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Vol. LXX. No. 5.

NEW YORK AND CHICAGO, JANUARY 29, 1920

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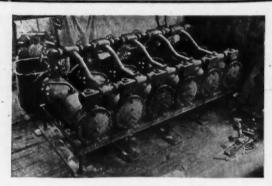
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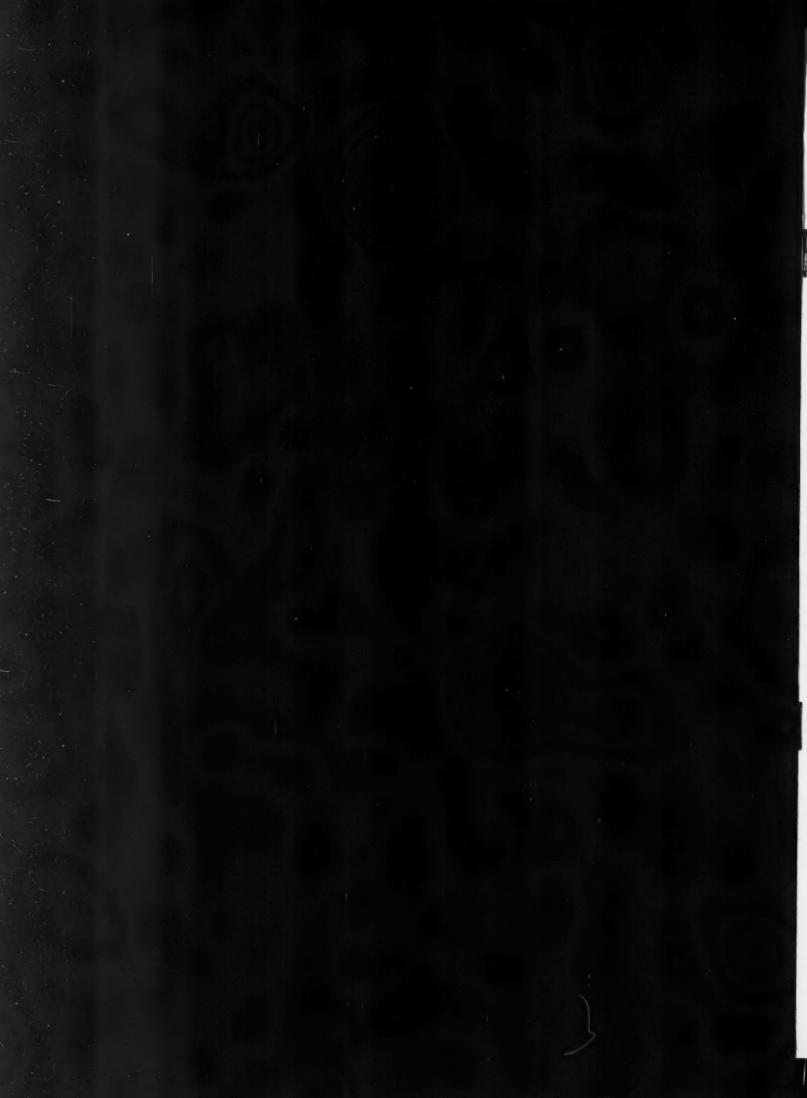
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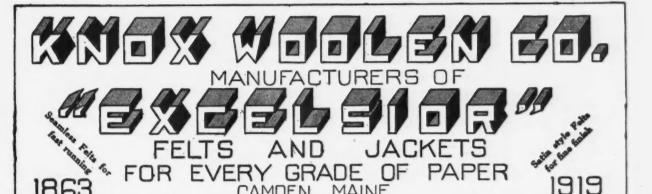


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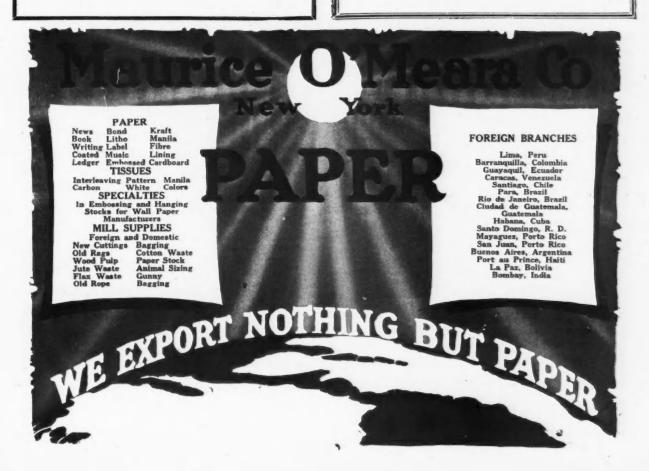
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THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

FORTY-EIGHTH YEAR

PUBLISHED EVERY THURSDAY BY THE

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LESLIE R. PALMER, President

J. W. VAN GORDON, Vice-President

Vanderbilt 2381 2382

10 EAST 39TH ST., N. Y., U. S. A.

Cable Address: Catchow, New York

Western Publication Office—431 S. Dearborn Street, Chicago Washington Office—L. M. Lamm, 63 Home Life Bldg.
New England Office—Room 46, 127 Federal Street, Boston Western New England News Office—A. W. Anders, Holyoke
London Office—Stonhill & Gillis, 58 Shoe Lane

The PAPER TRADE JOURNAL is the pioneer publication in its field, and has for many years been the recognized Organ of the Paper and Pulp Industry. Its circulation is greater than the combined circulations of all other publications in the field. Entered at New York Post Office as second-class mail matter.

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Other Publications of Lockwood Trade Journal Company, Inc. LOCKWOOD'S DIRECTORY OF THE PAPER, STATIONERY AND ALLIED TRADES (Asses)

Vol. LXX. No. 5

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NEW YORK AND CHICAGO

Thursday, January 29, 1920

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EXPORT TAX ON NEWS PRINT MAY BE IMPOSED IN CANADA

News of This Intention Communicated by the Minister of Finance, Who Intimates That This Tax May Amount to Ten Dollars Per Ton—Hint of This Step Arouses Gravest Concern Among News Print Manufacturers—Controversy Between the Newspaper Publishers and the News Print Manufacturers Continues—Numerous Meetings of Interest to the Paper Trade.

[FROM OUR REGULAR CORRESPONDENT.]

Montreal, Que., January 26, 1920.—There are some striking developments here in connection with the pulp and paper industry which cannot fail to prove of great importance and concern to American news print consumers and manufacturers. The first of these is the fact that the Dominion Government is seriously considering the advisability of putting an export tax on news print—and inferentially on pulp and pulpwood.

News of this intention was communicated a few days ago to a party of business men who interviewed the Minister of Finance, Sir Henry Drayton, with a view to the abolition of the business tax. Sir Henry hinted that this tax may be abolished if the Government is convinced that the revenue now derived from it can be made up in other ways that will not prove too burdensome to the taxpayers, and he further said that one of the alternatives was the proposed imposition of a tax on the export of news print. It was further intimated that this tax may amount to \$10 per ton.

It is no exaggeration to say that this hint of an export tax on news print has aroused the gravest concern, not only among manufacturers of news print, but among business men generally. As the export of news print now amounts to about 700,000 tons per annum, the proposed tax would only bring in a revenue of \$7,000,000 per annum, and it is contended that for this comparatively small amount a great blow would be dealt at the most promising manufacturing industry in Canada.

The rise and development of the news print manufacturing industry in Canada has been the most significant industrial movement which has ever taken place in Canada. Apart from agriculture there is no single industry in Canada which is bringing so much money into Canada, and giving so rich a promise of prosperity for the next decade. The money brought into the country by this industry is increasing by leaps and bounds. It is resulting in the building up of many model towns in the heart of the Canadian wilderness; it is the biggest factor in the development of Canada's water powers; and it is spreading prosperity right and left among all classes of industry. It is also resulting in the establishment of new and associated industries, such as that of the Brown Corporation at La Tuque, for the manufacture of important by-products from mill waste materials, and the industry of manufacturing paper-making machinery, such as is now being started by the Dominion Bridge Company, of Montreal. It may be imagined, therefore, that anything which would check that in the news print industry is viewed with alarm by all classes of business men.

Would Injure Canadian Industry

And that this propose dtax on news print would injure the news print industry is considered certain. For instance, it is held that a \$10 per ton tax on news print would immediately make it possible for Scandinavian news print to compete in the American market on more than equal terms with Canadian news print, to the lasting injury of Canadian business. It is believed that such a tax would cause a bitter feeling among American publishers, which might result in serious consideration being given to such

retaliatory measures as the one even now before Congress for an embargo upon the exportation of coal to Canada.

A further and most important consideration is the possibility that it would bring a halt to American interest in the building up of the news print industry in Canada. For instance, there is the project now under way at Three Rivers, Que., for the establishment by the International Paper Company of a pulp and paper mill which will entail the expenditure of not less than \$7,000,000. Another instance of the kind is the development of the Ontario Paper Company at Thorold, established for the supply of the news print for the Chicago Tribune—another enterprise that would probably be halted.

Whether these considerations will have the effect of killing the proposal for the tax remains to be seen. An unfortunate complication at the present time is the irritation which is being felt by the publishers of Canadian newspapers over the controversy about the supply of domestic news print in Canada. The course which this controversy has taken has had the effect of instilling in the minds of Canadian publishers the idea that they are being deliberately sacrificed by the news print manufacturers here who are attracted by the extraordinary spot market in the United States for news print, in which market it is now possible for Canadian news print to be sold at no less than \$180 per ton. It requires a strong effort of will on the part of Canadian manufacturers here to go on supplying paper in Canada at \$80 per ton when they can get \$100 per ton for the same product in the United States, and Canadian publishers have got the idea that their supply is being cut off in consequence, and that they will be squeezed to an unbearable extent in the matter of prices in order to get the news print they need.

A tax of \$10 per ton would, therefore, probably be acceptable to Canadian newspapers, as tending to hamper export and make a supply to them available on lower terms. In these circumstances they might bring pressure to bear on the Government to impose the tax, regardless of the injury it might do to the industry.

Leading news print authorities here say that such a tax would ruin the news print industry, and the general alarm at the proposal may be imagined.

Fight Between Publishers and Manufacturers

The other development of the utmost concern to Americans and Canadians alike is the suspension of Winnipeg papers through lack of news print supplies, and the bitter quarrel which has been precipitated in consequence between the publishers and the news print interests.

As the facts in connection with that quarrel have never been properly stated, and as one consequence of the quarrel is the threat of Chicago publishing interests to take action against the Canadian Government for putting an embargo on their supplies from the mills of the Fort Frances Pulp and Paper Company, it will be of great interest to readers of the PAPER TRADE JOURNAL if your correspondent states the case in its proper perspective.

As a matter of fact, the Canadian news print manufacturers have never acted unfairly to Canadian publishers, neither do they intend to do so. The situation arose out of the action of the Canadian Government during the war in exercising control over the supply and price of news print. Although this was the only industry singled out for this action by the Canadian Government, the manufacturers submitted to it, and loyally carried out their part during the war. When the war was over, they contended that they ought not to be hampered by such arbitrary control.

One of the developments was that the Eddy Company, of Hull, which was supplying the whole of the news print it manufactured —100 tons a day—to Canadian newspapers, and thus was not able to take even a partial advantage of the much higher market for news print in the United States, decided to cease manufacture of news print and devote itself to more profitable lines. Ample

notice of this was given to the Government and the publishers. The company ceased manufacturing news print on January 1, last, and the Government immediately took steps to compel the other news print manufacturers of the Dominion to make up the deficiency in the domestic supply.

Considerable negotiations took place, and as a result an amicable arrangement was arrived at whereby the manufacturers undertook to supply all the news print required for the domestic supply at the price of \$80 for the ensuing six months, the lowest prevailing export price to prevail thereafter.

Two companies, however, dissented from this agreement—Price Bros. & Co., of Kenogami and Jonquieres, and the Fort Frances Pulp and Paper Co., of Fort Frances, Ont. Both these companies were ordered by the Government to supply 15 per cent of their production for domestic use. Price Bros. & Co. absolutely refused to do so, and took the necessary legal steps to fight the order, and even if necessary to take the case to the Privy Council in England. It may be stated, however, that an arrangement has now been effected whereby there will be no legal fight between the company and the Government. What this arrangement is has not been stated, but it may be said that all the newspapers in Eastern Canada are now stated to have had proper arrangements made whereby they will be supplied.

The case of the Fort Frances Pulp and Paper Company is somewhat different. It is either the good fortune or the misfortune of that company to be so geographically situated that no other mill can compete with it in the supply of the western market. The company is the only large concern of the kind which does not belong to the Canadian Pulp and Paper Association, and which has religiously stood outside any common action by the pulp and paper interests of Canada. Up till the beginning of this year the company has been supplying 50 per cent of its production to newspapers on the Canadian prairies. In the early period of paper control in this country, the news print manufacturers which did not supply its quota of the domestic supply were ordered by the Paper Controller to reimburse the manufacturers who supplied more than their share, and thus to make up the difference between the price fixed by the Government for the Canadian market and the higher price which could otherwise have been obtained in the United States. Under this ruling the Fort Frances Pulp and Paper Company ran up a large bill against the other manufacturers, and actually obtained a judgment against them for the payment of these differentials. This bill, however, has never been paid, and a complication arose from the fact that the other news print manufacturers, all of whom were represented to the membership of the Canadian Pulp and Paper Association, came to an arrangement satisfactory to themselves by which the differentials were abolished.

The Fort Frances Pulp and Paper Company, on January 1 of this year, ceased to supply more than its share of 15 per cent to Canadian publishers, and thus the controversy which resulted in the suspension of western Canadian newspapers for a week or more, and an absolute embargo on the export of the paper manufactured by the company, was precipitated.

The Fort Frances Pulp and Paper Company is able to show that up to the middle of January it has not only supplied its full share of 15 per cent of its production to the Canadian market, but 500 tons above and beyond that share. The Government ordered it to continue to supply all the requirements of the western Canadian papers, and by an arrangement with the eastern manufacturers of news print, undertook to make good the deficiency thereby caused in its supply of news print to American publishers. The company, however, claimed that it had been fooled before, and absolutely refused to accept anything but absolutely bonafide evidence of delivery of this paper to its United States customers before forwarding a larger portion than 15 per cent of its output to western Canada. Hence the deadlock which brought

about the events already described, and brought about also the resignation of the Paper Controller, Mr. Pringle.

It now appears that the company will be compelled by the Government to continue to supply all the news print required for western Canada, and that the eastern news print manufacturers will make up the deficiency to the company's American customers.

It may be asked why the eastern news print manufacturers do not supply the western newspapers. The answer is that they are quite willing to do so, but that the western newspapers object to this, on the ground that they would be compelled to pay the much higher freight charges which would be occasioned by being supplied from eastern Canada rather than from the much nearer plant of the Fort Frances Pulp and Paper Company.

One news print authority said to your correspondent: "The Fort Frances Company and the western newspapers ought to recognize the peculiar situation and come to a friendly settlement of it among themselves. Both interests have an absolute monopoly in their respective districts. It ought to be possible to obtain in western Canada such a price for Fort Frances news print as would make that company willing to supply more than the required 15 per cent, taking into consideration the much higher freight rates from any other source of supply. Then the western newspapers should set to work to establish a mill in Manitoba. There are abundant supplies of pulpwood there, and in this way they could reduce their requirements from the Fort Frances Company and become assured of their own supply. A paper mill for Winnipeg has been talked of for years, but nothing has ever come of it."

That is where the situation stands at the present time. The Dominion Government has appointed another Paper Controller, and supplies are now going forward from Fort Frances which has already enabled the western papers to resume publication.

Big Meetings in Montreal This Week

A two days' forestry conference, opening at the Windsor Hotel, followed by the annual meetings of the Technical and Woodlands sections of the Canadian Pulp and Paper Association, the annual meeting of the parent body and the quarterly meeting of the News Print Service Bureau, is making Montreal this week the gathering-place for forestry, pulp and paper interests from various parts of Canada and the United States and provide a program of exceptional interest to those concerned in the several branches of these associated industries.

The Quebec Forest Protective Association leads off at the Windsor Hotel with discussions on "Railway Fire Protection," "Slash Disposal" and other co-related subjects, the speakers including G. C. Piche, chief forester of Quebec; E. J. Zavity, chief forester of Ontario; G. H. Prince, chief forester of New Brunswick; W. Gerard Power, of Quebec; W. R. Brown, of Grand Mere, and others. A "smoker" is arranged for the evening, with the Canadian Society of Forestry Engineers as hosts.

On the following day a joint committee, representing the Quebec Limit Holders' Association and the Woodlands Section of the Canadian Pulp and Paper Association, on "Improvement in Logging Operations," is making a report, followed in the afternoon by Ellwood Wilson, of the Laurentide Company, Limited, with an address to the conference on "Aerial Photography" as applied to woodlands protection and control.

The Technical Section of the Canadian Pulp and Paper Association holds its annual meeting at the Ritz-Carlton on Thursday and Friday, the business session starting at 9.30 Thursday morning. F. J. Hoxie and R. J. Blair have papers on "Fungus and Its Relation to the Quality of Pulp." In the afternoon, H. P. Carruth is giving an address, to be followed by a discussion on what width of paper machines gives the best results, opposing

(Continued on page 54)

STATISTICAL SUMMARY OF ALL PAPERS FOR DECEMBER

Tabulation Prepared by the Federal Trade Commission Shows
Production, Shipments and Stocks of Our Paper Mills in
the United States for December As Compared With December of the Preceding Year and the Average Production and Stocks Based Upon the Weekly and Monthly
Reports for the 18-Months Period Ended September 30,
1919—Loss of Operating Time by Grades and Reasons.

[FROM OUR REGULAR CORRESPONDENT.]

Washington, D. C., January 27, 1920.—The attached tabulation is a summary of production, shipments and stocks of all paper mills in the United States for the month of December, 1919, prepared by the Federal Trade Commission. This summary is compared with the month of December, 1918, and the average production and stocks based upon the weekly and monthly reports for the 18 months' period ended September 30, 1919. The mills have been classified for convenience into ten groups, according to the grades of paper made. Some mills making several grades appear in more than one group, which causes duplication in the body of the tonnage tables in the number of mills.

The variation in the number of mills from one period to another is due in part to the fact that some mills do not run con-

tinuously on the same grade.

The stocks of paper carried by different mills depend not only upon the conditions of the market, but also upon the kind of

paper made, the trade customs, etc.

The total time the machines were idle, reported by domestic mills, is shown by grades in the tabulation below. This includes the machines in mills which were closed down completely. The reasons tabulated for lost time are lack of labor, lack of orders and repairs. "Other reasons" include lack of coal, lack of water power, etc. Lack of coal caused a loss of more than 30,000 hours. The total time lost in November is shown by grades and reasons for comparison purposes.

Loss of Operating Time, by Grades and Reasons, for December, 1919, Compared with November, 1919

DUI, 1313, QUIL	harea	with Hoveliber, 1919						
		Lack of		Other	Total	Total		
Grade. News Print—	Labor.	Orders.	pairs.	Reasons.	(Dec.)	(Nov.)		
Number of machines			23	42	65	60		
Total hours idle			1,383	1,310	2.693	2,470		
Book Paper-			-10-00	2,020	-10-0	-,		
Number of machines		1	35	69	105	54		
Total hours idle		61	1.323			2,393		
Paper Board—		0.1	1,020	0,004	4,200	2,070		
Number of machines	16	8	80	155	259	205		
Total hours idle		2,581	7,177		37,403	23,347		
Wrapping—	3,341	2,301	1,111	24,304	37,403	23,341		
Number of machines		2	37	66	105	92		
Total hours idle	* *	1.044	3,351	6,299	10,694	9,402		
	* *	1,044	3,331	0,299	10,094	9,402		
Bag—			16	19	35	27		
Number of machines			16					
Total hours idle	* *	* *	1,640	2,561	4,201	2,171		
Fine—		0.0	0.0	40		200		
Number of machines	1	23	23		92	78		
Total hours idle	411	6,225	1,800	3,728	12,164	9,448		
Tissue-								
Number of machines	1	1	26		60	68		
Total hours idle	398	624	4,158	3,706	8,886	8,933		
Hanging-								
Number of machines	* *	* *	6		14	10		
Total hours idle			222	624	846	620		
Felts and Building-								
Number of machines		2	11		46	41		
Total hours idle		51	520	5,164	5,735	4,014		
Other grades-								
Number of machines		10	16	25	51	48		
Total hours idle		960	1,197	1,364	3,521	3,799		
Total number of machines								
(December)	18	47	273	494	832			
Total hours idle (all ma-								
chines) December	4,150	11,546	22.771	52,644	91.111			
Total number of machines	*9200	,010			~ - 1			
(November)	36	76	300	271		683		
Total hours idle (all ma-		,0	000	ore &		000		
chines) November		13,230	22 503	24,948		66,600		
contics) Movember	0,067	10,200	22,070	241240		00,000		

Imports and Exports

The imports and exports of all grades of paper for November,

1919, compared with November, 1918, as shown by the records of the Department of Commerce, were as follows:

	Novemb	er, 1919.	November, 1918.		
Imports— News Print Book Paper Wrapping Hanging	Pounds. 118,525,961 54,247 170,441	Value. \$4,255,141 13,924 12,264 16,721 188,743	Pounds. 100,901,804 16,365 572,627	Value. \$3,121,949 9,151 45,409 1,364 69,936	
All other grades*. Exports— News print Book Paper Paperboard Wrapping Bag Fine	12,196,416 6,191,658 5,291,198	582,908 672,176 263,083 434,915 160,742 495,941	14,903,903 10,686,327 5,998,257 5,076,518 985,638 5,348,916	617,522 975,578 351,293 477,634 97,261 753,660	
Tissue		241,253 76,806 606,884	1,008,731 592,832 4,861,009	222,047 71,179 656,303	
Total imports Total exports		\$4,486,793 \$3,534,708	49,462,131	\$3,246,809 \$4,222,477	

^{*}Includes some paper already converted into commercial articles.

News print is the only grade of which the United States is a heavy importer. Practically all of this tonnage, the value of which amounted to \$4,255,141 for November, 1919, is imported from Canada. The value of the exports of news print in November, 1919, amounted to \$582,908, which is only about 14 per cent of the value of the news print imported.

News print, book paper, fine paper and wrapping were the principal grades exported, the combined value amounting to \$2,185,940 for November, 1919.

Production, Shipments, and Stocks of Paper, by Grades, for

the Month of December, 1919, Compared with December,
1918, and with Average Production and Stocks

	Numbe	r Hand 1st of Month	t Produc-	Ship- ments.	Stocks on Hand End of Month.
Grade.	Mills			Net Tons.	Net Tons.
News print (Standard and Special Grades of News):					
December, 1919	87	15,336	122,781	122,748	15,369
December, 1918	63	20,297	100,935	101,824	19,408
Book (M. F. S. S. C.			111,618		25,235
Book (M. F. S. S. C.					
and Coated):	96	27,293	99 770	92,793	22 270
December, 1919 December, 1918			88,779 60,525	61,587	23,279 28,431
Average	00	22,423	74,490	01,302	32,503
Paperboard (Straw, Chip. Fibre, Leather, etc.):					001000
December, 1919	255	43,084	174,649	177,404	40,329
December, 1919 December, 1918	219	41,505	127,523	122,832	46,196
Wrapping (Kraft,		****	164,554		51,032
Wrapping (Kraft, Manila, Fibre, etc.):					
December, 1919	156	32,556	62,288	68,053	28,791
December, 1919	154	35,166	49,064	43,731	40,499
Average		*****	61,516		51,928
Bag (all kinds):	48	2,432	17 601	17066	2 007
December, 1919 December, 1918	38	3,950	17,621 13,700	17,966 14,242	2,087 3,408
Average	30	3,930	14,300	14,242	4,017
Fine (Writings, Bonds, Ledgers, etc.):		*****	2 1/0 00		4,021
December, 1919 December, 1918	109	33,151	31,014	32,649	31,516
December, 1918	116	33,464	26,721	25,609	34,576
Average			30,654		34,854
Tissue (Toilet, Crepe, Fruit, Wrapper, etc.):					
December, 1919	84	6,217	14,727	15,247	5,697
December, 1918		5,578	10,888	11.066	5,400
Average			12,558		7,004
Hanging (No. 2 Blank					
Oatmeal, Tile, etc.):					
December, 1919	25	1,980	8,892	9,420	1,452
December, 1918	18	2,236	6,846 6,760	6,149	2,933 4,705
Felts and Building			0,700		4,703
(Roofing, Sheathing,					
etc.):					
December, 1919		5,545	27,713	27,943	5,315
December, 1918		7,394	17,818	17,513	7,699
Other Grades (Special-		****	23,088		7,658
ties not otherwise					
classified):	0.4		00.000		
December, 1919		16,371 10,804	20,928	24,817	12,482
Average			21,759 14,950	21,253	11,310 11,715
Total of all Grades:		*****	44,230		21,013
December, 1919		183,965	569,392	589,040	164,317
December, 1918		189,887	435,779	425,806	199,860
Average			514,488	****	230,651
Note-The figures for calendar month,	r 1918	have been	prorated from	a weekly	basis to a

(Continued on page 62)

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WASHINGTON INTERESTED IN CANADIAN PAPER SITUATION

Representative Young Complains That the Embargo by the Canadian Government Is Curtailing Supplies of News Print-State Department Explains Position of the Fort Francis Pulp and Paper Co.-Federal Trade Commission Says Replies to Questionnaire Regarding News Print Agreement Are Coming in Satisfactorily—Representative Christopherson Introduces Another News Print Bill.

[FROM OUR REGULAR CORRESPONDENT.]

Washington, D. C., January 26, 1920.-Democratic members of the House Ways and Means Committee today suggested the removal of all tariff duties on Canadian print paper, but no action was taken. Some members said that such action would not increase the supply for this country or lower prices, because existing contracts were at prices within the duty-free clause.

At the request of Representative Young, Republican, of North Dakota, the committee decided to ask the State Department to send a representative before it Wednesday to discuss the Canadian paper situation. Mr. Young complained that an embargo by the Canadian Government was curtailing supplies.

While newspaper publishers were searching everywhere for white paper the Government used forty-eight tons in printing speeches made in the Senate, Senator Smoot, Republican, of Utah,

"It is time to find out if the Senate wants to save paper," said the Senator.

The State Department has issued the following announcement: The Department of State is informed that the western provinces of Canada are undergoing a severe paper famine, the newspapers in some cities having suspended and in another having joined in a single condensed daily sheet. To relieve this situation the Canadian Government has ordered a large Canadian paper mill (of American control, the Fort Francis Pulp and Paper Company, in the extreme western part of Ontario, close to the prairie provinces, to divert a heavy proportion of its product away from American customers to the western Canadian cities where the situation is most acute. In compensation the Canadian Government has arranged that the easternmost American customers of the Fort Francis Pulp and Paper Company shall receive paper from a Canadian mill near Sault Ste. Marie, according to the instructions, and in fulfillment of the contracts, of the Fort Francis company. The Fort Francis Pulp and Paper Company claims that this compensatory arrangement has not been carried out; and the company is, therefore, opposing the enforcement of the Canadian Government's order. The Canadian Government, in consequence, has placed an embargo on all shipments from the Fort Francis Pulp and Paper Company to the United States; and the latter can supply its American customers only to the extent of the production of a mill which it maintains on American soil. This apparently means that many American papers in the Middle West will be 40 per cent short on their paper supply.

"The Canadian Government appears to have recognized the principle that since the Fort Francis Pulp and Paper Company is called upon to bear the brunt of relieving the paper shortage in western Canada it should be compensated by having paper supplies for its customers furnished from eastern Canada; but the Fort Francis Pulp and Paper Company alleges that the Canadian Government has not in practice fulfilled the obligations which it has assumed in this respect. Every effort is being made to adjust

the situation."

Commission Receiving Satisfactory Answers

Officials of the Federal Trade Commission report that they are

receiving satisfactory answers from the newspaper publishers of the country to the questionnaires which the Commission recently sent out asking for details with which the Commission can answer the recent communication of the Attorney General in connection with the news print agreement.

The Trade Commission officials do not expect to have reports in the very near future from the news print mills because of the vast amount of detailed work which is necessary to answer their communication. However, it is believed at the Commission that some kind of a preliminary report can be made on this subject to the Attorney General within the next two or three weeks, following which a more detailed report will be made.

Another News Print Bill

Representative Christopherson, of South Dakota, has introduced a bill in the House "to give the Secretary of Commerce power and authority to allocate and distribute the available supply of print paper." The bill, which has been referred to the House Committee on Interstate and Foreign Commerce, is as follows:

That for the duration of the war, and the period of one year after the proclamation of peace by the President of the United States, the Secretary of Commerce is hereby authorized and directed to take control of the entire supply of print paper, including that manufactured here and that imported, for the purpose of distributing and allocating the same so that publishers may receive a fair and just proportion of the supply, it being the intent hereof to grant to the Secretary of Commerce the power and authority to alleviate the present shortage in the supply of print paper by distribution and allocation.

Sec. 2. That all contracts made for the purchase and sale of print paper are hereby abrogated and suspended during the operation of this Act.

