaux, 140 bags, 14,202 kilos.

WOOD PULP

Woodpulp Trading Company, Ltd., Narefjord, Kristinia, 3,750 bls.
Woodpulp Trading Company, Ltd., Eastside, Sundsvall, 3,600 bls.
W. Nottesen, Inc., Archer, Hamburg, 548 bls., 109 tons.
M. Gottesman & Co., Inc., Geo. Washington, Bremen, 600 bls., 101 tons.
M. Gottesman & Co., Inc., Drottningholm, Gothenburg, 1,400 bls.
E. M. Sergeant Company, by same, 875 bls.
Nilsen, Lyon & Co., Inc., by same, 300 bls.
Price & Pierce, Ltd., by same, 800 bls.
Johannesson, Wales & Sparre, Inc., by same, 775 bls.
R. F. Hammond, by same, 500 bls., 100 tons.
Scandinavian American Trading Company, Fred. VIII, Copenhagen, 1,000 bls., 203 tons.
H. Hollesen, Inc., Fr. Fillmore, Bremen, 2,600 bls., 520 tons.

BOSTON IMPORTS

WEEK ENDING DECEMBER 2, 1922.

J. A. & W. Bird & Co., Harmonides, Buenos Aires, 910 bags casein.
Woodpulp Trading Company, Ltd., Norega, Christiania, 600 bls. wood pulp.
M. Gottesman & Co., Inc., L. P. Holmblad, Christiania, 1,200 bls. wood pulp.
G. M. Granes & Co., Maine, London, 29 bls. rags, 92 bls. waste paper.
Crocker Burbank Company, by same, 257 bls. waste paper.

Crane Company, Maine, London, 75 bls. rags.
G. M. Granes & Co., by same, 123 bls. rope.
Brown Brothers & Co., by same, 85 bls. rope, 671 coils rope.

CHARLESTON IMPORTS

WEEK ENDING DECEMBER 2, 1922.

Castle, Gottheil & Overton, W. Harshaw, Liverpool, 3 bls. bagging.

BALTIMORE IMPORTS

WEEK ENDING DECEMBER 2, 1922.

V. Galup & Co., Breiz Izel, Havre, 225 bls. rags.
E. J. Keller Company, Inc., Arkansas, Copenhagen, 316 bls. jute bagging.
E. J. Keller Company, Inc., Emden, Hamburg, 386 bls. rags.
E. J. Keller Company, Inc., Burgerdyk, Rotterdam, 219 bls. rags, 165 bls. bagging.
Woodpulp Trading Company, Ltd., Marie Maesik, Iggesund, 6,332 bls. wood pulp.
R. F. Hammond, W. Loquassack, Gothenburg, 1,000 bls. wood pulp, 200 tons.
R. F. Hammond, Hogland, Gothenburg, 762 bls. wood pulp, 150 tons.
R. F. Hammond, Mexicano, Christiania, 750 bls. wood pulp, 150 tons.
M. Gottesman & Co., Inc., by same, 1,750 bls. wood pulp.
M. Gottesman & Co., Inc., Mexicano, Trondhjem, 4,620 bls. wood pulp.
M. Gottesman & Co., Inc., Hogland, Gothenburg, 1,000 bls. wood pulp.

PHILADELPHIA IMPORTS

WEEK ENDING DECEMBER 2, 1922.

American Woodpulp Corporation, Breiz Izel, Havre, 360 bls. rags.
Castle, Gottheil & Overton, by same, 1,656 bls. rags.
D. M. Hicks, Inc., by same, 102 bls. rags.
E. J. Keller Company, Inc., by same, 768 bls. rags.
Ladenburg, Thalman & Co., by same, 559 bls. rags.
Bank of New York, Norfolk Range, Leith, 64 bls. waste paper.
Castle, Gottheil & Overton, London Mariner, London, 219 bls. waste paper.
Castle, Gottheil & Overton, Mackinaw, London, 91 bls. waste paper.
Castle, Gottheil & Overton, Stanmore, Glasgow, 198 bls. waste paper.
Castle, Gottheil & Overton, Zarembo, Havre, 160 bls. rags.
Castle, Gottheil & Overton, Manchester Port, Manchester, 231 bls. waste paper, 149 bls. rags, 194 bls. new cuttings.
Katzenstein & Keene, Inc., Manchester Port, Liverpool, 91 bls. new cuttings.
Katzenstein & Keene, Inc., W. Scout, Hamburg, 328 bls. rags.
E. J. Keller Company, Inc., Burgerdyk, Rotterdam, 780 bls. rags.
E. J. Keller Company, Inc., Zarembo, Bordeaux, 75 bls. rags.
E. J. Keller Company, Inc., Edgehill, Rotterdam, 3,998 bls. rags.
E. J. Keller Company, Inc., W. Scout, Hamburg, 619 bls. rags, 44 bls. flax waste, 72 bls. jute cuttings, 24 bls. linen threads, 62 bls. old rope.
L. H. Abenheimer, Breiz Izel, Havre, 35 coils old rope.
M. Gottesman & Co., Inc., Mexicano, Christiania, 750 bls. wood pulp.
Woodpulp Trading Co., Ltd., Hovland, 11,000 bls. sulphite pulp.

