

MEMBER OF THE A. B. C.  
**FORTY-NINTH YEAR**

# PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY  
 ESTABLISHED IN 1872

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# PAGE 19!

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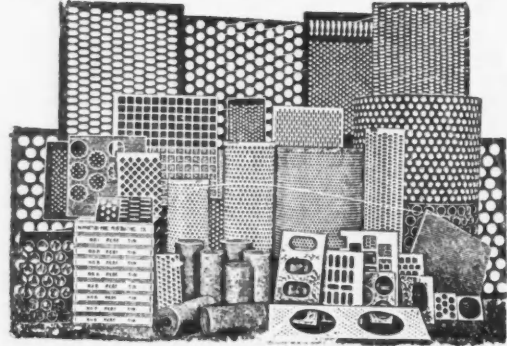
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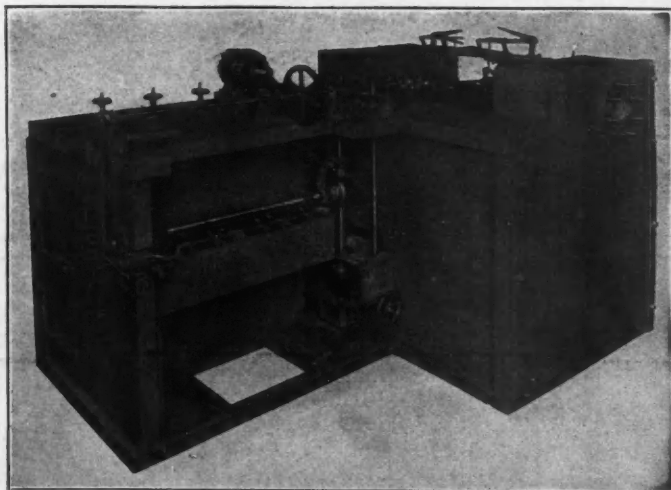
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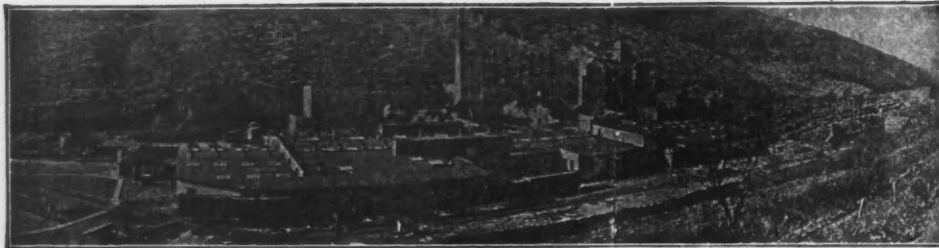
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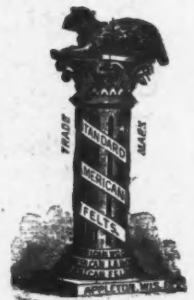
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Produces Strongest, Brightest and Best Pulp Obtainable from Waste Papers.

Capacity—12 to 15 Tons in 24 Hours

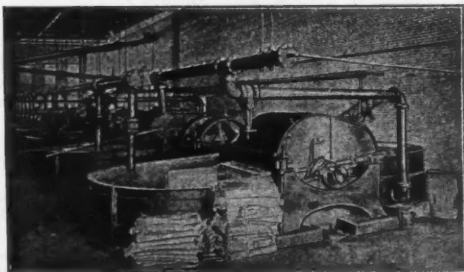
It de-fibers and liberates ink and color in one operation. It separates ink and color from fibres, instead of rubbing, grinding or kneading them in.

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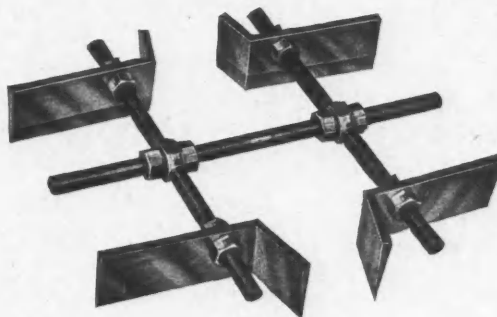
The Illustration Shows a Typical Dilts Equipment in the Beater Room of One of the Largest Boxboard Mills in the United States

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Less slippage	Heat, dust, moisture proof
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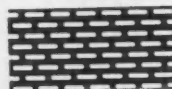
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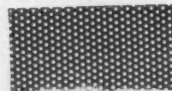
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1/4 x 1/4 Inch Slots



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World's  
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*Renowned Where Quality Rules*

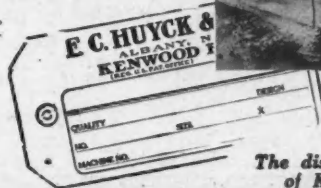
Produced by  
**THE HOWARD MILLS, Urbana, Ohio**



Kenwood Woolen Dryer Felts, each weighing over 1000 pounds.

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MEMBER OF THE A. B. C.

# PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

**FORTY-NINTH YEAR**

PUBLISHED EVERY THURSDAY BY THE  
**LOCKWOOD TRADE JOURNAL COMPANY, INC.**

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## PRODUCTION OF ALL PAPERS DURING MONTH OF DECEMBER

According to Tabulation Furnished by the Federal Trade Commission, at the End of December News Print Mill Stocks Equaled Less Than Six Days' Average Output, Book Paper Mill Stocks Equaled About Nine Days' Average Output, Paper Board Mill Stocks Equaled About Nine Days' Average Output and Wrapping Paper Mill Stocks Equaled About Fifteen Days' Average Output.

WASHINGTON, D. C., February 2, 1921.—The attached tabulation is a summary of production, shipments and stocks of paper mills in the United States for the month of December, 1920. This summary is compared with the month of December, 1919, and December, 1918, and the average production and stocks based upon the production and stocks for the years 1917, 1918 and 1919, prepared by the Federal Trade Commission. 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 continuously on the same grade.

The stocks of paper carried by different mills depend not only upon the condition of the market but also upon the kind of paper made, trade customs, etc.

### Tonnage Summary

Production, shipments and stocks of paper, by grades, for the month of December, 1920, compared with December, 1919, and December, 1918, and with average production and stocks:

Grade	Number of Mills	Stocks On Hand First of Month Net Tons	Production Net Tons	Shipments Net Tons	Stocks On Hand End of Month Net Tons
<b>News Print (Standard and Special Grades of News):</b>					
December, 1920.....	86	20,266	124,857	120,360	24,763
December, 1919.....	87	15,336	122,781	122,748	15,369
December, 1918.....	63	20,297	100,935	101,824	19,406
Average.....			112,736		24,031
<b>Standard News:</b>					
December, 1920.....	68	16,599	111,038	108,064	19,573
December, 1919.....	55	11,790	104,262	103,714	12,338
December, 1918.....	50	16,696	87,797	88,837	15,656
Average.....			101,400		20,502
<b>Book (M. F., S. S. C. and Coated):</b>					
December, 1920.....	95	24,563	76,093	75,651	25,005
December, 1919.....	96	27,293	88,779	92,793	23,279
December, 1918.....	86	29,493	60,525	61,587	28,431
Average.....			74,984		31,666
<b>Paperboard—total (Straw, Fibre, Leather, Chip, etc.):</b>					
December, 1920.....	247	48,968	105,227	101,091	53,104
December, 1919.....	255	43,084	174,649	177,404	40,329
December, 1918.....	219	41,505	127,523	122,832	46,196
Average.....			160,394		50,146
<b>Boxboard:</b>					
December, 1920.....	149	23,707	70,014	68,270	25,451
<b>Wrapping (Kraft, Manila, Fibre, etc.):</b>					
December, 1920.....	142	25,586	54,308	44,094	25,800
December, 1919.....	156	32,556	62,288	68,053	26,791
December, 1918.....	154	35,166	49,064	43,731	40,499
Average.....			60,294		49,560
<b>Bag (all kinds):</b>					
December, 1920.....	39	2,785	6,966	6,720	3,031
December, 1919.....	48	2,432	17,621	17,966	2,087
December, 1918.....	38	3,950	13,700	14,242	3,408
Average.....			13,260		3,818
<b>Fine (Writing, Bonds, Ledgers, etc.):</b>					
December, 1920.....	106	30,185	27,233	27,106	30,312
December, 1919.....	109	33,151	31,014	32,649	31,516
December, 1918.....	115	33,464	25,721	25,609	34,576
Average.....			28,236		34,567
<b>Tissue (Toilet, Crepe, Fruit Wrappers, etc.):</b>					
December, 1920.....	101	8,115	8,090	7,431	8,774
December, 1919.....	84	6,217	14,727	15,247	5,697

December, 1918.....	87	5,578	10,888	11,066	5,400
Average.....			11,986		6,895
<b>Hanging (No. 2 Blank, Oatmeal, Tile, etc.):</b>					
December, 1920.....	25	2,544	8,266	7,783	3,027
December, 1919.....	25	1,980	8,892	9,420	1,452
December, 1918.....	18	2,236	6,846	6,149	2,933
Average.....			6,838		4,410
<b>Felts and Building (Roofing, Sheathing, etc.):</b>					
December, 1920.....	48	14,116	13,006	13,702	13,420
December, 1919.....	49	5,545	27,713	27,943	5,315
December, 1918.....	45	7,394	17,818	17,513	7,699
Average.....			24,804		7,401
<b>Other Grades (Specialties not otherwise classified):</b>					
December, 1920.....	92	15,715	21,493	20,048	17,160
December, 1919.....	84	16,371	20,928	24,817	12,482
December, 1918.....	75	10,804	21,759	21,253	11,310
Average.....			19,162		12,098
<b>Total—of All Grades:</b>					
December, 1920.....		192,843	445,539	423,986	214,396
December, 1919.....		183,965	569,392	589,040	164,317
December, 1918.....		189,887	435,779	425,806	199,860
Average.....			512,694		224,592

Note:—The average production and stocks are based upon the annual reports for 1917, 1918, and 1919.

The following stocks were reported on hand at terminal and delivery points on December 31, in addition to the mill stocks shown in the tabulation: News print, 144 tons; book paper, 3,403 tons; fine, 7 tons; and "other grades," 260 tons.

Stocks of all grades, except "felts and building," increased during the month. Stocks of all grades reported by manufacturers at the end of December amounted to 218,210 tons, including the stocks at terminal and delivery points. In addition to these stocks, jobbers and publishers reported news print stock and tonnage in transit aggregating 246,335 tons.

### Ratio of Stocks to Average Production

Comparing the stocks on hand at the domestic mills on December 31 with their average daily production based upon the combined production for 1917, 1918 and 1919, the figures show that:

News print paper mill stocks equal less than 6 days' average output.

Book paper mill stocks equal about 9 days' average output.

Paper board mill stocks equal about 9 days' average output.

Wrapping paper mill stocks equal about 15 days' average output.

Bag paper mill stocks equal about 6 days' average output.

Fine paper mill stocks equal slightly less than 28 days' average output.

Tissue paper mill stocks equal 19 days' average output.

Hanging paper mill stocks equal slightly more than 11 days' average output.

Felts and building paper mill stocks equal about 14 days' average output.

Miscellaneous paper mill stocks equal slightly more than 23 days' average output.

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

### Imports and Exports

The imports and exports of all grades of paper for November, 1920, compared with November, 1919, as shown by the records of the Department of Commerce, were as follows:

	November, 1920		November, 1919	
	Pounds	Value	Pounds	Value
<b>Imports:</b>				
Newsprint.....	122,496,960	\$6,973,419	118,531,853	\$4,255,341
Book paper.....	1,180,362	143,840	48,355	13,724
Wrapping.....	333,890	39,745	170,441	12,264
Hanging.....		25,092		16,721
All other grades*.....		366,140		188,743
<b>Exports:</b>				
News print.....	11,193,875	711,606	12,191,452	581,995
Book paper.....	9,928,957	1,580,690	6,196,622	673,089
Paper board.....		667,038		26,308
Wrapping.....	5,253,347	745,679	5,291,198	434,915
Bag.....		221,310		160,742
Fine.....		1,020,369		495,941
Tissue.....		244,509		241,253
Hanging.....		54,200		76,806
All other grades*.....		961,081		606,884
<b>Total imports.....</b>		\$7,548,236		\$4,486,793
<b>Total exports.....</b>		6,206,482		3,297,933

\*Includes some paper already converted into commercial articles.



News print is the only grade of which the United States is a heavy importer. The bulk of this tonnage, the value of which amounted to \$6,973,419 for November, 1920, is imported from Canada. The value of the exports of news print in November, 1920, amounted to \$711,606, which is about 10 per cent of the news print imported.

Book paper, news print, wrapping paper, fine paper, and paper-board were the principal grades exported, the combined value amounting to \$4,725,382 for November, 1920.

The value of the total imports of all grades was about 11 per cent more than for October, 1920, and 68 per cent greater than for November, 1919. The value of the total exports for November, 1920, was \$2,908,549 more than the value of the exports for November, 1919, and \$1,341,754 less than the value of the imports for November, 1920.

**Loss of Production**

The idle machine time reported to the commission is shown by grades in the tabulation attached. This lost time is compiled from the following operating reports: News print, 50 companies operating 53 mills and 95 machines; book paper, 47 companies operating 76 mills and 195 machines; paperboard, 173 companies operating 194 mills and 350 machines; wrapping, 95 companies operating 105 mills and 195 machines; bag, 20 companies operating 23 mills and 32 machines; fine, 66 companies operating 99 mills and 164 machines; tissue, 59 companies operating 75 mills and 144 machines; hanging, 17 companies operating 18 mills and 24 machines; felts and building, 29 companies operating 34 mills and 52 machines; other grades, 56 companies operating 67 mills and 93 machines. This tabulation does not include the machines in 64 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. The time lost in December, 1919, is given by grades and reason for purposes of comparison.

The reduction made at this time eliminates the 20 per cent "cost of living" advance granted last May. Under the new scale common labor will receive 49 cents an hour as against 60 cents in the past. Back tenders, machine tenders and all other help throughout the various plants are affected alike.

Two Kalamazoo valley paper concerns, the Bryant Paper company and the Kalamazoo Vegetable Parchment company, have working agreements with the International Union of Papermakers. These agreements are effective until May 1, 1921. It is believed that a wage compromise will be arrived at that will be satisfactory to both employers and employees.

The general reduction in prices of all grades of paper and the fact that the "cost of living" pay raise last May was only granted to tide over conditions no longer existing are assigned as the real reasons for the present adjustments in wages.

The companies that have so far posted notices of the new wage scale are the King Paper company, Kalamazoo Paper company, Monarch Paper company, Rex Paper company, Western Board and Paper company, Standard Paper company, all of this city.

It is freely rumored that the month of February will see a general resumption in operations of all board mills in western Michigan. The Eddy Paper company, Three Rivers and White Pigeon, have been able to run their plants steadily at from 60 to 80 per cent capacity. The Western Board and Paper company, Standard Paper company, Kalamazoo; MacSimbar Paper company, Otsego; Michigan Carton company, Battle Creek and the American Box-board company, Grand Rapids, have been down a large portion of the time since December 15 last. They are now getting ready to resume operations. There has been a large number of inquiries of late from all quarters and many very satisfactory orders have been booked by the various mills.