May Settle Strike at Grand Rapids

President J. T. Carey, of the International Brotherhood of Papermakers, has wired the Department of Labor that there is a possibility of settling the papermakers' strike at Grand Rapids, Wis. Conciliator Oscar F. Nelson, now in Chicago, will attempt Opening Paper Bids

As already announced in the PAPER TRADE JOURNAL, bids will be opened on next Monday, February 2, for the annual supply of paper for the Government Printing Office.

Since the last annual opening of bids, which is generally attended by a number of paper manufacturers, the Joint Committee on Printing, in whose rooms the bids are opened, has moved to a room below the rotunda of the west front of the Capitol building. Those attending the bid opening should bear in mind the change in location of the committee's room.

Saving Fuel Automatically and Scientifically

"Saving Fuel Automatically and Scientifically in the Boiler Room" is the title of a new 24-page booklet published by the Northern Equipment Company, Erie, Pa. It is based upon matter that was prepared for the United States Fuel Administration during the war. In the preface of the booklet the manufacturers "When the war ended we thought we had done our duty, and that the fuel situation would ease up a bit. However, we find the fuel problem now becoming serious. Prices will not come down because wages will evidently stay up or will go higher.'

The booklet thoroughly compares hand and mechanical feeding with mechanical regulation, as performed by the Copes Regulator. It shows in a convincing way what is to be desired in the way of scientific boiler feed regulation. Many charts and diagrams are shown to emphasize the value of scientific control. Editorials from publications and articles and letters by prominent engineers are reproduced. Finally, the names of many prominent users of Copes Regulators are given.



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According to advice from DEPARTMENT OF COMMERCE, WASHINGTON, D. C., dated January 17th, United States imported from Europe during the month of November, 1919, 27801 tons of chemical Wood Pulp. Of this FIN-LAND supplied 8275 tons or 29.76%, about one-third of the entire tonnage. This speaks well for the quality of Finnish pulps. There is a REASON why the American paper makers like Finnish goods. You should find out!

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BIG IMPROVEMENTS WILL BE MADE BY GREEN BAY PAPER CO.

Concern Decides to Spend \$500,000 for Extensions of Its Plant, Including the Building of a Sulphate Mill, Ground Wood Mill, Bleaching Plant and New Power House—Wausau Sulphate Fibre Co. Will Issue Million Dollars Worth of Accumulative Preferred Stock—Consolidated Water Power & Paper Co. Practically Decides to Erect Its New Sulphite Mill at Grand Rapids.

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., January 27, 1920.—Improvements and extensions are to be made in the plant of the Green Bay Paper and Fibre Company during 1920 at cost of \$500,000, it was decided at the annual meeting of the stockholders.

The program, as announced by General Manager John Welsh, includes the building of a sulphate mill, ground wood mill, bleaching plant and new power house. New machinery is to be in-

stalled in the present plant to enlarge its capacity.

It is not the intention of the company to carry out the entire program of expansion at once. Construction of the ground wood mill is to be started at once and work on the other buildings will be started during the year. It is planned to have all the new structures ready for use shortly after the first of next year.

It was stated following the meeting that considerable stock was acquired by George D. Nau, Frank H. Hoberg and John Welsh from other stockholders who disposed of their holdings.

According to the report read by Mr. Welsh, business conditions during the first half of 1919 were not satisfactory but improvement started shortly after July 1 and business for the year was fairly satisfactory on the whole. The company now has enough orders on its books to keep it in operation the first quarter of 1920 and Mr. Welsh said that he is confident that more settled conditions will prevail in 1920 than in 1919.

The following directors were elected: George D. Nau, H. A. Straubel, Nic Bur, Harold V. Joannes, Frank H. Hoberg and John Welsh, all of Green Bay; Thomas J. Dee of Chicago.

Directors elected the following officers: President, George D. Nau; vice-president, Frank H. Hoberg; secretary, treasurer and general manager, John Welsh.

Wausau Sulphate Co. to Issue Stock

Stockholders of the Wausau Sulphate Fibre Company at their annual meeting decided to issue a million dollars of accumulative preferred stock to bear seven per cent interest to take care of large timberland purchases which are to be made this year. The company is planning on acquiring sufficient timberland to remove its wood worries for many years to come.

Directors were reelected as follows: F. P. Stone, Karl Mathie, Louis Dessert, Henry M. Thompson, O. A. Bache-Wiig, A. L. Kreutzer, John F. Rose, G. D. Jones and M. C. Ewing. Officers are F. P. Stone, president; Karl Mathie, chairman of board of directors: Louis Dessert and O. A. Bache-Wiig, vice-presidents; A. L. Kreutzer, treasurer; G. D. Jones, secretary; O. A. Bache-Wiig, general manager.

Other Paper Company Elections

Clarence S. Pierce, Milwaukee, was elected vice-president of the Rhinelander Paper Company, Rhinelander, Wis., to succeed Dr. A. D. Daniels at the annual meeting of stockholders. Other officers are A. W. Brown, president; Paul Browne, secretary; H. C. Hanke, treasurer and general manager. The company recently discontinued the manufacture of print paper, devoting its four machines to the manufacture of glassine. Other paper mill elections in Wisconsin resulted as follows: Patten Paper Company, Appleton; Judson G. Rosebush, presi-

dent; John McNaughton, vice-president; Stephen C. Rosebush, secretary.

Outagamie Paper Company, Kaukauna, A. W. Priest, president; J. G. Rosebush, vice-president; H. S. Cooke, secretary; John McNaughton, reasurer.

Lakeside Paper Company, Menasha; E. J. Lachman, president; T. E. McGillan, first vice-president; Chris Walter, second vice-president; L. T. Jourdain, secretary and treasurer; E. J. Lachman, T. E. McGillan, Chris Walter, Henry Schuttler and L. T. Jourdain, directors.

Consolidated Water Power and Paper Company, Grand Rapids, George W. Mead, president; R. L. Kraus, vice-president; I. P. Witter, treasurer; E. B. Redford, secretary; George P. Berkey, T. W. Brazeau, George W. Mead, R. L. Kraus, I. P. Witter and E. B. Redford, directors.

Improvements at Port Edwards Mill

Enlargement of the wood room of the Port Edwards mill of the Nekoosa-Edwards Paper Company was started last week. The improvement will represent an expenditure of about \$20,000 and will increase output of the mill materially. Need for larger production has been felt for some time. A new boiler is being installed in the Nekoosa mill.

According to the report of L. M. Alexander, president, read at the annual meeting of the stockholders, the company's mills are now running at capacity and production'is up to normal in every department, despite the strike which is still in progress. Ground wood production is lagging behind other departments, but this is due principally to low water, Mr. Alexander said.

The company is now employing 875 men, many of whom are engaged in construction work at the two mills. Guards formerly employed about the mills have been discharged. Officials said that the picketing carried on by the few remaining strikers does not constitute a strike menace and consequently there is no further

use for armed guards.

At the annual election officers were named as follows: L. M. Alexander, president, treasurer and general manager; Judson G. Rosebush, vice-president; C. J. Jasperson, secretary; L. E. Nash, manager of sales. Directors are L. M. Alexander, J. G. Rosebush, L. E. Nash, F. J. Wood, John McNaughton, Mrs. L. E. Alexander and J. B. Nash.

To Erect Sulphite Mill at Grand Rapids

The Consolidated Water Power and Paper Company has practically decided to erect its proposed new sulphite mill in Grand Rapids. Considerable property has been purchased, and it is proposed to start work on the plant as soon as weather conditions permit. Machinery has already been ordered.

The company purchased an entire block of residence property as a site for the new mill. Because the plant will not require the entire block it is probable that not all of the residences will be

torn down.

The new mill will contain two large digesters of the quick cool sulphite process type. When the new plant and the addition to the paper mill are completed the company will employ about 300 men more than are now working in the Grand Rapids mill. Construction of the addition to the paper mill will be started at once. It was said that the new paper machine has been ordered and will be ready for shipment by the time the building is ready to receive it.

Escanaba Paper Mill Running at Capacity

Operation of the new plant of the Escanaba Paper Company started January 17 and the plant is now running at capacity. The mill is capable of turning out about 60 tons of print paper daily. It has sufficient orders on its books to keep it in operation for at least three months. About 225 men are now employed.

"IMPROVED" KNOTTER

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

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



Knotter Design No. 2

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

WE ASK A THOROUGH INVESTIGATION

IMPROVED PAPER MACHINERY CO.

NASHUA, N. H., U. S. A.

The Sandy Hill Iron & Brass Works

Hudson Falls, N.Y.

0

Manufacturers of Paper and Pulp Mill Machinery

STOCKS ARE VERY SCARCE IN PHILADELPHIA MARKET

Practically Everything Handled by the Paper Jobbers Is in Short Supply—Wholesalers Now Inclined to Blame Eagerness of the Consumer for Goods for the Constantly Increasing Prices—Printers Report Unusually Large Orders for Catalogues—Rag and Paper Stock Prices on the Upward Trend—Jessup & Moore Paper Co. Experiment With Oil as Fuel in Delaware Mill.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, January 24, 1920.—Everything with which the paper jobber comes into contact these days is short. There was a time when the ordinary jobber held the mill man accountable for soaring prices. He to some extent assumed responsibility, for he pointed out that raw materials were up, labor scarce and demanding high pay and short hours and all overhead expenses were increasing. But the paper men are coming to the belief that after all, it is the consumer himself who is really responsible for the major part of the increases. He is determined to get goods and his wants are not restricted by present needs, but by ability to invest for the future. Whether he believes that it is economy to buy now, or whether it is because he desires to invest as large an amount as he can in supplies to be charged off as cost of doing business, against profits for governmental return, the fact is that he is competing for goods; that he is willing to pay almost anything if he can get what he wants, and that it is really the consumers outbidding each other that causes rates to rise so rapidly.

Catalogues for Years Ahead

Printers are telling their paper salesmen that they have orders for catalogues sufficient for several ordinary years and that the purchasers are having them printed with prices left out, to be filled-in later by hand or typewriter. Advertising in booklets and sheets is consuming a veritable flood of paper. Wrappings have been in such demand that no dealer has a complete line. A further advance in the American Writing Paper Company products was announced this week. Bonds are expected shortly to have another increase, imposed on already high prices. The trade reports it is now general mill practice not to take orders for less than four or five months in advance and that some are restricting their output to regular stock sizes and will not take business for special sizes.

Building Paper Trade Quiet

In only one branch of the trade has there been a little easing off in demand. That is the roofing and building paper business. The cause, however, is solely bad weather. The past week has been one of most continuous snow and rain and sleet and outdoor operations have practically stopped.

Those bad weather conditions are held responsible for advances all along the line in paper stock. The millmen are more desirous than ever to get the accumulations of the city jobbers because country roads are closed down and the small lots usually gathered in from the country and small town trade are not now to be had. This condition applies, of course, particularly to the cheaper grades of paper stock. All advanced in price and the trade believes the increase will continue the remainder of the winter at least, unless the weather suddenly should open and remain so. The stock men believe, too, that it is the consumer on whom the responsibility for high prices largely rests.

Mill Men Not Profiteers

Stock men pointing out that board prices are now about 100 per cent higher than the normal and contrasting the advances with the increase of not more than 50 per cent in paper stock prices

over the last low levels, say that a charge of profiteering could easily be made against the stock men—but that proof of excess profits is quite another story. Apparently board consumers are so eager to get stock, that they, too, are outbidding each other. It is "human nature" for those who have goods to sell to decline a high price if the buyer is so eager that he wants goods at any cost.

Rag stock dealers also report decided advances and all along the line. With bad weather collections of mixed and common rags is, of course, made more difficult and prices naturally incline upwards. But mill demand for new stock, shirt cuttings, trims and, in fact, the whole line of cotton rags, is so insistent that producers are declining to sell save for higher prices.

Delaware Mills Now Oil Burning

The oil burning plant at the Delaware Mill of the Jessup & Moore Faper Company has now been completely installed and is working with entire satisfaction. The Delaware Mill is on the Brandywine, a mile from Wilmington, and though it has a railway siding and coal deliveries can easily be made, it was determined as a matter of economy to install a plant for using crude oil as fuel.

General Trade and Personal News

The trade has been informed that the Franklin Printing Company, perhaps the largest organization of its kind in the city, is in the market for an experienced paper man to act as buyer for its several departments. It is said that the company will consolidate all its purchases of paper and that an all round man versed in every branch of the trade is being sought.

Thomas A. Convery has been added to the sales force of the Paper House of Pennsylvania, as successor to M. B. Paterson, who recently resigned to enter with his brother into the map publishing business conducted for many years by J. L. Smith at 27 South Sixth street. Mr. Convery will specialize on fine papers.

The Paper House has met with such success that it has under consideration the taking of additional space.

Thomas I. Furlong, formerly of the Megargee Hare organization, is looking after the trade formerly served by Thomas M. Simpson with the D. L. Ward Company. Mr. Simpson is about to establish with others the Atlantic Paper Company, whose charter is to be granted Monday. It is reported that the new firm will be supplemented, when organized, by another widely known paper man and that it will specialize in school supplies.

Buchanan Shreve has been added to the sales force of the Baltimore branch of the D. L. Ward Company. He is now in the Philadelphia headquarters acquainting himself with the stock and Ward system. Mr. Shreve formerly was with Dobbler & Mudge and with the Whitaker Paper Company in Baltimore, and is thoroughly acquainted with that territory.

Simon Walter, head of the jobbing house bearing his name, was elected a director of the Mercantile Club last week.

C. A. Wilder, of Wilder Brothers, Fifth and Race streets, paid a visit to New York mills last week to place contracts.

M. Kauffman & Sons have opened a jobbing paper business on Vine street near Fourth street.

The D. L. Ward Company is sending out to its trade the new S. D. Warren campaign book showing its fine printing papers.

The Foreign Trade Bureau of the Chamber of Commerce, Widener Building, has been asked by a merchant in Madras, India, whose name will be given on request, to place him in touch with exporters of cardboard and paper.

The Elliott Ticket Company to make and sell tickets, books and cards, will make application for a charter February 24, with Earl Elliott, Clifford Elliott and James Elliott as incorporators.

Datz & Co. have taken title to the 3-story building, 537 to 541 North Third street, occupying a lot 60 by 112 feet, and assessed at \$22,500.



PAPER SUPPLIES IN TORONTO ARE REPORTED VERY SCARCE

Jobbers Are Seriously Handicapped by Their Inability to Obtain Stocks From the Mills—Prices Are Advancing Constantly, But This Fact Does Not Appear to Have Any Effect in Restricting the Demand for Paper—Orders for Shipment From the Mills Are Taken Only at Prices Prevailing at Time of Delivery—Provincial Paper Mills Co. Plans Extensive Improvements.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, January 26, 1920.—With prices on many lines of paper constantly increasing and the mills still falling behind in deliveries, the situation is getting serious with many wholesale concerns, who report that business with them would be much larger if they could only get the stock. There is a marked scarcity of glazed kraft paper. In unglazed kraft the state of affairs is not so bad. In wrapping paper there has been another upward revision in prices and yet orders continue to pour in. In both sheets and rolls recent advances average 65 cents per hundred pounds. The following figures now prevail to jobbers.

	(One Ton Lots			
		and up	Less than		
	Car Lots	Per Cwt.	One Ton		
Grev rag and news counter rolls	. \$6.00	\$6.50	\$7.25		
"B" Manila	. 6.25	6.75	7.50		
No. 1 Manila and Fibre	. 8.00	8.75	9.50		

Orders for shipment from the mills can only be taken at prices current at time of delivery. There has also been an increase of from five to eight per cent in paper bags and the following discounts off list prices now apply in car load lots: Manila bags, 30 and 5; kraft bags, 40 and 5; white confectionery bags, 34; gusset side flat bags, 34.

Board Mills Behind in Deliveries

Board mills are rushed to the limit, as are also coated paper plants. Toilet and tissue mills are getting more in arrears in deliveries. Notwithstanding the increased prices which went into effect some time ago, there has been no decline in trade. One large company which has been turning out book papers and supplying a number of customers, publishing trade and class journals, is now devoting its attention to bond and writing papers and will make bristol board.

The news print situation grows steadily more acute and an effort is being made, on the part of the rural publishers and the mills, to standardize certain sizes in the interest of conservation and increased production. When this plan is adopted it should result in considerable betterment for the users of sheet news and ensure them an ample supply. Other publishers are cutting out ready print and making their weeklies all home production and, at the same time, reducing the size of the issues. The demand for ground wood pulp continues unabated. In the better lines of ledger papers there have been recent advances, heavy ledgers going up three cents a pound during the past few days. The cut of pulpwood in the north will be very large, but stiffer prices will prevail, owing to the demand, higher rates of wages for woodsmen and growing cost of camp supplies and food. Manufacturing stationers and paper box makers all report undiminished orders.

The Canadian Book Paper Outlook

Speaking of the book and writing paper supply in Canada, I. H. Weldon, president of the Provincial Paper Mills Company, Toronto, and former president of the Canadian Pulp and Paper Association, states the prevailing impression that there is a de-

cided shortage in these lines is not justified by actual conditions. Canadian mills have been running to capacity and, in the case of his own company, the output in 1919 has been exceeded by five per cent over the previous year. The entire production was sold in Canada, with the exception of about three percent, which was exported by one of the customers of the firm. Early in 1919 the demand was light and the mills were fully caught up with orders. When the American market became sold up and prices advanced higher than they were in Canada, there was a falling off in imports which ceased altogether when the exchange rate became very stiff. This all tended to make a certain shortage in the Dominion during the past few months.

Continuing, Mr. Weldon said: "We are of the opinion that few customers have given little thought to the amount that would be required to fully satisfy the present demand in Canada. A careful survey of the field shows that the net amount, as far as we can learn, is about five tons per day or one quarter the product of a modern paper machine. With respect to handling our own production, we distributed it in what we consider the fairest manner possible, confining our sales to customers to whom we had been supplying paper in the past and who were solely dependent upon us giving them the amount in tonnage each month that they had received per month in previous years."

Provincial Paper Mills Co. to Expand

The Provincial Paper Mills Company, which is the largest producers of book papers in Canada, with plants at Mille Roches, Thorold and Georgetown, and, through an allied company, the Port Arthur Pulp and Paper Company at Port Arthur, make sixty tons a day of bleached and unbleached sulphite pulp, has in view a considerable programme of expansion which will be carried out as circumstances justify. The company has acquired land adjoining each of its present plants and intend building additional two machine mills. One machine will be installed along with the construction of each building and further machines will be installed as conditions warrant, making in all six additional machines with a total tonnage of not less than 120 tons when all are in operation. The present output of the company is about eighty tons a day. Plans and specifications for the first additional plant have been completed. The initial undertaking in this line will be at Port Arthur, which will likely be gone ahead with this year and will turn out twenty tons of book, bond or writing paper. As rapidly as the Canadian market consumes this increase further construction will proceed. The shortage, however, is not as great as would appear and an ample supply of paper will be available in the near future to meet any reasonable increase in consumption that may loom up, according to Mr. Weldon.

Opportunity for Employees to Invest

Ritchie & Ramsay, Limited, coated paper manufacturers, Toronto, who recently increased their capital stock from \$200,000 to \$450,000, have decided to offer their employees an opportunity to invest in the stock of the company, and \$100,000 second preference shares, bearing interest at 6 per cent, have been set aside for the purpose. The funds will go into the business as additional working capital and considerable new equipment will be installed. The plant has been established over a quarter of a century and was the first coated paper mill put in operation in the Dominion. The company has built up a big business in coated paper and card-board employees will be allowed two years' time to pay for their shares, either by weekly or monthly installments, and a number have been with the firm since they started. The offer is being generously taken advantage of.

Paper Box Business Is Booming

All the paper box plants in Toronto, Hamilton and other cities (Continued on page 46)

Newsprint Paper

It is significant that the mills turning out the best quality and largest quantity of newsprint paper are users of Bird Rotary Screens.

The replacement of old screen equipment with Bird Screens seldom fails to increase both the quality and quantity of output.

That is why most news mills are rapidly equipping their paper machines with Bird Screens.

Write for Catalog IA.

BIRD MACHINE COMPANY

EAST WALPOLE

MASS.

T. H. Savery, Jr., Western Representative 1630 Republic Bldg., Chicago, Ill.

BIRD ROTARY SCREEN

YYYYYYYYYYYYYYYYYYYYYYY

NEWS PRINT PRODUCTION FOR MONTH OF DECEMBER

Increase in Production for December, 1919, over December, 1918, Amounted to More Than 21 Per Cent for Total News Print and More Than 18 Per Cent for Standard News—Total Time Machines Were Idle Increased from 2,470 Hours in November to 2,693 Hours in December—No Lost Time Due to Lack of Orders or Lack of Coal Was Reported—Imports and Exports.

[FRCM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., Jan. 27, 1920.

The following is a review of the reports received from domestic manufacturers of news print paper, from jobbers buying and selling news print paper and from leading publishers using news print paper by the Federal Trade Commissioners. Import and export figures of the Department of Commerce are also included in the review. Whenever possible the figures for 1919 are compared with those for the corresponding period of 1918.

The figures which follow, not only show the results of the Commission's tabulation of the reports for December, 1919, compared with December, 1918, but also give the tonnage of the preceding period of 1919, compared with the corresponding period of 1918, and the total production and shipments for all of the months tabulated.

Total Print. First nine months, 1919 First nine months, 1918	Number of Mills. 76 67	Stock on Hand 1st of Month. Net Tons. 19,408 31,713	Produc- tion- Net Tons. 1,009,917 952,778	Ship- ments. Net Tons. 1,010,994 964,168	Stock on Hand End of Month. Net Tons. 18,331 20,323
October, 1919 October, 1918	64 81 61 87	18,331 20,323 16,100 20,732 15,336 20,297	125,216 105,169 116,603 101,403 122,781 100,935	127,447 104,760 117,367 101,838 122,748 101,824	16,100 20,732 15,336 20,297 15,369 19,408
Total, year 1919 Total, year 1918 Standard News.		19,408 31,713	1,374,517 1,260,285	1,378,556 1,272,590	15,369 19,408
First nine months, 1919 First nine months, 1918		15,656 26,482	910,752 856,588	912,065 867,417	14,343 15,653
October, 1919 October, 1918 November, 1919 November, 1918 December, 1919 November, 1918	50 56 50 55	14,343 15,653 12,646 16,731 11,790 16,696	110,902 94,330 101,264 86,371 104,262 87,797	112,599 93,252 102,120 86,406 103,714 88,837	12,646 16,731 11,790 16,696 12,338 15,656
Total, year 1919 Total, year 1918		15,656 26,482	1,227,180 1,125,086	1,230,498 1,135,912	12,338 15,656

Note—Above figures for total print do not include hanging paper, but include the print paper production of mills operating for the most part on some other grade. All figures prior to March, 1919, have been prorated from a weekly basis to a calendar month basis, and the figures for 1918 adjusted in conformity with the annual report.

The average or normal production of total print and standard news based upon total production for the years 1917 and 1918, amounted to 109,798 tons of total print, and 99,034 tons of standard news for a period corresponding to December. The average production based upon the weekly and monthly reports for the 18 months' period ended September 30, 1919, amounted to 111,618 tons of total print and 100,646 tons of standard news, whereas the actual production amounted to 122,781 tons of total print and 104,262 tons of standard news.

The increase in the production of news print in December, 1919, over December, 1918, amounted to more than 21 per cent for total print, and more than 18 per cent for Standard News.

Mill stocks of both standard news and total print increased during December, 1919.

In addition to the stocks given above, 859 tons were reported on hand at terminal and delivery point on December 31, 1919.

Loss of Production

Reports from 87 mills operating 202 machines running full or partial time on news print paper, showed the following loss of time during the month of December, 1919:

	Number of	Number of	Hours
Reasons.	Mills.	Machines.	Idle.
Repairs	12	23	1383
Other reasons	. 17	42	. 1310

The total time the machines were idle increased from 2,470 hours in November to 2,693 hours in December. No lost time due to lack of orders or lack of coal was reported by news print mills. The lost time shown under other reasons is due chiefly to excess time taken during the holidays and to cold weather.

Imports and Exports

The imports and exports of printing paper valued at not above 5 cents per pound (practically, all news print) and of wood pulp for the month of November, 1919, compared with the month of November, 1918, were as follows:

From Canada 59,263 48,40 Exports of News Print (total) 6,098 7,455 To Argentina 2,449 1,12 To Cuba 1,226 55 To Japan 66 1,26 To Mexico 55 5 To other countries 1,752 2,93 Imports of Ground Wood Pulp (total) 66,424 34,58 Unbleached Sulphite 42,562 21,85 Bleached Sulphite 7,287 1,67 Unbleached Sulphate 16,439 10,57 Bleached Sulphate 136 48			November, 1919, Net Tons.	November, 1918 Net Tons.
From Canada 59,263 48,40 Exports of News Print (total) 6,098 7,455 To Argentina 2,449 1,120 To Cuba 1,226 555 To Japan 616 1,226 555 To Japan 616 1,226 555 To Mexico 555 To other countries 1,752 2,931 Imports of Ground Wood Pulp (total) 21,147 18,581 Unbleached Sulphite 42,562 21,855 Bleached Sulphite 7,287 1,677 Unbleached Sulphite 16,439 10,57 Bleached Sulphate 13,649 10,57 Bleached Sulphate 13,649 10,57 Bleached Sulphate 13,649 48,80 10,57 Bleached Sulphate 13,649 10,57 Bleached Sulphate 14,650 10,57 Bleached Sulphate 15,649 10,57 Bleached Sulphate	Imports of News	Print (total)	. 59,263	50,451
Exports of News Print (total) 6,098 7,45°.	From Canada		59,263	48,409
To Argentina 2,449 1,127 To Cuba 1,226 555 To Japan 616 1,266 To Mexico 55 To other countries 1,752 2,938 Imports of Ground Wood Pulp (total) 21,147 18,588 Unbleached Sulphite 42,562 21,855 Bleached Sulphite 7,287 1,677 Unbleached Sulphate 16,439 10,57 Bleached Sulphate 16,439 10,57 Bleached Sulphate 136	Exports of News	Print (total)	6.098	7,457
To Cuba 1,226 55. To Japan 616 1,26. To Mexico 55. To other countries 1,752 2,93. Imports of Ground Wood Pulp (total) 21,147 18,58. Imports of Chemical Wood Pulp (total) 66,424 34,58. Unbleached Sulphite 42,562 21,85. Bleached Sulphite 7,287 1,67. Unbleached Sulphate 16,439 10,57. Bleached Sulphate 136	To Argentina		2.449	1,120
To Japan 616 1,26 To Mexico 55 55 To other countries 1,752 2,93 Imports of Ground Wood Pulp (total) 21,147 18,58 Imports of Chemical Wood Pulp (total) 66,424 34,58 Unbleached Sulphite 42,562 21,85 Bleached Sulphite 7,287 1,67 Unbleached Sulphate 16,439 10,57 Bleached Sulphate 136 48	To Cuba		1.226	557
To Mexico 55 To other countries 1,752 2,93 Imports of Ground Wood Pulp (total) 21,147 18,58 Imports of Chemical Wood Pulp (total) 66,424 34,58 Unbleached Sulphite 42,562 21,85 Bleached Sulphite 7,287 1,67 Unbleached Sulphate 16,439 10,57 Bleached Sulphate 136	To Japan			1.267
To other countries 1,752 2,93 Imports of Ground Wood Pulp (total) 21,147 18,58 Imports of Chemical Wood Pulp (total) 66,424 34,58 Unbleached Sulphite 42,562 21,85 Bleached Sulphite 7,287 1,67 Unbleached Sulphate 16,439 10,57 Bleached Sulphate 136 48	To Mexico		55	2
Imports of Ground Wood Pulp (total) 21,147 18,58 Imports of Chemical Wood Pulp (total) 66,424 34,58 Unbleached Sulphite 42,562 21,85 Bleached Sulphite 7,287 1,67 Unbleached Sulphate 16,439 10,57 Bleached Sulphate 136 48	To other coun	tries		2,936
Imports of Chemical Wood Pulp (total)	Imports of Group	nd Wood Puln (total)	21.147	18,586
Unbleached Sulphite 42,562 21,85 Bleached Sulphite 7,287 1,67 Unbleached Sulphate 16,439 10,57 Bleached Sulphate 136 43	Imports of Chen	nical Wood Pulp (total)	66,424	34,587
Bleached Sulphite 7,287 1,67 Unbleached Sulphate 16,439 10,57 Bleached Sulphate 136 48	Unbleached St	Ilphite	42.562	21.850
Unbleached Sulphate	Bleached Sulpi	hite	7.287	1,679
Bleached Sulphate 136 48	Unbleached St	ulnhate	16.439	10.570
	Bleached Sulpl	hate	136	488
Exports of Domestic Wood Pulp 4,160 79	Exports of Dome	stic Wood Pulp	4,160	790

The imports of news print for November, 1919, which were all from Canada, were 8,812 tons greater than for November, 1918. The exports for November, 1919, were 1,359 tons less than for November, 1918.

The tonnage to "Other Countries" under the "Exports of News Print" for November 1919, includes 356 tons to Philippine Islands, 320 tons to France, 320 tons to China, 190 tons to Bolivia, and 152 tons to Uraguay.