REQUESTS INFORMATION FOR PAPER EXPORTERS

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., December 4, 1922.—John Matthews, Chief of the Paper Division of the Department of Commerce, is making an effort to obtain complete information for paper exporters from abroad. In this connection he is sending to all of the Commercial Attaches, Consular Officers, and Trade Commissioners, in foreign countries the following questionnaire.

1. Give details as to demand for various papers listed on classification sheets attached. If possible give information on estimated yearly consumption for the various grades. Send samples of grades in greatest demand, and information on their present sources of supply.

2. Give what information you can as to present market prices and prices quoted from competing countries. Keep us posted on any radical changes.

3. Is there a particular preference for the paper and allied products imported from any one country or section of the world? If so, name the country and the kinds of paper in question, and indicate the reason for the preference.

4. Describe any special requirements as to packing and shipment.

5. Give sizes and weights in general demand on lines shown on classification sheets attached. Sheet sizes and substances for flat papers; rolls widths and basis of weight for paper in rolls. Where metric sizes and weights are used, give them in metric measurements. It is not necessary to translate these into our measurements.

NOTE: Information on sizes desired that we may determine whether sizes are adaptable to widths of machines here. Information on weights needed because some of the weights in general use abroad are below our regular basic weights, and, while it is possible for domestic mills to make the light weights, prices are determined by the exact weight required. In general, all papers are based on a weight per ream of 480 or 500 sheets. Where the

metric system is in use, the weight is sometimes specified in grams per square meter and where so specified, ream weight is not necessary. Coarse boards, such as newsboard, chipboard, strawboard, etc., are generally ordered by count, that is, so many sheet per 10 kilos or per 50 pounds.

6. Are there any concerns in your territory specializing in the sale of American papers? Do such concerns handle any foreign papers?

7. Send names of any concerns or individuals who might be interested in making agency arrangements with American paper manufacturers or exporters.

8. Trade lists. Send us lists of the following:

- (a) Wholesale paper merchants.
- (b) Wholesale stationers.
- (c) Principal retail stationers.
- (d) Principal bookbinders.
- (e) Principal printers.
- (f) Lithographers.
- (g) Principal paper box manufacturers.
- (h) Principal paper bag manufacturers.
- (i) Principal envelope manufacturers.
- (j) Local paper mills.

NOTE: We would suggest the use of Form 341, "World Trade Directory Report" in compiling these lists.

9. Describe local manufacture, if any, and its bearing upon imports, giving production statistics if available, and indicating how paper locally produced compares in quality with imported grades.

10. What is the local method of distribution:

- (a) Through wholesale paper merchants.
- (b) Direct importation by printers, lithographers, bookbinders, stationers and other consumers.
- (c) Large printers and stationers acting as wholesalers.

11. Send periodically statistics showing importation of paper classified as to grade and showing country of origin.

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If you judge felt values, not by what you put into the equipment, but what you get out of it—then you will specify ORR 3 stripe Endless Felts, for ORR felts will produce the lowest cost per ton. They “stand up” under severe usage. Orr durability is acknowledged everywhere. Their strength and long life are as dependable as their reliability and quality.

In the 32 grades of Felts and Jackets we can match your most exacting demands. Tell us the kind of paper you desire to make, and we will send you samples of felts that will economically serve you and help you to produce paper at lowest cost per ton.

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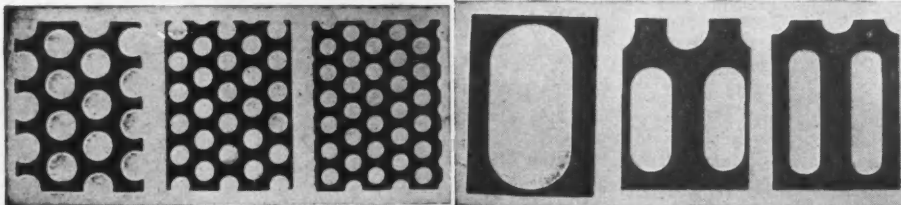
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Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
TUESDAY, DECEMBER 5, 1922.

BLEACHING POWDER.—Practically no change has entered into the market for bleaching powder during the past week, producers still insisting upon an average price of 2.00 cents a pound for spot shipment. The market is quite strong and the supply is limited owing to protracted manufacturing difficulties.

BLANC FIXE.—Moving in fair-sized amounts to the papermaking trade, blanc fixe has held its own throughout the past week at the quoted price of \$80 to \$85 per ton, works.

CAUSTIC SODA.—Selling at the steady contract price of 2.50 cents a pound, and slightly lower on "outside" grades, 60 per cent basis caustic soda still remains in excellent demand. Producers are experiencing difficulties in obtaining raw materials and are held up in their operations by the acute car shortage.

CHINA CLAY.—According to several large New York importers, the average quoted price on good quality imported coating clay now approximates \$18 per ton, although the range of prices, varying with quality and size of shipment, may be held at \$15 to \$22. Demand is consistently regular, \$8 to \$11 being listed for the washed domestic and \$6 to \$8.50 for the unwashed.