**No Improvement at Holyoke**

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., January 31, 1921.—There are no signs here of

Grade	Loss of Production									
	Lack of Labor		Lack of Orders		Repairs		Other Reasons		Total	
	1920	1919	1920	1919	1920	1919	1920	1919	1920	1919
News Print:										
Number of machines.....	0	0	14	0	6	23	13	42	33	65
Total hours idle.....	0	0	3,081	0	283	1,383	1,395	1,310	4,759	2,693
Book Paper:										
Number of machines.....	0	0	76	1	31	35	26	69	133	105
Total hours idle.....	0	0	9,490	61	2,260	1,323	1,378	3,584	13,128	4,968
Paper Board:										
Number of machines.....	0	16	182	8	73	80	53	155	308	259
Total hours idle.....	0	3,341	56,194	2,581	11,110	7,177	15,466	24,304	82,770	37,403
Wrapping:										
Number of machines.....	0	0	72	2	50	37	27	66	149	105
Total hours idle.....	0	0	17,107	1,044	5,980	3,351	7,272	6,299	30,359	10,694
Bag:										
Number of machines.....	0	0	20	0	4	16	6	19	30	35
Total hours idle.....	0	0	2,773	0	441	1,640	454	2,561	3,668	4,201
Fine:										
Number of machines.....	0	1	66	23	29	23	19	45	114	92
Total hours idle.....	0	411	22,280	6,225	2,326	1,800	2,146	3,728	26,752	12,164
Tissue:										
Number of machines.....	0	1	68	1	42	26	10	32	120	60
Total hours idle.....	0	398	25,647	624	8,782	4,158	2,180	3,706	36,609	8,886
Hanging:										
Number of machines.....	0	0	6	0	5	5	6	8	17	14
Total hours idle.....	0	0	932	0	830	222	455	624	2,217	846
Felts and Building:										
Number of machines.....	0	0	30	2	10	11	12	33	52	46
Total hours idle.....	0	0	9,472	51	2,020	520	3,561	5,164	15,053	5,735
Other Grades:										
Number of machines.....	0	0	40	10	22	16	12	25	74	51
Total hours idle.....	0	0	7,329	960	2,057	1,197	4,307	1,364	13,693	3,521
Total number of machines.....	18	574	47	272	273	184	494	1,030	832	
Total hours idle.....	4,150	154,305	11,546	36,089	22,771	38,614	52,644	229,008	91,111	

**Wage Reductions in Kalamazoo**

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., January 31, 1921.—Restoration of the wage scale effective in the Kalamazoo river valley district before May 1 last is now in progress in the various paper mills in this section. Seven paper manufacturers announce a 16 2/3 per cent reduction at this time and the other concerns will fall in line during the next 90 days.

any increased activities in the paper manufacturing industry. Most of the paper mills are being operated on short time. A prominent paper mill official states that the wage reductions recently put into effect in paper mills in Kalamazoo, Mich., will eventually find their way eastward. The foremen at the American Writing Paper Company mills are now being paid at an hourly rate of wages, the salary plan being dispensed with. A large number of clerks employed in the general office of the company were laid off today.

## BIDS FOR PAPER OPENED BY JOINT PRINTING COMMITTEE

**Bids for Paper Opened by Joint Committee on Printing for Government Supply for Ensuing Year—Senator Reed Smoot Presides—Greater Interest Shown Than for Many Years—Larger Number of Bids Filed—Only One New Bidder Listed—Decision on Validity of Bids to Be Determined at Later Session—To Announce Awards on Monday of Next Week.**

WASHINGTON, D. C., February 1, 1921.—Bids were opened by the Joint Committee on Printing, Senator Smoot presiding, for the supply of paper for the Government Printing Office for the ensuing year. A larger number of bids were filed and a larger number of representatives of the trade were present at the opening than for many years past. While several of the old, well-known bidders were not represented, only one new bidder was listed.

No decision was made at the meeting of the committee as to the validity of any of the bids, that question being left for determination at a further session; inasmuch, however, as bidders are required to submit their prices based on Government samples, as it will be noted from the schedule published in the *PAPER TRADE JOURNAL*, and many of the bids were based on bidder's samples, it is safe to presume that such bids will be rejected.

It is doubtful whether a wider range of prices was ever recorded at a bid opening.

Awards will be announced on Monday of next week, February 7.

*(Continued in Supplement)*

### Joins Staff of Consolidated Paper Co.

Dr. Otto Kress, for the past four years in charge of the pulp and paper work of the Forest Products Laboratory of the U. S. Forest Service, leaves January 25 to join the staff of the Consolidated Water Power and Paper Company of Wisconsin Rapids, Wis. This company operates four mills having a combined capacity in excess of 200 tons daily on news print, mitscherlich, ground wood and sulphite pulp. He will be engaged with technical problems in connection with the control and development of pulp and paper products.

Dr. Kress has been in charge of pulp and paper research at the Forest Products Laboratory since September, 1915, except for a year during the war when he was with the E. I. DuFont de Nemours Company in Wilmington, Del. engaged in dye research work. After taking a degree as doctor of philosophy in chemistry at Columbia University in 1909, Dr. Kress was engaged in pulp and paper mill work with various companies, joining the Bachische Company of New York City in 1912 as dye and paper mill expert, where he remained until he took charge of the work at the Forest Products Laboratory.

During the time Dr. Kress has been associated with the Forest Products Laboratory, his department has more than doubled in size, and much important work has been accomplished for the pulp and paper industry. The demand for research work for mills and associations has grown until it is greater than the laboratory can handle with its present appropriation. Among some of the valuable researches carried forward during this time are studies of the suitability of all American woods for pulp and paper, the fundamental cooking condition of chemical pulping processes, the development and use of cotton linters for pulp and paper, and a far-reaching study of the cause and prevention of decay in wood and wood pulp. The laboratory has worked in close co-operation with

the industry in these studies and the industry financed many of them by supplying men or money.

Dr. Kress is a member of various chemical societies, and was one of the founders of the Technical Association of the Paper Industry; he is also an honorary member of the superintendents'



DR. OTTO KRESS

association. He has been active in committee work of industrial associations, and has presented not less than forty scientific papers and research reports before various organizations during the last four years.

### G. F. Drew to Take Up Mill Engineering

[FROM OUR REGULAR CORRESPONDENT.]

BRUNSWICK, Me., February 1, 1921.—George F. Drew, of Brunswick, Me., has resigned from his position as chief engineer for the Pejepsot Paper Company, after a period of service of nearly twenty-two years.

Mr. Drew designed in 1898 the then new Pejepsot paper mill plant, its two wide machines being built for a speed of five hundred feet; reorganized their Lisbon Falls plant, rebuilding the machines there for a speed of six hundred feet; partly rebuilt the four machines at the Bowdoin mill plant; designed and installed the mechanical equipment for the sixty-ton ground wood plant at Topsham; reorganized the power and machinery equipment of the seventy-ton ground wood mill at Pejepsot; reorganized the sulphite mill at Lisbon Falls; designed and erected the company's saw mills and wood tumbling plants in Canada; designed and built in 1919 a modern wood tumbling plant at Pejepsot; superintended the erection and equipment of the company's ocean-going fleet, and designed and erected the pulpwood unloading and conveyor system at their shipping terminal in Belfast. He has purchased and installed all machinery for the company's several plants and has exercised plant supervision for the general maintenance of buildings, power plants, machinery, and the purchase of supplies since 1898.

Mr. Drew also designed the plant of the Haskell Silk Company of Westbrook, Maine, and a one-hundred and seventy-five foot brick chimney for the Whittier Cotton Company of Atlanta, Ga., a few years ago, the latter plant having been originally planned by him, and prior to his engagement with the Pejepsot Paper Company, had a wide experience in the design and erection of cotton, woolen, worsted, cordage and other textile mills.

Mr. Drew has planned to take up the practice of general mill engineering, having his office at Brunswick.

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## PULP MILL AT ESCANABA IS SOON TO BE COMPLETED

**New Development of Escanaba Paper Company Will Double Capacity—To Be Completed by March—Is the Largest on the Whole River—Harper Paper Machine Is Installed at Peshtigo Plant—Dr. Kress, Formerly with U. S. Forest Products Laboratory, Goes with Consolidated Water Power and Paper Co.—General News of the Pulp and Paper Trade in Wisconsin.**

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., February 1, 1921.—Improvements in the Escanaba Paper Company's big pulp mill at Groos, Mich., doubling its capacity, and construction work on the huge power dam at Boney Falls, on the Escanaba river, will be completed by March 5, stockholders were told at the annual meeting last week. Machinery for the power house is now being installed. The last gap in the big dam is now being filled. All the concrete construction work will be finished by February 20 and officers of the construction crew say it will only require a few days to put on the finishing touches.

Water turbines for the power plant are now installed. The first of three generators is being set up this week, the second is expected to be in place by February 20 and the third will be in operation by March 5. Power will be transmitted to Groos, where it will drive the big battery of pulp grinders. It is planned to place the first generator in commission by February 10.

The Boney Falls development is the largest on the Escanaba river and represents an expenditure of about \$1,000,000. It required more than a year, with 150 men in the construction crew, to finish the work.

### Escanaba Increases Stock

The Escanaba Paper Company, in order to take care of its great expansion, authorized a \$200,000 increase in its capital stock at the annual meeting of stockholders. The following officers were re-elected: M. N. Smith, president; John G. Southerland, vice-president; H. M. Stack, secretary and manager; C. W. Kates, treasurer; T. J. Riley, assistant secretary; C. J. Driscoll, assistant treasurer. Directors are H. M. Stack, C. W. Kates, J. B. Moran, H. M. Smith, all of Escanaba; John G. Southerland, W. M. Hurlbut, H. S. Mead and Murray Smith, all of Dayton, Ohio.

Installation of a second paper machine, a Harper, manufactured by the Beloit Iron Works, Beloit, Wis., has been started at the plant of the Peshtigo Pulp and Paper Company. It will not be placed in operation, however, until after completion of the power development at Places' Rapids. That development is being pushed as rapidly as possible. The Peshtigo company is making lightweight papers.

Directors of the Peshtigo Fibre Company, a subsidiary company, were told at their last meeting that the pulp mill will be completed in about four weeks. It is confidently expected to be in operation shortly after March 1. Directors elected the following officers: J. P. Nugent, Green Bay, president; Frank Lauerman, Marinette, vice-president; John A. Kittell, Green Bay, secretary; Nick Dohr, Appleton, treasurer; Daniel O'Connell, Peshtigo, general manager. Mr. O'Connell was formerly superintendent of the sulphite mill of the Northern Paper Mills of Green Bay.

One of the most recent trials of the Forest Products Laboratory has demonstrated the possibility of using southern pine and red gum for high grade book and magazine paper. The laboratory, in its report, says two kinds of wood are required for book paper—a long fibred hardwood to impart strength and a short fibred hardwood to give the formation, finish, opacity and other printing qualities. The long fibred southern pines are admirably suited for

wrapping paper and fibre board, but their pitch content and the difficulty of bleaching have been obstacles to their use in white paper. These obstacles, it was shown, can be overcome by proper cooking and bleaching. Red gum is said to be typical of many southern hardwoods that might be used in the manufacture of the better grades of printing paper.

The laboratory statement said utilization of southern pines for book paper would spread the burden of pulpwood supply over considerable territory which is favored with a large annual growth of timber. Much of the southern timber also is near the centers of paper consumption as well as large supplies of coal, chemicals and other necessary raw materials.

### News of the Trade

Destruction of the woodroom of the Flambeau Paper Company at Park Falls was threatened by a fire which assumed alarming proportions before it was extinguished. The company's automatic sprinkler system prevented spread of the flames and undoubtedly is responsible for saving the plant. The Park Falls fire department was seriously handicapped when two lines of hose were severed by the company's locomotive. The loss will not exceed a few thousand dollars.

A large coal pile in the yards of the Continental Bag and Paper Company at Marinette started to burn about three weeks ago, making it necessary to move the big pile and spray it with water. A high wind recently fanned the fire and made it increasingly difficult to manage.

Railroads in Wisconsin and Michigan were ordered by the Interstate Commerce Commission to establish equitable rates between paper mill centers of the two states to Joliet and Aurora, Ill. Paper mill owners in Michigan complained to the commission that freight rates on printing paper, book and waxed wrapping paper from Michigan paper mills is unduly prejudicial to the Michigan shippers and unduly preferential to the Wisconsin mills. It was said the mills in Neenah, Menasha, Appleton, Kimberly, Kaukauna, Combined Locks and Green Bay enjoyed much more favorable rates. Defendant railroads were ordered to establish an equitable rate before April 22. The Michigan mills in a previous complaint alleged that carload rates from their mills to Chicago and Milwaukee were unduly prejudicial compared with rates to the same places from the Fox river valley and elsewhere in Wisconsin. The commission dismissed part of the complaint because the kind of paper manufactured was dissimilar.

The number of directors of the Gilbert Paper Company, Menasha, was increased from seven to eight in amended articles of incorporation. Another amendment gives the company authority to buy, sell, and hold commercial paper and bonds of all kinds.

All officers of the Grandfather Falls Paper Company were re-elected at the annual meeting last week. They are: L. N. Ansen, president; John O'Day, vice-president; George A. Foster, secretary and treasurer.

Green Bay paper mills are taking an active part in a city-wide safety first campaign now in progress. Safety meetings were held each day in the mills.

A. J. McKay, vice-president of the Lakeview Paper Company, and general manager of the Combined Locks Paper Company, has gone to California for a six weeks' visit.

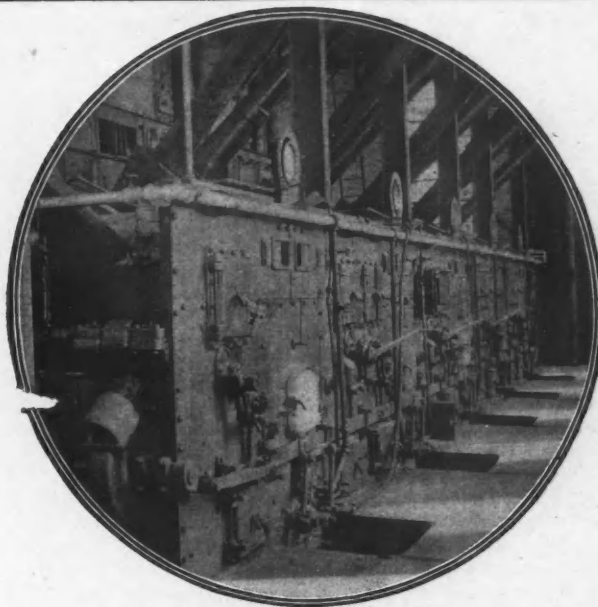
### Tonawanda Paper Co. Starts Up

NIAGARA FALLS, N. Y., January 31, 1921.—A small gang of men started work at the Tonawanda Board and Paper Company plant on Goose Island, Tonawanda, last Friday, and the force will be increased daily until the plant is working at capacity again, it is reported. None of the union men returned to work and the paper-makers' union has pickets at the mill. The union men will be taken back, although a new schedule of wages will have to be accepted, the company claims. There was no trouble at the mill.