The imports of mechanically ground wood pulp for November, 1919, were 2,559 tons greater than for November, 1918. The exports of domestic wood pulp were 3,370 tons greater than for November, 1918.

The imports of chemical wood pulp for November, 1919, were 20,712 tons greater than the imports for November, 1918. The bulk of this tonnage was unbleached sulphite and sulphate from Canada. The chemical pulp imported from Norway, Sweden, Denmark and Finland in November, 1919, totaled 31,136 tons.

Jobbers' Tonnage

The following tabulation shows the news print tonnage-reported by sales agents and jobbers during the month of December, 1919, compared with December, 1918, together with commitments to buy and sell:

Rolls-		On Hand First of Month.	Received During Month.	Shipped During Month.	On Hand End of Month.	ments to	Commit- ments to Sell.
December.	1919.	1,602	6,567	6,305	1.864	29,447	27.165
December,	1918.	2,502	3,633	2.940			(b)190,604
Sheets-					-,	(-)	(a) as along
December,		4,044	3,028	3,603	3,469	5,585	3,300
December,			3,129	2,570	7,721	(a)3.569	(b)2,270
Total News F	rint-					Contraction of the Contraction o	
December,	1919.	5,646	9,595	9,908	5.333	35,032	30,465
December,	1918.	7,664	6,762	5,510	8,916		(b) 192,874

(a) To buy after December 31, 1918.(b) To sell after December 31, 1918.

Stocks of rolls increased 262 tons during December, 1919. Stocks of sheets decreased 575 tons, making the net result a decrease of 313 tons.

(Continued on page 30)



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

A-1 Bleached Sulphite

KELLNER-PARTINGTON PAPER PULP Co.mo
Borregaard, Norway



KRAFT PULP

Uniform in Quality

Essential for Strength Requirement

THE PULP AND PAPER TRADING COMPANY

21 East 40th Street

New York, N. Y.

Sole Agents for the United States for

CANADIAN KRAFT, LTD., Three Rivers, Canada

NEWS PRINT PRODUCTION FOR MONTH OF DECEMBER

(Continued from page 28)

Commitments reported in the month of December, 1919, to buy exceeded commitments to sell by 2,282 tons for roll news and 2,285 tons for sheet news.

Publishers' Tonnage

Monthly tonnage reports from 715 (x) 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 December, 1919:

Location of Publishers (xx)	Number of Pub- lishers.	Month.	Received During Month. Net Tons.	Sold Dur- ing Month.	End of Month.	In Transit End of Month. Net Tons.
New England	83	16,545	14,030	14,664	15,911	2,286
Eastern States	199	30,136	54,627	54,677	30,086	14,035
Northern States.	140	27,800	32,935	35,066	25,669	16,172
Southern States.	80	8,216	8,852	9,083	7,985	4,776
Middle West	153	22,990	23,390	24,450	21,930	8,2/0
Pacific Coast	32	5,542	12,167	12,160	5,549	1,671
Farm Papers (xxx)	28	7,879	1,875	1,837	7,917	97
Total II S	715	119 108	147 876	151 937	115 047	47 907

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

(xx) New England includes Connecticut, New Hampshire, Maine, Massachusetts, 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, North Dakota, Oklahoma, South Dakota, Texas, Utah, Wisconsin and Wyoming; the Pacific Coast includes California, Oregon and Washington.

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

Publishers' Stocks Decrease

Publishers' stocks decreased 4,061 tons during the month. This, however, was partially offset by an increase of 3,572 tons in transit over that at the close of November, 1919.

The tonnage used during December was 9,565 tons less than was used during November, 1919.

Publishers' stocks and transit tonnage on December 31, represented slightly more than 33 days' supply at the existing rate of consumption.

Fifty-two publishing concerns held about 47 per cent of the tonnage on hand at the end of the month.

Mill Prices to Publishers

The weighted average price of contract deliveries from domestic mills to publishers during December, 1919, f. o. b. mill in carload lots for standard news in roll was \$3.825 per 100 pounds. This weighted average is based upon December deliveries of approximately 80,000 tons on contracts involving a total tonnage of more than one and a half million tons of paper manufactured in the United States. These contracts, most of which extend until December 31, 1919, include a few long-term contracts made prior to the war at very low prices.

The weighted average contract price based on deliveries from Canadian mills of more than 12,000 tons of standard roll news in carload lots f. o. b. mill in December, 1919, was \$3.744 per 100 pounds. This weighted average is based upon the December deliveries on contracts involving more than 200,000 tons of Canadian paper. The greater number of these are short-term contracts covering the year 1919.

The weighted average market price for December of standard roll news in carload lots f. o. b. mill, based upon domestic purchases totaling more than 15,000 tons, was \$5.5338 per 100 pounds.

News of the Kalamazoo Trade

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., January 26, 1920.—Mark S. McKinstry, son of the late C. H. McKinstry, was elected secretary-treasurer and general manager of the Illinois Envelope Company. at the annual meeting of the stockholders held Tuesday afternoon. The junior McKinstry was advanced from the position of factory superintendent, a place he has filled capably for several years. The other officers are W. B. Milham, president, and V. T. Barker, vice-president.

J. C. Byrne, department manager at the Standard Paper Company, was made a member of the board of directors at the annual meeting of the stockholders, held Monday afternoon, January 19. The board now consists of J. H. Dewing, B. C. Dickinson, H. B. Hoyt, H. S. Humphrey, John A. Wheeler, F. W. Dunwell, A. L. Clark and J. C. Byrne. The officers for the ensuing year consist of B. C. Dickinson, president; J. H. Dewing, vice-president, and A. L. Clark, secretary-treasurer.

Work on the new administration building and addition to the mill is progressing satisfactorily and the structure will be ready for occupancy by June 1.

Frank D. Gilchrist, a former Kalamazoo newspaperman, was on Wednesday afternoon elected secretary of the Watervleit Paper Company. W. M. Loveland was retained as president, Charles B. Hays as vice-president, and August B. Scheid astreasurer. The directors are W. M. Loveland, C. B. Hays, A. B. Scheid, John A. Pyl, R. A. LeRoy, J. B. Balch, Fred Scheid, Kalamazoo; W. M. Baldwin, Waterleit; Harrison Geer, Detroit.

The Lee Paper Company, of Vicksburg, is now engaged in putting down several artesian wells to insure an adequate supply of pure water for manufacturing purposes. During the summer and fall of 1919 the company completed the overhauling of its boiler house and the installation of a new coal handling system.

No Restrictions on Saskatchewan Pulp Wood

A report has just been received from the American Consul at Regina, Sask., stating that there is no restriction by the Saskatchewan Government which tends to limit the export of pulp wood or paper.

The consul says that he has just had an interview with an editor in his territory who claims that the shortage in that province of news print paper is very acute. The most that they have had on hand for two or three months is three days' supply and they have been obliged to borrow paper from different publishers several times and they have also been obliged to loan to keep the papers being published.

Reporting further on this subject the consul says:

'There is no news print paper manufactured in this Province; all paper is imported from Fort Francis Paper and Pulp Company, located at Fort Francis, Ontario, across the river from International Falls, Minn.

"The consumption in this Province by all papers is about five hundred (500) tons per month.

"There are thousands of acres of spruce in the Northern part of Saskatchewan fit for pulp wood, but the great distance from principal markets makes it too expensive to manufacture.



Our experience has shown us that it makes a difference in repeat orders, whether your Paper is being sold for a definite use or just as another paper.

We possess an abundance of selling ideas and practice them in a progressive manner.





GIVE US A CHANCE

to demonstrate to you our ability to furnish the best in colored specialties in the shortest possible time, and at prices that must commend themselves to your attention. Our slogan "Service in Specialties" is no idle one, and we have never failed to make good on our promise.

Incidentally, our new Cohoes Mill is turning out WATCO Bond, a new paper that is bound to attract considerable attention in the market. Let us tell you should be a support of the support

FRANK GILBERT PAPER CO. Waterford, N. Y. Cohoes, N. Y.

Executive and Sales Offices
135 Broadway Tel. Rector \$992 New York

T. F. HART PAPER COMPANY, Inc.

Dunkirk, Indiana

MANUFACTURERS OF

ALBANY REFINED STRAWBOARD

for

TUBES AND CAPS
SINGLE and DOUBLE LINED
PLAIN and COLORED
VAT LINED, MILL AND SHEET LINED
SPECIALTIES, ETC.

Domestic and Export

Mill: Albany, Indiana



The classy edition (who said "classic"?) of "A Further Palaver on Paper", just finished by the Roycrofters for us, shoots a lot of interesting dope on KVP—not full of holes either—including some observations of an "outsider" on labor conditions at the mill. Most of the boys and girls out here work with us and not for us, which helps put KVP quality into such of our paper as you use.

The book is democratically free!

Kalamazoo Vegetable Parchment Company KALAMAZOO, MICHIGAN

"World's Model Paper Mill"

Makers of Vegetable Parchment, Bond and Waxed Paper

P KVP

Recent Incorporations

CASTENEA PAPER COMPANY, Delaware, manufacture paper. Capital, \$2,000,000. Incorporators: Samuel B. Howard, George V. Reilly, Robert K. Thistle, New York.

PARAMOUNT BOX CORPORATION, Brooklyn, New York, make paper goods. Capital, \$20,000. Incorporators: G. J. and S. Posner, F. Goldberg, 1434 St. Mark's Avenue, Brooklyn.

THOMA & HEWITT PAPER BOX MANUFACTURING COMPANY, Buffalo, New York. Capital, \$25,000. Incorporators: J. F. and J. E. Hewitt, R. F. Thoma, Buffalo.

Mr. Maynes Goes with Whitaker Paper Co.

CINCINNATI, Ohio, January 26, 1920.—Alexander Maynes, formerly secretary and general manager of sales of the Fox Paper Company, has joined the organization of The Whitaker Paper Company at the home office in Cincinnati, in the capacity of supervisor of the coarse paper section.

Mr. Haynes is one of the most widely known and successful coarse paper men in the country, and although practically his entire career as a paper man up to this time has been in the mill end of the business, his experience, knowledge and wide acquaintanceship among mill men and jobbers and big users of paper are the practical guarantee of his continued and increasing success.

Alexander Maynes was born in Akron, Ohio, and at the completion of his college course spent some time in newspaper work and later was connected with one of the largest lithographing concerns in the middle west in an important capacity. From this position he went into the paper business and established the Akron Paper Company, built its first mill and subsequently was the leading spirit in the amalgamation of an important group of Ohio Valley mills into what is now the Cleveland-Akron Bag Company. From here he went South and in rapid succession built up the business of the Kenesaw Paper Company, in Marietta, Ga., and later that of the Southern Paper Company at Moss Point, Miss.

In this varied experience Mr. Maynes has figured successfully both as a planner and as an actual builder and operating head of pulp mills and of paper mills.

To the trade generally he is best known through his connection with the Fox Paper Company, with which for the past seven years he has been very vitally connected.

It is understood that Mr. Maynes has been selected for the important work of coordinating the Coarse Paper Departments of the fourteen divisions of The Whitaker Paper Company with a view to the ultimate standardization of the company's Coarse Paper Lines after the general plan that has been followed so successfully in the standardization of its grades.

At the annual meeting of the stockholders of the big company held at Cincinnati, on January 17, Mr. Maynes was added to the directorate of the company together with George Momberg, Charles R. Heeter and Fred J. Ostermeyer. The other directors are J. Evan Reese, Managing Director, Baltimore, Md.; W. C. McLaughlin, Managing Director, Detroit, Mich.; George Soule, Denver; E. G. Bobb, Roaring Spring, Pa.; L. H. Glazier, Cincinnati, and A. L. Whitaker, President; Bryant Venable, Secretary and Assistant to the President; R. B. Burch, First Vice-President; D. E. Barry, Second Vive-President; Henry Junginger, Jr., Treasurer, and H. D. Whitaker, Assistant Treasurer.

Government Bids and Specifications

WASHINGTON, D. C., January 27, 1920.—The Purchasing Officer of the Government Printing Office has received the following paper bids:

40,200 pounds (600 reams) of 24 x 38-67, double coated book

paper, King Paper Company, at \$.13 and \$.16½ per pound.
40,000 pounds of blue U S M O safety writing paper in 11" rolls; R. P. Andrews Paper Company, at \$.238 per pound.

60,000 pounds (2,000 reams) of 211/2 x 321/2-No. 16 white wove writing paper; R. P. Andrews Paper Company, at \$.137 per pound, and Charles C. Walsey Company, at \$.14.

21,900 pounds (200 reams) of 21 x 321/2-No. 60 white wove ledger paper; American Writing Paper Company, at \$.337 per pound; Southworth Company, at \$.395, and Carew Manufacturing Company, at \$.36.

Government Printing Offer to Open Bids
The Furchasing Officer of the Government Printing Office will open bids on January 30 for 22,250 lbs. (500 reams) of 22 x 36-No. 20 white wove writing paper.

Bids will also be opened on the same date for 5,000 lbs. of 40 x 42-100 craft wrapping paper.

Bids will also be opened on the same date for 36,500 lbs. (500 reams) of 32 x 48-73, white sized and supercalendered print-

The Purchasing Officer of the Government Printing Office will open bids on January 31 for 8,750 lbs. (50 reams) of 221/2 x 281/2-175 white index bristol board.

Panama Canal Bids

The Purchasing Officer of the Panama Canal will open bids on February 11 for 40 reams (20,000 sheets) of 221/2 x 281/2-160 white index bristol board.

3,000 boxes of 8 x 101/2" black typewriter carbon paper.

Fitchburg Paper Co to Enlarge Plant

FITCHBURG, Mass., January 24, 1920.—Officers of the Fitchburg Paper Company announced last week that the company is perfecting plans for doubling the product of its No. 4 mill in West Fitchburg, in which an 156-inch Fourdrinier machine will be installed with the necessary machinery for preparing the material. It is hoped by the officers of the company that the installation will be made so that the enlarged mill will be in full operation during the coming fall.

A contract for the machine has been placed with the Bagley & Sewell Company of Watertown, N. Y., and George F. Hardy of New York, is now engaged on the construction plans for the enlarged building. The building contract will be let as soon as the plans are completed and have been placed in the hands of builders

The addition to the mill building will be started as soon as weather conditions allow. The extension will be made on the river side of the present building, which was constructed in 1910. There are two machines in the No. 4 mill now, both smaller than the great 156-inch machine to be installed.

It was said by officers of the company that this addition probably will necessitate the building of additional houses in West Fitchburg for employees of the company who will be needed to operate the enlarged plant.

P. A. Schoellkopf Heads Cliff Paper Co.

NIAGARA FALLS, N. Y., January 26, 1920.—Paul A. Schoellkopf, of this city, has just been elected president of the Cliff Paper Company, to success Jacob F. Schoellkopf, of Buffalo. He had served the company for years as secretary-treasurer. He is also president of the Niagara Falls Power Company, which controls all the power rights on the States side of the Niagara River.

The other officers of the company are: Alfred Schoellkopf, Buffalo, secretary-treasurer; Eddy E. Mansfield, assistant secretary; A. A. Catman, assistant treasurer; Arthur C. Hastings, manager. Mr. Hastings is recognized as one of the best paper men in America. He is connected with H. G. Craig & Co., paper merchants, 52 Vanderbilt avenue, New York City.

CLAREMONT PAPER COMPANY, Inc.

Mills: Claremont, N. H. and Bellows Falls, Vt.

GROVETON PAPER COMPANY, Inc.

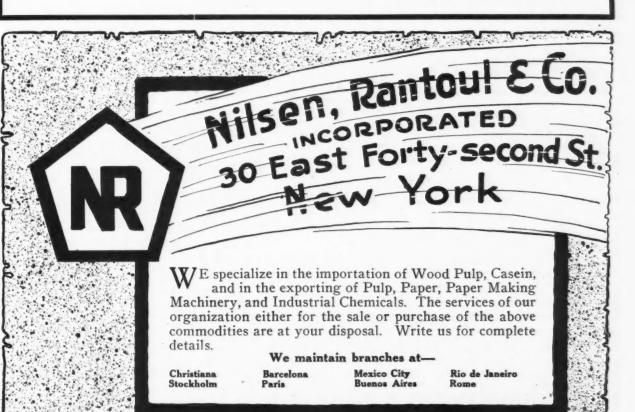
Mills: Groveton, N. H.

SALES OFFICE:

33 West 42nd Street : New York City

I. S. Reynolds, Manager of Sales

Branch Office: 45 Milk Street, Boston



Obituary

Henry B. Bartlett

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, January 26, 1920.—Henry B. Bartlett, 64, designing engineer for B. F. Perkins & Sons, Inc., died last week at his former home in Bogota, N. J., following a two weeks' illness with pneumonia. Mr. Bartlett came to this city about three years ago to take a position with the Japanese Tissue Mills and later became associated with B. F. Perkins & Sons, Inc., as designer and engineer.

Mr. Bartlett has a very wide acquaintance with engineers, having been prominently connected with American manufacturing enterprises and from his travels abroad. He was closely identified with the early development and marketing of the Mergenthaler linotype machine.

Middletown Facing Prosperous Era

MIDDLETOWN, Ohio, January 26, 1920.—Middletown, the "Paper City," is facing the greatest era of prosperity in its history. George M. Verity, head of the American Rolling Mills Company, invited manufacturers and other business men to a meeting the other night when he explained the city's needs in a financial way. He told of his company's plans in developing its works by the expenditure of many millions of dollars providing it was assured that the right spirit was back of other manufacturers.

As the result of the meeting, the manufacturers agreed to underwrite \$500,000 of the \$1,000,000 civic funds proposed by Mr. Verity. It is expected that it will not be difficult to acquire the million dollar fund, as under the impetus of war this amount has been raised without difficulty in the past. So representative was the gathering intended to be that Mr. Verity entertained the manufacturers one night and followed with a similar event the next evening when the retail merchants were entertained. Mr. Verity's plans include a general advancement of the city. A park of several hundred acres has been promised for all citizens through his efforts.

Rosin from National Forests

[FROM OUR REGULAR CORRESPONDENT.]

Washington, D. C., January 27, 1920.—The Forest Service of the Department of Agriculture has recently issued a permit to a Portland, Oreg., turpentine company to extract pitch from 160 acres of Douglas fir on the Umpqua National Forest. This company is pioneering in a new industry, which, if successful, will increase the value of Douglas fir and also materially add to the country's waning supply of turpentine. The plan is to bore into old and pitchy Douglas firs for the rosin stored in the cracks and seams of trees that have been wrenched by the wind. The product thus secured will be manufactured into turpentine and rosin. This permit is the first of the kind granted to a naval stores operator.

Plan Supply of Pulp Wood for Michigan

Lansing, Mich., January 26, 1920.—Through a special committee of the public domain commission appointed at a meeting held here plans are to be formulated, or at least considered to reforest the balsam and spruce producing lands in Michigan so that in future years the state will have a supply of wood pulp for the manufacture of print paper.

The committee is composed of William H. Wallace of Saginaw, Professor Filbert Roth of the forestry department of the University of Michigan, Secretary of State Coleman C. Vaughan, Junius Beal, regent of the university, and State Forester Marcus Schaff. This committee will determine the number of acres of land in Michigan available for planting pulp producing trees. It is not unlikely

that the committee will consider a plan under which the state might finance reforestation projects on privately owned lands being reimbursed when the timber is ready to cut.

In his annual report to the public domain commission State Forest Fire Commissioner John Baird points out that the raising of trees for use in the manufacture of paper is one of the most practical of all reforestation projects. Spruce for the pulp mills can be grown in one-third the time required for the development of saw timber, and when an area is once developed to the point where pulpwood may be cut from it, there will be a new crop for market every year and a constant source of income to the private landowner or the state.

Although only a fraction of Michigan's 10,000,000 acres of cutover lands could be used for growing spruce, State Forester Schaff told the demain commission that jackpine and other pines that will grow on higher lands can be used for manufacturing paper boxes, wallboard and similar pulp products that now absorb much of the available spruce crop.

That the lack of pulpwood is becoming so acute as to threaten the existence of many newspapers and reduce the public's opportunity to be fully informed was pointed out in Baird's report. He quoted from statistics to show that the consumption of print paper has increased 156 per cent since 1989, while the cost of print paper has advanced more than 600 per cent.

Kalbfleisch Corp. Elects Officers

The annual meeting of the stockholders of the Kalbfleisch Corporation, was held at the general offices of the corporation, 31 Union Square, West, New York City, on January 21, 1920, the following directors were elected: Franklin H. Kalbfleisch, A. B. Savage, Harry L. Derby, Richard Sheldrick, R. C. Clemens.

The Directors' meeting followed the Stockholders' meeting and the following officers were elected for the ensuing year: Franklin H. Kalbfleisch, president; A. B. Savage, vice-president and treasurer; Harry L. Derby, vice-president; Richard Sheldrick, secretary; A. C. Kalbfleisch, assistant secretary.

Colin Gardner Paper Co. to Erect Office

[FROM OUR REGULAR CORRESPONDENT.]

MIDDLETOWN, Ohio, January 26, 1920.—The Colin Gardner Paper Company has decided to proceed with the erection of a modern office building at Middletown. A site located on the north side of West Third street, fronting the large plant, has been selected for the structure which will be large, airy and well-lighted. The building will be one of the handsomest in the city and will greatly add to appearance of the West Third street levee, along which it is to be erected.

Jessup & Moore Mill Damaged by Fire

WILMINGTON, Del., January 26, 1920.—Fire partially destroyed the roof of the boiler room at the Augustine Mills last week, entailing a loss of several thousand dollars. The mills, which are located along the Brandywine beyond the Baltimore and Ohio Railroad Bridge, were threatened with destruction.

The mills are owned by the Jessup & Moore Paper Company. The superintendent, W. E. Walker, was unable to estimate the exact amount of damage, but stated that it would exceed \$2,000.

Paper Mfg. Co. Formed at Los Angeles

Los Angeles, Cal., January 19, 1920.—The Paper Manufacturing Company, 501 Merchants' National Bank Building, has just been established here to do a brokerage business with jobbers. The concern states it represents some of the best mills in the country.

Assurance of Quality in Cordage

"AMERICAN" TWINES



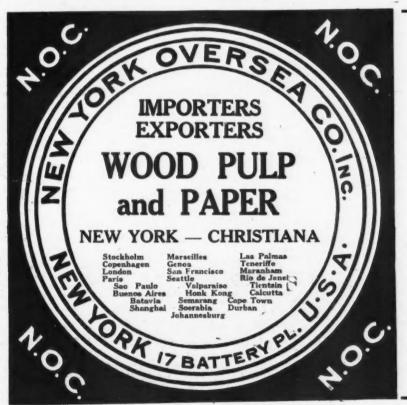
Hold well at the knot and at the point of intersection. For tying weighty packages, twine of great strength and friction resistance is needed to insure arrival at destination in good condition. That is why so many shippers demand "American" Twines—They know from experience that this brand is an "Assurance of Quality."

American Manufacturing Co.

Largest Makers of Commercial Twines and Rope in the World

MILLS AND SALES OFFICE:

Noble and West Sts., Brooklyn, New York City



IMPORTERS OF

SCANDINAVIAN PULP

AND

EXPORTERS OF

AMERICAN - MADE PAPER

Kalamazoo Representative

New York Oversea Company

17 Battery Place New York City

W. F. Ehrnholm, Manager pulp and paper sales

New York Trade Jottings

The Wilson Paper Stock Company, Inc., 136 West 18th street, has filed notice with the Secretary of State at Albany of an increase in its capital stock from \$5,000 to \$20,000.

The Sanitary Products Corporation of America, successors to the Sanispoon Sales Company, Inc., will after February 1 remove its sales offices from Philadelphia to 136 Liberty street, New York.

W. E. Zielie, formerly of Marathon Paper Mills Company, was a New York visitor this week in the interest of General Paper and Cordage Company, of Pittsburgh, with which he is now associated.

Judge Knox has appointed Charles H. Shuttleworth receiver for Isaac Perzeley, paper and paper bags, at 2058 Second avenue, in \$2,000 bond. Liabilities are said to be about \$10,000 and assets about \$2,000.

W. B. Carter, formerly with the American Dyewood Company, of Chicago, is now associated with the New York Color and Chemical Company, of New York, in charge of its Chicago office. His territory will include the South and West.

George M. Wetmore, formerly in the jobbing business in Cincinnati, and for the past four years sales manager for the Schmidt & Ault Paper Company, has been appointed assistant to I. S. Reynolds, sales manager for the Claremont Paper Company and Groveton Paper Company products, whose New York offices are at 33 West 42nd street.

The Fifth National Bank of New York has sent out an announcement of the election to its board of directors of D. S. Gottesman, president of M. Gottesman & Co., Inc., wood pulp merchants, New York, taking effect January 15, 1920. Although actively managing the important wood pulp business, of which he is the head, Mr. Gottesman's interest in banking is very keen, and he devotes considerable time to his banking connections. The Fifth National Bank, of which Mr. D. S. Gottesman now becomes a director, is one of the oldest banking institutions of New York City, having been organized in 1864. It is one of New York's best known banks and has total resources of over \$15,000,000. Mr. Gottesman's connection with this strong financial institution forms an additional link between banking interests and the pulp and paper industry, which has shown considerable growth in recent years.

River Raisin Paper Co. Minstrel Show

MONROE, Mich., January 29, 1920.—The River Raisin Paper Company presented what was termed "an entirely original minstrelette" at the Family Theatre Wednesday, January 14, and scored an unusual success.

The miniature black face show was conceived and arranged by Bob Jacobs and Newt Freeman, who also officiated as the end men, both having a line of original jokes hitting well-known officials and employees of the big mills. Even President Harley Wood and Vice-President Frank Gray were not spared by the jokesmiths. Of course Alex. Dienzer, who was one of the powers behind the throne in every Yacht Club minstrel, was there as orchestra director, ably assisted by Fred Kiburtz at the piano, the balance of the orchestra being the regular theatre organization.

Thornton Lewis threw away the cares of the purchasing department long enough to take the interlocutor's job, and he took it in a manner that left no room for criticism. Clair Stearns,

as a soloist, got away with "Carolina Sunshine" so well that he had to respond to two encores, and the same can be said of Homer Fisk, who sang "The Heart of a Rose." Then there was Lute Winchell, who has been conspicuous in every minstrel show in the past as the original jazz kid, with a make up that looked the part he sang, "Take Me to the Land of Jazz," so well that he was called back for another whirl.

Others in the show also acquitted themselves very creditably.

Anchor Ice Handicaps Booth Mills

Ottawa, Ont., January 26, 1920.—As a result of the extremely cold weather here during the first three days of this week, anchor ice formed in large quantities in the Chaudiere River and the grinding of pulp at the J. R. Booth mills was brought to a halt. Everything was frozen up when the thermometer dropped to 30 degrees below zero. There being no ground pulp available, two out of the three paper machines at the mills were idle and only by dint of hard work was enough raw material furnished to keep the remaining machine going. "This is the first time in four years that we have had so much trouble with anchor ice," says C. Jackson Booth, discussing the happening. "Men have been busy shooting the ice, but it seems to have had little effect. The ice has been coming down the rapids in large blocks and I am told that when a section of it is released from the shore huge pieces of it float into the cleared space.",

While the closing down of two paper machines meant a reduction in the production of paper at a time when the scarcity of news print makes every ton count, the men employed were not laid off, but were given other jobs to do pending return to their accustomed posts. The Booth mills have little reserve supplies of paper so that the shut-down will be of rather serious import and will necessitate speeding up from now on to catch up with lost production.

Embargo on Ft. Frances News Print

OTTAWA, Ont., January 26, 1920.—When the appointment of R. W. Breadner, commissioner of taxation, as acting temporary paper controller, replacing R. A. Pringle, was taken up by the government last week, the western news print situation was thoroughly discussed. Two sittings were held by the cabinet on the matter. Afterwards, Hon. Newton Wesley Rowell, president of the privy council, made public the following telegram which had been sent by the commissioner of customs here to the collector of customs in Fort Frances, Ont., where the mills of the Fort Frances Pulp & Paper Company are located: "Paper Controller orders embargo shall be interpreted that after mill has shipped from time to time the amount of paper necessary for Western Canadian papers as fixed in order of paper controller of January 10, balance of production may be shipped to the United States."

This means that the government does not intend to permit shipments to the United States until the needs of Western Canada have been satisfied.

Simultaneously with the announcement the government had appointed a new paper controller and was determined to make the Fort Frances Company obey its orders, the company was reported to have shipped five cars of news print westward.

Vunk & Keefer Roofing Co. to Do Paper Business

ELMIRA, N. Y., January 29, 1920.—The Vunk & Keefer Roofing Company has taken over the roofing and wholesale paper business of the Dexter Roofing Company and will conduct a wholesale and retail business in roofing sheathing, building, felt, and wrapping papers and bags.

Nothing but scientifically applied electric power can bring out the full effectiveness of men or machines—so badly needed today



conservation to production

INDUSTRY throbs with a new energy—the energy to produce, plus the energy to conserve.

And as inventions shape the gifts of earth to man's needs, they use power -power made, distributed and used effectively to conserve coal and labor.

For in these times of peace, production must go on; though its cost must be lessened.