CASEIN.—At the c. i. f. price of 15.50 to 17.00 cents a pound, casein for spot delivery has been almost impossible to obtain in any sizable quantity. One New York dealer reported that he was unable to unearth enough of the milk-product to meet a spot order offering 24.00 cents a pound. As fast as shipments arrive from the Argentine Republic they are applied on overdue contracts, leaving no surplus on the market. A few dealers are reported to have resorted to the expedient of buying back supplies from their customers to cover the demands of those coating mills whose stocks were entirely depleted.

PAPERMAKERS' GLUE.—During the acute shortage of casein in recent weeks, papermakers' glue has enhanced in demand by the paper manufacturing trade. Hide glue, used in tub sizing has been quoted at various prices ranging from 13 to 20 cents a pound, depending largely upon the consistency.

LIQUID CHLORINE.—Five to six cents a pound has represented the average price paid by paper mills for chlorine in 100-pound cylinders.

ROSIN.—Grades E, F and G, of rosin are still listed from 6.80 to 7.00 cents a pound, in barrels of 280-pounds, ex-dock, New York, the Savannah, Ga., price being approximately one cent less.

SALTCAKE.—Maintaining a very strong position in view of the slack acid production and the extreme scarcity of nitre cake and crude salt, saltcake prices have continued to tend upward, the quoted value of chrome cake having moved to \$25 per ton, contract, and frequently better than \$26 for such spot supplies as are available. Acid cake, it is believed, will reach the \$30 mark in the near future, present prices holding at \$28 and \$29 per ton.

SODA ASH.—Practically no price changes having entered into the alkali markets, soda ash remains firm at its schedule listing of 1.20 cents a pound for the 48 per cent basis grade.

STARCH.—Revised quotations under date of December 1 show the following prices on the powdered and papermakers' grades of starch: Powdered, 2.72 cents a pound in bags and 3.00 cents in barrels; papermakers', 2.82 and 3.10 cents for these amounts. These increases, averaging 1/10 cent per pound, indicate a strong market.

SULPHATE OF ALUMINA.—Alum still maintains the same comparative price levels which it has held for the past two weeks, 1.50 to 1.75 cents a pound being quoted for commercial sulphate of alumina on the Eastern seaboard and 1.25 to 1.35 in western markets. Iron free is quoted at 2.55 to 2.80.

SULPHUR.—Brimstone remains exceedingly firm at the listed price of \$18 to \$20 per ton.

Market Quotations

(Continued from page 63)

Solid Ledger Stock.. 2.25 @ 2.50	New Black Soft.. .06 1/4 @ .06 1/2
Writing Paper..... 2.00 @ 2.25	New Light Sec- onds..... .02 1/4 @ .02 1/2
No. 1 Books, heavy. 2.25 @ 2.50	Khaki Cuttings.. .03 1/4 @ .04 1/4
No. 2 Books, light. 1.40 @ 1.50	Corduroy..... .03 1/4 @ .03 1/2
No. 1 New Manila. 2.75 @ 3.00	New Canvas..... .07 1/2 @ .08
No. 1 Old Manila.. 1.50 @ 1.75	New Black Mixed Old
Container Manila.. 1.35 @ 1.40	White, No. 1— Repacked..... .06 @ .06 1/2
Old Kraft..... 2.25 @ 2.50	Miscellaneous..... .04 1/4 @ .04 3/4
Overissue News... 1.50 @ 1.60	White, No. 2— Repacked..... .03 @ .03 1/2
Old Newspaper.... 1.20 @ 1.25	Miscellaneous..... .03 @ .03 1/4
No. 1 Mixed Paper. 1.10 @ 1.15	Thirds and Blues— Repacked..... 200 @ 2.25
Common Paper.... .80 @ .90	Miscellaneous..... 1.85 @ 1.90
Straw Board, Chip. .80 @ .90	Black Stockings... 2.75 @ 3.00
Binders Bd. Chip.. .80 @ .90	Roofing Stock— No. 1..... 1.30 @ 1.35
Domestic Bags—New	No. 2..... 1.20 @ 1.25
Price to Mill, f. o. b. Phila.	No. 3..... 1.10 @ 1.15
Shirt Cuttings—	No. 4..... 1.10 @ 1.15
New White, No. 1. 1.14 @ .11 3/4	No. 5A..... 1.05 @ 1.10
New White, No. 2 .06 @ .07	B..... nominal
Silicias, No. 1.... .06 1/4 @ .07	C..... nominal
New unbleached.. .10 1/4 @ .11	
Washables..... .03 1/4 @ .04	
Fancy..... .04 1/4 @ .05 1/4	
Cottons—according to grades—	
Blue Overall.... .05 1/4 @ .05 3/4	
New Blue..... .02 1/4 @ .02 3/4	

BOSTON

[FROM OUR REGULAR CORRESPONDENT]