# Conserve Fuel and Labor

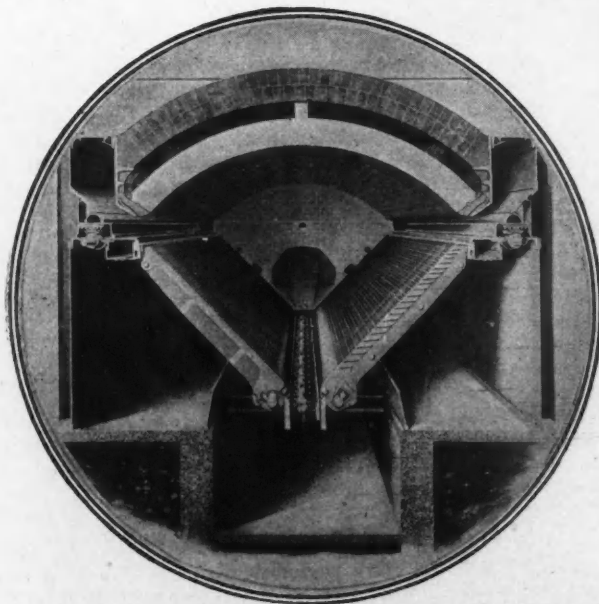
The Kalamazoo Vegetable Parchment Co. in 1916 decided to bring their power equipment up to par with the rest of their "model mill" and installed *Murphy Furnaces*. That they made no mistake is well recognized by the management, for in this time of great activity in the paper business, power is being furnished at the minimum of labor, fuel and expense.

Growing power demands have been promptly met because Murphy Automatic Furnaces double the normal boiler output "without one penny for draft."



Five Murphy Furnaces as installed to fire 300 h. p. boilers

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are highly automatic in their operation and require very little attention. The coal is fed—the fuel distributed—the fire cleaned—the ashes continuously and automatically removed.

Offset your mounting costs by installing a Murphy. It will enable you to cut the coal bill and solve the labor problem. Only a short time is required to make the savings pay for an installation.

Send for Catalog L-2. It will show you where you can save.

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Detroit, Michigan, U. S. A.

**BURN ANY FUEL THAT HAS HEAT IN IT**

## CANADIAN PAPER MAKERS DISCUSS PAPER SITUATION

**Leading Paper Manufacturers in the Dominion Survey the Situation in Various Lines of Paper—Confusion Regarding Reorganization Plans of the North American Pulp and Paper Co.—Abitibi Power and Paper Co. to Be Largest Producer of News Print and Sulphite Pulp in Canada—Pulp and Paper Trade Holds Meeting—Other News of the Pulp and Paper Trade in Canada.**

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., February 1, 1921.—One of the principal subjects of discussion in pulp and paper circles here at the present time is the question of the market outlook. The depression which has prevailed for some time in the market for book, bond and wrapping papers, with a consequent falling off in the demand for chemical and other pulp, is expected by many ultimately to affect the news print situation. While there has been considerable reductions in the prices of other papers and while the prices in the spot market for news print have dropped from 50 per cent to 75 per cent in many cases, the price for news print on contract is the highest on record. Speculators in paper securities have already discounted a possible reduction in demand and in price. With a view to obtaining opinions of experts on the outlook, opinions have been obtained from George Chahoon, Jr., president of the Laurentide Company, on the outlook for the coming year, in the news print market; C. Howard Smith, president of the Howard Smith Paper Mills on the book and high grade paper outlook, and of J. H. A. Acer, head of J. H. A. Acer and Company, on the kraft paper outlook.

The opinions cover the three large fields of business engaged in by the pulp and paper companies of Canada, and together can be considered a general summing up of the industry's future insofar as experts each in his line can judge it. The opinions are based on present indications, and do not take into consideration unforeseen disaster of any kind that might affect industry as a whole or in part.

### News Print

Mr. Chahoon says: The demand for this commodity has been more uniform than for any other commodity and reflects very prosperous conditions in the newspaper industry. Prices for paper made by the large producers are at the maximum. No price adjustment has been heard of and none is possible until after the first quarter of the year. There is nothing in the general outlook that would alter the belief that the news print industry is in a very healthy condition, due to the fact that the supply and demand are very closely balanced. Whatever may happen in the future no readjustment in news print prices will be out of proportion to the readjustment in prices of all commodities that go to the making of news print.

### High Grade Paper

Mr. Smith says: There has been a lull in the high grade and book paper market, and some of the mills have closed down, considering it an opportune time to do overhauling. As far as our plants are concerned they are working at seventy-five per cent capacity, with business picking up sufficient to warrant the belief that within a month it will again be normal. As far as we can see, with readjustment at both ends, the mills making our grades of paper should average out in 1921 on a par with 1920.

### Kraft Paper

Mr. Acer says: Those who use packing and wrapping paper,

etc., have supplies still on hand and these must be worked off before there can be any return to normal business with the kraft paper mills. The mills have not stocks and are working to fill incoming orders. When the present supplies in the hands of the consumer are worked off will depend on the increase in business in all lines of commodities and that part is hard to predict. However, lately we have noticed a slightly better demand, although world wide it is still dull.

### North American Company's Re-organization

Much confusion prevails in the minds of investors here regarding the plans for the reorganization of the North American Pulp and Paper Company Trust, and regarding the relationship with this company and the various companies with which it is associated. It is explained that through a reorganization carried out a year or two ago, control was assumed by the Saguenay Pulp and Power Company, the effect of the arrangement then carried out being that the North American was practically eliminated and that any dividends paid on its shares would simply be on virtue of its ownership on the stock of the Saguenay Pulp and Power Company. The Trust estate now consists of approximately 40,000 common shares of Saguenay and 12,000 preferred, all having a par value of \$100. North American has outstanding but \$46,000 par value of preferred shares and somewhat less than 100,000 no-par common shares—probably 997,760 shares.

It would seem that the great bulk of the preferred stock has already been exchanged for Saguenay preferred at 112 under the offer available.

The offer of \$6 per share proposed for North American has to be interpreted in the light of the foregoing and also in the light of the option which the holder will have to exchange instead into Saguenay stock at the rate of 10 North American shares for approximately one preferred and four common of Saguenay of a par value of \$10 each. For the purpose of enabling this exchange, Saguenay shares will be altered from their par value of \$100 to a par value of \$10. This alteration in no way alters either the value of the assets or the aggregate value of the shares or that of individual holdings.

### Saguenay Pulp Co. Has Good Year

Saguenay Pulp and Power has recently completed an excellent year, by far the best in the history of the companies. Earnings for the ten months indicates profits for the year of \$3,000,000 from mechanical pulp and of \$1,500,000 from chemical pulp for the year. But to these profits is to be added a considerable sum based on sales in the last month of the year, at higher prices, so that the entire profits will be well in excess of \$5,000,000 after making full allowance for bond interest, depreciation, etc. In addition to other improvements which were carried out in consequence of the re-financing accomplished through Saguenay Pulp and Power, was the trebling of the available horsepower at Chicoutimi. This now amounts to 7,200 h. p., all of which is sold. In addition the company built No. 4 mill at Chicoutimi with a capacity of 80 tons of mechanical pulp daily and installed automatic stokers and barkers at the Chandler mill where operations, instead of showing a considerable annual loss, as formerly, have resulted in a profit this year of upwards of \$1,500,000. The claim is made that the cost of producing mechanical pulp is lower in the case of this company than in any other company in Canada.

### Abitibi Company's Increased Production

By May first next, when the installation of its new machinery will be completed, Abitibi Power and Paper Company will be the largest producer of news print and sulphite pulp in Canada. The output of news print will be increased to about 500 tons per day

(Continued on page 24)

# J. Andersen & Co.

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

## A-1 Bleached Sulphite

Agents for

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

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## KRAFT PULP

*Uniform in Quality*  
*Essential for Strength Requirement*

**The Pulp and Paper Trading Company**

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

Sole Agents for United States for

**CANADIAN KRAFT, Ltd.**

**Three Rivers, Canada**

## CANADIAN PAPER MAKERS DISCUSS PAPER SITUATION

(Continued from page 22)

and the production of sulphite, ground wood and boards will also be increased, so that if market conditions are favorable, about the middle of the year the company plans to have a surplus between groundwood pulp and sulphite of about 240 tons per day, which will make a total production for sale, most of it for export, of considerably over 700 tons per day. The hydraulic power of the company is being increased, and by May 1 the power development will amount to 50,000 h. p.

### Paper Companies and Freight Rates

During the past week, a number of pulp and paper experts of the United States and Canada held a two days' meeting in Montreal under the auspices of the Pulp and Paper Traffic League, to discuss the various matters connected with the pulp and paper trade, especially transportation. The main subjects of discussion were the question of getting deliveries in paper in better condition by the railways, and the question of charges. It was explained that the traffic managers were not so much interested in reducing carrying charges as in seeing that such charges as were made should apply equally to all, without the possibility of playing favorites or any company securing special rates.

A general expression of sympathy with the railways was made about the burden imposed on them by the McAdoo Schedule and Chicago award, adding so heavily to their wage burden, which added cost had to be assumed by the Canadian railways under the general working arrangements. As to this the general feeling of the delegates was that so long as these high costs prevailed they must be borne and paid for by the ultimate consumer, the main object of the meeting being to devise better rating and routing systems, so that pulp and paper freight could be transported at the minimum of cost and with the maximum of despatch.

It was stated after the meeting by Guy Tombs, of the Canadian Export Paper Company that the whole question of freight rates was of such vital importance to the pulp and paper industry that practically the whole work of the convention was being devoted to the discussion of the general freight rate situation in the United States, to which most of the Canadian pulp and paper products were shipped. Those present at the conference were: H. D. Hurlbut, of Chicago, president of the League; A. H. Campbell, International Paper Company, New York; Guy Tombs, Canadian Export Paper Company, Montreal, and the Donnacona Paper Company; W. H. Sabke, Price Brothers and Company, Quebec; J. O. McKerrow, Abitibi Power and Paper Company; North Bay, Ont.; H. York, Martin Cantini Company, Saugerties, New York; E. M. Antrim, Ontario Paper Company, Chicago; G. E. Griffith, Beaver Board Company, Buffalo, N. Y.; H. T. Iverson, Chicoutimi Pulp Company, Montreal; C. J. McIntype, Dill and Codins Company, Philadelphia; H. T. Ratcliff, Champion Coated Paper Company, Hamilton, Ohio; C. F. Brown, Abitibi Power and Paper Company, North Bay, Ont.; T. T. Webster, Spanish River Pulp and Paper Company, and the G. H. Mead Co., Dayton, Ohio; A. D. Huff, Riordon Sales Company, Montreal; A. F. Burley, Ha! Ha! Bay Sulphite Company, Montreal; W. L. Turner, International Paper Company, Montreal; C. L. Bishop, New York and Pennsylvania Paper Company, Johnsonburg, Pa.

### Canada Paper Company's Appeal

In the Court of Appeal, Montreal, this week, before Messrs. Justices Pelletier, Guerin, Flynn, Tellier and Howard was started the appeal of the Canada Paper Company from a judgment of Mr. Justice MacLennan in the Superior Court, granting an injunction asked by Albert J. Brown, K. C., against the company appellant, and ordering it to perpetually refrain from using sulphate soda or any obnoxious compounds emanating objectionable odors in the

manufacture of pulp and paper at the company's work at Windsor Mills, Que.

The case for the appellants, as submitted by A. W. P. Buchanan, K. C., was that the discharge of gases from the mill was not injurious to health or vegetation and that there was no known methods commercially practicable of doing away with these gases from sulphate mills. The process of manufacture adopted by appellants was described as one of the most modern and if the injunction were to be maintained it would mean the closing of the pulp mill and a portion of the paper mill, entailing the discharge of many employees. J. L. Perron, K.C., supported the case for the appellant, and G. N. Montgomery, K.C., and Aime Geoffrion, K.C., will argue the case for respondent. Further hearing was adjourned.

### Howard Smith Paper Co. and Wage Matters

Howard Smith, president of the Howard Smith Paper Mills, Ltd., referring to somewhat confusing reports appearing in the press regarding the company's position with regard to labor, says that there has been no trouble on this account whatsoever. Last year, when living costs were increasing, the men at the mills were granted an increase to meet these, on the understanding by them that when conditions changed, wages would be scaled down correspondingly. In this the men were fully agreed. They have also acceded to the recent reduction in wages, basing this upon the lower costs of living today and the fact that the industry is not operating as fully as it was a year ago. The company's plants are now operating at about seventy-five per cent of capacity.

### New Pulp Company

From Vancouver, B. C., it is announced that the Harrison Lumber and Pulp Company, Ltd., has been incorporated there with a capital of \$15,000,000, having for its principals Sir Douglas Cameron and the Rat Portage Lumber Company. The new company is expected to start work at an early date and a new pulp mill at a cost of \$3,000,000 is to be erected adjacent to the company's lumber mill at the mouth of the Harrison river, which will have a capacity of 60 tons of pulp per day.

### Swedish Paper Expert Here

Nils Wickander, engineer of Stockholm, Sweden, who has just completed a visit to the leading pulp and paper mills in Canada and who was for some years manager of one of the largest pulp mills in Northern Sweden, states the price of sulphite pulp, manufactured in Sweden, is at present declining. Financial conditions in that country have been at rather a low ebb, and prices inflated during the war are just commencing to come back to normal.

"The pulp and paper industry is the greatest in North Sweden," he stated. "The majority of the larger sawmills operating in that territory have erected pulp plants for the manufacture both of sulphate and sulphite pulp, for the disposal of the smaller timber. White pine, relatively the same wood that grows in British Columbia forests, is used exclusively.

An idea of what this trade means to the Swedish people can be gathered from the fact that while the country has a population approaching only 6,000,000 they export over 1,000,000 tons of pulp per year. Very little paper is manufactured, but the greater part of the raw product is shipped to England, and much also to the United States. Shipments are made from the Baltic Sea, which is closed to navigation in winter.

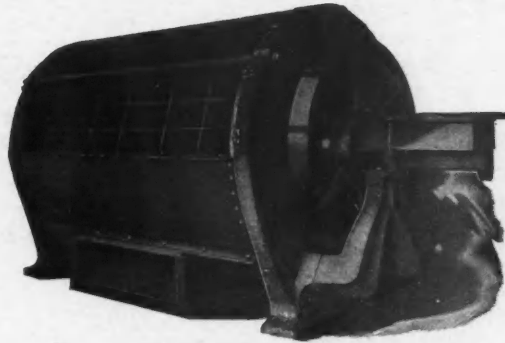
The fact that Sweden supplies so much pulp to England can account, in Mr. Wickander's opinion, for Sweden's present financial shortage, as the English consignees, instead of paying cash, paid this year by draft, and Sweden was then short several million of kronen, which is just commencing to be received.