In determining the kind of motors and control which do this great work,

there are factors of vital importance. With these factors in mind, G-E engineering specialists co-operate with any concern in finding the way to greater production at lower cost.

In the case of E. I. du Pont de Nemours & Company special motors were found right, and they were built quickly. They increased production and reduced manufacturing cost.

Readiness to serve, and ability to produce just the right electric power equipment, await every user of any kind of power.

GENERAL ELECTRIC COMPANY, SCHENECTADY, N. Y.

Look for this mark of leadership in ical development

From the Mightiest to the Tiniest

LECTRIC COMPANY

PRACTICAL QUESTIONS AND ANSWERS

FOR MILL MEN

A Department for the Solution of the Troubles, Large and Small, That Are Encountered by the Workers in the Mills in the Course of Their Duties in Making Paper and Pulp—All Mill Men Are Invited to Send in Both Questions and Answers—A Free Exchange of Ideas Is Desired—By Active Co-operation

This Department Can Be Made a General Clearing House for Information in Regard to Practical Paper Making.

Remedving Poor Sizing

Question No. 2480.—We are making practically the same grade of paper on two machines, on one of the machines the paper is sized satisfactorily with 2 per cent rosin size, but on the other machine it requires 4 per cent of the same size to produce the same sizing effect in the paper. How could this be explained, or what should we look for to remedy the poor sizing on one of the machines? The furnishes on both papers are the same with the exception of the size and alum.

Answer 2480.—You should first check up to see if the correct amount of size and alum is being put into each set of beaters. If different men are putting the size into the beaters, one man might be giving an extra full measure, while on the other machine, the man might be putting in a very scant measure. While this is very improbable, nevertheless it should be carefully checked up.

Now, while we are in the beater room, we will look up the conditions of beating for the two machines. First, is the stock in the beater of one machine getting as much beating time as the stock does for the other machine? If, for instance, the stock of your well sized paper received three and one-half hours in the beaters, and the stock on your poorly sized paper received only two hours in the beaters, then the difference in the sizing qualities of the papers could be largely attributed to the difference of treatment of the fibres. The longer and slower the beating process is carried out, the greater will be the sizing quality of the paper regardless of the amount of size added.

Another thing which must be looked into and compared is the condition of knives of the bed plates and beater rolls of the two sets of beaters. Dull, blunt knives will cause greater hydration of the fibres, resulting in a harder sized paper, than if they were treated with new, sharp knives. This condition of the knives should be looked for in the opposing Jordans as well as in the beaters.

The manner in which the stock is run through the Jordans should also be investigated. The sizing qualities of paper can be very much affected by manipulating the Jordan. So, take into consideration the manner in which your stock is passing through the two Jordans. Backing the stock up in the Jordan will produce harder sized paper, and letting the stock go through free will produce a softer sized paper.

Now we come to the machines. The first thing here which would affect the sizing is the formation of the paper on the wire. Of course the closer and better formed the sheet is, the better sized it will be. Therefore, compare the formation of your two sheets closely. The next factor on the machine which would be likely to affect the sizing is the drying of the paper.

Do you force the drying on one machine more than you do on the other, either on account of lesser drying surface or a lesser number of presses to remove the water from the sheet before it goes on the dryers? If you do, that would cause the difference in sizing to be partly accounted for.

If the drying of paper is forced, it will result in a slacker sized sheet than if it were dried moderately and gradually. The calendering of paper will slightly affect the sizing qualities in some cases. It has a tendency to be a little harder sized, the more calendering it receives.

If all of the above "ifs" and "buts" are carefully checked, I am quite sure you will find among them the cause of the difference in your sizing.

Strength of Sulphate Cooking Liquor

Experiments at the Forest Products Laboratory, Madison, Wis., on sulphate cooking liquor, indicate that the action of NaOH is substantially twice as drastic as that of Na₂S between the ratios of 1 part NaOH to 1 part Na₂S and 4 parts NaOH to 1 part Na₂S.

.The active strength of the cooking solution in terms of NaOH is expressed by the equation

S = M + N/2

where S is the active strength of the solution, M the concentration of NaOH, and N the concentration of NaoS.

A rapid method of determining the strength of a cooking solution is as follows:

Add 10 c.c. of cooking liquid to about 50 c.c. of water in a porcelain dish. Add 10 c.c. of a saturated solution of BaCl₂. Stir vigorously, and titrate with normal hydrochloric acid to phenolphthalein end point. The number of cubic centimeters is directly proportional to the strength.

This method is the most convenient for use in the digester house, because of its simplicity and the fact that it does not involve a consideration of the ratio of NaOH to NasS.

Condensed Chemical Dictionary

The Condensed Chemical Dictionary, published by the Chemical Catalogue Company, Inc., 1 Madison avenue, New York, will prove especially helpful to the large number of people not educated along chemical lines, but who have frequent need for detailed information regarding chemicals and chemical products. The volume fills a long felt want, as there is no other publication on chemical literature which will meet exactly the wants of these people.

No attempt has been made to produce an exhaustive work. The properties described have been restricted to those likely to be of commercial importance and many subjects scientifically interesting have, the editors state, been omitted when of no commercial importance.

While the dictionary is specially valuable to the non-technical users, it also is of great value as a time saver to the chemist, even one having a good library. Frequently a moment's reference to the dictionary will answer a question, whereas much more time would be consumed in getting the information from other sources.

THE ROLL THAT BRINGS US MORE BUSINESS

WILL SURELY BRING YOU YOUR SHARE ARE YOU STOCKED TO MEET THIS DEMAND?

THE RED LETTER BRAND



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NORRISTOWN, PA.

Manufacturers of "The Brands that Sell Themselves"

PAPER OF ALL VARIETIES SCARCE IN TORONTO

(Continued from page 26)

are rushed to the limit, and the board mills are from three to four months behind in deliveries. There is a scarcity of girl help and confectionery firms are calling for more and more boxes to take care of the large export trade which has been built up since the war. At least three local plants will enlarge their facilities this spring in order to meet additional demand. The Canada Box Board Company, Montreal, which has a federal charter, has taken out an extra provincial license to increase its operations in Ontario and will expend \$250,000 in the province. It is understood this is for the purpose of erecting a new plant in Toronto. The output at its factories in Montreal and Frankford, Ont., is about 70 tons a day, but this production is now being increased by the installation of new dryers and other equipment.

Notes and Jottings of the Trade

Charles V. Syrett, managing director of the Toronto Paper and Twine Company, Toronto, spent the past week in Baltimore attending the annual meetings of the Hubbs and Howe Company.

The Toronto Club of Printing Craftsmen has been formed and will be affiliated with similar organizations on the other side of the line. Charles Keats was elected president and C. W. Perry secretary-treasurer. P. R. Long of the Curtis Publishing Company, Philadelphia, spoke on the objects and benefits of the association to the printing craft. A general meeting of the heads of the Allied Printing Trades will be held in Toronto shortly.

Toronto wholesale paper firms have received word that the warehouse of the Richmond Paper Company, Halifax, N. S., owned by Orr Brothers, was burned to the ground recently. The loss was \$175,000, partly covered by insurance. Defective wiring is said to have been the cause of the fire.

Representatives of the Dominon Commission of Conservation held a conference with the Ontario government during the past week with reference to the conservation of timber and pulpwood areas and reforestation. Plans were discussed for a survey of the timber wealth of the province. The deputation consisted of James White of the commission, Clyde Leavitt, chief forester, and R. D. Craig, who is in charge of the timber survey of Ontario.

A meeting of the directors of the Whalen Pulp & Paper Company, whose head offices are in Vancouver, was held in Toronto during the past week. Sir George Bury, president of the company, was present. He recently returned from an extended trip to Japan where he placed several contracts for sulphite pulp for the three plants of the company in British Columbia.

Red River Paper Mills Formed

Word has been received in Toronto that Winnipeg will soon have a paper mill in operation. The company is known as the Red River Paper Mills, Limited. Local capital is interested and the output will be about 30 tons a day of wrappings made from waste material collected from the city. Fred T. Gilroy is the manager of the company, J. J. Kilgour is president of the company, D. A. Clarke vice president, and A. K. Fergusoo secretary. The equipment consists of three beaters, one refining engine and one paper machine, all of which will be operated by electricity.

John G. Sutherland of Dayton, Ohio, sales manager of the Spanish River Pulp and Paper Mills, spent a few days in Toronto last week calling upon many old friends in the trade. He reports that all the plants of the company are exceptionally busy and are operating to capacity.

John Martin of Winnipeg, president of the Canadian Paper Trade Association, who has been spending a few weeks in the East, returned to Winnipeg this week. He was accompanied as far as Port Arthur by I. H. Weldon and S. F. Duncan of the Provincial Paper Mills Company, Toronto, who paid a visit to the Port Arthur Pulp and Paper Company, a subsidiary organization of the Provincial Company.

The prize of all American magazines and periodicals in Toronto has been increased ten per cent to newsdealers owing to the exchange rate between Canada and the United States. The dealers are now selling all former 20-cent publications for 25 cents.

News of the St. Louis Trade

St. Louis, Mo., January 26, 1920.—A review of business in St. Louis in 1919 published in *Greater St. Louis*, the official bulletin of the St. Louis Chamber of Commerce, contains this paragraph, headed "Paper and Envelopes:"

Business in these lines has been largely regulated by available supply, it being a difficult matter to get material. The 1919 sales of all paper products, print, stationery, bags, etc., amounts to \$36,000,000, about 10 per cent of the increase represents advances in the price of the commodity.

George W. Reed, manager of the Continental Paper Company, has been made chairman, and Charles S. Elliott, of Mack-Elliott Paper Company, vice-chairman of the committee representing sub-division No. 17 paper and envelopes of the Chamber of Commerce. Other members of the committee are F. R. Peters, General Paper Stock Company; James A. Rogers, vice-president Samuel Cupples Envelope Company, and Oscar H. Vieths.

T. P. Chapman, president T. P. Chapman Paper Company, has been elected chairman of the Members' Conference Bureau of the St. Louis Chamber of Commerce.

A. S. Langsdorf, dean of the school of engineering at Washington University, has resigned to become production engineer for the Crunden-Martin Woodenware Company.

R. C. Fay, advertising director of the Seaman Paper Company, Chicago, spoke before the Advertising Club of St. Louis last Tuesday on "The Profitable Use of Direct-by-mail Advertising."

Paper Board Exports

The value of paper board exported from the United States during November, according to figures which have just been compiled by the Department of Commerce, was \$265,083. The paper board went to the following countries: Belgium, \$1,369; Denmark, \$500; Netherlands, \$38; Sweden, \$1,696; England, \$24,976; Scotland, \$3,393; British Honduras, \$31; Canada, \$131,587; Costa Rica, \$181; Guatemala, \$249; Nicaragua, \$306; Panama, \$138; Salvador, \$160; Mexico, \$4,225; Newfoundland and Labrador, \$1,050; Barbados, \$76; Jamaica, \$75; other British West Indies, \$3,386; Cuba, \$25,252; Haiti, \$51; Dominican Republic, \$994; Argentina, \$22,252; Bolivia, \$73; Brazil, \$11,759; Chile, \$1,553; Colombia, \$1,588; Ecuador, \$211; British Guiana, \$210; Dutch Guiana, \$117; French Guiana, \$140; Peru, \$2,120; Venezuela, \$1,195; China, \$5,418; British India, \$1,396; Dutch East Indies, \$2,161; Hongkong, \$2,738; Japan, \$20; Australia, \$69; New Zealand, \$275; Philippine Islands, \$6,065; British West Africa, \$188; British South Africa, \$656; Portuguese Africa, \$2,486.

H. P. Andrews Opens Newark Office

NEWARK, N. J., January 20, 1920.—The H. P. Andrews Paper Company, 104 Worth Street, New York, has opened an office at 20 Clinton Street, phone, Market 3413. The office will be in charge of Cecil F. Lane, the salesman in this territory.

The firm states that the increased business that it has had from Newark and the surrounding territory has made it necessary for it to put a man here permanently to look after its very much increased business. Conditions may soon develop that will make it necessary for the concern to maintain a warehouse in Newark.

NEW YORK COLOR & CHEMICAL CO.

(INCORPORATED)

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Aniline Colors for Paper Mills

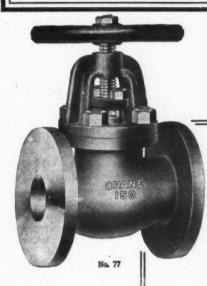
NIGROSINES
ACID BLUES—R—RR—BB
METHYLENE BLUE
NEWS BLUE
BOND BLUE
BISMARK BROWNS
KRAFTY BROWN

EOSINE
ORANGE Y
SCARLET
FUCHSINE
CROCEIN SCARLET 3B—M00
FAST RED
PAPYRINE RED

ACID VIOLET
METHYL VIOLET 3B—5B
AURAMINE
FAST YELLOW
METANIL YELLOW
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SPECIALTIES FOR TINTS AND CALENDAR STAINING

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can be made in acid metal to suit conditions.

This type of valve, having the stem threads exposed, and having renewable seat and disc, will reduce the up-keep cost to a minimum.

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Branches in 56 leading cities.

Editorial

Vol LXX. New York, January 29, 1920 No. 5 FORTY-EIGHTH YEAR

Another News Print Proposal

Interesting news has for some time past been coming from Canada regarding news print. The announcement printed elsewhere in this week's issue of THE PAPER TRADE JOURNAL that the Minister of Finance has stated that there was likelihood of a tax being imposed on news print exported from Canada, and has intimated that this tax would amount to \$10 per ton will be something in the nature of a sensation to most folks in the paper business. If true, and we are assured that the facts as printed were obtained from an absolutely reliable source and are undoubtedly authentic, Canadian paper manufacturers may well be concerned about this altogether unexpected proposal. It is difficult to understand how anyone who has given even brief consideration to what the news print industry has come to mean to Canada could suggest such a measure. It is a proposal that if carried out will certainly be much in the nature of "killing the goose that laid the golden egg."

There has been altogether too much interference with the news print industry by the Governments on both sides of the line, and, as the Paper Trade Journal has frequently pointed out, this interference is constantly tending to make an obviously bad situation only the more critical.

Moreign Trade Rigures

The exports of paper and manufacture of paper continued to show a decrease for November for which period the figures have just been given out by the Department of Commerce. The total foreign sales of paper and manufacture of paper for the month amounted to \$5,397,287 as compared with \$5,675,377 for October and \$5,705,783 for November a year ago. The total foreign sales of paper and manufacture of paper for the eleven months ending with November amounted to \$81,773,825 as compared with \$47,-989,249 for the same period in 1918 and \$39,966,242 in 1917.

The falling off was especially noticeable in news print, the figures for November being \$582,908 as compared with \$681,451 for October and \$617,522 for November a year ago. The exports of news print for the eleven months ending with November amounted to \$9,717,599 as compared with \$7,451,417 for the same period in 1918 and \$6,612,380 in 1917.

The exports of wrapping paper for November amounted to \$434,915, as compared with \$522,140 for October, and \$477,634 for November of the preceding year. The foreign sales of wrapping paper for the eleven months ending with November amounted to \$6,239,463, as compared with \$4,252,392 for the same period in 1918, and \$3,377,425 in 1917.

The exports of writing paper and envelopes for November amounted to \$495,941, as compared with \$554,998 for October, and \$753,660 for November of the preceding year. The exports of writing paper and envelopes for the eleven months ending with

November amounted to \$12,716,637, as compared with \$5,381,574 for the same period in 1918 and \$3,068,290 for the same period in 1917.

The exports of paper board and strawboard for November amounted to \$263,083, as compared with \$274,606 for October, and \$351,293 for November of the preceding year. The exports of paper board and strawboard for the eleven months ending with November amounted to \$4,392,851, as compared with \$2,610,042 for the same period in 1918, and \$1,910,079 in 1917.

The exports of tissue and toilet paper showed a big increase in November over October, the figures for the former month being \$227,192, as compared with only \$185,124 for the latter.

The exports of this commodity for November of the previous year amounted to \$213,956. The exports of tissue and toilet paper for the eleven months ending with November amounted to \$1,879,239, as compared with \$1,242,981 for the same period in 1918

The imports of paper and manufactures of paper for November just coincided with the imports for October, the figures for the former month being \$5,363,855 and for the latter \$5,356,947. The figures for November of the preceding year amounted to \$3,-696,525. The exports for the eleven months ending with November amounted to \$48,799,580, as compared with \$38,823,983 for the same period in 1918 and \$37,778,655 for the same period in 1917.

The imports of printing paper valued at not above 5 cents per pound for November amounted to \$4,255,141, a slight decline from the figures for October which amounted to \$4,436,145. The imports of this commodity for the eleven months ending with November amounted to \$39,875,456, as compared with \$31,749,075 for the same period in 1918 and \$27,722,835 in 1917.

The imports of ground wood for November amounted to \$634,-392, as compared with \$639,836 for October and \$458,153 for November of the preceding year. The imports of ground wood for the eleven months ending with November amounted to \$4,-392,700, as compared with \$4,323,398 for the same period in 1918 and \$7,374,092 in 1917.

The import of unbleached chemical pulp for November amounted to \$4,214,924, as compared with \$4,787,804 for October and \$2,366,207 for November of the preceding year.

The imports of unbleached chemical pulp for the eleven months ending with November amounted to \$24,006,622, as compared with \$22,399,176 for the same period in 1918 and \$28,118,248 in 1917.

The imports of bleached chemical pulp for November amounted to \$827,959, as compared with \$668,360 for October and \$245,168 for November of the preceding year. The imports of bleached chemical pulp for the eleven months ending with November amounted to \$4,216,018, as compared with \$1,593,573 for the same period in 1918 and \$4,604,560 in 1917.

Paper Mill Wanes

The Bureau of Labor Statistics of the Department of Labor has received replies from 53 paper mills comparing their employment in December, 1918 and 1919. The returns show that in December, 1918, there were 29,363 persons employed in the 53 mills increas-

ing slightly in the same month of last year to 29,867, or an increase of 1.7 per cent. The pay rolls in these establishments increased from \$657,873 in December, 1918, to \$763,939 in December of last year, showing an increase of 16.1 per cent.

Replies were also received from 52 paper mills comparing the employment of November and December of 1919. The replies show that in November of last year there were 28,733 persons employed increasing slightly in December to 28,997, or an increase of .9 per cent. The pay rolls, on the other hand, increased from \$701,995 in November to \$736,698 in December, or an increase of 4.9 per cent.

German Paper Trade at End of 1919

Berlin, Germany, January 7, 1920.—Shortage of coal, pulp and cellulose caused the closing down of a large percentage of all German paper mills, says the National Work Gazette in an official review of the paper trade as it was at the end of 1919. Pulp mills run by steam were closed entirely, while those run by water power produced but little. The lack of bleached cellulose and the non-delivery of dyestuffs by the manufacturers of chemicals were the two most serious handicaps. Cost of production has increased materially, as a result of the higher prices asked for raw products and of higher wages that had to be granted. Accordingly the price of the finished product had to be raised all along the line. The delivery of paper products by the mills was hindered by difficulties in the transportation services.

The whole paper industry of East Prussia was forced to close down, on account of the coal shortage. Affiliated lines are mostly idle.

News print paper mills are forced to cut down production, their coal supply being insufficient. German newspapers are still held down as to size. They are merely a shadow of their former self. The manufacture of envelopes showed some improvement. Wrapping paper mills were swamped with orders which could not be filled, as mills had to be worked on part time, no coal being available. Tar paper works report satisfactory conditions.

When the rationing system was abandoned, speculators drove the prices of raw materials sky high. The price of tar, for instance, immediately went up by 300 and 400 per cent. Although there is hardly any building activity to speak of, the demand for roofing paper is very brisk, not overbalancing the offers, however.

The wall paper industry is doing poorly. But winter is always a dull season in that line. The corrugated pasteboard and cardboard mills showed slight improvement.

Although the rationing was abandoned some time ago, any firm or manufacturer using print paper has to notify the government whenever he places an order. The government has issued an ukase warning the trade. It refers to the creation of the new usury courts which have jurisdiction in the case of print paper. The maximum penalties for violation of the rules and regulations are five years in jail and a 500,000 mark fine.

Southern Germany reports an increased demand for all sorts of paper and higher prices. The price of news print paper was raised considerably, about 20 or 30 pfennigs per kilo. The price of wood pulp is going up fast, as a result of the coal shortage. Communities permitted the people to cut down the forests, as the wood was needed as fuel. This curtails the supply of the pulp mills and raises the prices.

At the same time the export trade of the paper textile industry increased hansomely. Most of the fabrics and goods are sold in France where they are snapped up as novelties. The latest are Panama hats made of paper fibers, selling at 4 francs in France.

The official annual report on the paper industry in Saxony shows the following figures:

Year	Establish- ments	Number of Male Hands	Number of Female Hands	Number of Youths	Below the age of 14	Total Number of Employees
1913	1,038	25,476	13,907	3,079	140	42,602
1914	1,019	25,825	14.009	2,949	144	42,927
1915	913	16,929	12,149	2,426	81	31,585
1916	895	15,620	15,198	3,283	143	34,244
1917	887	13,180	17,601	3,992	173	34,946
1918	923	14,252	22,479	4,624	239	41,594

Catalogue Sizes for Purchasing Agents

At the National Catalogue Conference, held recently, it was unanimously resolved that catalogues should be confined to one of three sizes, as follows:

It was decided to leave to the future the determination of the single size which might prove most popular.

Following the conference, which was held under the auspices of the Standardization Committee of the National Association of Purchasing Agents, the committee decided to show its preference at once. It was felt that there was only one of the three sizes which could hope to endure as a single standard, and that to remain silent and later show a preference might leave them open to criticism, so the committee recommended that all catalogues meant for purchasing agents be made $7\frac{1}{2} \times 10\frac{1}{2}$ inches, or its half size, $5\frac{1}{2} \times 7\frac{1}{2}$ inches, when saddle stitched for convenience in filing.

Paper Mill Mutual Insurance Co. Meets

Boston, Mass., January 26, 1920.—David W. Lane was elected president and treasurer of the Paper Mill Mutual Insurance Company at the annual meeting held Tuesday of last week.

Other officers were chosen as follows: Vice-president, Herbert W. Mason; secretary and assistant treasurer, George H. Gibson, and assistant secretary, James E. Stanley. Arthur L. Hobson, treasurer of the St. Croix Paper Company, was added to the board of directors.

The other directors re-elected include: George W. Wheel-wright, Roland W. Toppan, A. H. Lowe, R. P. Snelling, Ellison A. Smith, Waldo E. Pratt, David W. Lane, Albert L. Scott, Herbert W. Mason, H. DeForest Lockwood, Charles Walcott, Nathaniel F. Ayer and Howard S. O. Nichols.

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OUR TIGHT FITTING, DIAMOND "W" JACKETS
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H. WATERBURY AND SONS COMPANY, ORISKANY, N. T

THE SUITABILITY OF COTTON HULL FIBRE FOR PULP AND PAPER MANUFACTURE

By Otto Kress*

(Concluded from last week)

Trials Made at the B. D. Rising Paper Company, Housatonic, Mass

The pulp made at a previous date by Mr. Wells and the writer was worked up into paper at the mill of the B. D. Rising Paper Company, Housatonic, Mass., in the presence of the writer. This stock had been bleached previously, using 10.9 per cent bleach, and had been in the drainer for several weeks.

A sample of the bleached stock on microscopic examination yielded the following information:

Average length of fibre	2.10	m.m.
Longest fibre	3.97	m.m.
Shortest fibre	1.02	m.m.
Fibres under 2 m.m	44	per cent
Fibres over 2 m.m	56	per cent
Average length of fibres under 2 m.m	1.46	m.m.
Average length of fibres over 2 m.m	2.61	m.m.

At these trials three papers were made, a paper to be used in the manufacture of a pasted wedding paper and two runs of bond made on a furnish of 75 and 50 per cent hull fibre pulp, the balance being bleached sulphite. The papers were animal sized but not loft dried. No difficulty was experienced in screening or in passing the paper over the machine. The papers produced were of a high white free from dirt and of a quality that was satisfactory to the mill.

The strength data on the finished and uncalendered samples are shown in table V.

Conclusions

1. Cotton hull fibre similar to the product manufactured by the East St. Louis Cotton Oil Company can be pulped in the ordinary soda pulp digester. There is no question that less drastic pulping conditions can be used than were employed, and especially must the ratio of liquor to fibre be reduced to insure an economical soda recovery, and considerable further work must be done to determine the optimum pulping conditions. In the one cook witnessed by the writer it was not considered advisable to cut the chemical, liquor volume, or time of cook, as only sufficient raw stock was available for one cook.

2. The ordinary cook pulp equipment for handling the pulp, such as rotary and flat screens, pulp thickeners, etc., are not suitable for handling cotton hull fibre stock direct from the washing pans preparatory to putting the stock over a wet machine or a pulp drier. The writer believes that after the stock is washed in diffesers or pans it might be handled as follows: Slush the stock to beaters and wash while brushing. Cotton hull fibre pulp if handled correctly can and must receive a hard brush in the beater to develop its maximum strength, and this could be partially done while washing. The caustic pulping treatment disintegrates the hull particles which are broken down into individual hull fibres, and these small particles probably have but very limited felting and strength giving characteristics, and for certain papers-bonds, for example-where strength is of conTABLE V.—Strength data on papers made at B. D. Rising Paper Company, Housatonic, Mass.

	Descrip	otion of pape	ers.		ity.
Unfinished 100% Finished 100% I Unfinished bond Finished bond, 2 Unfinished bond, 2 Unfinished bond, 5	null fibre wedd , 75% hull fib 75% hull fibre , 50% hull fib	ing paper re, 25% sulp , 25% sulph re, 50% sul	phite pulp ite pulp		64 66 65 66
	Weight	, te surpu	Points	Average	Average
Tempera-	per ream.	Bursting	per .0001"	breaking	folding
ture.	(basis)	strength.	thickness.	length.	test.
°F.	24x36/500.	Lbs.		Meters.	Number.
80	73	.25	.23	2,230	7
79	71	.26	.33	2,200	11
82	48	.24	.22	2,290	6
72	48	.25	.30	2,430	8
71	47	.28	.28	3,230	7
71	46	.30	.36	3.260	8

sideration, must be removed by washing. For book paper or certain other grades they might be of value as a filler and could be compared in their paper characteristics to bleached soda pulp. Under the microscope with the Herzberg stain the cotton fibres show the typical wine red color of rag stock, while the fibres produced from the disintegration of the bull fragments are stained blue, similar to chemical wood pulps. The presence of the disintegrated hull particles, if not properly removed by washing, would probably have a decided influence on the pulp or paper, if it were found to be suitable for the production of viscose, acetyl cellulose or nitration paper for the production of a lower nitrated cellulose, such as is used in the manufacture of celluloid, collodion, proxylin, etc.

3. No difficulty was experienced in preparing a clean pulp which bleached to a high degree of white with an economical bleach consumption. Such bleached munition linters as the writer has seen and which were prepared during the war for the preparation of nitro cellulose, are so dirty that in the writer's opinion they are unsuitable for the production of high grade papers. The raw stock on which these pulping trials were made contained, as far as could be ascertained by observation, practically no foreign dirt, such as cinders, and street dirt. From a visit to the plant of the East St. Louis Cotton Oil Company the preparation of the raw fibre was seen and some experiments were observed in which the hull fibre was put through the attrition mills for recleaning and further separation of the hull fragments. Naturally, the more hull fragments removed, the less drastic is the pulping treatment required, thereby saving chemicals and a percentage of the smaller fibre, which would be destroyed by the more drastic cooking. Furthermore, the yield of pulp per unit of raw fibre, or the yield per digester, will be decidedly increased if these hull particles that have to be removed by pulping are separated in a preliminary mechanical treatment. In this connection the use of special dusters may prove of direct value.

4. The strength of the fibre is approximately that of the fibre from thirds and blues or other soft rag stock. In the papers made at these trials which the writer witnessed, the cotton hull fibre stock made a paper that was apparently a little weaker than those in the furnish in which thirds and blue rag stock was used; it is believed, however, that with better handling slightly stronger papers could have been made. Only a limited amount of pulp was available, which, because of delay in bleaching, was undoubtedly in certain cases decidedly weakened by the drastic treatment given to produce a good white. Furthermore, the mills were not familiar with the character of the stock, and, because of the

(Concluded on page 46)

*In charge, Section of Pulp and Paper, U. S. Forest Products Laboratory, ison, Wis.

Madison, Wis.

† "The Suitability of Second Cut Cotton Linters, Cotton Shavings, and Hull Fibre for Paper Manufacture," by Otto Kress and Sidney D. Wells, Paper, July 18, 1919.

We believe that American business can be lifted from its present uncertainty only by constructive co-operation—the substitution of intelligent competition for blind, destructive competition.

NOT FIGHTING LABOR

In the old days every organization of employers was viewed with suspicion as an aggressive agency for fighting labor or taking a heavy toll from it. Perhaps the suspicion was not entirely unfounded in many cases and it is only fair to say that self-preservation called for such measures where collective battle was waged.

BUT CO-OPERATING WITH IT

The Fourdrinier Wire Manufacturers are peculiarly fortunate in the relations they enjoy with a highly skilled and intelligent organization of craftsmen. An ever increasing co-operation between the manufacturers and the craft is highly prized by the producers and it has never been found necessary or desirable to invoke their collective force for controversial ends.