Paper	Wood, Vat Lined.. 60.00 @ 65.00
Bonds..... .08 @ .50	Filled News Board.. 52.50 @ 57.50
Ledgers..... .08 1/4 @ .55	Solid News Board.. 55.00 @ 70.00
Writings..... .08 @ .42	S. Manila Chip.. 72.50 @ 75.00
Superfine..... .16 @ .26	Pat. Coated..... 70.00 @ 75.00
Fine..... .15 @ .18	
Books, S. & S. C.. .07 1/4 @ .12	Old Papers
Books, M. F..... .06 3/4 @ .09 1/2	Shavings—
Books, coated..... .05 @ .15	No. 1 Hard White 4.25 @ 4.50
Label..... .08 1/4 @ .13	No. 1 Soft White 3.00 @ 3.50
News, sheets..... 4.75 @ 6.00	No. 1 Mixed..... 1.25 @ 1.50
News, rolls..... 4.50 @ 5.75	Ledgers & Writings 1.75 @ 2.00
Manilas—	Solid Books..... 2.50 @ 2.75
No. 1 Manila... \$6.00 @ 7.00	Blanks..... 1.70 @ 1.80
No. 1 Fiber..... .06 1/4 @ .07	No. 2 Light Books. 1.75 @ 1.90
No. 1 Jute..... 9.00 @ 10.50	Folded News, over- issues..... 28.00 @ 30.00
Kraft Wrapping .. .07 @ .08	Gunny Bagging... .85 @ .90
Common Bogus... 3.50 @ 3.85	Manila Rope..... 5.75 @ 6.00
	Common Paper..... .70 @ .80
Boards	Old News..... .80 @ .90
(Per Ton Destination)	Old Kraft..... 2.00 @ 2.10
Chip..... \$50.00 @ 55.00	
News, Vat Lined.. \$2.50 @ 55.00	

TORONTO

[FROM OUR REGULAR CORRESPONDENT]

Paper	Sulphite, bleached. 100.00 @ 105.00
(Mill Prices to Jobbers f. o. b. Mill)	Sulphate..... 70.00 @ —
Bond—	Old Waste Papers
Sulphite..... .11 @ .12 1/2	(In carload lots, f. o. b. Toronto)
Light tinted.... .12 @ .13 1/4	Shavings—
Dark tinted.... .13 1/4 @ .15	White Env. Cut.. 4.00 @ —
Ledgers (sulphite).. — @ .13	Soft White Book Shavings..... 3.75 @ —
Writing..... .09 1/4 @ .12	White Bl'k News 2.10 @ —
News, f. o. b. Mills—	Book and Ledger—
Rolls (carloads).. 3.50 @ 4.25	Flat Magazine and Book Stock (old) 2.55 @ —
Sheets (carloads).. — @ 4.25	Light and Crum- pled Book Stock 2.40 @ —
Sheets (2 tons or over)..... — @ 4.50	Ledgers and Writ- ings..... 2.75 @ —
Book—	Solid Ledgers.... 2.75 @ —
No. 1 M. F. (car- loads)..... 9.00 @ —	Manilas—
No. 2 M. F. (car- loads)..... 8.00 @ —	New Manila Cut. 2.10 @ —
No. 3 M. F. (car- loads)..... 7.50 @ —	Printed Manilas.. 1.75 @ —
No. 1 S. C. (car- loads)..... 9.50 @ —	Kraft..... 2.50 @ —
No. 2 S. C. (car- loads)..... 8.50 @ —	News and Scrap—
No. 1 Coated and litho..... 14.00 @ —	Strictly Overissue 1.50 @ —
No. 2 Coated and litho..... 13.00 @ —	Folded News.... 1.50 @ —
No. 3 Coated and litho..... 12.25 @ —	No. 1 Mixed Pa- pers..... 1.20 @ —
Coated and litho, colored..... 14.25 @ —	Domestic Rags—
Wrapping—	Price to mills, f. o. b. Toronto Per lb.
Grey..... 4.75 @ —	No. 1 White shirt cuttings..... 1.04 @ —
White Wrap..... 5.50 @ —	No. 2 White shirt cuttings..... .05 @ —
"B" Manila..... 5.75 @ —	Fancy shirt cut- tings..... .05 1/4 @ —
No. 1 Manila..... 6.75 @ —	No. 1 Old whites .04 @ —
Fiber..... 6.75 @ —	Thirds and blues .02 @ —
Kraft, M. F..... 8.00 @ —	Per cwt.
M. G..... 8.15 @ —	Black stockings.. 2.00 @ —
	Roofing stock:
Pulp	No. 1..... 1.50 @ —
(F. o. b. Mill)	No. 2..... 1.05 @ —
Ground wood... \$35.00 @ 40.00	Roofing stock:
Sulphite easy bleach- ing..... 60.00 @ 70.00	No. 1..... 6.10 @ —
Sulphite news grade. 55.00 @ 60.00	No. 2..... 1.50 @ —
	Gunny bagging.... 1.00 @ —

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Sacks and Specialties

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Over forty years experience in the clay industry has naturally resulted in the adoption of the most scientific methods and practices.