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## FOR SCREENING GROUND WOOD TAILINGS

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and  
Upkeep Expense



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Rejections Free  
from Good  
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ANOTHER UNIT OF OUR CLOSED SYSTEM FOR PULP SCREENING

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CORRESPONDENCE A PLEASURE

**IMPROVED PAPER MACHINERY CO.** Nashua, N. H.  
SHERBROOKE MACHINERY CO., LIMITED, SHERBROOKE, CANADA

# THE NEWPORT COLORS

for PAPER

WE ARE MANUFACTURING AN EXTENSIVE RANGE OF HIGH GRADE PRODUCTS FOR THE PAPER MAKER. WE PARTICULARLY CALL YOUR ATTENTION TO OUR

**Newport Orange 2R & 2G**

SAMPLES OF WHICH WE ARE GLAD TO SUPPLY TO THOSE WHO ARE INTERESTED.



**NEWPORT CHEMICAL WORKS, Inc.**

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**PASSAIC, NEW JERSEY**

Branch Sales Offices—Boston, Philadelphia, Greensboro, N. C., Chicago, Providence

## NEW ENGLAND PAPER MERCHANTS MEET IN BOSTON

New England Paper Merchants Meet at Copley Plaza in Boston—Charles A. Young, of Carter, Rice & Co., Presides—Best Vaudeville in City Entertains—Drop of Ten Per Cent in High Grade Papers in New England Markets—Speakers at Boxmakers' Dinner—American Envelope Co. Starts—Charles Kolodny President—Knight, Allen & Clark Announce Reorganization of Company.

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., February 1, 1921.—Paper merchants from all over New England, and a number from New York and other points in the East, came together at the Copley Plaza Hotel ballroom tonight for the eighteenth annual dinner and "frolic" of the New England Paper Merchants' Association.

In accordance with the announcement, the affair was devoted solely to entertainment, business being strictly taboo. Plans were made to accommodate 250. The frolic was planned by the following committee, chosen from among the members of the association under whose auspices it was given: Charles A. Young, chairman, of Carter, Rice & Co.; Arthur Hall and Frank Merrill.

The best vaudeville procurable in Boston, on the B. F. Keith Theatre Circuit, entertained the paper merchants and manufacturers and their guests for three hours. As promised by Chairman Young, a number of "surprises" was pulled off. Frank B. Cummings, of A. Storrs & Bement Company, president of the New England Paper Merchants' Association, was toastmaster and filled the chair very ably.

### Bonds, Linens and Ledgers Lower

A drop averaging 10 per cent in the prices of bonds, linens and ledgers, of higher grade than sulphite, went into effect generally in the New England markets today. The drop did not come unexpectedly, according to a number of representative Boston paper men.

Charles A. Young, of Carter, Rice & Co., 240 Devonshire street, commenting on the drop, said that no further material change in price on this grade is expected beyond this, at least until the labor and raw material markets become readjusted. Other papers, in Mr. Young's opinion, have reached the bottom level and will hold unless there is an unexpected radical reduction in the price of sulphite pulp.

### Speakers at Boxmakers' Dinner

E. C. Wentworth, president of the National Association of Paper Box Manufacturers, will address members of the New England Division at their annual meeting at Young's Hotel, February 9. Mr. Wentworth will take for his topic, "Our National Association and the Present Outlook."

The meeting consists of both morning and afternoon sessions and a banquet in the evening. At the morning session, beginning at 9:30 o'clock, there will be reports and election of officers, Joseph H. Ferry presiding. At 12:30 a buffet luncheon will be served.

Mr. Wentworth will speak at the afternoon session and other speakers and their subjects are: F. S. Records, "Costs"; J. R. Kinney, "Open Shop or Closed Shop," and F. E. Nesmith, chairman of the Eastern division. A vaudeville entertainment will follow the dinner, which will be served at 6 o'clock.

### The Paper Situation

Paper men in the Boston field reported a continued increase in demand this week. A number, however, pointed out that many Boston concerns, including some of the larger department stores,

are now taking inventories and will not place orders before the early part of February. When these orders are put in, it is expected there will be a somewhat better aspect to the market.

One prominent paper merchant expressed the belief the paper trade would "pick up" gradually until July, when it would be back to about normal.

### American Envelope Co. Starts

The American Envelope Company, a new organization, of which Charles Kolodny is president, started manufacturing envelopes this week at 297 Congress street, Boston. The company has 4,000 feet of floor space on the sixth floor and is installing the latest envelope manufacturing machinery, for the manufacture of both the commercial and papeterie trade. The company at present has one machine running and has started to fill a large order. It will sell to jobbers generally.

Mr. Kolodny was formerly in the stationery business at 62 Kingston street, and sold out to the Broadway Stationery Company, to engage in envelope manufacturing. The company will ship direct. The office is also at 297 Congress street. Mr. Kolodny expects to issue an announcement to the trade soon. More machines are expected to arrive the first of the month.

### Knight, Allen & Clark Reorganized

Knight, Allen & Clark, paper merchants, 177-179 High street, Fort Hill Square, have reorganized, according to an announcement made this week. The announcement reads: "Knight, Allen & Clark announce to the trade in general the reorganization of their business from a partnership to a Massachusetts corporation to be known as Knight, Allen & Clark, Inc., with officers as follows: Carleton Knight, president and general manager; George D. Allen, vice-president and treasurer; Nathan S. Clark, secretary. We express our appreciation of your patronage and assure you of our intention to merit your further regard and esteem." In a letter to THE PAPER TRADE JOURNAL, Mr. Knight says: "This business was started in September, 1919, and has grown since then to sizable proportion. We go forward into 1921 with high hopes, confident that the United States of America, the State of Massachusetts, the city of Boston, and Knight, Allen & Clark, Inc., will come through with flying colors."

### General News of the Trade

John Carter & Co., Inc., 100 Federal street, are conducting a drive on "Active Bond" and "Arkwright Ledger," two of the lines of the Collins Manufacturing Company, of which John Carter & Co. are sole New England selling agents.

Mr. Farley of the Amboy Paper Company of Bridgeport, Pa., called on the trade in Boston last week.

Ernest P. Lowe, president of the Fallauh Paper Company of Fitchburgh, for more than 20 years, has been appointed vice-president and general manager of a new pulp and paper company at Sacramento, Cal.

Waste, mostly printed matter, collected from the file and document rooms of printed matter used during the regular and special sessions of the Legislature during last year, has been sold for 40 cents per 100 this year, compared with \$1.40 last year.

### Now Rawlings Industrial Equipment Co.

The Great Western Contracting Company, Kansas City, Mo., representatives for the Conveyors Corporation of America, Chicago, has changed the name of its organization to The Rawlings Industrial Equipment Company. This organization are sales engineers for the manufacturers of power plant machinery, and the new name outlines their functions admirably. The Rawlings Industrial Equipment Company, besides handling coal and ash conveyors for the Conveyors Corporation of America, are also representatives of the Springfield Boiler Company and the Cooling Tower Company.

## Cost of Screen Belts

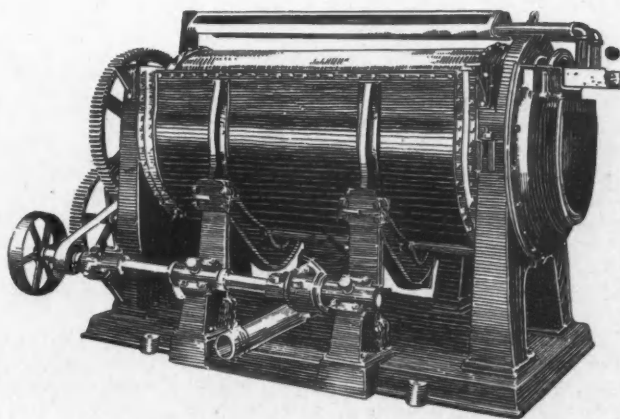
On so unimportant an item as screen belts, the BIRD SCREEN shows remarkable savings.

The small amount of power required makes possible a long life of service from a narrow belt.

### **BIRD MACHINE COMPANY** South Walpole Mass.

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

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



# BIRD ROTARY SCREENS

## PHILADELPHIA CONDITIONS ARE SLIGHTLY IMPROVING

Market, Although Still Dull, Shows More Life Than It Has Recently—Distributors State That Prices Will Not Continue to Decline—Mill Men Blamed for Misjudgment in the Past—This Has Caused a Rather Strained Situation Between Distributors and Mill Men—Paper Trade Association to Have New Meeting Place—Other News of the Philadelphia Trade.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, February 1, 1921.—Upon just one phase of the local trade is there substantial unanimity of opinion and that is that the week brought a continuous improvement of conditions, with a market at the close which though still comparatively quiet showed more life than it did at the beginning.

That prices will still further decline in the bulk of papers is denied by the distributors. But they admit that their judgment in the past was at fault and that they were led into error largely through mill representation, asserting that there would be no large decrease, and that they themselves took from the mills large quantities of goods at much higher figures than now they are able to secure for them. It is this fact that has made relationship between distributors and mill men generally rather strained.

Still, among the distributors there are adverse currents. Distributors loaded up with stock cannot of course see much further decline; those whose lines are depleted but who have requirements, are emphasizing to the mills their opinion that radical reductions must take place to move goods freely.

### General News of the Trade

Directors of the F. W. Farrell Company, paper brokers, Real Estate Trust Building, Broad and Chestnut streets, met recently and elected these officers: President, F. W. Farrell; secretary, Charles F. Koenig, and treasurer, F. Gilbert Farrell.

Harvey E. Platt, treasurer of the J. L. N. Smythe Company, paper specialists, last week attended the meeting of the national council of the Chamber of Commerce of the United States in Washington, as councillor representing the National Paper Trade Association of the United States, of which he is the former president.

Upon returning from the Chicago conference, President George W. Ward of the D. L. Ward Company, immediately left the city for a trip South which may include Bermuda and Havana.

The Pennsylvania Commissioner of Health, Dr. Edward Martin, who recently called upon the inventive genius of the commonwealth to submit designs of paper gowns to be worn in treatment of contagious diseases by physicians and nurses, offering a prize of \$50 for the best, received during the week from Mrs. Annie C. Miley, 139 W. Gorgas street, Mount Airy, the first sample suggestion. It consists of a white crepe paper gown extending from the neck to the feet, with loose sleeves, completely enveloping the clothing. The estimated cost in large quantities is 12 cents each. The gowns are to be used once and then are to be destroyed. The contest closes February 6.

Fire swept through the cotton and waste warehouse of Nathan Schwab & Son, southwest corner of Berks and Mascher streets, on January 26, causing damage estimated at \$150,000. Several hundreds of bales of waste were destroyed, although many were salvaged by being thrown into the street.

Frederick E. Hastings of Dill & Collins Co. left the city last week for an extended trip. He sailed from Baltimore, will go through the Panama Canal and up the Pacific Coast, visiting California and paying a call on the Blake, Moffit & Towne Company, California

distributors for the Diamond papers. He expects to be gone several months.

The Paper Trade Association, whose regular meeting place is in the rooms of the Typotheta of Philadelphia, of which many in the trade are members, soon will have a new home. The Typotheta, now occupying a suite on the sixth floor of the Morris Building, 929 Chestnut street, during the week took a lease for several years on the second and third floors of the building, 925 Walnut street, formerly occupied by the Saunders Company, publishers, and recently purchased by the Manufacturers' Casualty Insurance Company, in which some members of the trade are interested. The Graphic Arts Mutual Insurance Company, a co-operative organization, also will be a tenant in the Walnut street building. Extensive alterations are in progress and it is expected that the new home will be ready for occupancy about April 1. A much larger meeting room than at present is available will be arranged in the new location.

Legal notice was given during the week that the partnership heretofore existing between Peter P. Infante, John Infante, Louis Infante and Domenico Infante, trading as Infante Brothers, 333-335 S. Water street, had been dissolved by the withdrawal of Peter P. Infante, who became a member of the International Trading Company, paper stock and paper mill supplies dealers. The paper stock business of Infante Brothers will be continued by John, Louis and Domenico at the old address.

### Paper Cost Systems Not Complicated

NEW YORK, January 26, 1921.

Editor, PAPER TRADE JOURNAL:

My attention has been drawn to a paragraph in your edition dated the 13th inst., headed "A Simple Cost Report." It quotes a letter received from Mr. Jacob Kindelberger, of the Kalamazoo Vegetable Parchment Company, and below it are printed copies of reports used in Mr. Kindelberger's company.

I do not believe that to be a fact. Mr. Kindelberger states he believes this to be a fact, also that the executive feels he is too busy to wade through a mass of figures. With this second statement I am in entire agreement. Busy executives should not be asked to wade through a mass of figures and would not have to do so if they would pay the price and employ competent cost accountants. At so many mills the cost accountant is merely a bookkeeper or a junior accountant who has had merely superficial training. Cost accounting requires careful thought and study if the work is to be done properly. It is not a question of putting horse sense into a cost system, which is another quotation from Mr. Kindelberger's letter, but it is a question of employing efficient help. Mr. Kindelberger's accountant was, I believe, for some years with an accounting firm and there received the training he is putting to such good use now. A cost system, worthy of the name, requires no sense to be put into it because, in the first analysis, it should have been carefully erected on a broad, common-sense basis.

The letters "C" "S" stand for Common Sense as well as Cost System which, of course, is merely a coincidence but, to my mind, rather a significant one.

I hope you will find space to print this letter because I feel that Mr. Kindelberger's statement that the average cost system is complicated is rather a slur on the members of this Association since a large number of the mills having cost systems belong to this Association and have spent their money and their time freely in an effort to place the Paper Industry in general on a sound economic basis by advocating the sound business principle that selling prices should be based on "Manufacturing Cost."

Yours very truly,

THOS. BURKE,  
Secretary-Treasurer Cost Association of the Paper Industry.

Established 1886

## Service

*“LET them serve you most who serve you best.”*

*—Benjamin Franklin.*

*FRANKLIN'S principle is easy of execution once you have determined who serves you best, and this can be decided only after you have tried the best.*

*WE heartily dislike spilling so much printer's ink on white paper, in our own cause, but the world is so constituted that most people have no great confidence in anyone unless that person have an overwhelming confidence in his own ability.*

*P. S.—We're confident!*

# WOOD PULP

AND

# CHEMICALS

OF EVERY DESCRIPTION

## M. GOTTESMAN & COMPANY

— INCORPORATED —

18 East 41st Street

New York, N. Y.

## KALAMAZOO PAPER CONCERNS FILE 1920 ANNUAL REPORTS

**Reports Thus far Filed Show That Prosperity Was Enjoyed Throughout the Industry—Directors and Officers Elected for 1921—Sutherland Paper Co. Discontinues the Manufacture of Parchment and Will in the Future Confine Its Attention to Making Boxboard, Cartons and Containers—Sells Equipment of the Parchment Division to the Kalamazoo Vegetable Parchment Co.**

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., January 31, 1921.—These are annual meeting days for the stockholders of the great paper making institutions in the Kalamazoo valley. Before the middle of February rolls around, officers and directors will have been chosen for the various concerns and the organizations squared away for the better times ahead.

Annual reports filed so far show prosperity was enjoyed in 1920 throughout the industry. In this connection, it is reported that the stockholders of the Standard Paper Company adopted resolutions empowering the board of directors to declare a 50 per cent stock dividend at their discretion. The company now has capital stock of \$360,000, with well over a million dollars assets and surplus of over \$800,000. It has been one of the most successful paper making concerns in the valley.