Questions are welcome.

PAPER MACHINE WIRE MANUFACTURERS' INDUSTRIAL COUNCIL

Directed by the Armstrong Bureau of Related Industries.

11 La Salle Street, South, Chicago, Illinois

COTTON HULL FIBRE FOR PAPER MANUFACTURE

(Continued from page 44)

apparent shortness of the fibre, hesitated to brush the stock as it should have been handled. As already mentioned, the writer believes that cotton hull fibre to develop its full strength requires a stiff brush, and the fibre will successfully withstand such treatment.

5. As far as the general paper making requirements are concerned, cotton hull fibre offered no difficulties. Practically no adjustments were necessary to screen the beaten pulp or handle it on the machine, and the behavior of the stock insofar as giving excellent formation and water marking of the sheet is concerned, was entirely satisfactory. The papers dried readily, and had the necessary feel and rattle. No difficulty was noted in regard to sizing; samples of paper from all the runs were examined by the writer and found to be adequately sized. The first run of the No. 1 amber flat showed considerable fuzz on the calendered sheet, but this was readily overcome in the run on special ledger by giving a harder beater treatment, which the stock required.

6. Various grades of commercial paper were prepared at four different paper mills, and from the results obtained, the writer believes that this stock can be used to replace thirds and blues or other soft rag stocks in the manufacture of certain grades of bonds, ledgers, papetries, writing, blotting, vulcanizing fibre, paper, book, envelope, cover pasted goods, cover papers, etc. Furthermore in certain grades of paper this new stock might be of decided interest in making papers requiring a 100 per cent rag furnish. The fine paper mills are buying rag stock subject to market fluctuations and are dependent on rag dealers whose industry is not stabilized. If cotton fibre pulp were supplied either in laps or dry in roll form, the mills could purchase this grade of rag stock on contract subject to specifications for cleanliness and quality similar to the purchase of chemical wood pulp. The mills would further be released from the handling of the grades of rags substituted from the sorting room through the bleaching operation as cotton fibre pulp would be furnished in a bleached condition, ready for the beater. Probably, in order to avoid freight charges on the raw fibre, cotton fibre pulp plants would be erected in the South close to the source of supply of the fibre at points where cheap power or coal is available. For Northern paper mills where coal and power are deciding factors, the pulp could be partially brushed in the beater during the washing treatment, so necessitating less power expenditure in the paper mill beater. The length of fibre could, of course, be varied by mixing pulps produced from a lighter cut with the cotton hull fibre pulp. To avoid over cooking, with consequent loss in yield, the writer believes that the different cuts representing different fibre lengths should be pulped separately.

7. There is available from the four to four and one-half million tons of cotton seed produced annually, some 700,000 bales of fibre that could be used for purposes other than those for which this material has been used in the past. At 500 pounds to the bale this corresponds to a production of 175,000 tons, equivalent to a little less than 600 tons of raw material per day (on a basis of 300 working days a year). This enormous amount of a possible paper stock has been made available through the installation of special equipment at the oil mills when the War Department required the fibre for the production of nitro cellulose. Only the paper industry can absorb this annual tonnage, but the oil mills will not cut this fibre and maintain the necessary plants unless they can be assured of a market for their product. No estimated cost has been given for the preparation of bleached cotton fibre pulp, as the cost of the raw fibre varies. If a drop in labor and materials should occur, then the cost of producing the pulp would probably drop in proportion to any decrease in the cost and conversion of rag stock. It is, of course, to be remembered that from

the experience obtained so far, this cotton pulp does not compete with hard rags but with soft rags, such as the typical thirds and blues. The paper industry should receive this new stock with sympathy and study the handling of the stock in the beaters and on the machine in order to ascertain the conditions for the development of maximum strength. It would certainly be of direct advantage to the fine paper mills if this new stock is found to be suitable to their needs, so assuring them of a constant supply of bleached cotton fibre to replace raw rags where the costs fluctuate and which have to be handled through the mill.

Experiments with Infected Pulp

Clean ground wood pulp and pulp infected with molds and fungi have been used in recent comparative paper making trials at the Forest Products Laboratory, Madison, Wis. These trials showed that infected pulp was inferior to clean pulp in the following respects:

The infected pulp produced a very dirty sheet.

It required more sizing than the clean pulp.

It stuck to the couch and press rolls and gave trouble from excessive foaming.

Although ground wool pulp is usually considered too slow, the extreme freeness of the infected pulp caused difficulty in carrying the necessary amount of water on the paper machine to secure a good formation in the finished paper.

Based on the percentage of ground wood, the infected pulp used in the experiments yielded 10 per cent less finished paper than the clean pulp.

The strength of the finished paper was greatly reduced by the use of infected pulp. In a ground wood sulphite furnish, this decrease in strength would necessitate the use of a larger percentage of the more expensive sulphite pulp.

Morse Chain Co. Shares Profits

ITHACA, N. Y., January 26, 1920.—To give every worker of the Morse Chain Company who has been with that concern a year or more an annual dividend on his wages averaged as if invested in the company's business at the same rate as drawn by the stockholders on the company's investment, is one of the New Year's gifts announced to the 670 employees by Frank L. Morse, president of the company. Also the concern proposes to establish a fund for the purpose of installing a service store in the new service building to be erected by the corporation, where all employees may purchase goods at cost, as well as patronizing a cost service cafeteria.

Announcement of these important innovations to enable the workers to combat the high cost of living, and also to provide for their social welfare, is contained in a statement issued to the employees by President Morse as follows:

Lowe Paper Co. Buys Paper Mill

RIDGEFIELD, N. J., January 26, 1920.—The Lowe Paper Company has purchased the mills and property formerly owned by the E. M. Brown Company, Rock City Falls, N. Y. The plant is manufacturing double white-lined blank, all of which is being shipped to the coating mill of the company at Ridgefield. Donald V. Lowe is the manager of the mill and Howard M. Brown is superintendent.

A Ten Million-Dollar Company

Papers of incorporation have been filed by the Southern Labrador Pulp and Lumber Company, Inc., with a capital stock of \$10,000,000, which has been organized in Portland, Me., for the purpose of exploring the vast forests of Labrador next spring.

A New Era In Paper Machine Drive

Recent developments in Paper Machine Drive have demonstrated the practicability as well as the possibility of greatly increased speed of high speed news machines.

With increasingly high speeds, mechanical troubles, from the necessarily tight belts on cone pulleys, large high-speed bevel gears and friction clutches, multiply so rapidly as to make additional advances in speed uneconomical or impossible.

The lost production curve below illustrates what has been the case in the past. The curve, as may be seen, takes a rapid turn upward after a certain point is reached. To go past this point has been very uneconomical due to the many mechanical troubles.

A NEW SYSTEM

The new system of Sectional Individual Motor Drive perfected by the Westinghouse Company successfully overcomes this limitation.

Sectional Individual Motor Drive with automatic regulation and control as applied by Westinghouse makes possible increased speed and production of from 25 to 50 per cent on many existing machines and prevents all transmission troubles and loss of production incident to mechanical drive.

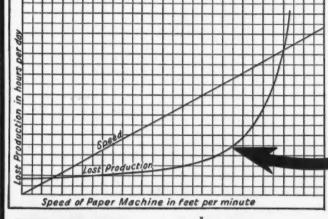
Westinghouse Electric & Manufacturing Company

East Pittsburgh, Pa.

Sales Offices in all Large American Cities

614

WESTIMEHOUSE ELECTRIC



Westinghouse

ENVELOPE MANUFACTURERS PLAN TO IMPROVE BUREAU

Has Entered Into Arrangements with Stevenson Corporation of New York Whereby It Will Be Responsible for the Operating Arrangements of the Bureau Under the General Direction of R. D. Magill as Secretary-Under New Plan Standard Cash System Adopted by the Bureau of Envelope Manufacturers and American Envelope Manufacturers Becomes Part of Bureau's Service.

The Bureau of Envelope Manufacturers of America has entered into arrangements with the Stevenson Corporation, 120 Broadway, New York, whereby it will be responsible for the operating arrangements of the Bureau under the general direction of R. D. Magill as secretary. Mr. Magill has been acting in this

capacity for about a year.

The new plans do not contemplate any material changes in the nature of the information which has heretofore been gathered and distributed by the Bureau, but, under the new plans, the installation and supervision of the standard cost system adopted about a year ago by the Bureau of Envelope Manufacturers and the American Envelope Manufacturers' Association, will become a component part of the Bureau's service. The result of this action will be that in a very short time the thirty-three factories included in the Bureau membership will all be using a basicly uniform cost system and estimating method.

It is believed that this will have a very beneficial effect upon the industry, which will become more marked as the number using

the standard cost system increases.

The work of installing the cost system is progressing rapidly and reports are now being issued monthly which show how unit costs and hourly production average for the different operations in all of the factories in which the standard system has been completely installed. This comparative statement is proving to be of very great interest and value and enables each factory to carry its own costs and production efficiency with a large number of other factories.

By the combination of the cost work with the work heretofore performed by the Bureau, not only has it been possible to effect great economies in operating expenses, resulting in a very much greater value to the members at no additional cost, but also it will be possible, under the new arrangements, very greatly to extend the usefulness and direct benefits to members of the Bureau's services.

The work, which is being done by the Bureau for the general good of the envelope industry, warrants the support of all envelope manufacturers.

News Print Scarce in Miami Valley

[FROM OUR REGULAR CORRESPONDENT.]

DAYTON, Ohio, January 26, 1920.—A number of Ohio publishers are in attendance at the 35th annual meeting of the Associated Ohio Dailies at Columbus this week. The shortage of print paper was the leading topic of conversation and the chief one under official discussion. It was the consensus of opinion that the situation should be remedied but ideas differed as to the best methods to be employed. Naturally there was considerable criticism of the heavy use of paper by the metropolitan press and it seemed to be the view that the most good could be accomplished by restricting the big newspapers. However, the smaller publishers declared they were willing to sacrifice as much, correspondingly.

Two publishers, and incidentally, two possible candidates for the presidency on the two major tickets, Governor James M. Cox,

owner of the Dayton News and Springfield News, and Senator Warren G. Harding, publisher of the Marion Star, addressed the newspaper men. Both are interested in the print paper situation and were eager to hear what their brother publishers had to say about the matter.

For the first time since Governor Cox has been publishing a newspaper, the Dayton News was forced to issue in tabloid form last week, when an 8-page paper was published. An unusually large quantity of advertising necessarily was eliminated just at a time when a building campaign was under way and three national

organizations were in convention in the Gem City.

The G. H. Mead Paper Company which sells the output of the Spanish River Pulp & Paper Company, supplies the News, and has managed to deliver regular supplies during all seasons, but on account of the Canadian restrictions which even affected Manitoba, Saskatchewan and other provinces of Canada, it was found impossible to get into Dayton the usual quantities. Irregular railway facilities added to the seriousness of the situation and but for the friendly assistance of the Journal and Herald, the News would have been in a serious predicament. This spirit of helpfulness has been evidenced in the past however, and just now the "co-operative plan" is a good one to adhere to as no one can tell when lightning will strike home.

The Abitibi Paper Company has managed to send a steady stream of paper to the News office, while the International Paper Company also has proved its reliability in supplying the Journal-

At this writing more regular shipments are being received and the papers are beginning to "look natural." However, it is necessary to reduce the big Friday and Sunday editions and doubtless this policy will prevail for some time to come.

When it is known that there is not a single news print mill in the Miami valley and very few within a day's ride of the valley, the utter hopelessness of the situation will appeal to the average person. Think, if you will, of depending on the railroads during war time, or even now, for your food supplies-a mere distraction at some point may mean starvation. This is the situation with the newspapers-each day's supplies must come by train hundreds and hundreds of miles, and to satisfy the hungry maw of the gigantic presses, it is necessary that many rolls of paper be delivered by truckmen regularly each morning.

Up to last week the big trucks arrived at the newspaper offices and discharged their cargo as regularly as the rising sun, frequently before most of the employees reported, but early arrivals recently noted for the first time the absence of the truckmen and they regarded it as an ill-omen. Now that the truckmen are back on the job newspaper men know that the paper mills of Canada and New England are running again full time and that restrictions on shipments are, to an extent, being modified.

Clary-Bower Co. Buys T. A. Tooey Co.
DES MOINES, Ia., January 26, 1920.—The Clary-Bowen Company, recently formed, has purchased the business of the T. A. Tooey Company, paper wholesaler, at Third street and Court avenue.

The deal is said to have involved \$150,000.

The new firm is headed by E. L. Clary, as president and general manager. Mr. Clary was formerly with the Cupples company of St. Louis. I. A. Bowen is vice-president, and S. A. Corey, secretary and treasurer. Mr. Bowen was formerly with C. L. Percival & Co, and Mr. Corey has been associated with the Wapello Coal Company, of Albia, Ia.

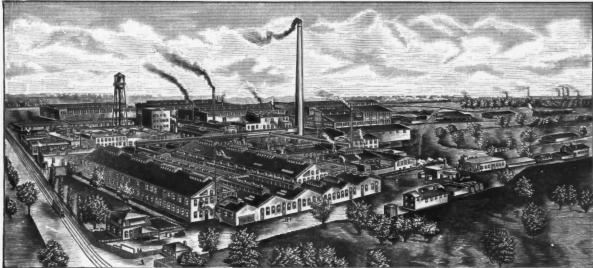
The board of directors includes M. H. Cohen, R. M. Galbraith, W. M. Palmer and Sol. Panor.

For the present the business will be continued at the same location, Mr. Clary said, and salesmen will travel over Iowa for the new company.

We Supply a Complete Line of

Colors for Papermakers

OUR LABORATORIES ARE AT YOUR SERVICE



WORKS IN NEWARK N I

THE HELLER & MERZ CO.

BOSTON

CHICAGO

NEW YORK

PHILADELPHIA

HOWARDBOND

WATERMARKED

Color Brilliant

: Strength Wonderful

THE HOWARD PAPER CO.
URBANA, OHIO

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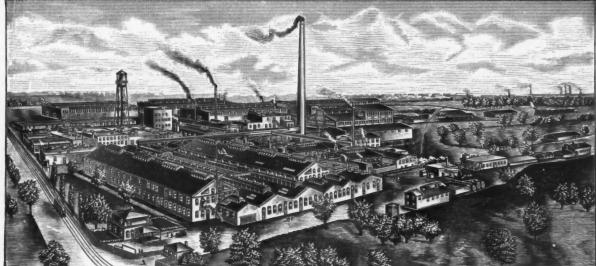
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BOSTON

PHILADELPHIA

WATERMARKED

Color Brilliant : Strength Wonderful

THE HOWARD PAPER CO. URBANA, OHIO

PAPER AND PAPER STOCK IMPORTS AND EXPORTS OF THE UNITED STATES

For the Month Ending November 30, 1919, and for the Eleven Months Ending November 30, 1919, as Compared with Corresponding Months of Three Previous Years.

			IMPOR	TS-PAPE	R.					
		No	vember-		1 -	Eleve	n Months Er	nded Novem	ber 30	
PAPER AND MANUFACTURES OF.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	18. Value.	Quantity.	Value.
Books and other Printed Matter { Free Dut.		\$155,889 84,012		\$442,848 145,615	***********	\$2,960,567 1,316,002	***********	\$1,816,837 838,004		\$3,278,307 1,086,200
Decalcomania paper, not printed free	***	21,752		10,003		132,377		186,264		114,606
Decalcomania paper, not printed free Lithographic Labels and Prints (except Post Cards) lbs. Dut. Paper Hangings Dut. Photographic lbs. Dut. PRINTING PAPER FOR BOOKS AND NEWSFAPERS.	12,728 20,090	13,460 1,364 7,781	70,568 3,576	89,116 16,721 5,395		286,214 272,631 620,167	000000000000000000000000000000000000000	211,525 140,760 209,101	203,122 257,784	205,361 73,448 127,993
Valued at not above 5 cents per pound,	100,901,804 16,365	8,121,949 9,151	118,525,961 54,247	4,255,141 13,924	1,007,698,299 343,520	63,875	1,088,560,581 163,400	81,674	1,150,864,832 502,502	69,680
Pulp board, in rolls, not laminatedlbs Dut.	7,298,642	822 165,395	8,288,041	2,562 221,002		54,299	29,963,081		81,043,255	
Surface-coatedlbsDut. WrappinglbsDut. All otherDut.	572,627	612 45,402 68,986	59,441 170,441	10,431 12,264 188,743	483,319 6,313,619	89,022 438,160 3,822,506	147,115 7,715,449	48,268 522,101 2,412,336	124,784 4,126,543	49,178 354,166 1,+.8 681
Total Paper, and Manufactures of		\$3,696,525		\$5,363,855		\$37,778,655		\$08,823,963		\$48,799,580
			CRUDE P	APER STO	CK.		- ,		1	
Paper stock other than WoolenlbsFree All other kinds of paper stocklbsFree	110,735 4,466,381	\$4,065 174,007	16,464,288 19,189,460	\$604,066 588,479	39,184,492	\$1,052,981 4,245,819	8,926,564	\$140,670 2,875,060	81,567,089 109,782,812	
Total	4,577,116	\$178,072	35,656,743	\$1,192,545		\$5,298,800		\$2,515,720	191,349,901	\$6,251,208
			woo	D PULP.						
Mechanically groundtonsFree	16,596	\$458,158	18,881	\$684,892	299,960	\$7,374,092	152,185	\$4,823,396	159,420	\$4,392,700
Imported from— Canada Other countries	16,451 144	\$455,562 2,591	18,881	\$634,892	209,889 20,071	\$6,717,915 656,177		84,296,071		\$4,870,878 21,822
Chemical— Unbleached Sulphatetons. Free Sulphitetons. Free	9,438 19,509	\$703,940 1,662,267	14,678 38,002	\$967,583 3,247,341	90,608 210,704	\$9,528,825 18,589,423	96,507 209,364	\$6,894,501 15,504,675	116,915 187,824	\$8,243,274 15,763,849
Totaltons	28,947	\$2,366,207	52,680	\$4,214,924	801,312	\$28,118,248	305,871	822,399,176	304,739	924,006,622
Imported from— Norway Sweden Canada Other countries	28,745 202	\$2,343,566 22,641	798 15,550 26,862 9,475	\$66,993 1,470,519 2,008,253 669,159	7,811 116,088 175,719 1,694	\$761,496 10,783,099 16,396,074 177,579	600 304,883 388		5,568 56,072 228,380 14,745	
Bleached Sulphatetons. Free SulphiteFree	436 1,499	\$48,651 196,517	122 6,506	\$15,286 812,673	1,439 35,779	\$194,184 4,410,376	3,136 13,571	\$273,948 1,319,685	4,011 33,281	\$328,32 9 3,887,669
Totaltons	1,985	\$245,168	0,628	\$827,959	87,218	\$4,604,560		\$1,593,573		\$4,216,018
Imported from— Norway Sweden Canada Other countries	100 1,835	\$20,643 224,525	1,750 233 4,645	\$279,359 20,363 522,237	13,899 11,578 10,845 896	\$1,854,164 1,308,673 1,331,281 110,442	600 100 16,007	\$87,636 20,643 1,485,294	4,901 3,723 27,690 978	\$701,364 428,083 2,986,567 100,004
	СНЕМ	IICALS A	ND OTHER	PAPER M	AKERS' SUF	PLIES.				
Colors or DyesDut.	233,849	\$317,272	369,880	\$411,508		\$2,523,712	1	\$2,846,471	1,980,630	\$2,864,135
Indigo, natural and synthetic	100 010	8000 045	121,461	\$66,341	**********	84,497			141,453	882,643
Germany Switzerland United Kingdom Other countries	126,312 96,834 8,703	\$220,342 81,504 15,426	159,239 85,249 3,981	247,307 85,558 12,302		1,753,629 521,308 244,278	**********	\$1,720,591 482,325 143,565	1,136,189 585,002 167,966	1,945,696 602,747 233,0 50
Indigo, natural and syntheticlbs. Free Naturallbs. Dut. Syntheticlbs. Dut. Alizarin and alizarin dyeslbs. Dut.	63,636 56,217	\$101,902 23,398	22,966 29,840 1,504	\$10,045 24,000 1,458	2,151,789 1,383,493 21,389	\$4,082,200 874,665 81,892	1,655,967 600,154 17,172	842,402	229,212 738,778 16,811	\$237,556 400,001 20,271
Lactarene, or CaseinlbsFree	1,102,300	151,565	2,272,114	297,836	11,811,159	1,792,051	7,083,976	964,766	14,247,687	1,692,251
Lime, Chlor. oflbs., Dut. Magnesite, not purifiedtons. Free Potash, Hydrate oflbs. Free Sulphur or Brimstonetons. Free China clay or kaolintons. Dut.	123,521 1,141 20,799	1,691 47,995 27 174,583	68,506 1,576 3,000 3 15,259	879 42,982 1,608 125 195,909	4,000 2,807 61,097 948	140 191,084 26,013 19,376	496,152 18,081 56 144,136	10,067 862,151 1,692	329,001 12,875 484,290 77	7,925 362,802 134,166 1,990 1,805,175

(Continued on page 52)

Bonds Writings

All of the same high standard of value as

SYSTEMS BOND



A Grade for Every Requirement

EASTERN MANUFACTURING COMPANY

GENERAL SALES OFFICES

501 Fifth Avenue New York

Mills at Bangor and Lincoln, Maine

SUTHERLAND

Pure Vegetable

PARCHMENT

Made in Kalamazoo, Michigan

SUTHERLAND PAPER CO.

Inquiries from Jobbers solicited.







The Ashcroft Thickness Gauge

Actual necessities for all those who make, sell or purchase paper in any form. The thousands in daily use testify to their efficiency.

THE ASHCROFT MFG CO.

119 West 49th Street 29 North Jefferson Street 19 H

Chicago, III.

Canadian Saies Agents: The Canadian Fairia-la Morse Co., Montreal and

STABLISHED 1842

FOURDRINIER WIRES

DANDY ROLLS CYLINDER MOLDS

CHENEY BIGELOW WIRE WORKS

Brass, Copper and Wire Cloth, Bank and Office Railings and Grille Work

PAPER AND PAPER STOCK IMPORTS AND EXPORTS OF THE UNITED STATES

(Continued from page 50)

				11		574	**		**	
PAPER AND MANUFACTURES OF.		Novem	ber-191	9	191	7.	Months End	8.	1919	
	Quantity.	Value.	Quantity.	Value.	Quantity,	Value.	Quantity.	Value.	Quantity.	Value.
Roughcords. Free Peeledcords. Free Rossedcords Free	14,456 55,041 17,018	\$136,484 522,006 218,978	12,164 36,271 9,967	\$124,356 333,541 112,356	201,118 629,124 146,753	\$1,464,739 4,989,004 1,567,716	913,510	1,347,027	285,074 664,454 99,763	\$2,255,172 6,452,685 1,280,211
Total Pulp Woodscords	86,515	\$877,462	56,392	\$570,255	276,995	\$8,021,459	1,204,717	12,583,858	909,291	\$9,968,068
			EXPORT	S-PAPER		1	1	1	-	
		897,261		\$160,742		9000 616		\$796,646		\$1,390,863
Rooks Music Mana Engravings Etchings				4200,142		400,000		4100,010		41,000,000
Books, Music, Maps, Engravings, Etchings, Photographs and Other Printed Matter Boxes and Cartons	******	1,188,681		1,578,583 147,297		9,474,545 989,779		10,286,855 912,593		16,534,845 1,228,867
Carbon Paper Cash-register and adding-machine paper		63,992 10,193		62,523 4,156		462,799 38,995		492,072		917,798
Paper Board, Strawboard, etc		351,298		263,063		1,910,079		105,502 2,610,042		129,846 4,392,851
Paper Hangings	**********	71,179 96,439		76,806 46,246		423,846 324,300	**********	470,92 0 803,441		817,644 1,390,590
PRINTING PARES—										
News Printlbs.	14,903,903	\$617,522	12,196,416	\$582,906	163,664,189	\$6,612,380	181,640,235	\$7,451,417	213,439,541	\$9,717,500
Exported to— France United Kingdom Canada	4,998,224	\$182,399	689,059	\$24,726	2 000 Cha	0000 400	43,408,204	\$1,691,516	43,912,329	\$1,881,390
United Kingdom	135	24	11,134	1,245	5,260,876 524,711	\$293,435 25,568	3,071,221 402,988	177,327 20,382	5,655,006 723,565	261,687 87,637
		298,	110,298	7,340	10,704,157	484,777	4,586,070	172,250	3,126,340	157,817
Mexico Cuba Argentina Chile Other South America Australia Other countries	1,113,190 2,239,579	42,683 83,865	2,451,951 4,897,440	112,845 215,784	14,812,340 41,945,575	528,642 1,581,755	15,682,408 32,172,108	577,244 1,220,520	17,913,311 52,409,643	821,750 2,182,580
Chile	313,205 2,309,235	15,025 99,006	82,200 1,069,096	4,810	11,301,913 33,186,363	414,249 1,408,548	8,984,546 26,967,044	883,365	4,916,212	204,790
Australia	2,534,740	113,665		50,826	13,090,622	546,716	18,710,156	734,944	42,437,849 11,089,175	497,850
Other countries	1,391,441	80,557	2,985,238	165,830	32,837,632	1,328,690	27,655,495	1,842,633	31,806,111	1,784,566
All otherlbs.	10,686,327	\$975,578	6,191,658	\$672,176	85,707,758	\$7,450,643	86,668,413	\$7,465,136	148,180,757	\$15,677,758
Exported to-			05 000	84 008	0.000.005	0004 000	794 000	600 G4F	0 100 010	
United Kingdom Canada	406,558	\$38,112	25,200 342,153	\$4,066 43,387	3,820,751 7,720,922	\$274,837 705,865	734,269 6,557,907	\$70,845 573,745	2,158,715 5,987,568	\$279,18° 685,776
Mexico	8,410 1,100,975	100,471	68,213 1,129,886	7,200 144,846	4,054,408 9,291,483	344,926 794,945	1,220,704 9,663,064	100,968	4,165,040	392,650
Cuba Argentina Brazil	1,230,081	104,616	1,244,381	129,899	9,100,525	854,144	7,813,110	666,525	9,162,568 28,497,500	2,943 24
Chile	1,013,484	99,328 98,709	191,725 227,256	30,518 25,176	12,460,697	1,125,977	8,391,614 4,674,789	739,488	16,529,375	1,442,96
Chile Other South America	360,154	34,428	426,606	42,776	6,088,120 7,461,124	565,023 646,420	3,097,821		6,425,680	579,88
British India	931,450	66,583	61,246	4,898 96,555			5,138,845	413,618	4,296,39	398,07
Australia Other countries	2,025,312	92,765 161,231	1,118,132 170,636	17,441	3,024,678 11,102,580	278,385 874,160	13,265,987 13,515,841	1,025,284	20,675,600 22,520,528	2,149,75
		178,935	1,186,225	125,414	11,582,470	986,461	12,596,012		26,083,671	
Tissue and Toilet Paper. Towels and Napkins. Wax Paper Wrapping Paper	***********	213,956 8,091		227,192 14,061				1,242,981 74,962		
Wax Paper	E 070 210	19,669		22,774		45,592		207,075		530,01
Writing Paper and Envelopes	0,070,018	477,634 753,660	5,291,198	434,915 495,941	44,976,065		53,832,938	5,381,574	70,102,87	
All other		000,000	********			4,456,611		5,424,741		
Total Paper and Manufactures of		\$5,705,783	********	\$5,396,287		\$39,966,242		\$47,969,240		\$81,773,82
		WOO	DD PULP A	ND PAPEI	R STOCK.					
Paper stock	2,763,438	\$67,991 96,769	8,021,175 3,714	\$229,572 851,897	39,500,964 29,396			\$622,953 1,595,512	47,594,94 33,17	9 \$1,343,91 7 2,815,79
			MISCELLA	NEOUS IT	EMS.		-			
Rosinbbls	64,811	\$828,086	108,188	\$2,168,203	1,407,029	\$9,676,321	743,17	7, \$7,029,278	1,134,91	5 \$19,017,36
Exported to-					00.671	9000 0-0				
Italy Netherlands		***********	1,003	\$16,917	38,054	-	. 9	\$184	18,46 24,38	0 \$269,17 5 394,45
Norway Russia in Europe	3,314	\$47,900	45	849	3,015	21,622	14,470	150,057	6,73	1 104,60
Sweden	18,393	233,267	5.491 26,001	106.978 550,448	1,964 579,757	13,457 3,989,667	188,05	1,990,190	23,64	0 408,22
Canada	4,346	64,576	10,327	227,606	137,978	897,337	126,57	1,106,125	501,74 63,40	7 1,105,50
Cuba Argentina		31,594 119,540	8,495 8,592	65,522 161,158	29,318 164,947	1,135,169			23,35 110,17	
Brazil	10,984	133,340	22,523	443,597	159,774	1,111,087	93,14	7 830,039	142,26	9 2,330,84
Uruguay Dutch East Indies	48	856	1,497 7,812	44,280 136,219	25,768 41,851	306,714	14,68	121,918	23,36 22,79	2 385,46
Japan	2,639	34,597	17,637	337,849	78,758	607,831	74,87	674,505	80,97	7 1,472,78
AustraliaOther countries	11,071	159,078	1,000 2,765	21,854 54,926	68,798 77,047	491,960 512,804			12,22 81,34	
Dyes and dyestuffs	**********	*************			**********	7,152,009		*******		
Sulphur or Brimstonetons		883,238 71,987	50,134 2,598,317	1,114,481 60,213	134,183	8,048,722		8,423,276	177,22	7 5,098,77 6 451,33
		174,359	2.000,011	157,136	57,291,684				19,019,30	
Paper and pulp mill machinery						_ 1,724,508		1,466,062		3,612,74



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for furnace linings, baffle
construction and repairs.