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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 ad 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

SALESMAN WANTED with Established Trade in paper, paper boards or twine in or adjacent to New York City. Address, Great Notch Paper Co., Inc., 191-193 Varick Street, New York. D-14

WANTED—A man to sell beater engine roll bars and bed plates, also machine knives to paper mills. State experience and salary desired, and give references. Address, Box 5623, care Paper Trade Journal. D-7

SALESMAN WANTED—A fast growing Coated Paper and Specialty House, requires one or two salesmen, who have a following in New York City selling Bonds, Offset, Super, Coated, M/F. Boards, etc. Can have unrestricted territory. Drawing account against liberal commission. Address, Box 5640, care Paper Trade Journal. D-7

WANTED—First class Boss Beaterman; also Machine Tender, for Mill making high grade Box Boards. Good wages. Mill in ideal location. State experience and send references. Address, Box 5641, care Paper Trade Journal. D-14

SALESMAN WANTED—Salesman with experience in selling Waterproof Wrapping Paper to handle that line for a going concern. Address, Box 5642, care Paper Trade Journal. D-21

WANTED—Two (2) experienced adjusters, on Automatic Paper Bag Machines, those having operated "Stillwell" Machines preferred. State experience, references, married or single, and salary expected in first letter. Address, Box 5643, care Paper Trade Journal. D-21

WANTED—Harper and Cylinder machine tenders, making all high grade Waxing Papers. Eight hour shifts. Mill located in New York State. Only men able to produce quality and keep up machine need apply. Address, Box 5645, care Paper Trade Journal. D-7

WANTED—First class Backtender 86" Fourdrinier making Kraft. Mill in Massachusetts. None but steady man considered. State experience and particulars in first letter. Address, Box 5646, care Paper Trade Journal. D-7

WANTED—First class machine tender to run a 96" machine making Light Weight Board. 8 hour day and steady work to right man. Mill located in Middle West. Address, Box 5657, care Paper Trade Journal. D-7

WANTED—An experienced Automatic Adjuster on paper bag machines. State experience. Good salary and ideal working conditions. Address, Box 5660, care Paper Trade Journal. D-14

EXPERIENCED toilet paper converting operator to assist foreman. Steady position to intelligent young man who is looking for a future. Address, Box 5683, care Paper Trade Journal. D-21

NOTICE

When replying to advertisements which have a **BOX NUMBER** always make certain you have the correct **Box Number** on the address. This will insure your letter being sent to the right advertiser.

HELP WANTED

WANTED—Assistant Chemist for control work in laboratory of paper mill in Massachusetts. Give full information in first letter. Address, Box 5661, care Paper Trade Journal. D-14

WANTED—Three machine tenders for 5-cylinder board machine. Must be thoroughly competent and able to handle entire machine. Must have good experience on all grades of board and container stock. Address, Box 5662, care Paper Trade Journal. D-14

WANTED—Three beater engineers for board mill handling waste paper. Must be thoroughly acquainted with colors and have all formulas for the manufacture of board and container stock. Address, Box 5663, care Paper Trade Journal. D-14

WANTED—Three back tenders. Must be thoroughly competent for 5 cylinder board machine. Address, Box 5664, care Paper Trade Journal. D-14

WANTED—One pasting machine man thoroughly competent to operate t-roll 96-inch pasting machine making container stock and wall board. Address, Box 5665, care Paper Trade Journal. D-14

SUPERVISOR for paper manufacturing plant. Applicant must have mechanical experience as well as experience in handling men. State experience and references, advising compensation expected. Address, Box 5666, care Paper Trade Journal. D-7

SMALL PAPER MILL in Canada, manufacturing .009 Strawpaper and Bogus Chip, requires Superintendent. Must be familiar with these grades and capable of operating with steam, electric and water power. State experience, salary required and enclose references. Address, Box 5675, care Paper Trade Journal. D-7

WANTED—Beater Engineer, Machine Tender and Back Tender on Cylinder Machine. Those accustomed to light weight specialties only need apply. Three tours. Address, Box 5676, care Paper Trade Journal. D-14

ASSISTANT SUPERINTENDENT wanted for specialty mill. Must be experienced with colors. Also young man as chemist. Address, Box 5677, care Paper Trade Journal. D-7

SALESMEN WANTED—High grade, New York following. Exceptional opportunity to become associated with young growing paper house. Communications confidential. Address, Box 5682, care Paper Trade Journal. D-28

THOROUGHLY COMPETENT and practical glassine bag and envelope maker, one who understands the manufacturing of these goods in detail. Excellent proposition to bright, energetic young man. Address, Export Paper Products Co., Post Office Box 665, New Orleans, Louisiana. J-25

SITUATIONS WANTED

A MAN OF EXPERIENCE, capable of assuming management, or other executive's position, would like connection with Mill where investment can be made. Address, Box 5687, care Paper Trade Journal. D-7

YOUNG LADY, 22, holding position at present as bookkeeper and general office manager with a well known retail paper and bag concern. Has been with them for the past five years, but desires to make a change with larger concern. Unquestionable references as to ability and general knowledge of retail paper line. Address, Box 5434, care Paper Trade Journal. D-7

PAPER SALESMAN: New York City, who can produce large amount of business, would like connection with Paper House, or organization, having good mill facilities. Drawing account on commission basis. Address, Box 5596, care Paper Trade Journal. D-7