Annual elections held to date show the following selections of directors and officials for 1921:

### Standard Paper Co.

Standard Paper Company: Directors, B. C. Dickinson, J. H. Dewing, A. L. Clark, H. S. Humphrey, E. A. Dunwell, J. A. Wheeler, C. H. Stearns, J. F. Byrne; president, B. C. Dickinson; vice-president, J. H. Dewing; secretary-treasurer, A. L. Clark.

### Hawthorne Paper Co.

Hawthorne Paper Company: Directors, A. H. Dwight, F. M. Hodge, R. L. Pease, S. B. Monroe, J. H. Dewing, W. M. Loveland, C. H. Kleinstuck; president, A. H. Dwight; vice-president, F. M. Hodge; secretary-treasurer, R. L. Pease.

### Rex Paper Co.

Rex Paper Company: Directors, John F. King, C. A. Bradford, Edwin H. Hacking, Merrill B. King, W. M. Loveland, Kalamazoo; William G. Irwin, Columbus, Ind.; A. Aldrich, Beloit, Wis.; president, John F. King; vice-president, C. A. Bradford; secretary, Edwin H. Hacking; treasurer, Merrill B. King.

### Western Board & Paper Co.

Western Board and Paper Company: Directors, A. E. Curtenius, W. H. Scott, P. C. Servaas, F. M. Hodge, M. Redmond; president, A. E. Curtenius; vice-president, W. H. Scott; secretary, P. C. Servaas; treasurer, F. M. Hodge; manager, Winship A. Hodge.

### Kalamazoo Paper Co.

Kalamazoo Paper Company: Directors, E. C. Parsons, Woodbury Ransom, C. S. Campbell, A. B. Connable, D. R. Curtenius, C. H. Kleinstuck, W. S. Dewing, F. M. Hodge, A. E. Curtenius, Kalamazoo; D. F. Altland, Detroit; president, F. M. Hodge; vice-president, D. F. Altland; secretary-treasurer, A. E. Curtenius.

### Illinois Envelope Co.

Illinois Envelope Company: Directors, Noah Bryant, F. H. Milham, Charles Clarage, Abe Van Bochove, V. T. Barker, W. B. Milham, M. S. McKinstry; president, W. B. Milham; vice-president, V. T. Barker; secretary-treasurer M. S. McKinstry.

### King Paper Co.

King Paper company: President, A. L. Pratt; vice-president,

E. S. Rankin; secretary-treasurer, George S. Davis; directors, G. S. Davis, J. H. Dewing, C. A. Peck, A. L. Pratt, E. S. Rankin, G. W. Ritchie, of Kalamazoo; E. J. Dayton, J. W. Thompson, Detroit.

### Bryant Paper Co.

Bryant Paper company: President, Frank H. Milham; vice-president, Noah Bryant; secretary, A. Allen Fox; directors, Frank H. Milham, Noah Bryant, C. Allen Fox, W. B. Milham, H. P. Kauffer, Joseph E. Brown, E. M. Irish, Felix Pagenstecher, Glenn S. Allen, Charles Clarage, of Kalamazoo; E. L. Brooks, Cleveland.

### Lee Paper Co.

Lee Paper company, Vicksburgh: President, Fred E. Lee, Dowagiac; first vice-president, George E. Bardeen, Otsego; second vice-president, A. B. Gardner, Dowagiac; secretary-treasurer, Norman Bardeen; directors, the above and Samuel Folz, Kalamazoo; C. H. McKain, Vicksburg; John A. Howard, Dowagiac; George D. Cobb, Schoolcraft.

### Eddy Paper Co.

Eddy Paper company, Three Rivers and White Pigeon: President, Frank H. Milham, Kalamazoo; vice-president, Oscar Gumbinsky, Chicago; secretary, Charles E. Nelson, Three Rivers; treasurer, George Wolfe, Three Rivers; directors, the above and A. L. Pratt, Charles A. Blaney, E. S. Rankin, Louis Kirby, Henry L. Vanderhorst, Howard H. Buckhout, of Kalamazoo, and Harry Gumbinsky, of Chicago, the latter succeeding C. C. Colbert, of Elkhart.

### C. A. Hubbard to Locate in Kalamazoo

It was inadvertently stated in a recent issue that Corroll A. Hubbard had planned to locate in the paper business in Chicago. This is incorrect. Mr. Hubbard will engage in the paper business in Kalamazoo, having already leased suite 401 in the Peck Building in that city. He has made an arrangement to take the product of the Harper machine of the Peshtigo Pulp and Paper Company at Peshtigo, Wis. The greater part of the tonnage will be made up in onion skin and the balance in light weight bonds—all the output to be sold to the paper merchants. The paper machine is now being set up and is expected to be in operation by the middle of February.

### Discontinue Parchment Plant

The Sutherland Paper Company, of this city, has discontinued the manufacture of parchment paper and will in the future devote its entire attention to making boxboard, cartons and containers. L. W. Sutherland, president of the company, has sold to the Kalamazoo Vegetable Parchment Company the equipment of the parchment division.

The present building, which has housed the parchmentizing plant, will be converted into a box plant. Machinery and equipment is being ordered and will be installed as soon as received.

### Vegetable Parchment Co. Improvements

In conjunction with the erection of a new two-machine mill by the Kalamazoo Vegetable Parchment Company, President Jacob Kindleberger announces that the company plans to build an up-to-date community house. This is necessary because the locating of the new mill will result in the demolition of the building so long used as Welfare Hall, the company's social center.

The new community house will be located on the River road directly opposite the new mill. There will be a general assembly hall, reading rooms, dining room, kitchen, baths, gymnasium, in fact everything that goes to make up a perfect club for a community. While the plans have not been prepared, the structure will be in every way high class and a model of its kind.

The question of finances is practically settled. One-third the cost of the structure will be paid by the Kalamazoo Vegetable Parchment Company, one-third by the community enjoying the advantages offered and the final third by a local financier.



## Standardize

your requirements for Grease-proof paper on tested quality.

The well-known brands Purity and Berkshire will meet all requirements a high grade Grease-proof paper is subject to.

Many of the largest paper distributors of the country have standardized on Mountain Mill products.



Why don't you?

*We will be glad to mail you a full line of samples.*



LEE, MASSACHUSETTS

Chicago Sales Office: 1148 First National Bank Building  
New York Office: 225 Fifth Avenue

*Arthur R. Rapp Company*

**PAPER**

CONWAY BUILDING

Chicago

We endeavor to establish a closer relationship between mill and jobber or converter on the basis of permanent connections rather than transient sales.

**Selling to Jobbers and Converters Only**

L. H. BOGART,  
Secretary

H. BARGER,  
Treasurer

Manufacturers' Exporters

of

# PAPER

to the Wholesale Jobbing Trade  
Exclusively

**W. M. Pringle Co., Inc.**  
Howard and Crosby Sts., New York, N. Y.

Cable Code—Pringle Co., New York. All Codes

*"We Build on Service"*

MANUFACTURERS

*Paper Box Boards  
and  
Specialties*

Let us handle your New York and vicinity business on the—

**Direct Sales to Consumer Basis**

The new adjustment of business conditions warrants your doing so.

**James J. Boyd**

Incorporated

*Warehouse & Office*

390 West Broadway, New York

## SITUATION IN CHICAGO CONTINUES TO IMPROVE

**An Increasingly Large Number of Inquiries Is Being Received, and Paper Men Believe That This Means That Buyers Will Be Actually Placing Orders for Paper Soon—International Association of Printing House Craftsmen Will Hold Second Annual Convention in Chicago in July—Walter R. Rapp to Represent Invincible Pulp & Paper Co. in Chicago.**

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, January 31, 1921.—A weekly advance in inquiries is noted among the trade here. Since two weeks prior to Christmas the jobbers here have been receiving inquiries which have been coming in faster and faster as the weeks go by.

Though, according to jobbers and mill representatives here, these inquiries are not orders, they carry a meaning. A number of the members of the Chicago trade have received orders which were the results of previous inquiries. The meaning of all these inquiries is very clear, assert a number of paper men here. It means that the buyers are in the market and are merely waiting for what they think is the right buy.

The dull buying season which has just passed left a number of paper buyers and users with low stocks. They are mostly all still doing business and still using paper. They are probably not entirely out of paper in any instance but for the good of the trade they represent they are not going to take a chance on running completely out.

Jobbers here have taken a keen interest in the increase in advertising which seems to be taking place. Direct advertising is being done, it is said, by firms who never before did business in this way. That "1921 Will Reward the Fighters" is beginning to be realized by numerous business heads and they have rallied their forces to do some fighting. A lot of this will be done on paper. Therefore the jobbers here look for a good demand in the very near future.

### Western Paper Merchants Meet

Fifty members of the Western Paper Merchants' Association met at the Hotel Morrison here, January 24. Luncheon at noon and dinner in the evening were enjoyed. The discussions concerned general conditions of trade.

Negotiations have been completed which place the Chicago agency of the Foley Paper Company of Springfield, Mass., manufacturers of toilet papers, with the J. C. Foley Paper Company of Chicago. The Chicago company will, starting February 1, represent this company's toilet paper output in Chicago, selling exclusively to the jobbers.

### McNulty Paper & Twine Corp. Moves

The McNulty Paper and Twine Corporation moved into larger quarters January 8, which gives them five times the floor space they formerly had at the plant at 18 West Kinzie street. The new address of the company is 535 West Chicago avenue.

This corporation, manufacturers of coarse papers, wrapping papers and twines, expects to expand its business in a large way. A. W. McNulty of the company said that they were going to increase their sales force by a full dozen highly efficient salesmen. C. M. Middleton, formerly representing various mills as Chicago agent, has taken the job of salesmanager with this company. New machinery and equipment will later be installed.

### Walter R. Rapp Co. Starts Business

Walter R. Rapp, formerly a partner of Arthur R. Rapp here, has started a paper office of his own which is known as the Walter

R. Rapp company and is located in the Conway Building. Owing to the similarity of names between his company and the company of which his brother is the head, Mr. Rapp states that he is not going to handle the same lines of paper. He has opened his office here as a mill representative and is ready to receive inquiries, he says. He is handling ground woods, sulphite papers, combination ground woods, sulphite specialties in any grade which includes hangings, news, posters, etc.

### Runs Business as Big Family

George B. Gaw runs his business as near to the big family idea as he possibly can. Mr. Gaw was formerly a member of the wandering throng which passes the evening making a living beyond the foot lights. Now he is the president of the Gaw-O'Hara Envelope Company. When the rents started to skyrocket a year ago, Mr. Gaw called a meeting of his employees and after asking all those who wanted a house of their own to stick up their hands he explained that he was giving them away and made preparations for them to get one. This was a part of his family scheme.

Mr. Gaw believes that a working man can not be happy unless it is possible for him to save some money, at least a dollar a week. He recalls his own experience at saving and knew that the hardest part of all was to get a start of the habit. So, thinking that high rents were taking all the money his employees could save he eliminated the rents by giving them houses.

When Mr. Gaw called his employees together he said to them:

"We have to save. If you can't put aside at least one tenth of your pay each month, there is something the matter. Either I'm not paying you enough or you are not worth enough, or you are spending too much. You cannot do anything without a start and the thing to do is to begin now. Here are your bank books," he said, and the books were passed around. "I've made the initial deposit for you. I don't want you to feel compelled to do any saving, but if there is any one here who won't save at least one dollar each week, his resignation will be accepted. And at the end of the year, whatever amount you have saved over fifty dollars, will be doubled."

There were no resignations.

Mr. Gaw's house plan is to build a series of bungalows in the Garfield Park district which he will present to the employees with the first payment made and the balance to be paid in rent.

### B. T. McBain Resigns from Crown Willamette

[FROM OUR REGULAR CORRESPONDENT.]

WEST LINN, Ore., January 26, 1921.—B. T. McBain, for the past fifteen years a resident of Oregon and connected with the management and operation of the mills of Crown Willamette Paper Company in the States of Oregon and Washington, surprised his many friends a few days ago by announcing his resignation from that company's employ.

He came to Oregon in 1906 after twelve years in the San Francisco business and sales offices of the Willamette Pulp and Paper Company, and for a few years acted as assistant to Norman R. Lang, then managing director of that company. In 1911 when Mr. Lang accepted the position of managing director of Powell River Company, Ltd., at Vancouver, B. C., Mr. McBain was promoted to succeed him at Oregon City. Under his management the mills here have prospered and he is a favorite among his men.

Since the Crown Willamette Paper Company was incorporated, he has been associated with A. J. Lewthwaite at Portland, Ore., as assistant resident manager, though he continued to reside at Oregon City, only recently moving his family to the metropolis of Oregon.

He is now completing some matters started by him, which he expects to have out of the way by March 1, when he plans on taking a rest before entering other employment.

He will not announce at this time what his new connection will be or whether he has as yet made one.





**CREPE  
ABSORBO  
NAPKINS**

Bought by restaurants, boards of health, sanatoria and hospitals all over the country in larger quantities than any other napkin.

Soft—pure white—perfectly absorbent—heavily creped.

**We sell the jobbing trade only.  
Place your order today for some.**

**M. M. ELISH & CO., Inc.**  
29 Beekman St. New York City

**SEE ELISH ABOUT NAPKINS**

ALVAH MILLER, Pres. TOM. T. WALLER, Vice-Pres.  
NATH'L L. MILLER, Secy.-Treas.

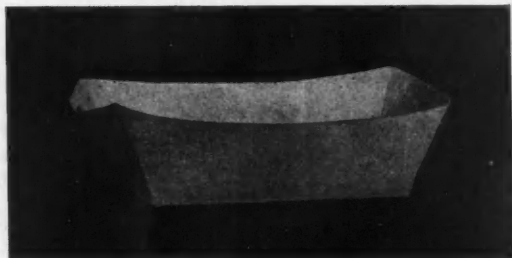
**Craig-Becker  
Company  
INC.**

**Domestic and Foreign  
Ground Wood and  
Sulphite**

52 VANDERBILT AVE.  
NEW YORK CITY

*Established 1898*

**COMPARE VALUES**



All One-Piece No-Leak Waxed Paper  
Dishes Made on Automatic Machines,  
Untouched by Human Hands.  
Square and Flat Paper Bags.

*Manufactured by*

**L. GLICKMAN & CO.**  
133-135 Greene Street New York

*Ask for prices and samples.*

**To the Paper Mills:**

We have facilities for handling the distribution of all grades of paper and cardboard in New York and vicinity. We are endeavoring to add to our present list of mill connections, and offer a reliable sales outlet to meet not only the present requirements, but also those of the future.

Our organization are experienced paper men and are in a position to dispose of large tonnage at short notice.

"Ask Caldwell, He Knows"

**Caldwell Paper Company**  
409 Fifth Avenue,  
New York

## PAPER MARKET IN TORONTO IN UNSETTLED CONDITION

**Business Is Picking Up in Some Departments of the Market, But Continues Dull in Others—Feeling That Prices Have Not Yet Touched Bottom Is Causing Large Buyers to Order Only Such Quantities as Are Needed for Immediate Requirements—International Papermakers Organizations Hold Meetings to Discuss Matter of Wages—Other News of the Canadian Trade.**

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ont., January 31, 1921.—In some lines of paper business is picking up, but in other departments trade is dull. There is a feeling that prices have not yet touched bottom and, while this conviction continues, there will not be much business placed by the larger firms, who are holding back and buying only such quantities as required for immediate use. There was a drop of half a cent during the past week on "B" and on No. 1 manila. The former is now quoted at \$9.50, in car lots, to jobbers, and the latter at \$11.50. There has also been a reduction in the delivery prices of spot lot sheet news, which indicates that the market in news print is weakening. For one ton and up the figure is now 8½ cents per pound; one quarter ton and up to one ton, 8 9/10 cents; less than one quarter ton, 9¼ cents. All prices are f. o. b., thirty days, nearest shipping point.