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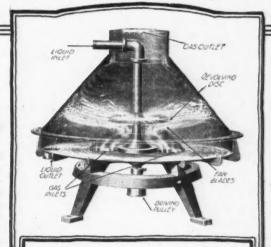
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MAY PUT EXPORT TAX ON NEWS PRINT

(Continued from page 17)

views to be presented by R. A. McInnis, manager of the Abitibi be spent there. The present population is about 2,000 souls but Mills, and J. Ball, manager of Price Bros.' mills.

Pulp and Paper Annual

The seventh annual meeting of the Canadian Pulp and Paper Association is being held in the vice-regal suite of the Ritz-Carlton Hotel on Friday. President J. A. Bothwell is giving the annual address; the various sections present their reports for the year, and other business, including the election of new officers, is being transacted. The guest of honor at the luncheon is Sir Andrew Macphail, of McGill University, who is to talk about paper-making in its relation to the public weal. The afternoon is being taken up with meetings of the sections. In the evening there is to be a reception by the officers at 7.10, followed by the annual dinner. The Hon. Sir Lomer Gouin, K. C. M. G.; Henry A. Wise, of New York; Col. R. R. McCormick, of the Chicago Tribune; George H. Montgomery, K. C., Philip T. Dodge, president of the News Print Service Bureau and head of the International Paper Company, and others are to be the guests of honor.

On Saturday the News Print Service Bureau, comprising within its membership the leading paper manufacturers of the United States and Canada, will hold a meeting, with a formal luncheon at noon.

Another New Town for the Industry

The Kipawa Company, Limited, a subsidiary of the Riordon Company, has applied to the Quebec Legislature for a city charter for their town, which has grown up all around the new sulphite mills at Kipawa. The company argued that it had built a plant at a cost of \$10,000,000, and that an additional \$20,000,000 would within a few years it will grow to 10,000.

International Paper Co.'s New Mill

The announcement is made this week that the first unit of the news print paper mill which the International Paper Company is building at Three Rivers, Que., is expected to be completed during the latter half of the year. This unit, a sulphite mill, will have a capacity of 100 tons of sulphite paper daily, which will be shipped to the mills of the company in the United States. Additions to the plant will be made later, which will bring the output to 200 tons daily.

Head Office Moved to Montreal

In connection with the acquisition of the Toronto Paper Manufacturing Company by the Howard Smith Paper Mills, Ltd., the completion of the deal is indicated in the announcement that the head office and chief place of business of the company is changed from Toronto to Montreal. The acquisition of this company by the Howard Smith concern took place in the latter part of 1919, and was one of the events leading up to the new financing and capital reorganization of the Howard Smith.

Strikers Discharged at Mittineague

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., January 26, 1920.-The strike of the employees of the Southworth Company, paper manufacturers at Mittineague, last week resulted in the discharge of all the strikers. In the pay envelope of each of the strikers was a slip bearing the words "You are hereby notified that inasmuch as you failed to report to work this morning as requested, you are hereby discharged. (Signed) M. D. Southworth, treasurer."

STOP! LOOK!! LISTEN!!!

IDEAL SITE FOR A LARGE PAPER MILL

At Downingtown, Penna.

We, the Downingtown Woolen Mills, removed from Philadelphia to Downingtown, Penna., about a year ago, purchased a large tract and have found manufacturing conditions satisfactory beyond our expectations.

We now offer about twelve acres as an ideal site for a PAPER MILL. Railroad siding, abundance of water, plenty of labor, and every facility for economical production.

Advantages of Downingtown, Penna.

Thirty miles form Philadelphia on main line Penna. R. R. Twenty-six trains daily. Two railroads and daily motor truck service to Phila., New York and New England, and points West. Hourly trolley service to Philadelphia via West Chester.

Cheap power and fuel-electricity, coal and oil. Plenty of satisfied labor. No industrial disputes. Abundance of water, natural and city pressure.

Five paper mills to stimulate (or stifle) competition. Downingtown, Penna., is the ideal paper mill town and this site is most desirable.

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

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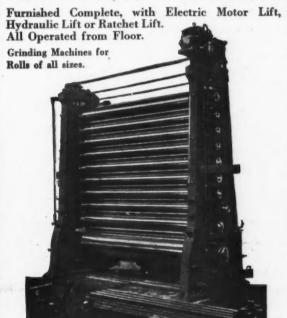
for Desk and Pocket One sheet, respectively one small piece of paper indicates automatically the weight of a ream of 480 and 500 sheets.

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Operate It By Hand

Operate It By Motor

ONE MACHINE FOR DOUBLE PURPOSE

ment shown attached to a volvator, or type of tiering out interfering operation.





It may be operated from the electric lighting circuit in many cases, or by hand at points where no current is available.

With it, two men can do the work of a gang, quicker and without confusion. This saving of time and man-power means a decided economy - with labor scarce and expensive.

The Combination Revolvator can pile clear up to the roof, making available the large upper storage areas that cannot be reached by hand piling.

The Revolvator is made in nine models: Hand, motor, and combination hand and motor operated; all in both Revolving and Non-Revolving types. With the Revolving type machine, the loading platform can be swung around for loading or unloading from any side.

All Revolvators are mounted on wheels, and can be shoved from place to place by hand.

Our Bulletins tell more. Send for

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Sales Agents for N. Y. Revolving Portable Elev. Co.

357 Garfield Avenue

Jersey City, N. J.

REG U.S. PAT OFF

General Paper & Cordage Co. Improvements

PITTSBURGH, Pa., January 26, 1920.—The General Paper and Cordage Company of Pittsburgh has recently completed negotiations for the purchase of a four-story brick warehouse, located at 13, 15 and 17 Wabash avenue.

This building is now being remodeled, and a new high speed electric elevator is being installed, and when the alterations now under way are completed, the company will have approximately 25,000 square feet of additional floor space available.

The firm now occupies one warehouse at 8, 10 and 12 River avenue and one at 78 South 13th street, and the addition of the Wabash avenue building was necessary to take care of its expanding business.

The general offices will be maintained in their present location in the Martin building, where a new telephone system is being established with five trunk lines and private wires to each warehouse.

Eagle Box Board Co. Formed at Toledo

TOLEDO, Ohio, January 26, 1920.—That Toledo may become an important center for the manufacture of paper and paper products, is evident from the announcement made yesterday that the newly formed Eagle Box Board and Paper Mill Company had purchased a factory site of six acres on Miami street adjoining the Sinclair Refining Company.

The Eagle Box Board and Mill Company was recently incorporated. The officers are Gilbert L. Smith, Sr., president; Walter

M. Mayer, vice-president; Gilbert L. Smith, Jr., secretary and treasurer.

The new firm will immediately start the erection of three buildings upon the property, the various units consisting of a one-story building 50x100. Corrugated board and fibre container buildings will be built at a later date.

Nashville Paper Stock Co. Buys Building

NASHVILLE, Tenn., January 26, 1920.—The Nashville Paper Company has purchased the property at First avenue and Church street for \$32,500 and will occupy the building.

That IRON SPECK or RUST SPOT can be removed with our extractor.

Sent on approval

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Electrical Contractors and Engineer

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This shows latest model—driven by a steam turbine—the exhaust being used to heat water for next charge.

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

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Brittle and easily soluble. Cheapest size out. Cheaper than mill made size. Also our hot and cold water sizes; standard quality. Cleaner, more uniform and economical than either mill made sizes or those offered by our competitors. Also Arabol Paper Size, Splicing Gums, Condensed Paste Powder, Paper Makers' Starches.

Arabol Manufacturing Co. 100 William Street **NEW YORK**

Dry Rosin Size AGALITE FILLER

UNITED STATES TALC CO. GOUVERNEUR **NEW YORK**

VERA ROSIN

Guaranteed to Be Absolutely Clean and Pure

SHIPPED IN BARRELS and TANK CARS

OUR VERA PAPER SIZE

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

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

OUR VERA BEATER SIZE

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

VERA CHEMICAL COMPANY

North Milwaukee, Wis. Sto. Burlington, Ont., Canada Stoneham, Mass.

Why Waste Good Stock?

When You Can Save It at a Small Expense by Using Our

SCREENING GRINDER

Which we offer to the trade. It will successfully re-claim and grind sulphite and ground wood screenings into a marketable pulp, which can be sold at a profit.

The following leading mills are using the "Success"

JONQUIERE PULP Co., Jonquiere, P. Q., Canada. SPANISH RIVER PULP & PAPER Co., Ltd., Espanols, Ont., Can. DELLS RAPER & PULP CO., Eau Claire, Wis. WOLF RIVER PAPER & FIBRE CO., Shawano, Wis. THE FALLS MFG. CO., Oconto Falls, Wis.

WRITE FOR INFORMATION

APPLETON MACHINE CO., Appleton, Wis.

New York Market Keview

Office of the PAPER TRADE JOURNAL, WEDNESDAY, January 14, 1920.

In most cases the mills are sold out far in advance, and owing to the present shortage of materials will take on no further orders. Invoices subject to prevailing prices at time of delivery are the rule, and tonnage in quantity is not looked forward to until the summer months. The demand for paper of all grades at any price, by the publishers and consumers, is responsible for the radical advances throughout the market this week.

News print prices have been on a steady upward slant and the mills show signs of being able to fill but few orders which have been offered at fabulously high figures by the hungry transient trade. The high water mark for the early week was 9.50 the pound, and the outlook seemed to favor a still higher range, owing to the forthcoming advertising campaigns.

Book paper this week showed a steady rise along with news print. The market is unable to meet demands pressed upon it, as has been the case in past weeks.

The domestic demand for fine paper continues unusually active. Export demand, however, is slower than it has been.

There has been an upward trend in the price of tissues. White Nos. 1 and 2 were reported, however, as unobtainable owing to the exceptionally heavy trade. The balance of the tissue market advanced appreciably.

Strong demand and considerable increase in prices occurred during the week in the market for coarse papers and boards. News board was scarce owing to the scarcity of waste news print, and advanced to \$80 the ton. Higher prices are looked for by dealers in these items next week.

Mechanical Pulp

Mechanical pulp remained at the same figures as last week. The demand is unusually strong. From the few sales in this market it was seen that 55 to 60 is the prevailing price.

Chemical Pulp
Trade was reported as very active in chemical pulp, but dealers are having no trouble in supplying the demands of the mills.

Rags

Rags continue on the upgrade. Active trade and heavy demand are accountable for the spasmodic leaps and bounds of the prices in this field, and collectors are having no trouble in disposing of all grades to the mills in large and small quantities.

Foreign Rags

Demand is equally as strong in this market as in the market for domestic rags. The slump in foreign supplies and increase in demands has caused a higher price range in this field.

Old Ropes and Bagging

While trade in the old ropes and bagging market has not been as strong as in the rag market, an increase was evident, owing to the abnormal demand.

Waste Paper

Waste paper has been on the same rising tide as the other supply markets. Demand in stitchless flat stock, solid flat book and strictly overissue news has been responsible for higher prices this week in these varieties. Dealers report a scarcity of news waste.

Twine

There was an increase in prices over last week's quotations caused by an increase in twine maker's supplies and quite active trade. Early in the week B. C. 18 basis soared from 40 to 42, and dark finished Jute, 18 basis increased to from 37@38.

All buyers and sellers of paper need Lockwood's Directory of the Paper Trade.

DECEMBER SUMMARY OF PAPER

(Continued from page 18)

The following stocks were reported on hand at terminal and delivery points on December 31st, in addition to the mill stocks shown in the tabulation: News print, 859 tons; book paper, 2,924 tons; fine, 33 tons, and miscellaneous, 243 tons.

Stocks of news print showed a nominal increase during the month. Mill stocks of all other grades decreased. Stocks of all grades reported by manufacturers at the end of December amounted to 168,376 tons, including the stocks at terminal and elivery points. In addition to these stocks, jobbers and publishers reported news print stocks and tonnage in transit aggregating 168,287 tons.

Ratio of Stocks to Average Production

Comparing the stocks on hand at the domestic mills with their average daily production based upon the weekly and monthly reports for the 18 months' period ended September 30, 1919, the figures show that:

News print paper mill stocks equal slightly less than 4 days' average output.

Book paper mill stocks equal slightly more than 8 days' average output.

Paper board mill stocks equal slightly more than 6 days' average output.

Wrapping paper mill stocks equal slightly more than 11 days'

Bag paper mill stocks equal slightly less than 4 days' average output.

Fine paper mill stocks equal slightly less than 27 days' average

Tissue paper mill stocks equal slightly less than 12 days' average output.

Hanging paper mill stocks equal slightly less than 6 days' average output.

Felts and building paper mill stocks equal slightly less than 6 days' average output.

Miscellaneous paper mill stocks equal slightly less than 22 days' average output.

Total paper mill stocks of all grades equal slightly more than 8 days' average output.

Discuss Wage Advance at Holyoke

HOLYOKE, Mass., January 26, 1920.—A further conference between the paper manufacturers' committee, consisting of George A. Galliver, president of the American Writing Paper Company; R. Franklin McElwain, vice-president of both the Crocker-Mc-Elwain Manufacturing and Chemical Paper Manufacturing Company, and Horace A. Moses, president of the Strathmore Paper Company at Mittineague, was held Thursday last week with officials of the Eagle Lodge of paper makers and other organizations in reference to the new wage scale that is now being discussed. The feeling is unanimous that the paper makers should have their salary advanced, but the manufacturers are awaiting action of the International Brotherhood of Paper Makers, who convene at Buffalo next month and who are expected to introduce a wage scale.

International Starts Third Machine at Falls

NIAGARA FALLS, N. Y., January 26, 1920.—With two of its paper-making machines operating for the last two months on the production of news print paper, turning out about 65 tons a day, the Falls plant of the International Paper Company will start a third machine in operation on Monday, according to an announcement from the office of the company in Buffalo avenue. The third machine will make wrapping paper. Between 300 and 400 employees are now at work in the big mill.

Market Quotations

D	C	C	
Paper	Company	Deci	unties

Ne	w	York	Stock	Exchange	closing	quotations,	January	26,	1920.	
					Canara		DIE	× A	CHED	

Stocks.	BID	ASKED
American Writing Paper Company, pref	561/4	571/2
International Paper Company, com	845%	85
International Paper Company, pref	105	110
International Paper Company, pref., Stamped	76	78
Union Bag & Paper Corporation	951/2	96
United Paper Board	27	28

United Paper Board		28
D	Cottons-according to grades-	_
Paper	Blue Overall 11	
m to the second	New Blue 91/2 @	
F. o. b. maker,	New Black Soft. 6 @	
Bonds 12 @ 41	New Light Sec-	0/4
Ledgers 15 @ 40	onds 6½@	7
Writing—	Khaki cuttings 6 @	
Extra Superfine 20 @ 21	Corduroy 6%@	
Superfine 19 @ 22	New Canvas 101/2 @	
Tub Sized 14 @ -	New Black Mixed 51/4 @	
Engine Sized 12 @ -	White, No. 1-	0.74
News-f. o. b. Mill-		11.50
Rolls, contract @ @	Miscellaneous 9 @	
Rolls, transient. 8.25 @ 9.50	White, No. 2-	
Sheets @ -	Repacked 61/4@	63/
Side runs 5.00 @ 5.50	Miscellaneous 434@	
Book cased—f. o. b.—N. Y.—	St. Soiled White. 4.00	
S. & S. C 9.75 @11.50	Thirds and Blues—	4.40
M. F 9.50 @11.00	'Repacked 5.50 @	6.00
Coated and	Miscellaneous 4.00 @	
Enamel12.50 @14.50	Black Stocking 4 @	
Lithograph13.00 @ -	Cloth Strippings 31/4@	
Tissues-f. o. bN. Y	Roofing Stock—	37.
White, No. 1 1.35 @ 1.50	No. 1 3.30 @	3.40
White, No. 2 1.15 @ 1.20	No. 2 3.20 @	
Manila, No. 1 1.15 @ 1.20	No. 3 2.40 @	
Kraft 1.25 @ 1.35	No. 4 2.40 @	
Colored 1.60 @ 3.10	No. 5A 2.30 @	
Anti-Tarnish 1.25 @ 1.35	B 2.05 @	
Kraft-f. o. b. Mill-	C	
No. 1 Domestic 10.00 @ -	C	2.00
No. 2 Domestic 81/2@ 9	E D	
Imported10.50 @12.00	Foreign Rags	
Screenings 5.00 @ -	New White Cuttings	nomina
Manila-		nomina
No. 1 Jute 12 @ 121/2		nomina
No. 2 Jute 11 @ 12		nomina
No. 1 Wood 7 @ 71/2		nomina
No. 2 Wood 61/4@ 71/2		11.50
Butchers' 5.00 @ -	New Mixed Cut-	11.30
Fibre Papers-	New Mixed Cut-	E 00

Mechanical Pulp

No. 1, f. o. b. Mill. 55.00 @60.00

Chemical Pulp

(Ex-Dock, New Yor	k.)	
Sulphite (Foreign)— Bleached 7.00	75	7.50
Easy Bleaching. 5.50		6.00
No. 1 Unbl'chd. 4.85		5.15
No. 2 Unbl'chd. 4.00		4.50
(Domestic, f. o. b. N		
Sulphate—		
Bleached 6.50	6	7.00
Sulphite (Domestic)— Bleached 5.85	a	6.25
Strong Unbl'chd. 4.25		4.50
Easy Bleaching	-	
Sulphite 4.50	@	
News Sulphite 3.50 Mitscherlich 5.50		6.00
Kraft (Domestic)—	~	
F. o. b. mill 4.00		4.25
Soda Bleached 5.00 *—Dash means nominal.		5.25
Dasa means nominal		

Domestic Rags

Prices to Mill, f.	o. b.	N.	Y.
New White, No. 1	18	@	19
New White, No.	93/	@	1054
Silesias, No. 1 New Unbleached.	15	@	16
Washables	10	0	10%

	*******	27		28
New New New	S—according to Overall Blue Black Soft. Light Sec-		@	111/2
Khai Cord New New	dski cuttings ki cuttings luroy Canvas Black Mixed No. 1—	6½ 6 6% 10½ 5¼	000	7 6½ 6¾ 11½ 5¾
Repa	acked	10.50	@1	10
Mise St. Se	acked cellaneous piled White	61/4 43/4 4.00	@	5
Repa Misc Black Cloth	and Blues— acked cellaneous Stocking Strippings	5.50 4.00 4 31/4		41/4
No. No. No.	g Stock— 1. 2. 3. 4. 5A	3.30 3.20 2.40 2.40 2.30 2.05 .95	99999	3.40 3.30 2.50 2.50 2.40 2.15 1.05
	Foreign I	Rags		

r oreign Rags	
New White Cuttings Unbleached Cottons Light Flannelettes New Light Silesias New Light Oxfords New Light Prints10.50 New Mixed Cut-	nomina nomina nomina nomina nomina @ 11.50
tings New Dark Cuttings No. 1 White Linens No. 2 White Linens No. 3 White Linens No. 4 White Linens 11.00 No. 4 White Linens 8.00	@ 5.00 @ 4.75 nominal nominal @11.00 @10.00
Old Extra Light Prints 4.50 Ord. Light Prints 4.25 Med. Light Prints 4.00 Dutch Blue Cottons 4.50 Ger. Blue Cottons. Ger. Blue Linens. Checks and Blues 3.00 Shoppery	@ 4.75 @ 4.50 @ 4.25 @ 5.00 nomina nomina @ 3.25 @ 3.00 @ 4.75

Daggin	g		
Prices to Mill f. Gunny No. 1-	o. b.	N.	Y.
Domestic	3.50		3.60
Foreign Bright Bagging	3.50	@	3.60
No. 1 Scrap Sound Bagging	3.00 2.65		3.25
Wool Tares, light Wool Tares, heavy.	3.20		3.40
Manila Rope— Foreign		@	6.74
Domestic	6	@	61/4
New Bu. Cut Hessian Jute Thirds Mixed Strings	6.50	@	5.00 7.00 2.80
Twine	15		

India, No. 6 basis— Dark	25 2434 40	0.00	26 26 42
A. B. Italian, 18	80	@	_
Finished Jute— Dark, 18 basis Light, 18 basis Jute Wrapping, 2-6	37 37	@	38 38
Ply— Extra No. 1 No. 1 No. 2	36 32 30	000	38 34 32
Tube Rope— 5-ply and larger (basis)	25	@	27

4-ply Fine Tube— 5-ply and larger	25	@	28	Hard White, No. 2 6.00 @ — Soft White, No. 1 5.00 @ 5.25 Colored, No. 1 2.06 @ 2.25
(basis)	34	@	36	
4-ply	34	@	36	Flat Stock—
3-ply	35	@	37	Stitchless 3.00 @ 3.50
Unfinished India-		_		Over Issue Mag. 3.00 @ 3.25 Solid Flat Book., 3.00 @ 3.25
No. 8 (3-ply and				
larger)	24	@	-	Crumpled, No. 1. 2.25 @ 2.75
Paper Makers Twine				Solid Book Ledger 3.25 @ 3.50
Balls	20	@	22	Ledger Stock 3.00 @ 3.10
Box Twine, 2-4 ply.	23 25	@	25	No. 1 White News, 3.00 @ 3.40
Jute Rope	25	@	40	New B. B. Chips., 1.35 @ 1.40
Amer. Hemp. 6	34	@	36	
Sisal Hav-				Manilas—
No. 1 Basis	20	@	22	New Env. Cut 3.50 @ 3.75
No. 2 Basis	183	4@	20	New Cut, No. 1. 2.00 @ 3.25
Sisal Lath Yarn-				Extra No. 1 Old. 2.25 @ 2.50
No. 1		4@	1934	No. 1 Old 1.75 @ 2.00
No. 2		40	191/2	No. 2 Old 1.25 @ 1.30
Manila Rope	27	@	29	Rogus Wrappers. 1.75 @ 2.00
Old Waste	D.			Old Krafts 3.50 @ 3.75.
Old Waste	La	ben		News-
(F. o. b. New	Yo	rk.)		Strictly Overissue 1.75 @ 2.35
Shavings-	-			Strictly Folded 1.50 @ 2.00
Hard White, No.				No. 1 Mixed Paper 1.15 @ 1.35
1	6.00	660	6.50	Common Paper 1.00 @ -

CHICAGO

FROM	OUR	REGULAR	CORRESPONDENT]	
			C. II.A 337 A Th. 4 C	vo

Paper			@ 95.00 @ 70.00
Mill Price to Jobber	PR. 19		90.00
No. 1 Rag Bond 30 No. 2 Rag Bond 22 Sulphite Bond 12	@ 40 @ 30 @ 14	Old Papers	
No. 1 Fine Writing 18 No. 2 Fine Writing 15	@ 25 @ 20 @ 17 @ 15	Shavings No. 1 Hard White 5.50 No. 1 Soft White 4.50 No. 2 Soft White 1.25 No. 1 Mixed 1.15 No. 2 Mixed 1.10 Ledgers and Writ-	@ 4.75 @ 2.00 @ 1.30 @ 1.25
Book	@ 16 @ 14 @ 10 @ 10 @ 8½	ings 2.85 Solid Books 2.75 Blanks 2.50 No. 2 Books, light 2.00 Ex. No. 1 Manila 3.00 Manila Envelope	@ 3.00 @ 3.00 @ 2.75 @ 2.25 @ 3.25
No. 1 Fibre 634	@ 7½ @ 6½	Cuttings 3.25 No. 1 Manilas 1.90 Folded News (over	⊕ 3.50 ⊜ 2.00
No. 1 Kraft	@ 10 @ 9¼ @ 8 @ 5¾	issue) 1.25 Old Newspapers 1.25 Mixed Papers 1.10 Straw Clippings 1.10 Binders' Clippings 1.15 Kraft 3.50 New Kraft Cuts 4.00	@ 1.50 @ 1.40 @ 1.20 @ 1.20 @ 1.25 @ 4.00 @ 4.25
Plain Chip 70.00 @ Solid News 75.00 @ Manila Lined Chips 80.00 @ Container liner 85 Test 110.00 @	75.00 80.00 85.00 120.00 130.00	Roofing Stock, f.o.b. Chicago, N e t Cash No. 1 76.00 2 74.00 3 72.00 4 72.00	0 0 0

PHILADELPHIA

FROM OU	R REGULAR	CORRESPONDENT.]	
Paper		Roofing Rags	
Bonds 14 @ Ledgers 17½ @ Writings—	55 41	No. 1 2.90 No. 2 2.80 No. 3 2.60	@ 3.10 @ 3.00 @ 2.80
Superfine 15 @ Extra fine 35½@ Fine 17 @	35 25	Bagging Gunny No. 1—	@ 2.70
Fine, No. 3 14 @ Book, M. F 11 @ Book, S. S. & C 11 @	121/2 121/2	Foreign	@ 3.15 @ 3.50 @ 5.75 @ 2.75
Book, Coated	17 17 17	Mixed Rope 2.50 Serap Burlaps 3.00 Wool Tares, heavy 5.20	@ 3.00 @ 3.25 @ 5.50
No. 1 Jute Manila. 16 @ Manila Sul., No. 1. 8 @ Manila No. 2 7 @ Common Bogus 5 @	9	Mixed Strings 2.75 Manila Shaving, No. 2 Manila Sul., No. 1 No. 1, New Lt.	@ 3.60 nominal @ 4.75
Straw Board75.00 @ News Board80.00 @ Chip Board75.00 @	80.00 85.00 80.00	New Burlay Cut- tings 4.00	@ 12.00
Wood Pulp Board 120.00 @ (Carload Lots.)	140.00	Old Papers	
Binder Boards-	90.00	No. 1 Hard White 5.5	0 @ ?5.75

er ton85.00	@90.00	No. 1, Hard		
arload lots80.00	@ -	White 5.50	0	5.75
red Felts-	0 00	No. 2, Hard White 4.25	-	4.50
Regular 85	@ 90 @ 94		99	
Slaters' 39	@ 94	No. 1 Soft White 4.60	400	4.75
est Tarred, 1-ply		No. 2, Soft White 2.25	69	2.50
(per roll) 85	@ 90	No. 1 Mixed 1.75	0	2.00
est tarred, 2-ply		No. 2 Mixed 1.25	60	1.50
(per rell) 1.40	@ 1.45	Solid Ledger Stock 2.90	iii	3.00
lest tarred, 3-ply 1.80	@ 1.87	Writing Paper 2.50	æ	2.75
	Continued	on page 66)	_	

Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING JANUARY 24, 1920.

SUMMARY.

Cigarette																									
Wall pap																									
Iangings					,	*		×	÷	х.		ĸ						. 5	97	7	C	S.	4	37	bl
issue :																									
Drawing	pape	r			. ,	×			ĸ.	•	r				*	¥.	*	×	*	×	٠	*	,	16	C8
ilter pa	per .				×		,		,	,	×						×	×	4					29	CS
rinting	paper				,					*		×	×	R	e		*	*						52	CS
Miscellan.	cous	p	a	De	r				4 1	٠,							e			ĸ	,			14	bl

CIGARETTE PAPER.

F. R. Harris, La Lorraine, Havre, 9 cs. American Tobacco Company, Lafayette, Havre, 102 cs.

American Express Company, by same, 10 cs. American Tobacco Company, Havre, 102 cs.

WALL PAPER.

F. J. Emmerich, La Lorraine, 11 bls.
PAPER HANGINGS.
A. C. Dodman, Jr., Cedric, Liverpool, 82 bls.
A. E. Bulkley, by same, 7 cs.
W. H. S. Lloyd & Co., Manhattan, London, 8 cs., 37 bls.

TISSUE PAPER.

R. Hol & Co., by same, 7 bls.

DRAWING PAPER.

Lunham & Moore, Manhattan, London, 5 cs. Reeve, Angel & Co., by same, 7 cs. Keuffel & Esser, West Wanneke, Antwerp, 4 cs. FILTER PAPER.

Reeve, Angel & Co., Manhattan, London, 12 cs. E. H. Sergeant, Stockholm, Gothenburg, 17 cs. PRINTING PAPER.

Palm Brothers, Cedric, Liverpool, 15 cs. Meyercord & Co., by same, 10 cs. B. F. Drakenfeld & Co., by same, 5 cs. B. F. Drakenfeld & Co., Carmania, Liverpool,

Meyercord & Co., by same, 6 cs.

PAPER.

Whiting & Cook, Stockholm, Gothenburg, 5 bls. Hart Trading Company, by same, 9 bls.

RAGS, BAGGINGS, ETC.