WANTED—Position cylinder machine tender on Tissue and Light Weights. 15 years' experience. References. Address, Box 5653, care Paper Trade Journal. D-7

EXPERIENCED BUYER for paper mill, open for engagement. Address, Box 5585, care Paper Trade Journal. D-7

MANAGER: Superintendent of ability, 40 years of age, ten years as manager and superintendent. Practical in all branches of mill. Best of references, wishes connections with good container or box board mill after January 1st. Address, Box 5627, care Paper Trade Journal. D-7

MASTER MECHANIC with twelve years' experience in papers. A first class machinist and millwright and up in all mill repairs. Can handle men and is not afraid of work. References. Address, Box 5628, care Paper Trade Journal. D-7

CHEMIST AND CHEMICAL ENGINEER with previous experience in Sulphite and Paper Mills, is open for engagement. Now employed. Good references. Address, Box 5475, care Paper Trade Journal. D-7

SUPERINTENDENT of ability desires to make a change. Experienced on all grades of fine Papers, Bond, Ledger, Book, Kraft, Waxing, Manillas, and other Grades. Address, Box 5547, care Paper Trade Journal. D-21

SUPERINTENDENT open for position. 20 years' experience in the manufacture of all the better grades of combination and container board. Can get quality and production. Thoroughly familiar with repairs, maintenance and operation of every department of mill. Can furnish the very best of references. Address, Box 5611, care Paper Trade Journal. D-7

UP TO DATE SUPERINTENDENT open for position. Experienced on Manila, Fibre, Tissue, Book, Bond and Colors. Can give results. Address, Box 5654, care Paper Trade Journal. D-7

MAN, 32, actual experience installing Cost System, Payrolls, Distribution, Bookkeeping and all Paper Mill Office Details and Office Management, desires position. Excellent references. Salary secondary to advancement. Address, Box 5656, care Paper Trade Journal. D-7

WELL EDUCATED YOUNG MAN with 12 years' practical experience, wishes position as superintendent, assistant superintendent, or assistant manager with any reliable concern. Will go anywhere. Best of references furnished. Address, Box 5651, care Paper Trade Journal. D-21

SITUATIONS WANTED

POSITION WANTED by a party thoroughly experienced in the exporting of paper to Cuba, Mexico, South America, Japan, China and Australia and having an intimate knowledge extending over 20 years in the importing of all kinds of paper from England, France, Germany, Scandinavia and Finland together with a thorough knowledge of English and German and a working knowledge of French and Spanish. Location in this country no object. Address, Box 5619, care Paper Trade Journal. **tf**

A MAN of experience in Traffic Department Paper Mill desires position. Address, Box 5586, care Paper Trade Journal. **D-7**

PLANT MANAGER—Felt, News, and Kraft experience desires to make change; capable executive, systematizer and producer of results. Address, Box 5667, care Paper Trade Journal. **D-21**

WANTED POSITION as Assistant Superintendent or Tour Boss. Eighteen years' experience. Experience on all grades of fine papers. Good on colors. Will go any place. Best of references furnished. Address, Box 5668, care Paper Trade Journal. **D-7**

WANTED—Position as Assistant Manager or similar executive position or Salesman. Thorough Mill, Selling and Office Experience. Now connected with a leading mill making Sulphite, Bond, Ledger and writing, but desires to make a change. Highest references. Address, Box 5669, care Paper Trade Journal. **D-28**

SUPERINTENDENT—With wide experience in fine and coarse mills, fourdrinier and cylinder machines. Go anywhere. Pacific Coast preferred. Best references. Address, Box 5670, care Paper Trade Journal. **D-21**

SALES MANAGER AND EXECUTIVE wants position with well established, progressive Paper House. Will consider any territory. Thorough knowledge fine and coarse papers, also cordage. College education. Broad experience obtained in many parts of country. Address, Box 5671, care Paper Trade Journal. **D-21**

EFFICIENT, CAPABLE, up-to-date Superintendent wishes connection. All grades Stocks, Boards, and Cylinder Papers; Box, Jute, Container, Wrappings, Tissue and Specialties. Good executive, honest. Can get production. Address, Box 5672, care Paper Trade Journal. **D-28**

POSITION WANTED—Man of ability, with twenty years' experience in mills manufacturing high grade bleached and unbleached sulphite pulp, desires position as sulphite superintendent, or assistant manager. Experienced in constructing, operating and maintaining; capable of handling men; able to take full responsibility to secure results. Temperate and reliable. At present connected. Address, Box 5678, care Paper Trade Journal. **D-14**

RESPONSIBLE POSITION WANTED in a mill organization where I can utilize fifteen years of experience in the paper and board industry. Have been through the practical work, purchase, sales, management, lastly as assistant to the president of a mill recently sold. Am not looking for a sinecure but a chance first of demonstrating capability and then earning its reward. Address, Box 5679, care Paper Trade Journal. **D-14**

MAN with Executive Ability desires position as mill manager. Years of experience in paper manufacturing. Expert in sales, purchasing, cost, accounting and office supervision. Address, Box 5579, care Paper Trade Journal. **D-21**