### Improvement in Toilet and Tissues

There has been some improvement in the toilet and tissue market and the demand is considerably better as a result of the recent decline in prices. There is no fixed schedule as yet in book papers, although there has been a substantial price reduction on various grades. Some of the new quotations, in ton lots and over, are: Avon, white, suede finish, reduced from 33 to 29½ cents; honey-moon vellum, white, parchment (per case), 60 to 53½ cents; university, m. f., 22 to 17½ cents; tariff paper, 27 to 19½ cents; programme, 23 to 19 cents; de luxe, egg shell finish, 24 to 20 cents; colors, 25 to 20 cents; wove and laid text white, 27 to 22½ cents; velour art, 4 to 20 cents; bond of avon, white, India wove and laid, deckle edge, 34 to 29½ cents. In other lines of book papers the values are as yet undecided and shipments are being made at prices prevailing at the time of delivery. Present figures are tentative. Publishers are negotiating with the mills for new contracts on a reduced basis, but so far few contracts have been signed.

### Lull in Demand for Pulp

There is quite a lull in the demand for pulp of all kinds. The mills, which have any stock on hand, are not buying, as they desire to see what is going to happen. Bleached sulphite is quoted at \$155 to \$160, f. o. b. mill, with easy bleaching selling at \$120, and ground wood pulp from \$65 up. There is no disposition on the part of the sulphite mills to decrease prices as, even if they were lowered, manufacturers contend that consumers would not purchase in large quantities, in view of the present state of trade and the feeling of uncertainty regarding the future.

### Inquiry Into Big Pulpwood Limit

In connection with the timber investigation, which is being conducted in Ontario by a judicial commission, one of the matters scheduled for investigation is the proposed grant of 5,500 square miles of pulpwood limits to the Spanish River Pulp and Paper Mills. Col. Thomas Gibson asked for an adjournment for a few days. He said that as the company's solicitor he had not received proper notice. Shirley Denison, counsel for the provincial govern-

ment, stated that, while the deal was not put through in September, 1919, it was claimed that arrangements were agreed upon sufficiently substantial to enable the Spanish River company to borrow considerable money. Hearing in the case will go on this week. Mr. Denison declared that the company now proposed to have the government ratify the deal. Premier Drury stated later that the 5,500 square miles is being held until the Timber Commission has reported. He intimated that nothing would be done, anyway, for some time, and that it was not the policy of the government to give away the domain of the province. Mr. Denison asserted that he had been instructed by the Drury government to go ahead and bring out all the facts.

### Book Publishers Want Rebate on Contracts

Representatives of the Copp, Clark Company, the Macmillan Company of Canada, and the Canada Publishing Company, Toronto, waited upon the Ontario government during the past week. They are the publishers of school textbooks, and during the last few years, owing to the steady advance in the cost of paper, labor and other materials, the publishers have been losing money on their contracts, which are for a long term. The deputation asked for reimbursement for losses. Premier Drury stated that the government would go fully into the matter. He recognized the exceptional nature of the conditions, but did not feel that the government would be justified in the cancellation of contracts on account of the precedent that would be established. To recognize claims for cancellation of contracts because the contracts had resulted in a loss would carry with it the right to cancel contracts that brought the publishers larger profits than were anticipated.

### Will Sell More Pulpwood Limits

The Ontario government will soon open up more pulpwood limits, the largest being at Long Lake in the Thunder Bay district. It is not the intention to dispose of the limits right away, but ample notice is given by the provincial authorities in order to allow sufficient time for the holdings to be cruised thoroughly by would-be purchasers and then to see what the berths can be sold for. The province has intimated that, in the disposal of future timber limits, attention will be given to the need of perpetuating the wooded wealth of Ontario by the establishment of a forestry policy, which will be applied to limits sold to private interests.

### Plans for A. P. & P. A. Convention

Preliminary plans have been made to make the 1921 spring convention of the American Paper and Pulp Association the most important convention and the most largely attended in the history of the industry, and already there is assurance that more organizations will schedule sessions during the period from April 11 to 14, inclusive, than has ever before been the case.

Dr. Hugh P. Baker, secretary-treasurer of the association, has prepared a preliminary program, and meanwhile efforts are being made to secure notable speakers for the sessions of the American Paper and Pulp Association itself.

The tentative program is as follows:

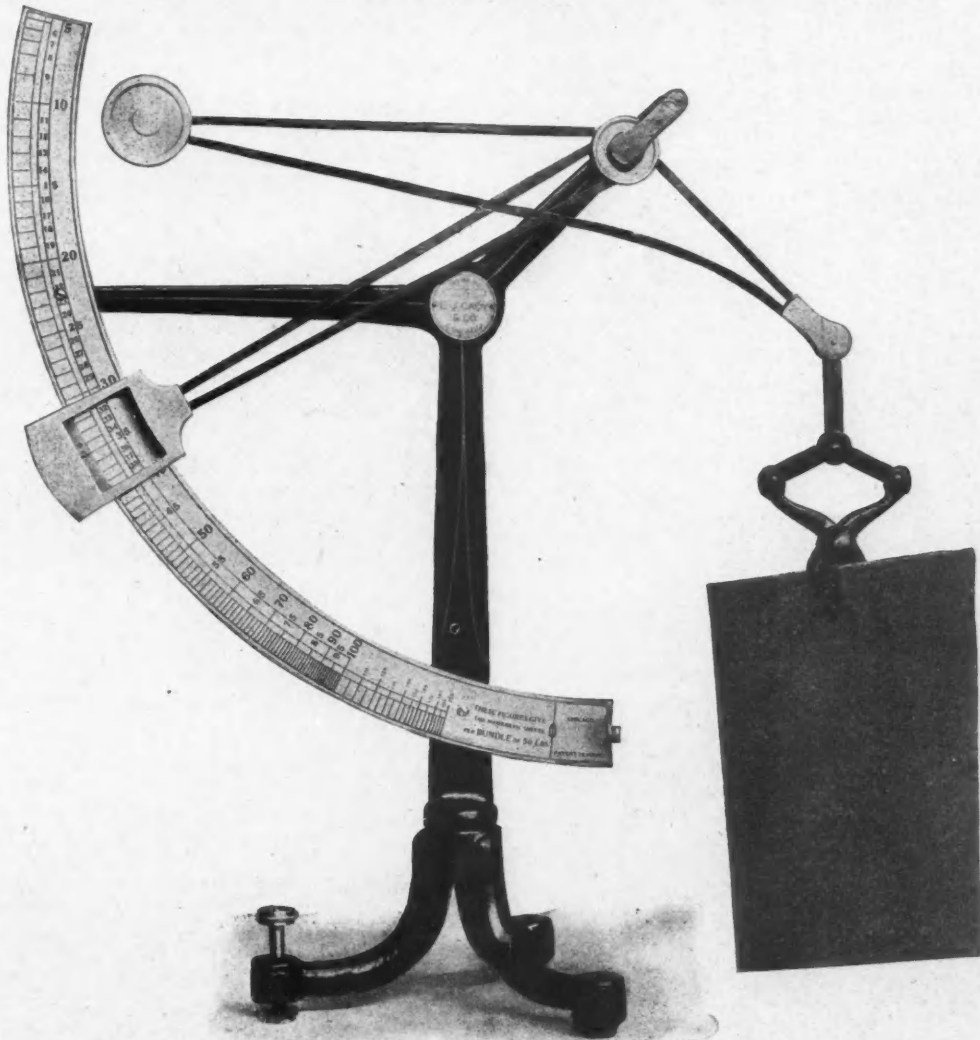
Monday, April 11—Toilet Paper Converters' Association, 10 a. m.; Tissue Paper Manufacturers' Association, 2 p. m.; Paper Makers' Advertising Club, 1 p. m.

Tuesday, April 12—Book Paper Manufacturers' Association, 10 a. m.; Cover Paper Manufacturers' Association, 2:30 p. m.; Pulp Manufacturers' Association, 2:30 p. m.; Salesmen's Association of the Paper Industry, 10 a. m.

Wednesday, April 13—Writing Paper Manufacturers' Association, 10 a. m.; Sulphite Bond Division, 2:30 p. m.; Cardboard Manufacturers' Association, 10 a. m.; Wrapping Paper Manufacturers' Association, 10:30 a. m.

Thursday, April 14—American Paper and Pulp Association, 10 a. m.; Binders Board Association, 4 p. m.

## REAM BOARD SCALE



Automatically registers accurate weight of 500 sheets of size of Box Board placed in clip, from 5 pounds up to 1000 pounds per ream and from 5 kilograms up to 450 kilograms. This is especially valuable to Manufacturers of Card Middles, Bristol and Index Boards and Document Manilas.

**E. J. Cady & Company**

326 WEST MADISON STREET

CHICAGO, ILL.

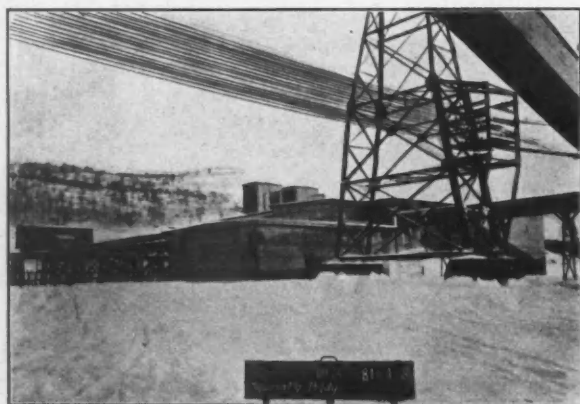
## A TEMPORARY PLANT BUILT BY THE RIORDON CO., LTD.

The Riordon Company of Montreal, Quebec, has built and put in operation at Temiskaming, Que., a 150-ton sulphite pulp plant. This plant is now being extended to produce 300 tons per day, and it is the intention to continue its extension until the plant has a capacity of not less than 600 tons per day.

Early in the year 1920, the Riordon Company commissioned the Samuel M. Green Company, Engineers of Springfield, Mass., to design an electrolytic chlorine plant for the production of the

lime bleach liquor, and also to the building of a temporary electrolytic bleach plant. It was finally decided by the Riordon Company's officials that they would construct a temporary electrolytic bleach plant at Temiskaming if they could be assured that this plant would be in operation within four months from the time that they placed the orders for the apparatus.

The engineers were instructed to prepare plans for a temporary electrolytic bleach plant, placing the electrolytic cells and motor-



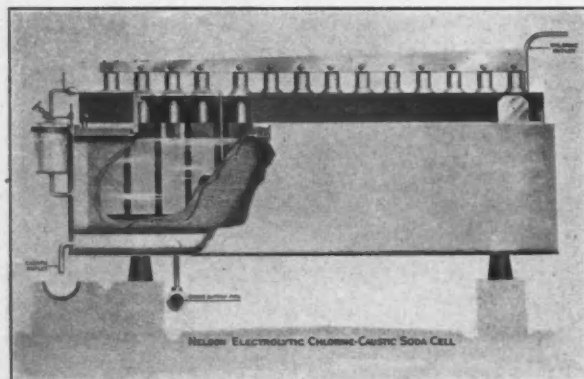
bleach necessary for bleaching the entire product of the pulp mill.

The engineers were instructed to prepare plans for a plant to produce the equivalent of 40 tons of 35 per cent bleach powder per day, in the form of lime bleach liquor, the plant to be designed so that all departments could be extended as occasion required to an ultimate capacity of the equivalent of 120 tons of 35 per cent bleach powder per day, in the form of lime bleach liquor.

The users of bleach powder during the latter part of 1919 and the early part of 1920 found it almost impossible to secure a sufficient supply, and that which was obtained was purchased at ex-

cessive prices; and, as the railroads were badly congested, deliveries were greatly delayed.

ceedingly high prices; and, as the railroads were badly congested, deliveries were greatly delayed.



The Riordon Company found it almost impossible to secure a proper amount of bleach powder for its purposes, and about April 1, 1920, requested the engineers to devise some means so that it could have a reliable source of bleach at a reasonable cost.

Consideration was given to the use of liquid chlorine to make

generator sets in a temporary wooden building and installing the auxiliary apparatus, such as bleach making tanks and salt storage tanks, in the location that they would occupy when the permanent plant was built, so that this auxiliary equipment would not have to be thrown away when the permanent plant was finally completed.

It was not possible to install the cells in their permanent location because the permanent plant is designed so that the cells will be on the second floor.

After the plans for the temporary plant were completed, about May 11, 1920, a contract was awarded to the Warner Chemical



Company for 180 Nelson patent electrolytic cell units, this contract requiring that these cells be delivered F.O.B. Temiskaming within twelve weeks of the date of the order.

Work was started immediately on the concrete chlorinating tanks and on the temporary buildings required to house the cells, the generators and the chlorinating equipment.