Castle, Gottheil & Overton, Toronto, Hull, 74

bls. rags.
A. Salomon, Inc., Burmese Prince, Havre, 294

A. Salomon, Inc., Burmese Frince, Haves, 1818. rags.
National City Bank, by same, 37 bls. rags.
Salomon Brothers & Co., Siamese Prince, Havre, 57 bls. rags.
F. W. Bird & Co., by same, 354 bls. rags.
W. Schall & Co., by same, 114 bls. rags.
A. Salomos, Inc., by same, 177 bls. rags.
Salomon Brothers & Co., Siamese Prince, Dundee, 28 bls. paper stock.
Smith Paper Company, by same, 11 bls. paper stock.

ock.

E. Rutterworth, by same, 110 bls. paper stock.

G. W. Millar, by same, 28 bls. paper stock.

D. M. Hicks & Co., by same, 96 bls. paper stock.

E. J. Kellar & Co., by same, 211 bls. waste.

National City Bank, by same, 407 bls. waste.

National City Bank, by same, 407 bls. waste.

M. O'Meara, by same, 106 bls. waste.

Jebb Brothers, by same, 201 bls. bagging.

E. J. Kellar & Co., by same, 148 bls. bagging.

Equitable Trust Company, by same, 73 bls. paper ock.

F. Downing, by same, 29 bls. rags. uaranty Trust Company, Glensauda, London,

Castle, Gottneil & Co., by same, 379 bls. rags.
F. W. Bird & Co., by same, 193 bls. rags, 13 bls.
flax waste, 15 bls. new cuttings.
Salomon Brothers & Co., by same, 41 bls. new cuttings, 50 bls. bagging.
E. J. Kellar & Co., by same, 90 bls. rags.
J. Kaufman & Son, Noordam, Rotterdam, 91

bls. rags.
M. O'Meara, by same, 100 bls. rags, 99 bls.

paper stock.
Castle, Gottheil & Overton, by same, 79 bls. cottons, 40 bls. fustians, 109 bls. bagging.
Bartley Manufacturing Company, by same, 101 bls. bagging.
S. Silberman, by same, 100 bls. bagging.
L. Ruhe & Brother, by same, 34 bls. bagging.
Goldman, Sachs & Co., Tregouell, Hull, 28 bls. rags.

Equitable Trust Company, by same, 77 bls. paper

stock.
Citizens National Bank, by same, 233 bls. rags.
L. H. Abenheimer, by same, 212 bls. paper stock.
Wilkinson Brothers & Co., by same, 156 bls.
paper stock.
Salomon Brothers & Co., by same, 143 bls. paper

E. J. Kellar & Co., by same, 32 bls. paper stock. A. Salomon, Inc., West Wanneke, Antwerp, 316 bls. bagging, 130 bls. rags.

E. Butterworth & Co., by same, 46 bls. rags. 56 bls. flax waste.

Davies, Turner & Co., by same, 184 bls. rags. A. Salomon, Inc., by same, 82 bls. paper stock. Brown Brothers & Co., by same, 96 bls. bagging, 210 bls. rags.

Brown Brothers & Co., Caledonier, Antwerp, 133 bls. rags, 21 bls. waste, Certainteed Products Company, by same, 192 bls. rags.

Certainteed Products Company, by same, 192 bls. rags.
Davies, Turner & Co., by same, 241 bls. rags.
Castle, Gottheil & Overton, by same, 524 bls.
rags, 91 bls. bagging.
Castle, Gottheil & Overton, Siamese Prince, Dundee, 93 bls. jute cuttings, 192 bls. ßax waste.
Castle, Gottheil & Overton, Siamese Prince,
Liverpool, 40 bls. linen waste.

CHINA CLAY.

Moore & Munger, Salieda, Fowey, 185 tons, 19 cwt. bulk.

J. Lee Smith Company, by same, 200 cks., 100 tons.

WOOD PULP.

M. Gottesman & Co., Stockholm, Gothenburg 500 bls., 101 tons.

CASEIN.

T. M. Duche & Sons, Manhattan, London, 1,136

OLD ROPE.

M. O'Meara Company, Noordam, Rotterdam, 7 coils.

coils.
International Purchasing Company, by same, 438 coils.
Old Colony Trust Company, Tregouell, Hull, 107

coils.

Equitable Trust Company, by same, 184 coils.

International Purchasing Company, by same, 30 E. Butterworth & Co., West Wanneke, Antwerp,

PHILADELPHIA IMPORTS

WEEK ENDING JANUARY 24, 1920.

Castle, Gottheil & Overton, Manchester Miller, London, 46 bls manila rope.

Champion Coated Paper Co. Suffers Fire Loss

HAMILTON, Ohio, January 26, 1920.-A fire which caused considerable damage and resulted in a suspension of activities in Mill No. 1, of the Champion Coated Paper Company, at Hamilton, occurred last week. The blaze started from a hot box on the large No. 6 paper machine, it is stated, in the extreme southwest corner of the room.

It was impossible to place an estimate on the loss. The No. 6 machine was badly damaged. Several other machines were given a good "bath" during the excitement. It was found necessary for Superintendent A. O. Rolfe to close No. 1 mill for the day. During the fire six paper machines were silent in addition to Mill No. 1 which suspended operations completely. Other departments resumed in good time, but repairs were necessary before three engines could be run.

Want to National Industrial Congress

WASHINGTON, D. C., January 27.—The recommendation that the President call a new National industrial congress to cope with present industrial problems was made in the Senate concurrent resolution submitted by Senator Kenyon, chairman of the Committee on Education and Labor.

Pending the calling of the congress, it is recommended that the President appoint a national labor board patterned after the National War Labor Board and following its principles and precedents. This board would receive ex parte complaints and

joint submissions or might institute proceedings on its own motion or at the direction of Congress or the President. It would attempt the establishment of joint boards for the adjustment of industrial disputes in the leading industries.

This board would be superseded by the National Industrial Congress to be called later and t obe made up of 150 representatives of employers and 150 representatives of employes.

The National Industrial Congress would have the duty of establishing permanent agencies of adjustment, framing an industrial code, and sanctioning standards of working conditions. Its recommendations for legislation would be submitted by the resident to Congress. An appropriation of \$50,000 would be made for the congress.

Innovations at the Laurentide Plant

At the Laurentide Company's plant at Grand Mere, Que., experiment in refining groundwood tailings for use on the wrapper machine has demonstrated the possibility of using all that are made and old "number eight" is running them into wrapper without a murmur. A stone roll beater is used to accomplish this refining and "shives" are beaten for several hours.

Work on the construction of the company's new tank for waste liquor is well under way. The old wooden tank is completely torn down and the foundations are being prepared for the new tank which will be of steel, about 34 feet high and with a capacity of 63,000 gallons.





PAPER BAGS

Sacks and Specialties

SCHORSCH & CO.

Manufacturers

500 East 133d Street



New York



EVERYTHING IN

PULP & PAPER

J.F. PATTON CO., INC. 33 West 42nd St. New York City

(Cable address - Pulp, NY.)



Paper Stock
New Cuttings
and Rags
Jute Stock
Sizing, Sulphite
and Soda Pulps
200 FIFTH AVE. NEW YORK

ACCURATE KNIFE GRINDING FULL AUTOMATIC MACHINES



Improved Constructions in Straight and Cup Wheel Grinders. Many types and sizes for all requirements.

Write for Latest General Catalog

MACHINERY CO. OF AMERICA BIG RAPIDS, MICHIGAN, U. S. A.

Western Branch, 209 First Ave., So. Seattle, Wash.

Specialist in Saw and Knife Fitting Machinery

ESTABLISHED 1851

IRA L BEEBE

CYRUS E. JONES

IRA L. BEEBE & CO.

132 Nassau St., New York

IMPORTERS & DEALERS IN



WOOD PULP

Miscellaneous Markets

Office of the Paper Trade Journal, Wednesday, January 28, 1920.

ALUM.—Both consumers and jobbers are in the field for alum this week, and trade consequently is reported very active. Prices seem to be on the incline, and it is the opinion of the dealers that there will be a steady slight rise in price of alum for the next six months. Alum is quoted at 4@4.25 for the lump, and 4.25@4.50 for the powdered ammonia.

BLANC FIXE.—There is very little change over last week in the blanc fixe market. Trade is reported as good, and shipments fairly heavy. Prices quoted to mills are \$40@50 for

pulp and 4.50@5.00 for powdered fixe.

BLEACHING POWDER.—Trade in the bleach market is reported very active this week. Quotations are a quarter-cent higher this week than they were last, bleach bringing 2.50@ 2.75 the pound.

BRIMSTONE.—Trade in brimstone is unchanged this week, a fairly brisk demand characterizing the market. Brimstone is being sold for \$18 for domestic use, and \$20 for export.

CASEIN.—There is slightly strengthening demand for casein this week. Trade is a little brisker than last, and prices being quoted seem to portend increases. Casein is bringing 13@13.50 for unselected stock, and 14 for grade A casein.

CAUSTIC SODA.—There has been a decidedly increased demand for caustic soda this week that has resulted in the increase of price of this commodity. Prices quoted f. o. b. maker are 3c for the 76 per cent, caustic at 60 per cent basis,

and 4.05 for spot delivery.

CHINA CLAY.—There has not been as much foreign china clays shipped into this country the past week or two as previously and so the demand for domestic clays has strengthened proportionately. Prices are unchanged, however, washed at the mine bringing \$10@11; crude domestic, \$7.50@9.50 and English, \$15@20.

ROSIN.—Demand for rosin is still increasing and prices have again advanced. There is a strong foreign demand, according to dealers, which promises to keep prices very high for some time. Paper makers' grades are quoted at \$19.20 for grade E, \$19.30 for F, and \$19.40 for G.

SODA ASH.—The soda ash, like the rest of the paper makers' supply markets, is showing a decided strength this week. Trade is reported unusually active, and shipments proportionately large. Prices quoted are 1.90 in bags and 2 in barrels.

STARCH.—Starch has been selling at strong, steady prices for some time now and trade promises to maintain its strength. Demand is reported very good and shipments normal. Prices quoted by manufacturers, freight prepaid to New York, in carload lots, per 100 pounds, are: Pearl starch, in bags, \$4.97; in barrels, \$5.17. Powdered starch, in bags, \$5.16; in barrels, \$5.38. Pinishing starch, in bags, \$5.97. Crystal T. B. starch, No. 90 fluidity (hand packed), in bags, \$6.07; in barrels, \$6.43. Crystal T. B. starch, No. 90 fluidity (machine packed), in bags, \$6.02; in barrels, \$6.28.

SULPHATE OF ALUMINA.—The sulphate of alumina market is practically unchanged this week. Prices being quoted are the same as last week's, the iron free grade bringing 2.75@2.85 and the commercial 1.75@2.

TALC.—Prices in the talc market seem to have settled themselves comfortably for the remainder of the winter, for there has been no change in the \$16 a ton quotation for talc since last November.

The 1920 edition of Lockwood's Directory of the Paper Trade is being rapidly exhausted.

Deitz Machine Works Can Handle Orders

While the Dietz Machine Works, of Philadelphia, Pa., has enjoyed an unusual demand for its various products, it is in a position to take care of any orders received. This statement is made to counteract reports circulated that the company is unable to care for additional business on account of its busy condition.

Market Quotations

(Continued from page 63)

No. 1 Books, heavy 2.25 @ 2 No. 2 Books, light 1.80 @ 1 No. 1 New Manila 3.00 @ 3 No. 1 Old Manila 1.70 @ 1 Container Manila 1.25 @ 1 Old Kraft 3.00 @ 3 Overissue News. 1.75 @ 1 Old Newspaper. 1.20 @ 1 No. 1 Mixed Paper 1.00 @ 1 Common Paper 80 @ Straw Board Chip 1.00 @ 1 Binders' Bd. Chip 1.00 @ 1	No. 2 5.00 25	5.50 4.25 4.00
Rags Old White 8.50 @ 8	White Cotton Bat-	6.00

BOSTON

UR REGULAR CORRESPONDENT]

Paper	Old Papers	
Bonds	Shavings—	
Superfine20 @ — Fine17 @ — Books S. & S. C121/2 @ —	No. 1 Hard White 5%@ No. 1 ,Soft White 4%@ No. 1 Mixed 2 @	5
Book, M. F	Ledger and Writings 214@ Solid Books 214@ Blanks 214@	31/4
Manilas — No. 1 Manila 7½@ 8 No. 1 Fibre 7 @ 7½ No. 1 Jute 13½@ 14	No. 2 Books, light. 2 @ Ex. No. 1 Manila 2½@ No. 1 Manila 1¾@	234
Kraft Wrapping 10 @ 10½ Common Bogus 4 @ 4½ These prices are f. o. b. mill. Chip Board (ton). 60.00 @65.00	Folded News (over- issues) 144@ Old Newspapers 144@ Mixed Paper 90 @	134
Straw Board (ton) 60,00 @70,00 News Board (ton) 65,00 @75,00 Wood Pulp Board 75,00 @87,50	Gunny Bagging 3346 Manila Rope 6346	334

TORONTO

[FROM OUR REGULAR CORRESPONDENT.

faxom onk	REGULAR	CORRESPONDENT. J	
Paper		Sulphite, easy bleach-	
(Mill Prices to Jobbers)		Sulphite, news grade. 75.00@	95.00
lond—		Sulphite, bleached117.00@	120,00
Sulphite 131/2@	-	Sulphate 87.50@	90.00
Light tinted 1414@	_		
Dark tinted 16 @	_	Old Waste Papers	
edgers 18 @	.30	(In carload lots, f. o. b. Tore	onto)
Vriting 13 @	_	Shavings-	
ews, f. o. b. Mills-		White Env. Cut. 4.75	5.00
Rolls (carloads) 4.00 @	_	Soft White Book	
Skeets (carload). 4.60	-	Shavings 4.50 @	-
Sheets (l. c. l.) 4.75 @	_	White Bl'k News 2.50	_
look-		Book and Ledger-	
No. 1 M. F. (car-		Flat Magazine and	
loads) 9.75 @	_	Book Stock (old) 2.30	_
No. 2 M. F. (car-		Light and Crum-	
loads) 9.00 @	_	pled Book Stock 1.90	-
No. 3 M. F. (car-		Ledgers and Writ-	-
loads) 8.25 @	_	Solid Ledgers 3.00	_
No. 1 S. C. (car-		Manilas—	_
No. 2 S. C. (car-	-	New Manila Cut. 2.75	_
loads) 9.25 @			7.50
No. 1 Coated and	_	Kraft 3.50 @	7.50
litho 12.75	_	News and Scrap-	
No. 2 Coated and	_	Strictly Overissue 1.25	_
litho11.75 @		Folded News 1.10	_
No. 3 Conted and		No. 1 Mixed Pa-	
litho11.00 @	_	pers	-
Coated and litho.,		Domestic Rags-	
colored13.00 @1	5.00	Price to mills, f. o. b. Toro	into.
Wrapping-			Per lb.
Grey 5.75 @	-	No. 1 White shirt cuttings	.16%
"B" Manila 6.10 @	-	No. 2 White shirt cuttings	.12
No. 1 Manila 7.85 @	-	Fancy shirt cuttings	.1236
Fibre 7.85 @	-	No. 1 Old whites	.0734
Kraft, M. F. or		Thirds and blues	.0436
M. G 9.50 @	SERVICE STATE OF THE PERSON NAMED IN	Disab steelders	er cwt.
Pulp		Black stockings	3.25 3.75
100		Roofing stock No. 2	3.50
(F. o. b. Mill.)			
Fround Wood\$50.00@	\$55.00	Manila rope	656
	Anning	mranita sohe secretariose	0.70

The Mathieson Alkali Works, Inc.

WORKS AT

SALTVILLE, VIRGINIA, and at NIAGARA FALLS, NEW YORK

"Eagle-Thistle" Brand BLEACHING POWDER

HIGH TEST

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

LIQUID CHLORINE

Pure, anhydrous, in improved and convenient packages.

Soda Ash

48 per cent. and 58 per cent.

Caustic Soda

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

Bicarbonate of Soda

Packed in Kegs, Barrels or Bags; also Cases

Arnold Hoffman & Company, Inc.

SOLE AGENTS

PROVIDENCE: 55 Canal Street NEW YORK: 61 Broadway BOSTON: 88 Broad Street

PHILADELPHIA: Delaware Ave. and Green St. CHARLOTTE, N. C.

WANT AND FOR SALE ADVERTISEMENTS

HELP WANTED

CLASSIFIED RATES

Minimum rate for advertisements of 25 words or less, first insertion \$1.00.

Situations 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 accented.

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 accented.

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.

WANTED—Competent Machinist who is able to inspect intelligently and make repairs to saturating machinery in roofing mills. Address, Box 1875, care Paper Trade Journal.

CHIEF DRAFTSMAN WANTED at once to take charge of office in Canada designing Pulp Mill. Must have broad experience, including Pulp Industry, to be able to handle men and produce work efficiently. State salary wanted and earliest date you can report. Prefer single men. Address, Box 1879, care Paper Trade Journal.

WANTED-Machine Tender for 60"-3 Cylinder machine making five tons specialties 14 hours. \$5.50 per day, 6 days, 5 nights; get a day extra each week. Address, Box 1881, care Paper Trade Journal. J-29

WANTED—A-1 Paper Mill Millwright, familiar with all work, wood room, machine room, sulphite mill and rope splicing. Good, permanent position to right party. Address, Box 1882, care Paper Trade Journal. J-29

WANTED—A-1 Machine Tender, familiar with water and dry finish fibres, 350 to 450 feet per minute. Good town and good position to right party. Address, Box 1883. care Paper Trade Journal. J-29

WANTED—Backtender, familiar with dry and water finish fibres, 350 to 450 feet per minute. Good chance for promotion and steady position for right man. Address, Box 1884, care Paper Trade Journal.

POSITION OPEN in bleached sulphite mill for man to take charge of one shift. Please state age, experience and give references. Address, Box 1931, care Paper Trade Journal J-29

WANTED—An A No. 1 Cylinder Machine Tender, accustomed to Chip and News Board, for a mill running eight hour shifts. Must be sober, steady and progressive. Send references as to character and ability. Married man preferred. Address, Box 1932, care Paper Trade Journal.

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

WANTED—Superintendent to take charge of toilet paper converting plant in middle west. Now running 600 cases per day. None but experienced need apply. Applications treated confidentially. Address, Box 1816, care Paper Trade Journal.

HELP WANTED

WANTED—First class Beater Engineer on Bonds and Ledgers, 8-hour day at 78c per hour. Steady work. Address, Box 1864, care Paper Trade Journal.

WANTED—A good up-to-date man as Master Mechanic for a paper mill in New York State. Must be familiar with paper mill repairs and capable of taking full charge of repair crew. Give experience, where last employed and wages expected. All correspondence confidential. Address, Box 1906, care Paper Trade Journal.

WANTED—Experienced Tollet Paper Salesman for road position. Good opportunity for hustler. Give full personal details; also business record. Address, Box 1907, cara Paper Trade Journal. F-5

MACHINE TENDER—Two tour mill. Cylinder machine. 65c per hour. Steady work. Furnish reference of previous employment. Address, Box 1908, care Paper Trade Journal.

WANTED—Young man with some knowledge of fine papers as salesman in Pennsylvania territory. Give experience, references and salary wanted. Address, Box 1914, care Paper Trade Journal.

WANTED—Two Machine Tenders, for 80° Fourdrinier Machine, making bag and manilla paper. Speed 200, Three tours. Union schedule. Address, Box 1915, care Paper Trade Journal.

WANTED—Backtender for fast Fourdrinier machine. Transportation furnished. Wire application. Address. Yellow Pine Paper Mill Company, Orange, Texas. F-12

WANTED—A Master Mechanic for a small one machine Board Mill. Reply, giving references, if married, and wages expected, to Box 1930, care Paper Trade Journal. F-5

WANTED—Two Backtenders, and one Beater Engineer for a small cylinder machine, in a western Pennsylvania mill. Address, Box 1910, care Paper Trade Journal.

WANTED—Superintendent for mill making test board. Experience in handling organization and ability to get production necessary. Salary liberal. Climate and living conditions good. Address, Box 1933, care Paper Trade ournal.

OPENING FOR A GOOD MACHINE TENDer, backtender and beater engineer; multimaking Bonds and Writings. Eight hours; location, good city and very desirable. Address, Box 1934, care Paper Trade Journal. F-12

WANTED—First class Machine Tender on Bonds and Ledgers. Loft dried papers. Send references. Address, Box 1935, care Paper Trade Journal. F-19

WANTED—One Fourdrinier machine tender for Rope and Jute Specialities. Eight hour tour. Steady work and good wages. Address, Box 1936, care Paper Trade Journal.

WANTED—A first class millwright for board mill in middle west. Good wages and good working conditions. State age and experience in first letter. Address, Box 18, 1937, care Paper Trade Journal. F-12

WANTED—A number of first class Back Tenders on Book Paper. Steady work, eight hours, wages 55c. per hour. Apply Dill & Collins Co.. Richmond and Tioga Streets, Philadelphia, Pa. 5-29

SITUATIONS WANTED

PAPER SALESMAN, NEW YORK CITY, can produce large volume of business. Wishes connection with Mill Agency Company or Mill. Substantial drawing account on commission basis. Address, Box 1916, care Paper Trade Journal.

SUPERINTENDENT desires position. Has practical experience running Cylinder, Harper, Fourdrinier, Yankee and Combination Machine on Tissue, Book, News, Fibre, Kraft and Specialties. Can give records of experience; past records as Superintendent show producing results; running a mill at present very successfully but desire to make a change. Address, Box 1891, care Paper Trade Journal.

SUPERINTENDENT with over 25 years' experience on practically all grades of papers, also groundwood and sulphite, desires position and can produce the goods. Answer, care Box 1892, Paper Trade Journal. J-29

SUPERINTENDENT with practical experience on container and combination boards and book papers. Understand thoroughly the operation and up-keep of both Fourdrinier and Cylinder machines. Know repairing thoroughly and can get production. Would accept position as assistant superintendent. Address, Box 1893, care Paper Trade Journal.

SUPERINTENDENT wishes to get in touch with progressive concern that has some definite ideas of expansion and development and willing to allow Superintendent to become later financially interested. Have had fifteen years' experience on Cylinder and Fourdrinier rope and jute specialties. Can give best of references. At present employed, but can arrange for quick change. Box 1894, care Paper Trade Journal. J-29

WANTED—Position as Master Mechanic or head Millwright by an A-1 general mechanic. Ten years' paper mill experience, five years other industries. Correspondence solicited. Address, Box 1898, care Paper Trade Journal. J-28

SUPERINTENDENT is desirous of making change. Would like position in mill making Tissues. Tollet or papers for Waxing purposes. Familiar with all types of machines and all kinds of stock. Address, Box 1842, care Paper Trade Journal.

EXPERIENCED MILL MAN, including the handling of sales, open for proposition for the handling of following lines of manufacture: Fourdrinier, Cylinder, Machine Glazed Tissues and Wrappings in 80% and 100% Sulphites and Mitscherlich Fibres, including converted specialties from these papers, such as Towelings, Napkins, Second Sheets and Tollets to Jobbing trade in territories Northwest, West and Southwest of and including Chicago. Or, in becoming associated with a mill as Sales manager, and will gladly do any traveling necessary; have extensive personal acquaintance. Address, Box 1917, care Paper Trade Journal.

SITUATION WANTED—Ten years' experience. Seek permanent position with reliable manufacturers in the line of Wax Paper, and other special paper novelties; also well familiar with designing paper working machinery. Best references. Address, Box 1918, care Paper Trade Journal. F-5

WANTED BY AN EXPERT PAPER MAKER—Position as Mill Manager, competent to take full charge of Manufacturing. Prefer a Mill suitable for making Container, Kraft, White Waxing or Grease-proof Paper and Specialties. Will take part of salary from mill increased earnings or savings. Address, Box 1920, care Paper Trade Journal.

SITUATIONS WANTED

POSITION WANTED as superintendent of a mill making Book, Bond, Writing or Specialties; fifteen years' experience on old paper stock. Have had a great deal of experience overhauling machinery; also handling help. Practical and reliable. At present employed, but wish to make a change. Address, Box 1896, care Paper Trade Journal. J-22

EXECUTIVE POSITION DESIRED. Age 25, Seven years experience. Thoroughly familiar with all grades of paper. Also jobbing, mills and export ends of the industry. Address, Box 1921, care Paper Trade Journal. F-5-5

MILL REPRESENTATIVE, now employed, seeks new position. Twenty-seven years' experience in all grades of paper. Well acquainted throughout New England, Canada, Middle West, etc. Age, forty-three and married. Best reference from present employer. Address, Box 1922, care Paper Trade Journal.

EXPERIENCED COLOR MAN desires position. Thorough knowledge of making colors for Flint, Friction, Waterproof, Leatherette and Printed Papers, etc. Best of references. Address, Box 1923, care Paper Trade Journal.

MACHINE TENDER DESIRES POSITION.
Experienced on all grades of Boards and can get results and keep up machine. Married, steady and reliable. Address, Box 1924, care Paper Trade Journal.

WANTED—Position as Superintendent in Mill making Newsprint or Hanging. Have had vast experience on high speed and large machines. Married. Reference is desired. Address, Box 1925, care Paper Trade Journal.

FOR SALE

BEATERS—One 61"x48", five Jones, one Downingtown, two Horne, one 60"x60", several 72"x44", two Claffin Refining Engines.

BED PLATES—Circled to diameter of roll.

CALENDERS—One 7 roll stack 72" face, two 9 roll 54" face, one 9 roll 63" face. one 9 roll 63" face. one 9 roll 84" face.

COATERS—Two 56" Waldron coaters.

CUTTERS—Two 45" Finlay cutters newly rebuilt with brand new Hamblet expansion pulley drive, 36" Sanborn cutter, 38" guillotine cutter.

CYLINDER MOULDS—One 30"x54", one 30" x64", both rebuilt, ready for quick shipment. One new 30"x92".

DRIVES—One Reeves No. 4. Class E, one Reeves No. 9, Class E, one Moore & White No. 10.

DRYERS—4 36"x54", 3 36"x62", 7 48"x 108", 2 36"x66", 1 26"x16", 1 24"x120", also twenty brand new shells 48"x96", and ten new shells 48"x102".

EVENERS—Two Mellor eyeners.

JORDANS—1 Mammoth Jr., several Emerson and Horne type Jordans.

MACHINES—One 2 cylinder machine for 56" trim, 23" dryers. One 72" Harper fourdriner.

son and horne type Jordans.

MACHINES—One 2 cylinder machine for 56"
trim, 23" dryers. One 72" Harper fourdrinler.

PULLEYS—One 97" dia., 34" face, double
arm, modern pulley. One set cone pulleys,
40" x31" x83" face. One set cone pulleys, 40"
x31" x78" face. Also large stock of iron
pulleys including some cone pulleys for
Marshall drives. New wood pulleys with
friction clutches.

PUMPS—One dry suction pump, single
vacuum, 12x22x18 Knowles, one 1,000
gallon Blake tank pump, several 7" and 8"
Lawrence Machine Company, Class A, high
duty pumps: fan pumps, new stock pumps,
single and double.

PRESS ROLLS—Large number of different
sizes on hand. Some suitable for rubber
covering.

ROTARIES—One 14' Globe, one 84"x22" horisontal in good condition, ready for immediate shipment.

MILLS MACHINE COMPANY

MILLS MACHINE COMPANY LAWRENCE, MASS.

SITUATIONS WANTED

POSITION WANTED as Superintendent in mili making felt and roofing papers. Can deliver the goods; understand the handling of help; eighteen years' experience. Address, Box 1838, care Paper Trade Journal. F-5

PAPER MILL ENGINEER and Draftsman PAPER MILL ENGINEER and Dratsman with long experience in Canada and United States, has successfully held position as Chief Draftsman and Engineer in charge in mills making ground wood, sulphite and news. Desires change. Good references. Address, Box 1939, care Paper Trade Journal.

POSITION WANTED as General Manager, Assistant General Manager or similar executive position. Thoroughly experienced in both manufacturing and the office including selling. Wood Papers, Sulphite Bonds and Specialties. Can furnish the best of references. Address, Box 1940, care Paper Trade Journal.

EXECUTIVE—Practical man general super-intendent large plants last ten years. Wide experience—desires to connect with progressive company. Address, Box 1941, care Paper Trade Journal. F-26

SUPERINTENDENT, at present running mill on colored specialties, would like to change to a larger mill as manager or superintendent. Address, Box 1945, care Paper Prade Journal.

WANTED—Position as Superintendent—middle aged man. Experienced on all grades of paper made on Cylinder Machines, from a single to a six mold machine. References. Address, Box 1946, care Paper Trade Journal.

Journal.

SUPERINTENDENT wants position. Has long time experience on all grades of tissue, roofing and building papers, wrappers, news or manila. Best of references. Address, Box 1947, care Paper Trade Journal.