BOX BOARD MILL SUPERINTENDENT, with 25 years' practical experience in the manufacturing of test, combination, stiff and folding boards, desires to connect with mill in need of a practical superintendent. Four years in present position and eight years with mill previous to with successful record. Capable to remodel, repair and put mill on competitive paying basis. Excellent executive, familiar with cost and can train, organize, and handle help to best advantage. Practical experience in all departments of mill from stock to finishing. Address, Box 5681, care Paper Trade Journal. **D-14**

SITUATIONS WANTED

HIGH CALIBRE MAN, fifteen years' experience, desires mill connection for sale of product. Can finance account, if desired, through old established high rated brokerage firm, or handle on commission as direct representative. New York and Eastern territory. Address, Box 5680, care Paper Trade Journal. **D-14**

FOR SALE

FOR SALE—Deane Duplex Fire Pump, 14x 8 1/2 x 10, capacity 600 gallons per minute. Address, Box 5482, care Paper Trade Journal. **tf**

FOR SALE—6 Farnum Drives. Complete Triple-Deck frames for 44 Dryers. Will arrange terms to suit. Chesapeake Paper Board Co., Baltimore, Maryland. **tf**

FOR SALE—Two Potdevin Glassine Bag Machines. Perfect condition. Price reasonable. Write for further information. Address, The Peerless Mfg. Co., Norristown, Pa. **tf**

FOR SALE—One Williams Standard Pulp Tester with Scales. Practically new. Address, Box 5673, care Paper Trade Journal. **D-21**

FOR SALE—200 Cords dry 4-ft. Poplar and Basswood pulp at West Chazy, New York. Chas. R. Atwood. **D-7**

ABSOLUTE AUCTION SALE

at the Exchange Salesroom, 14 Vesey St., New York City, at 12:30 P. M. Wednesday, December 13, 1922

Water Power, Ground Wood Mill (15 Air Dry Tons a day capacity) Store, 6 Dwellings, about 60 acres.

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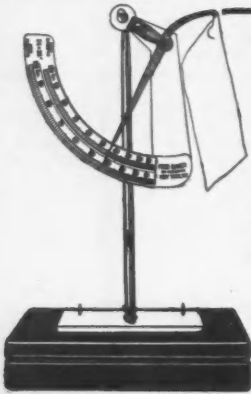
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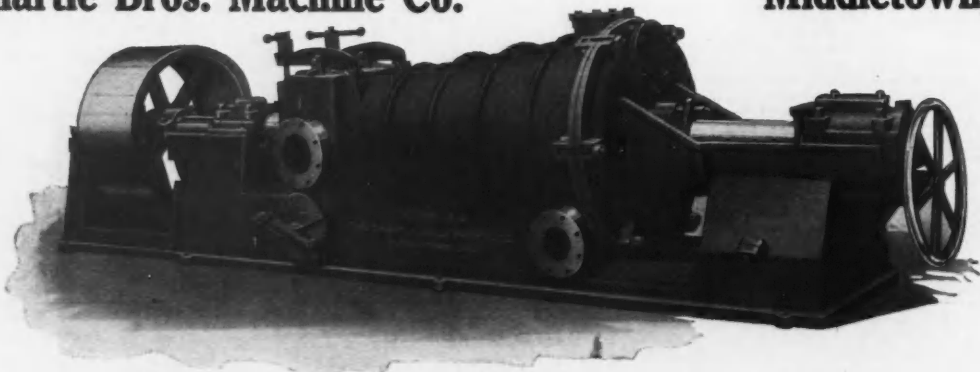
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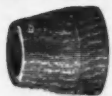
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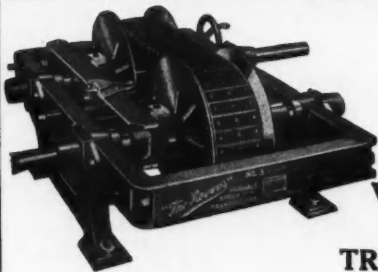
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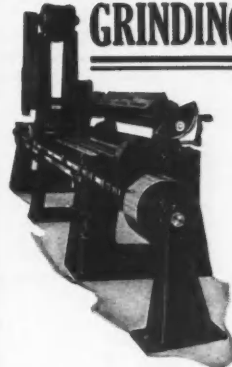
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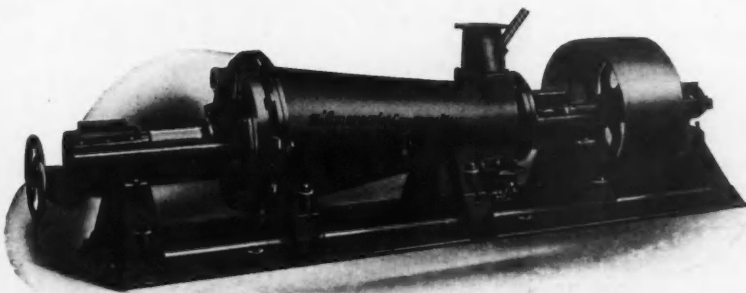