(Continued on page 40)

FOLLOW THE ARROW

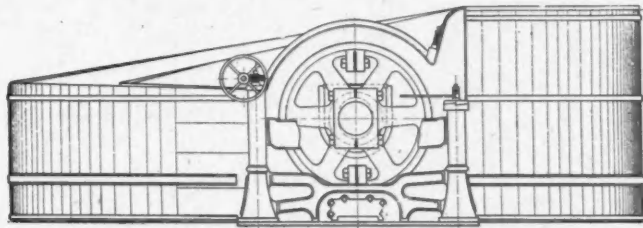
Reckless Buying Has Ended

1921

Will witness purchasing on  
the basis of MERIT only

*Therefore*

# The Niagara Beater



Will Be Greatly Demanded

*Because*

While Decreasing Costs  
It Increases Production

**Niagaras are unexcelled as Beating Equipment**

*Write for Catalogue*

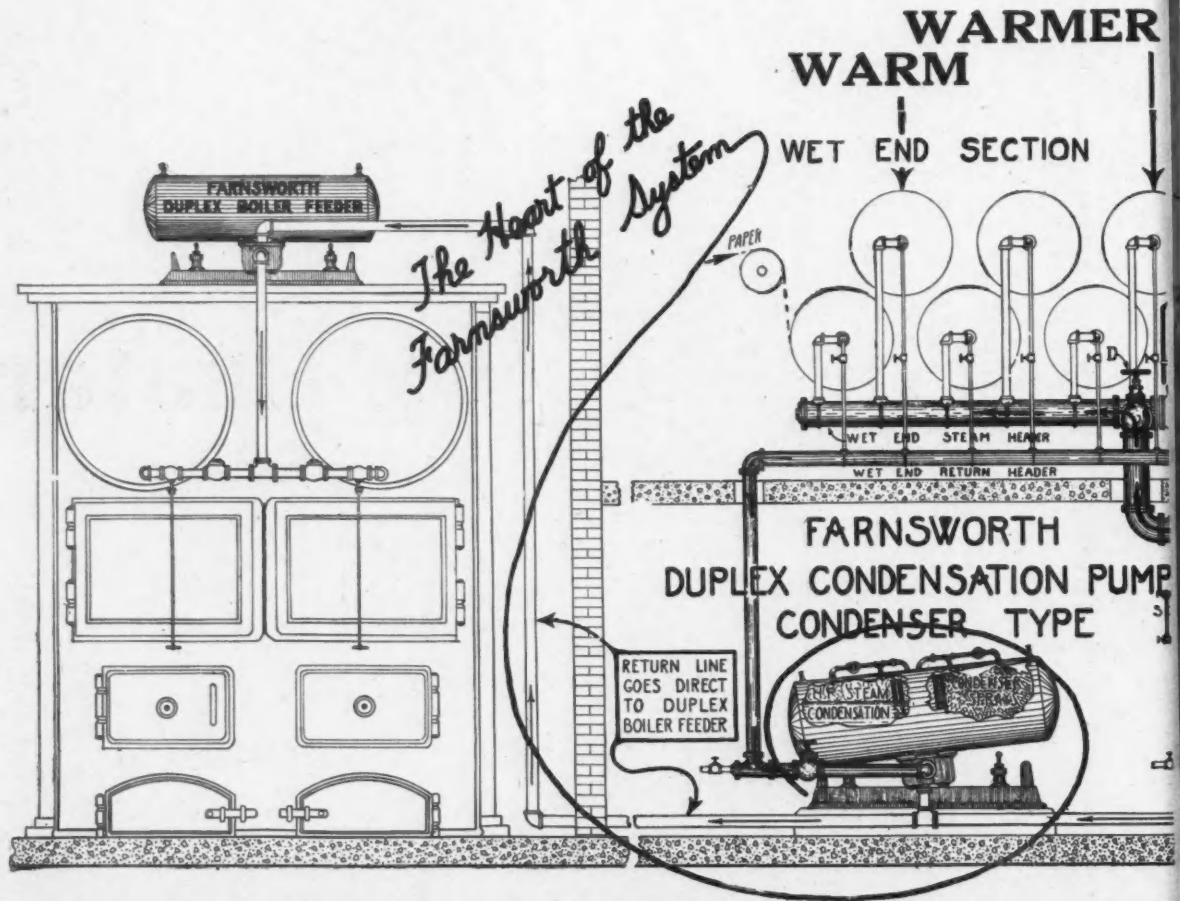
**VALLEY IRON WORKS CO.**

APPLETON, WIS.

INCREASED PRODUCTION

DECREASED COSTS

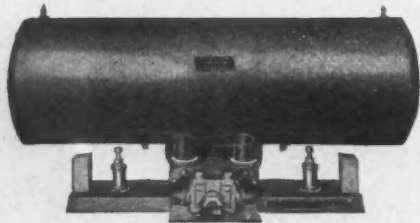
UNIFORM STOCK



# THE FARNSWORTH SYSTEM FOR

FARNSWORTH DUPLEX BOILER FEEDER IN CONDENSATION PUMP

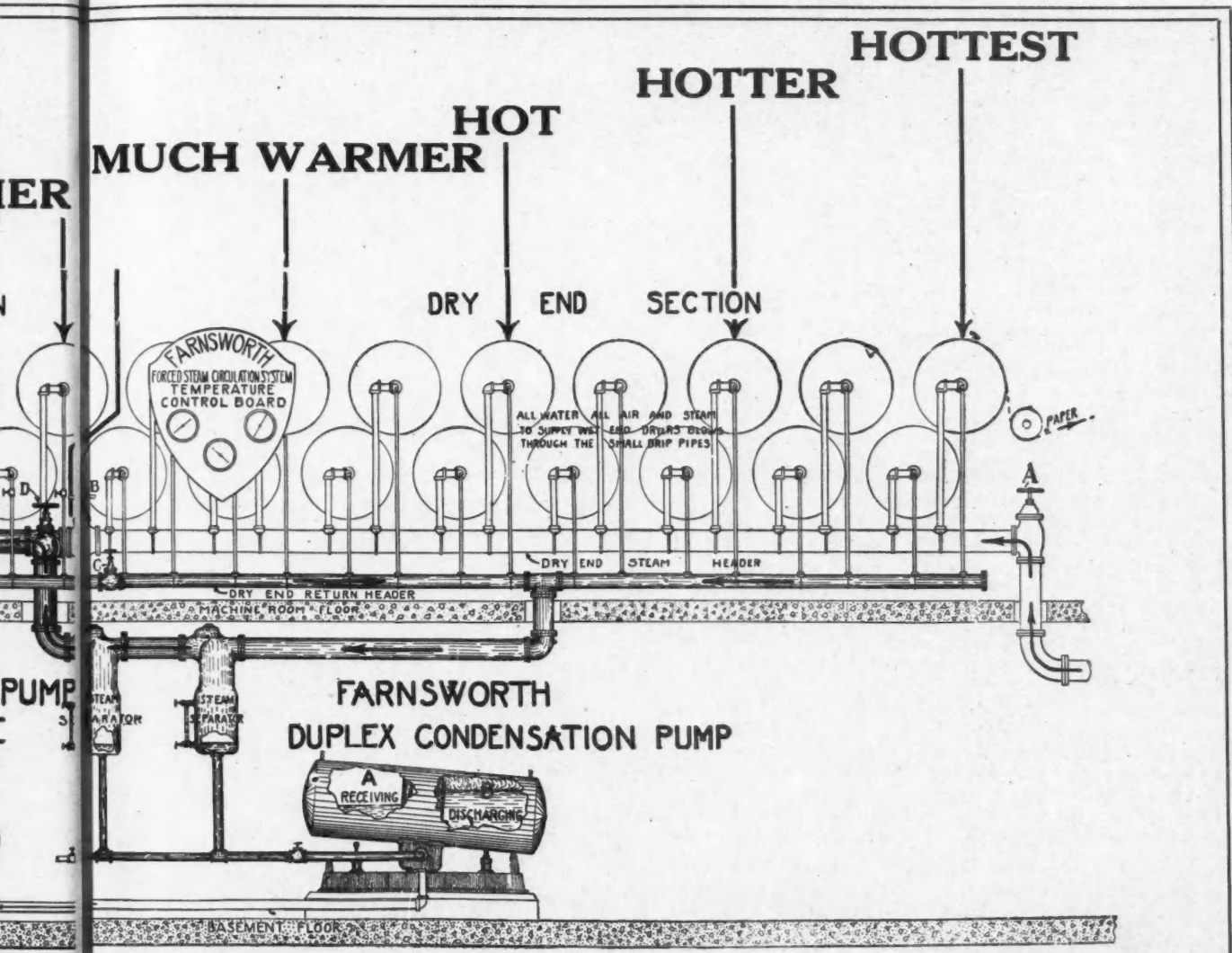
The Farnsworth Duplex Condensation Pump, Condenser type, life to your paper machine and provides a continuous circulation to the successful operation of the paper machine as the heart is



LESS COST—BETTER PAPER

The Farnsworth Forced Steam Circulation

FARNSWORTH COMPANY, Canadian Farnsworth Company,



# FOR PAPER MILLS SAVES COAL

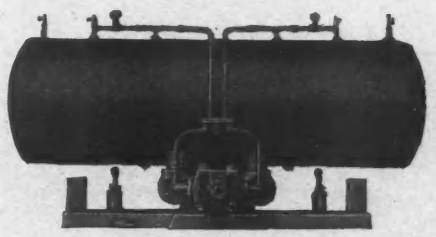
er type, s truly "The Heart of the Farnsworth System" because it gives  
 culation through the arteries connected to the heart. It is just as important  
 heart is to the human body.

APER GREATER PRODUCTION  
 ulation System Saves Coal and Increases Production

pany, Toronto, Canada

CONSHOHOCKEN, PA.

FARNSWORTH DUPLEX CON-  
 DENSATION PUMP CON-  
 DENSER TYPE



## A TEMPORARY PLANT BUILT BY THE RIORDON CO., LTD.

(Continued from page 36)

The temporary building housing the chlorinating tanks was designed so that the permanent plant can be built over it without interfering with the operation of the temporary plant.

Figure 1 is a ground plan of the generator and cell building and of the chlorinating, treating and salt storage tanks.

The plant as finally completed consists of three (3) 500 KW motor-generator sets, one being used as a spare unit; 240 Nelson cell units; three concrete chlorinating tanks; two tile absorption towers; three concrete salt treating tanks; two wooden salt brine neutralizing tanks; and the necessary pumps and piping for handling the gas and solutions. The concrete tanks are of the size and in the location that they will occupy in the permanent electrolytic plant.

The current for operating the motor-generator sets is supplied from the large hydro-electric plant which supplies current for operating the pulp mill.

The salt is delivered from the railroad track by a conveying system to the salt storage tanks and is stored in these tanks under water. Water distributing pipes are located in the bottom of the salt storage tanks so that the water used for dissolving the salt flows into the bottom of the tanks and up through the salt, becoming saturated. It overflows from these tanks into any one of the three salt treating tanks.

After the salt brine is chemically treated and impurities precipitated, the pure salt brine is decanted from the salt treating tanks and pumped to either of two wooden neutralizing tanks.

From the neutralizing tanks, the salt brine is pumped to a cell feed tank, and it flows from this tank by gravity to the cells located in the cell building.

The brine flow to the cells is controlled by the automatic feed which is a part of each Nelson cell unit.

The caustic flows from the cathode compartment of each cell into an open trough which conducts the caustic soda to a caustic soda sump pit. The caustic soda as it flows from the cell is practically free from hypochlorites and analyzes approximately 10 per cent caustic soda (NaOH) and 14 per cent salt (NaCl),

The caustic soda solution is pumped from the sump and delivered into any one of the three chlorinating tanks.

The plant is now making hypochlorite of soda, the cell effluent being chlorinated. This method is being used because it required many months to secure the proper evaporating equipment for the evaporation of the caustic soda and the recovery of the salt in the cell effluent.

The chlorine absorbing towers are supported on the top of the chlorinating tanks, arranged so that the salt caustic in any one of the tanks can be circulated through the absorbing tower by pumps which draw the caustic from the bottom of the chlorinating tank and deliver it to the top of the towers. The caustic, after passing through the chlorinating tower, flows out of the bottom of the tower into a trough and into the tank from which it is being pumped.

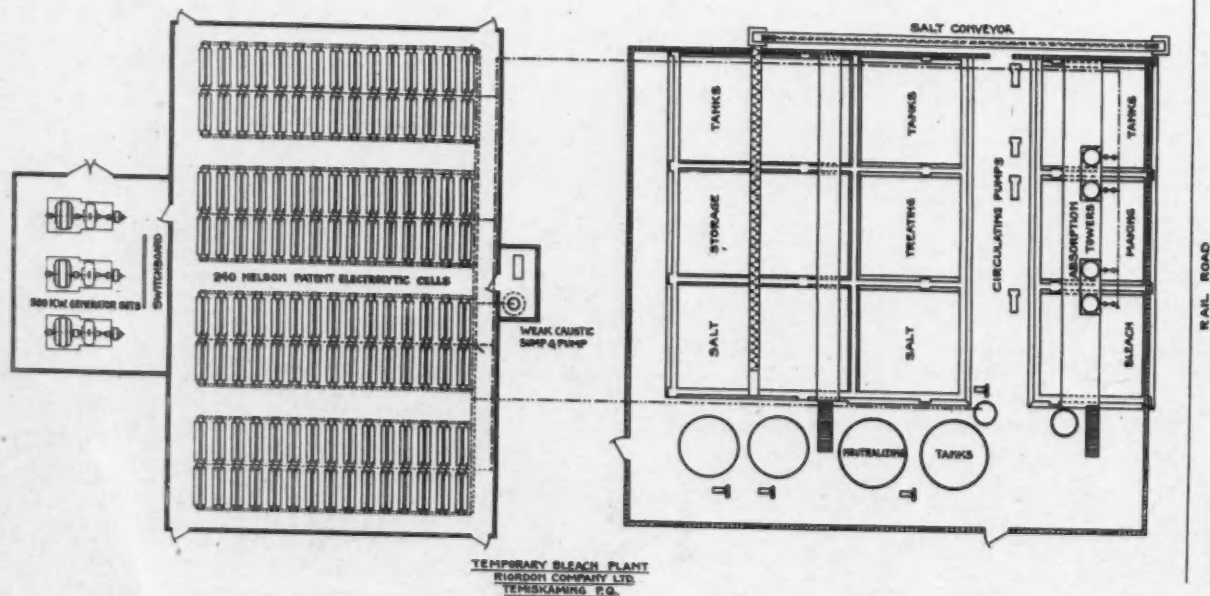
The chlorine gas is drawn from the cells through a sewer tile pipe to the bottom of the chlorinating towers and up through the towers, the chlorine gas being absorbed in its passage through the tower by the salt caustic flowing in a downward direction. The chlorine is drawn from the cells and through the towers by ordinary iron exhaust fans.

The plant has a capacity of the equivalent of 21 tons of 35 per cent bleach powder per 24 hours when the cells are supplied with current of 1,000 amperes, and as the cells may be operated at 1,200 amperes without difficulty the ultimate capacity of the plant is the equivalent of 25 tons of 35 per cent bleach powder per day.

The Warner Chemical Company delivered the entire 180 Nelson cell units in eight weeks from the date the order was placed with it and, owing to the very efficient work done by the engineering and construction department of the Riordon Company, the plant was ready for operation within sixteen weeks from the date that orders were given to build the plant.

Fig. 2 is an X-ray picture of the Nelson cell and illustrates its rugged, simple and durable construction.

(Continued on page 72)





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RAIL ROAD

## Obituary

### Louis J. Brookhyser

APPLETON, Wis., February 1, 1921.—Louis J. Brookhyser, electrical engineer for the Wausau Paper Mills Company for a number of years, died last week after a long illness. Mr. Brookhyser was one of the best known paper mill engineers in the Wisconsin river valley. He was born in Appleton about 34 years ago.

### James C. Kerwin

APPLETON, Wis., February 1, 1921.—Justice James C. Kerwin of the Supreme Court of Wisconsin, president of the Riverside Fibre and Paper Company, died unexpectedly at his home in Madison, Wis., Saturday, January 29. He had been in ill health for about two weeks but his condition was not regarded as serious. Justice Kerwin, whose home was in Neenah, was the oldest judge on the Supreme bench in point of years. He was serving his second term of ten years. Judge Kerwin was elected president of the Riverside company about three years ago.

### Arthur Kavanaugh

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., February 1, 1921.—The funeral of Arthur Kavanaugh, superintendent of the Spanish River Pulp and Paper Company mills at Sturgeon Falls, Ontario, Can., was held in Appleton, Monday, January 10. Mr. Kavanaugh was formerly a resident of Appleton. He was born here in 1876, and was connected with Appleton paper mills until he went to Sturgeon Falls, eight years ago, to become superintendent of the Spanish River company mills. He died suddenly Thursday, January 6. The decedent is survived by his widow, three daughters, mother and three sisters.