F-12

SALESMAN desires to represent in New SALESMAN desires to represent in New York City and vicinity, mill making Chip, News, etc., and Container Board. Well ac-quainted with the trade. Excellent ref-erences. Salary or commission. Address, Box 1929, care Paper Trade Journal. J-29

SUPERINTENDENT or Assistant on Board desires to make a change. A-1 on high grade boards such as Ice Cream and Milk Caps. Best of references. Address, Box 1949, care Paper Trade Journal. F-12

POSITION WANTED as Plant Construction POSITION WANTED as Plant Construction Engineer with progressive concern. Wide experience in estimating, design and erection of extensions and complete plants. Good organizer. Mechanical and civil training. Minimum salary \$250. Address, Box 1950, care Paper Trade Journal. J-29

POSITION WANTED—Practical Board Man, fifteen years' experience in production, costs, and management, wishes to make change. Under 40 and married. Can furnish good references. Address, Box 1951, care Paper Trade Journal. J-29

MACHINE TENDER desires position. Experienced on all grades of boards. Can get results and keep up machines. Steady and reliable. Address, Box 1952, care Paper Trade Journal.

FOR SALE

FOR SALE-One second-hand 42" Universal type No. 6 Slitter and Rewinder, in A-1 condition. Has 16 cutters, four rewinding shafts and measuring attachment. Immediate delivery. Address, Gibbs-Brower Co., 261 Broadway, New York City.

FOR SALE—Two second-hand cylinder molds, one 94 inches face by 36 inches diameter, suitable for water filter; one 74 inches by 30 inches diameter, suitable for tissue machine. We cover your cylinders in the mill on short notice and plan to put them on right. Clark Manufacturing Co., Holyoke, Mass.

FOR SALE—Two Standard Horne Jordans in working condition. 1 plug is fairly new with shaft long enough for outboard bearing. A low price to quick buyer. Halltown Paper Board Co., Halltown, W. Va.

FOR SALE

FOR SALE

- 13 Dryers 36" x 78" Complete with Frames, Gears, Driving Pulleys and Counter Shafting.
- 11 Dryers 36" x 82" Complete with Frames, Gears, Driving Pulleys and Counter Shafting.
- 1 No. 7 Moore & White Horizontal Speed Change.
- 2 No. 6 Moore & White Horizontal Speed Change.
- All of the above can be seen running if desired.
- No. 5 Moore & White Horizontal Speed Change.
- 1 Link Belt Silent Chain Drive—New, has never been used. Equipped with
- Two 6.100" Dia. 19T. 1" x 9" LBSC Steel Pinions
- Two 49.884" Dia. 156T 1" x 9" LBSC Wire Flgd. Wheels
- Two Strands 1" x 9" LB Silent Chain 16' 2" Long
- Two Gallons Chain Oil Immediate delivery.

THE WEST CARROLLTON PARCH-MENT COMPANY.

West Carrollton, Ohio.

J-29

FOR SALE

BOARD MACHINES—Six cylinder 36" x 80", five baby presses, three presses, dl dryers, 2 stack calenders, duplex cutter, and Marshall drive,

FOURDRINIER PARTS—One 120" Black & Clawson, Kutter Trowbridge pattern. One 72" with Pusey & Jones U Shake.

DRYERS—Three 48" x 149"; four 48" x 111"; two 48" x 40"; two 36" x 82"; fourteen 36" x 54"; three 36" x 48".

MACHINE CALENDERS—One 84" nine roll; one 82 nine roll; one 72" nine roll; one 68" five roll; or 48" five roll; one 37" five roll.

UPER CALENDERS—One 62" Norwood; one 53" Holyoke; one 45" Norwood; one 43" Holyoke; two 42" Holyoke.

SLITTERS AND WINDERS—One 127" Kidder; one 102" Langaton; one 90" Kidder Tollet Slitter; one 82" Cameron; one 90" Kidder; one 64" Dieta Tollet Perforator and Slitter; one 88" Kidder.

PAPER SHEET CUTTERS—One 108" Horne; one 112" Finlay; one 84" Beloit Duplex; one 72" Clark; one 82" Horne; one 53" Finlay; one 48" Finlay; four 42" Finlay.

REAM CUTTERS—One 55" 20th Century Seybold; one 55" Cranston undercut; one 60" Sheridan; one 53" Sheridan.

BEATERS.—Two 52" x 52" Horne; one 58" x 52" Emerson; one 48" x 48" Horne; two 48" x 54" Horne; one 48" x 48" Downingtown; one 48" x 48" Umpherston; three 40" x 40".

60" Umpherston; three 40" x 40".
JORDANS—One Noble & Wood, with base; one Emerson, with base; one Horne; two 40" Smith & Winchester, without base; one Dillon No. 1.
PUMPS—One Deane Triplex Water Pumps, 10" x 10", new; two Deane Triplex Stuff Pumps, 8" x 8" two Pusey & Jones Double Stuff Pumps, 6" x 10"; one Pusey & Jones Triplex Stuff Pumps, 6" x 5"; two Rice, Barton & Fales Duplex Stuff Pumps, 6" x 12"; one 10" Worthington Volute; three 4" Centrifugal; three 3" Centrifugals.
SCREENS—Four 10-Plate Packer Screens, Witham

SCREENS—Four 10-Plate Packer Screens, Witham Fasteners; two 10-Plate Packers; two Wandel Single Cylinders.

FET MACHINE—Four Sandy Hill 84"; one 73" Bagley & Sewell Hydraulic; two Black & Clawson 63".

FRANK H. DAVIS 175 Richdale Ave., Cambridge, Mass.

FOR SALE

FOR SALE—Toilet Paper or Paper Towel Machines. Immediate shipment. Two Dietz 84" Perforating Machines, producing sheets of 4.42 x 4½". Also two extra heads and cylinders for both machines, to produce a sheet 4.42 x 4½" for 81" Jumbo Rolls. Two Roll Tighteners. These machines are new, never been uncrated. The manufacturers are about four months behind on orders. WE CAN SHIP IMMEDIATELY. Address, Box 1926, care Paper Trade Journal.

FOR SALE—One Dietz Toilet Paper Perforating Machine. Address, Box 1872, care Paper Trade Journal.

FOR SALE—Three (3) new Cylinder Wet Top Felts, size 138 feet x 124 inches (standard weight). Not required for use for material being manufactured. Can be bought at good saving over present market. The Standard Paint Company, Joliet, Ill.

J-29

FOR SALE—One Ryther Pulp Shredder, in first-class condition; used about six months. Address, Box 516, Niagara falls.

FOR SALE—One three-color 33 x 44 Sterling Printing Press equipment with automatic Dexter Feeder. Machine practically as good as new. Immediate possession. Gibbs-Brower Company, 261 Broadway, New York City. Telephone, Barclay 8020.

FOR SALE

- 2 Jones Beaters, Rolls, 40" x 44", New Tubs.
- 1 Mammoth Jr. Jordan, 1 Mammoth Jordan.

These machines will all be rebuilt in our shops and guaranteed in first class condition.

THE NOBLE & WOOD MACHINE CO.

Hoosick Falls, N. Y.

F-5

Do You Want Help?

Or have you some machinery you would like to dispose of?

Try the Want Pages of the

Paper Trade Journal

FOR SALE

FOR SALE—WAXING MACHINE

ONE 64 RICE BARTON & FALES WAXING MACHINE

Complete in every detail and practically new. Equipment includes:

Wax pan, spring and dip rolls, top rubber covered fron roll with silent chain drive and cone pulley speed change, bottom chilled fron roll with frame, lifting screws, levers and weights, two 22" water cooling drums with offset frames, guide roll and winding stands, drive complete with McMahon clutch, slip belts, cone pulleys, etc., and ready to belt to motor but no motor furnished. Groveton Paper Company, Inc., Groveton, N. H. J-29

FOR SALE

1,000 H.P. Corliss Engine

Manufactured by Robt. Wetherill & Co. Complete with surface condenser and belt drive wheel. Complete specifications upon request.

DIAMOND STATE FIBRE CO., Bridgeport, Pa.

F-5

FOR SALE

One Mills Universal Beating Engine. Never been used. Attractive Price for Quick Sale. Address,

MT. HOLLY PAPER MILLS, INC., Mt. Holly Springs, Pa.

MISCELLANEOUS

PAPER MILL WANTED—The advertiser would buy a paper mill located in the East making Book and Newsprint Papers. Replies treated confidentially. Principals only. Address, Box 1927, care Paper Trade Journal. F-12

WANTED

Calender Rolls-

Does not matter if journal is broken.

THE SHARTLE BROTHERS MACHINE Co.

Middletown, Ohio

TF

MISCELLANEOUS

WANTED—Two single or double Wandell Screens in good condition. State price and location and if they can be inspected when replying. Address, Box 1900, care Paper Trade Journal.

WANTED—Capital \$15,000 to manufacture a specially prepared paper at present only imported. Address, Box 1919, care Paper Trade Journal. F-5

WANTED-Indented Rolls for 66" to 74" machine. Address, Box 1943, care Paper Trade Journal.

WE MUST HAVE at once, complete second hand Fourdrinier Paper Machine if possible trimming 100" but will consider anything; also three Pony and one large Jordans about 100 H.P., variable speed, vertical engine; Corliss engine 300 to 500 H.P.; ona boiler 5 x 18; five 1,000 lb. and several 2,000 lb. beaters, larger ones preferably cast iron; 4" stuff pump; 6 or 8 plate screen. Address, Box 1944, care Paper Trade Journal.

WANTED—To meet paper manufacturer, capitalist or fiscal agent who has sufficient pep to undertake with me the formation and development of company for the manufacture of a specialty of proven possibility. Great profits make this attractive to man who has right connections. Send particulars in answering if possible. Address, Box 1948, care Paper Trade Journal.

WANTED

Straight Fourdrinier Paper Machine, 80" wide, or more, with about a 45' wire. Give full particulars and state how long in use. Address, Box 1942, care Paper Trade Journal.

EXCELLENT OPPORTUNITY FOR A PAPER MILL

The undersigned company makes continuously 130 cords of wood waste per day from Spruce, Hemlock and Fir. The greater part of this material is suitable for chemical pulp production. Free water, cheap sawdust fuel and very reasonable electric power rates available. Excellent shipping facilities to all parts of the world. Write for further information to

WESTERN COOPERAGE CO., Portland, Oregon.

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YOUR OPPORTUNITY

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

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

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

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

CHASE & NORTON, High Grade Shavings and Book Stock a specialty. 277 Water street, New York.

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GOLDSTEIN, R., & SON,
Baltimore, Md.,
Cotton Rags and Paper Stock.

TACOB & CO., Alexander, Wrapping, London, England. Supply all classes Waste Papers and Shavings, Paper Making, Rags, etc. Correspondence solicited. Paris Office, 3 Cite d'Hauteville.

HILLS, GEO. F. 236 South Street. Branch House, 276 W. 25th street, N.Y.C.

IVERPOOL MARINE STORE CO., Liverpool, England, L. M. S. Wood Tag, Manila, Rope and Star Brands (Registered).

ROSENBAUM, INC., L., Lafayette street, New York City. Packers exclusively of new cuttings.

Simmon's, John, Sons, Paper and Paper Stock. 28 and 30 South Marshall street. Philadelphia, 1'a.

MISCELLANEOUS

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

Boards

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

Special Machinery

SWIFT, GEORGE W., JR., Designer and Manufacturer of Special Machinery for Manufacturing and Printing Paper Goods. Bordentown, N. J.

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FOR

1920

Now Ready

THE

Lockwood Trade Journal Co.

10 East 39th Street

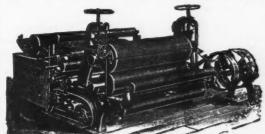
New York

H. C. CLARK & SON MACHINE

anufacturers PAPER MILL MACHINERY

LEE, MASS.

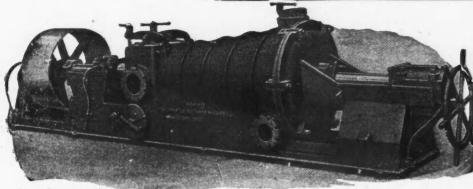
Revolving Paper Cutters Rag Cutters Cylinder Paper Machines Washing and Beating



Engines
Chilled Iron and Paper Calenders
Fan and Stuff Pumps
Engine Roll Bars and Bed
Plates
Cvlinder Molds
Marshall Drives
Slitters and Rewinders

Reels Dryers with Improved Packing Boxes Wet Machines Gun Metal, and Rubber Rolls

Rolls Reground



Shartle Bros.
Machine Co.

Middletown Ohio

Excellent Opportunities

offered to invest in Paper Mills, either as a straight paying investment or active partner proposition. We have for sale the following propositions:

Fine Paper Mill Site in Vermont on main line B. & A. Railroad. Part mill buildings and dwellings. Water capable developing four-hundred horse power. Also excellent sites with buildings, in Massachusetts and New York State. Ground wood plant in New York State with large water power. High-grade Paper Mill in Massachusetts. Three Board Mills in New York State and one each in Connecticut, New Jersey, Maryland and North Carolina. Tissue Mills in New Jersey, Penn-sylvania, Maryland and New York State. Wrapping Mills in Indiana and New York State. Two second-hand Board Machines 72'

GIBBS-BROWER COMPANY

Paper and Pulp Mill Brokers

261 Broadway NEvy Telephone Barclay 8020 **NEW YORK CITY**

Our Motto - "Service First"

PAPER MILL FOR SALE AT MELLENVILLE, N. Y.

Mill now in operation.

Mill now in operation.

On State Road five miles from Hudson.

½ mile from B. & A. Raliroad Station.

R. R. switch might be put in. Good, clear stream of water. Dam in Al condition. 150 H. P. La Fell water wheel. 150 H. P. Corliss and one 53 H. P. variable speed engines. Three 1000-lb. Beating and one Jordan engines. One 54" two cylinder Paper Machine. Room for a second Paper Machine. Entire buildings of solid concrete construction. Buildings buildings of solid concrete construction. Buildings alone could not be replaced today at price asked for entire property.

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200 FIFTH AVENUE **NEW YORK**

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PAPER MAKERS' SUPPLIES COTTON, JUTE and FLAX WASTES COTTON BAGGING MATERIALS EAST INDIA MERCHANDISE

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Centrally located. Plenty of good water for manufacturing purposes. Railroad siding at Mill, also four trunk lines available. Mill run by electricity—power very reasonable. Three large beating and one Jordan refining engines. One Fourdrinier Paper Machine trimming 96 inches. Entire property in Al condition. In constant operation. An excellent proposition.

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Telephone-Barclay 8828 OUR MOTTO-"Service First"

LEATHER BOARD MILL FOR SALE SOUTH COVENTRY, CONN.

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150 yards from main line Central Vermont R. R.
Twenty acres of land with mill. One 100 H. P.
Fitchburg Engine and one 100 H. P. Dillon Boiler.

25 to 50 H. P. water power the year round. Excellent water for manufacturing purposes. Two 1000-lb.
Beaters and one Jordan Engine. One Case 48 inch cylinder and one Smith and Winchester 48 in. cylinder Paper Machines. One Farrell Calendar. One 42 excellent condition. Mill idle since War owing to call inch Cameron Slitter. Machinery and equipment in inch Cameron Slitter. Machinery and equipment in shortage. Well worth investigation.

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OUR MOTTO—"Service First"

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This instrument will tell the physical properties of any material, and will show its "molecular life" or "recoverance,"

and this directly indicates its durability.

Now you can know, when you buy or sell, just what values you have and how they will endure.

The Widney Co., TESTING ENGINEERS 353 S. Jefferson St., Chicago

The Name "HANO" stands for fair business dealing. It will be a allmark in the paper industry within a few years

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Paper in perfect and also seconds carefully examined, sorted and re-wrapped An Unusually Competent Sales Organization 802-810 Greenwich Street,, New York

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EXAMINATIONS, REPORTS, ESTIMATES OF COST, DESIGNS, SPECIFICATIONS, VALUATIONS.

Timber Lands Bought and Sold. Timber and Pulp Wood Estimates. R. R. BRADLEY.

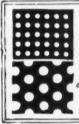
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OVER 1,000,000 ACRES

Our cruisers estimated the timber and pulpwood during 1919. Organization, System and Men. We have them.

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DESIGNS

ESTIMATES

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Index Bristols, White Bristol Blanks, Etc.

13 YEARS' EXPERIENCE IS BUILT INTO OUR SLITTING AND REWINDING MACHINES

CAMERON MACHINE CO., BROOKLYN, N. Y.

FORMERLY FOREST EXPERT U. S. DEPT. AGRICULTUE TIMBER EXPERT FOR

THE STATE OF PENNSYLVANIA STATE FORESTER OF NEW JERSEY

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Paper Cutters

Single, Duplex and Diagonal



Cutter Knives

Patent Top Siltters

HAMBLET MACHINE CO.

Lawrence, Mass.

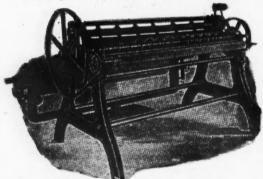
Farrel Foundry & Machine Co. ANSONIA, CONN., U. S. A. Largest Manufacturers in the World of



ROLL GRINDING MACHINES

The "Dietz" Toilet Paper Machines

For making Toilet Paper Rolls with or withou



Self-Adjusting—Easy to Operate WE ALSO MANUFACTURE

AUTOMATIC TUBE MACHINES

FOR MAKING TUBES FOR TOILET PAPER ROLLS CAPABLE OF PRODUCING 3,600 WIRE STITCHED TUBES PER HOUR

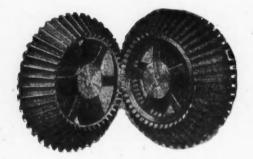
Also machines for making Sanitary Crepe Paper Towels, Sitting and Rewinding Machines, Drop Roll Slitters, Side and Center Seam Merchandise Envelope Machines, Photo Mount Beveling Machines, Candy Bag Machines, Punch Presses for Playing Cards, Rotary Card Cutting and Collating Machines, Etc. CORRESPONDENCE SOLICITED.

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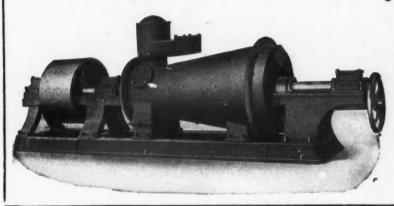
Castings of semi-steel by our improved method of machine moldlng, thus issuring uniform tooth spacing, true rims and smooth rus-ning, with high efficiency. Teeth of both Mortise wheel and pinion finished by accurate gear cutting machinery.

DESIGNERS AND BUILDERS
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H. W. Caldwell & Son Co.

CHICAGO, 17th Street and Western Avenue NEW YORK, Fulton Bidg., Hudson Terminal, 50 Church St. DALLAS, TEXAS, 711 Main St.

THE DILLON IORDAN



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

For full particulars apply to

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

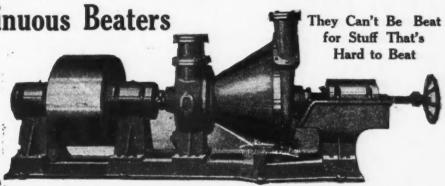
To produce a fine, smooth, strong uniform stock use

Claflin Continuous Beaters

250 Claflin Continuous Beaters now in use

They Are the Ideal Equipment for

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

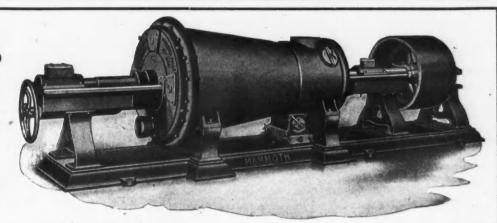


THE CLAFLIN ENGINEERING COMPANY, LANCASTER, OHIO

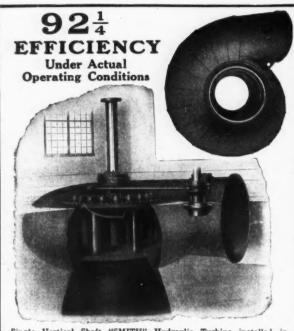
The Canadian Fairbanks-Morse Co., Montreal, Quebec, Agents for Dominion of Canada

WE MAKE **BEATERS AND** JORDANS OF QUALITY

SIX SIZES OF JORDANS. BEATERS, FROM 3/4 LBS. TO 3000 LBS.



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Single Vertical Shaft "SMITH" Hydraulic Turbine installed in Niagara Mill of Kimberly & Clark Co. established the above performance record, developing 3,000 H. P. at 240 R. P. M. under 60 feet head.

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UT down excessive wrapping paper investment. Why carry two wrapping paper lines for one wrapping paper purpose?

MOSINEE

presents a perfect wrapping paper, weight and strength for each wrapping purpose. Made in all weights, from 15 lb. to 100 lb. basis. The one complete, standardized and economical line of wrapping paper sold.

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"The Wrapper That Delivers the Goods"

Centrifugal Pumps for Fire Service

FOR DISCHARGING DIRECT INTO HOSE LINES OR FOR SERVICE WITH AUTOMATIC SPRINKLER SYSTEMS

This is a type of

SERVICE FOR EVERY

which has met with great favor for fire service in industrial plants, mills, municipal plants. office and hotel buildings. While the pump is heavily and strongly built, the design is extremely simple. There is nothing to get out of order and cause delay when the pump is needed. This type of pump, is built in accordance with the Fire Underwriters specifications and has been fully approved by

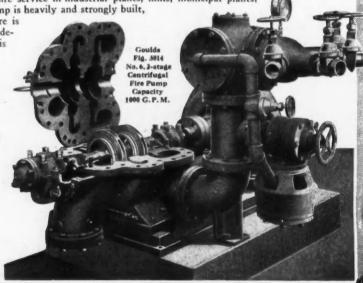
Furnished for capacities from 500 to 1500 G. P. M. for total heads up to 150 pounds. They can be supplied for direct connection to either electric motors or steam turbines.

Our Bulletin 118 contains complete data

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Main Office and Works Seneca Falls, Branch New York Boston

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1Nov.	27,	1914	1Feb.	29,	1916
			1Dec.	9,	1916
1July	14.	1915	1 July	18,	1919

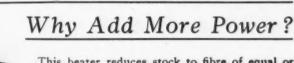
Isn't this sufficiently convincing of the desirability of this device? Manufactured exclusively by

BAKER MANUFACTURING CORPORATION

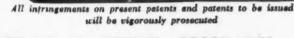
Formerly BAKER & SHEVLIN COMPANY SARATOGA SPRINGS, N. Y.

Fourdrinier and Cylinder Paper Machines

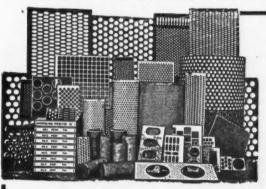
Why Enlarge Your Beater Room?



This beater reduces stock to fibre of equal or better quality in half to one quarter of the time and with a saving of power which is remarkable. Do not take our word. Investigate. Manufactured by



MILLS MACHINE COMPANY ... Lawrence, Mass., U. S. A. Builders of all kinds of paper mill machinery



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Paper and Pulp Mill Screens STEEL, IRON, COPPER, BRASS, BRONZE

Centrifugal and Rotary Screens—Drainer—Bottoms—Filter Plates—Pulp Washers, etc. All sizes and shapes of holes in many thicknesses and dimensions of sheets. Accuracy in all details and excellence of quality at lowest consistent prices.

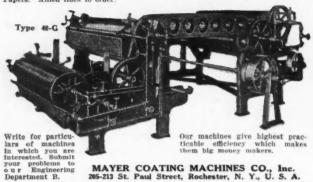
THE HARRINGTON & KING PERFORATING CO.

618 NORTH UNION AVE., CHICAGO., ILL.

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for making Carbon, Waxed, Oiled, Glued, Gummed, Asphalt and Veneered Papers. Allied lines to order.



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Special Shaped Carbon, Black Diamond POINTS FOR TURNING Paper, Cottee Chilled Iron and Hardened Steel Calender Rolls, Hard Rubber, Fibre, etc.

Manufactured THOS. L. DICKINSON, 44 NASSAU STREET

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Wire Stitched Tube

TOILET PAPER MACHINERY

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PHILADELPHIA, PA.

Manufacturers All Special Small Roll Products



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SLITTERS AND REWINDERS FOR EVERY PURPOSE

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WOOD TANKS FOR ALL **PURPOSES**

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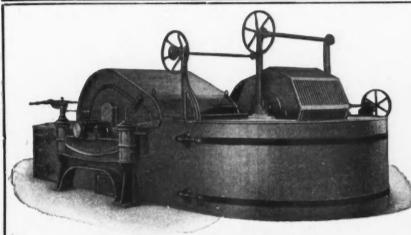
Bleached Sulphite Pulp

RIORDON SALES COMPANY, Ltd., Montreal

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

Your patronage will be welcome.

T. J. STEVENSON & GEO. E. CHALLES, SALES MANAGERS



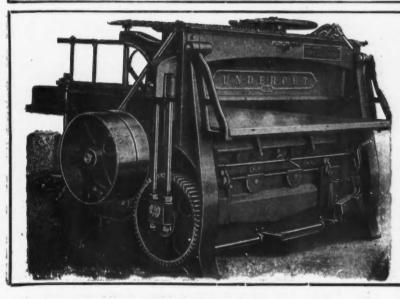
WOOD AND IRON TUB BEATERS

Fourdrinier Machines

Cylinder **Machines**

Pulp Machinery

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The Undercut Trimmer

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

for the most exact trimming.

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

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

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

For further and full information, call upon

For further and full information, call upon

The Smith & Winchester Mfg. Co.

Builders of High Grade Paper Mill Machinery and Paper Bag Machinery

South Windham, Cons.

WILLIAM A. HARDY & SONS COMPANY,

Fitchburg, Mass., U. S. A.



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ALL ARE GIVING SATISFACTION ON

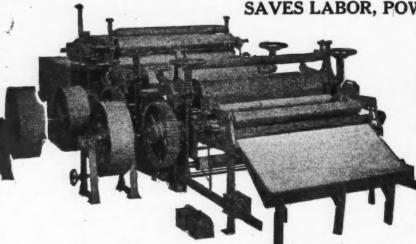
News and Fast Running Machines

These Felts are Woven Endless

THE ORR FELT & BLANKET CO., Piqua, Ohio, U. S. A.

ROGERS WET MACHINE

SAVES LABOR, POWER AND FREIGHT



Built both single and double press. They operate successfully on both sulphite and sulphate pulp.

Felt cost is low considering dryness obtained.

Ball bearings for cylinder mould and couch roll.

Automatic felt guide

Handy sheets 33" x 36" automatically deposited in tray at iront of machine of a uniform dry test of 47%.

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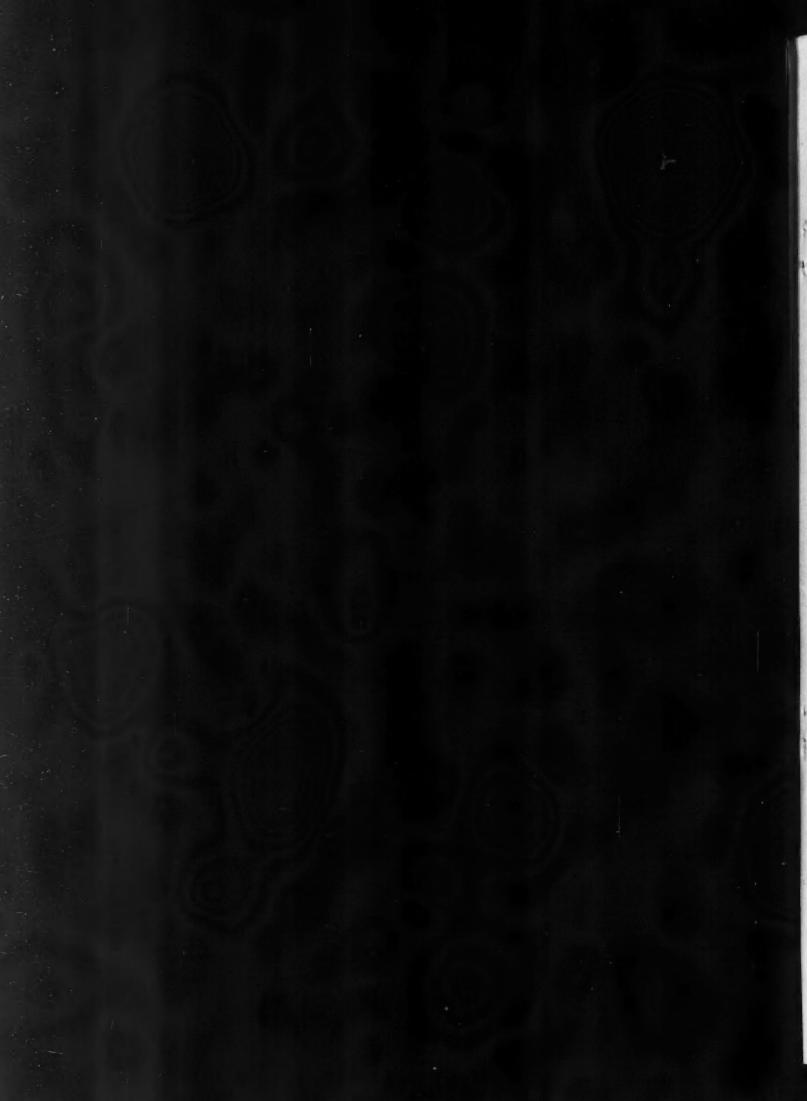
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