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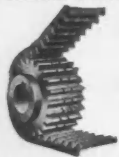
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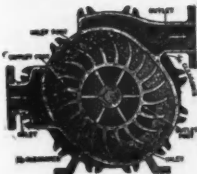
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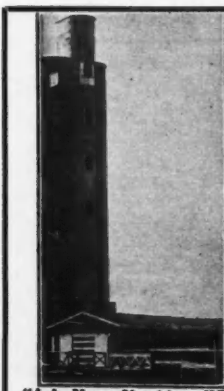
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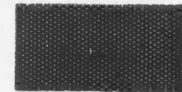
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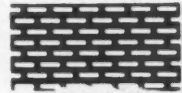
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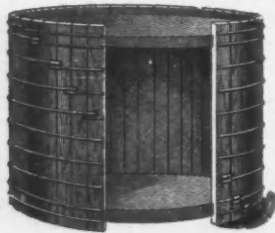
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| Coated Paper Manufacturers | Stationers in Cuba |
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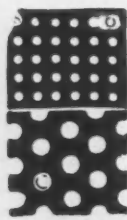
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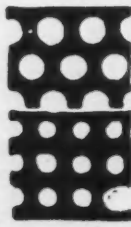
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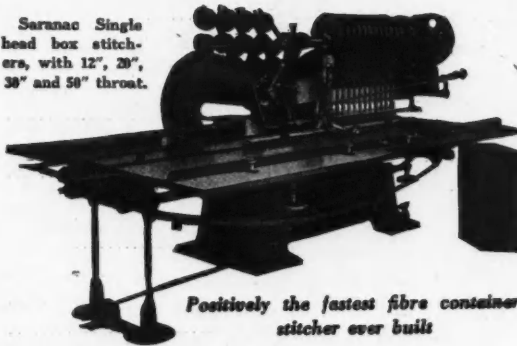
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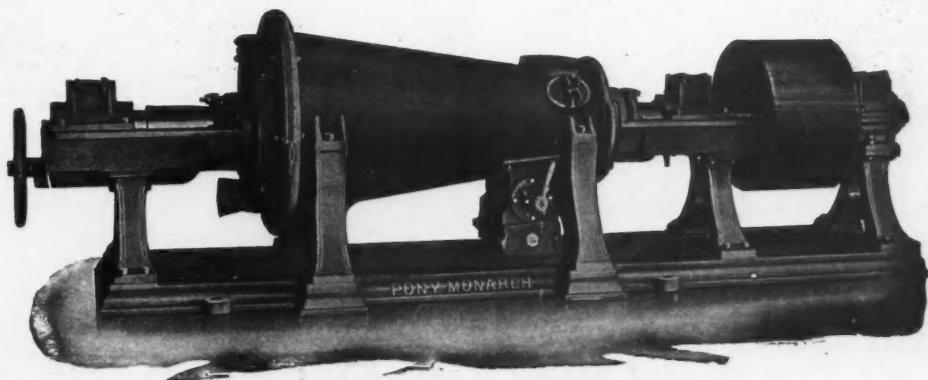
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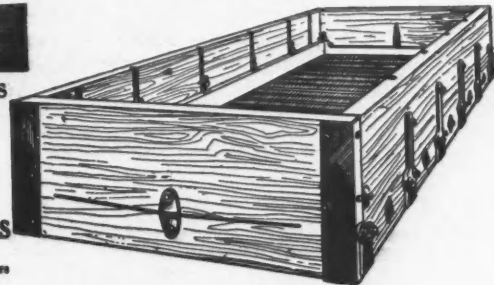
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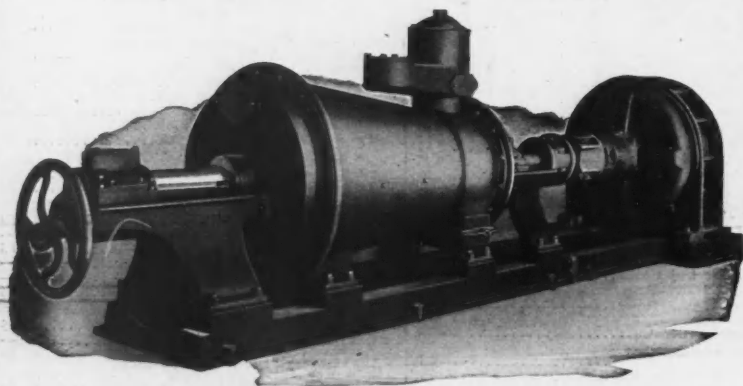
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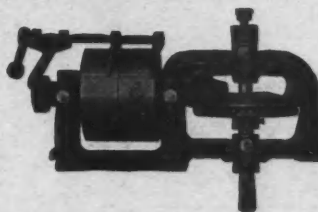
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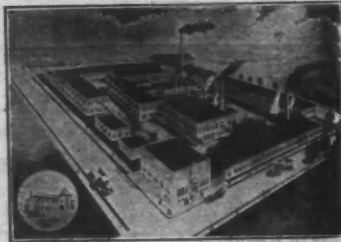
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