### Return from Hard Trip in Northern Bush

UTICA, N. Y., February 1, 1921.—S. J. Hall, of Utica, and G. L. Knappton of Bangor, Me., have reached civilization at Quebec, after a tour in the northern bush which makes the trip of the American aviators seem like a joy ride. The difference is that Hall and Knappton were prepared for difficult travel, and did not suffer, as did the navy fliers.

A telegram from Quebec from Hall to his family here merely told of the safe arrival of the pair, after a 300-mile dog team trip with four Indians. After resting at the Frontenac, they will return to New York, and make their report to James D. Lacey & Co., who sent them into the north country.

According to letters received from Hall, the pair has had little difficulty in completing its work of cruising a tract of about 300 square miles of timber on the north shore region, between the Height of Land in northern Quebec and the Labrador coast.

The latest word received was a telegram to E. A. Sterling of the Lacey company at New York, saying they had started December 31 for home, this message having been sent from Godbout, Quebec.

The two foresters, both graduates of forestry schools, went in over three months ago, before the freeze-up, going to Godbout by steamer, and then with Indians striking inland eighty miles, from the nearest settlement. They established camp and pushed their work until it was completed, despite the coming of Winter. The trip in took sixteen days in canoes, with sixteen portages to be made for their supplies for three months for the party.

When the Winter came, however, communication was impossible, except over the long route along the streams to Godbout. This was where they sent an Indian runner to notify New York that they were on their way to civilization.

The trip out was made by dog teams along the river courses, for a total of 300 miles. Indians handled the dogs all the way out,

and the men bring back with them detailed reports on timber conditions they found in their survey.

The trip was made, it is said, in the interest of some Northern New York paper mill owner, who wanted to investigate the pulpwood possibilities of the tract studied. Nothing will be known about the findings of the men until they make their report to the Lacey company which sent them out.

It was notable that word of their safe arrival was received the day after the American fliers landed at their base on Long Island after their harrowing experience. The foresters were 100 miles farther north than the point reached by the aviators, but came out with no difficulty because they were prepared for the trip.

### Made Secretary of St. Regis Paper Co.

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., January 31, 1921.—Carl B. Martin, who for the past few years has held the dual positions of assistant secretary and assistant treasurer of the St. Regis Paper Company, has been advanced to the office of secretary and assistant treasurer. This action was taken at the annual meeting of the board of directors held in New York Wednesday and announced here today by President Floyd L. Carlisle. Frank A. Empsall was formerly secretary and treasurer and Mr. Martin was his assistant, but now the only office held by Mr. Empsall is that of treasurer and Mr. Martin is the secretary.

At the meeting of directors no other change in the official management was made. Floyd L. Carlisle was re-elected president, Alvah Miller of New York was returned as first vice-president, David M. Anderson as second vice-president, J. J. Warren as third vice-president, Celestine C. Burns as general manager, Carl B. Martin as secretary and assistant treasurer, Frank A. Empsall as treasurer.

Mr. Martin has received rapid promotion in this company since his entry, and is recognized as one of the most efficient among the younger group of paper manufacturers in this section.

It was announced today that William H. Decker, acting general manager of the mills of the company for the past few months, has severed his connections with the concern. The reason for the withdrawal of Mr. Decker at this time is not made public. President Carlisle made no comment beyond saying that no successor would be appointed, as General Manager C. C. Burns would soon be able to resume his duties. Mr. Decker has been in charge of the mills since Mr. Burns became incapacitated by illness, and it is said that the expected return of Mr. Burns within a few days eliminates the necessity of continuing Mr. Decker in service.

### Hubbs' Salesmen Dine

The Salesmen's Association of Charles F. Hubbs & Co. held another dinner at the Hotel Claridge, Monday evening, January 24, which was a very enjoyable affair. Arthur Whitney, chairman of the entertainment committee, introduced George Keady as toastmaster of the evening.

Music was furnished by a professional colored jazz band, which entertained the party with some real old-time music as well as up-to-date numbers. Harry McCann sang some ragtime songs. Thomas Mahar was there at his best and sang some very classical songs. George Souther played and sang several opera pieces which were very fine. Hubbs' famous baritone singer, Fred Ballantyne, sang songs with all hands joining in the chorus. Mr. Wightman was called upon to make a speech. Dave Wallach told a story that nearly started a riot. Other remarks were made by R. C. Kettles, Jr., A. C. Thompson, E. C. Foster, F. E. Hight and the vice-president, Charles P. White. The closing speech was made by Mr. Whitney, the subject being "Salesmanship."

This affair is one of the many social events planned for the coming year by the Hubbs' Salesmen's Association.



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TRADE MARK

## New York Trade Jottings

R. M. Kellogg, secretary of the News Print Service Bureau, spoke to the Philadelphia Trade last Tuesday on the Snell Bill.

The general tariff committee of the American Paper and Pulp Association met at 18 East 41st street last Wednesday.

It is reported that the American Writing Paper Company has made a substantial cut in the price of several of the grades of fine papers.

More than a dozen representative paper manufacturers will attend the hearings next week before the Ways and Means Committee of Congress on paper tariffs.

An interesting article appeared in the February *Nation's Business* which was written by Colonel Haskell, vice-president of the International Paper Company. The subject was Canada's Pulp and Our Paper.

The Lagerloef Trading Company, Inc., 18 East 41st street, New York, has opened an office in Suite 1932 Conway Building, 111 W. Washington street, telephone Union 1770-1771. Robert E. Krudener is in charge.

K. Matsunami, from Tokio, Japan, is in this city investigating and collecting statistics concerning the production of pulp and paper in the United States and the cost of building mills for turning out these products.

A handsome and original booklet filled with illustrations showing 125 years of service in the paper industry has been published by Bird & Son., Inc., in celebration of its one hundred and twenty-fifth anniversary. It should be of considerable interest to everyone in the trade.

The Canadian Export Paper Company, Limited, announces that the management of its New York office is under the management of R. C. Sharpley, assisted by C. W. Nickenig and Thomas E. Pope, in order to carry on the details of the company's American sales more promptly and to secure closer cooperation with its customers.

A number of pulp and paper men attended Colonel Greeley's lecture at Rumford Hall, 52 East 41st street, held under the auspices of the New York Lumber Trade Association last week. Colonel Greeley was formerly prominent in the Forestry Service and his talk, which was illustrated with stereopticon pictures, was on conservation of the forests.

O. M. Porter, Assistant-Secretary of the American Paper and Pulp Association, spoke at the open meeting of the Conservation Group of the New York Federation of Woman's Clubs at the Museum of Natural History last Thursday afternoon. He briefly sketched the history of Conservation and then told of the importance of the support of the Woman's Clubs of the new forestry program.

An organization meeting of the Glassine and Greaseproof Paper Manufacturers Association was held at 18 East 41st street on January 26. The following were elected to office: President, L. T. Stevenson, of the Mount Mill Paper Company; vice-president, T. D. Goldberg of the Hamersley Paper Company; secretary-treasurer, O. M. Porter. A statement was prepared by the new association to be presented to the tariff hearing in Washington on February 5.

### C. H. Nealley to Control Eastwood Co.

NEWARK, N. J., February 1, 1921.—When John Henry Eastwood bequeathed to Calvin H. Nealley of 224 Broad street, vice president and general manager of the Eastwood Wire Manufacturing Company of Belleville, 1,600 shares of common stock in the company, as disclosed in the probating of the Eastwood will, he passed to him the controlling interest in the company.

While the controlling interest passes to Mr. Nealley, there will be no change in the presidency of the company, at present held by George T. Casebolt, who, besides having been an old friend



C. H. NEALLEY

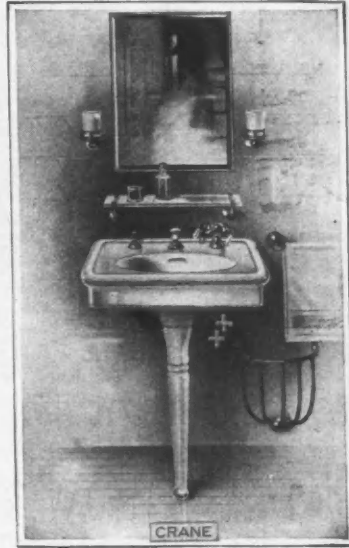
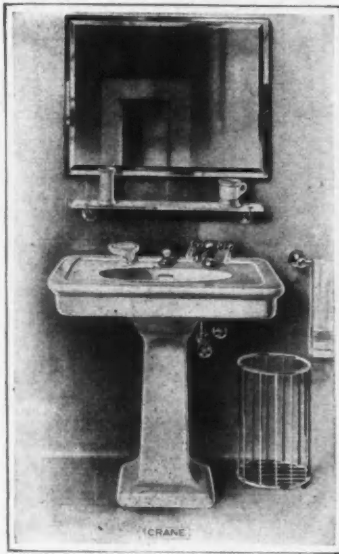
and business associate of Mr. Eastwood, is named as one of the executors of the estate. The other trustees and executors are Ralph E. Lum and Mr. Eastwood's widow.

By the terms of the will Mr. Nealley is given an option to buy within five years of Mr. Eastwood's death, which occurred January 11 at Miami, Fla., the balance of Mr. Eastwood's holdings of common stock of the Eastwood company "at par or fifty per cent. of their book value as shown by the annual statement or directors' report preceding my death." Also to Mr. Nealley is given an option to buy 2,000 shares of preferred stock in the company at par. If he buys this preferred stock, he is to get 500 shares as a gift.

Mr. Nealley came to the Eastwood company in 1908 from the New York office of the International Paper Company, where he was assistant manager of purchasing. He formerly had been attached to the company's office in Maine. He was a resident of Bangor, and for many years lived also in Portland. The Eastwood company makes Fourdrinier wire cloth and bronze fittings used in the manufacture of paper. The International bought a large amount of the Eastwood products and it was in his business dealings with the company that Mr. Nealley first came in contact with Mr. Eastwood.

It was in 1908 that Mr. Nealley joined the Eastwood company, coming as secretary. Later he became vice-president and general manager. He was in charge of the company's affairs a good deal of the time because Mr. Eastwood, for several years preceding his death, spent much time at his Long Island home and in Miami.

"I knew Mr. Eastwood for about twenty-two years," Mr. Nealley said today. "He asked me to join with him in 1908, which I did. The business will be conducted as usual and there will be no changes. Mr. Casebolt will continue as president."



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# Editorial

Vol. LXXII New York, February 3, 1921 No. 6  
FORTY-NINTH YEAR

## Foreign Trade in Paper

The exports of paper and manufactures of paper for the month of November, which have just been made public by the Department of Commerce and which are the latest figures available, show a surprising increase both as compared with the preceding month of October and with November a year ago. The figures for the month totaled \$9,079,385 as against only \$7,888,061 for October and \$5,396,287 for November a year ago. The exports of paper for the eleven months ending with November aggregated \$78,437,710 as compared with \$81,773,863 for the same period in 1919 and \$47,989,249 in 1918.

The increase in the exports of news print was especially heavy, the figures for the month being \$711,606 as compared with \$398,085 for October and \$581,995 for November a year ago. The exports of news print for the eleven months ending with November amounted to \$5,523,732 as compared with \$9,708,009 for the same period in 1919 and \$7,451,417 in 1918.

The increase in the exports of writing paper was, however, most pronounced of all. The exports for the month amounted to \$1,020,369 as compared with \$731,849 for October and \$495,941 for November a year ago. The exports of these commodities for the eleven months ending with November amounted to \$7,590,975 as compared with \$12,716,637 for the same period in 1919 and \$5,381,574 in 1918.

The exports of wrapping paper for November amounted to \$745,679 as compared with \$561,005 for October and \$434,915 for November a year ago. The foreign sales of wrapping paper for the eleven months ending with November amounted to \$6,287,628 as compared with \$6,239,463 for the same period in 1919 and \$4,252,392 in 1918.

The exports of paper board and strawboard also showed a very considerable increase both as compared with November a year ago and with October. The figures for the month amounted to \$667,038 as against \$263,083 for November a year ago and \$482,306 for October, 1920. The exports of these commodities for the eleven months ending with November amounted to \$4,820,334 as compared with \$4,392,851 for the same period in 1919 and \$2,610,042 in 1918.

The exports of toilet and tissue paper for November showed a decline as compared with the other periods under review. The exports for the month amounted to \$194,687 as compared with \$227,192 for November of last year and \$223,159 for October. The exports of tissue and toilet paper for the eleven months ending with November amounted to \$2,463,221 as compared with \$1,879,277 for the same period in 1919 and \$1,242,981 in 1918.

The imports of paper and manufactures of paper for November were only slightly greater than for October, but showed a big increase over November a year ago. The imports for the month amounted to \$8,896,310 as compared with \$8,025,018 for October and \$5,363,855 for November a year ago. The imports of paper

for the eleven months ending with November amounted to \$74,772,898 as compared with \$48,799,490 for the same period in 1918 and \$38,823,983 in 1918.

The imports of printing paper valued at not above 8 cents per pound were valued at \$6,973,419 as compared with \$4,255,341 for the same period in 1919 and \$6,444,285 for October a year ago. The imports of this commodity for the eleven months ending with November amounted to \$60,104,315 as compared with \$39,890,504 for the same period in 1919 and \$31,749,075 in 1918.

The import of ground wood pulp for November amounted to \$1,331,692 as compared with \$634,392 for November a year ago and \$1,399,472 for October. The imports for the eleven months ending with November amounted to \$12,721,420 as compared with \$4,392,700 for the same period in 1919 and \$4,323,398 in 1918.

The imports of unbleached chemical pulp for November were valued at \$5,258,418 as compared with \$4,214,924 for November a year ago and \$7,621,255 for the preceding month of October. The imports for the eleven months ending with November were valued at \$49,892,759 as compared with \$24,006,622 for the same period in 1919 and \$22,399,176 in 1918.

The imports of bleached chemical pulp for November amounted to \$2,494,112 as compared with \$827,959 for November a year ago and \$2,860,683 for October. The imports for the eleven months ending with November amounted to \$18,491,788 as compared with \$4,216,018 for the same period in 1919 and \$1,593,573 in 1918.

The average import price per pound of news print for November was \$.0569 as compared with \$.0552 for October and \$.0359 for November of last year.

The average import price of pulpwood per cord for November was \$15.35 as compared with \$14.93 for October and \$9.76 for November a year ago.

The average import price of ground wood per ton for November was \$77.50 as compared with \$91.05 for October and \$33.60 for November a year ago.

The average import price of unbleached chemical pulp per ton for November was \$142.50 as compared with \$148.98 for October and \$80.00 for November a year ago.

The average import price per ton of bleached chemical pulp for November was \$193.70 as compared with \$192.65 for October and \$124.90 for November a year ago.

## Wholesome and Unwholesome Fear

It is interesting to consider the effects of fear upon the human race. Some fears are wholesome. We should be afraid to do wrong. We should fear to encounter unnecessary risks. We should fear to place ourselves in any position unnecessarily where danger or disease may attack us. We should fear above all else to be a coward. These kinds of fear reveal us to be wise and deeply understanding.

But there are other fears which are weakening. We should avoid being paralyzed by petty fears; by unnecessary doubts and hesitations. We should learn to fear the domination of any weakening habit. We should be too normal to be afraid of healthy work; too earnest to be afraid of any task which needs to be done. We should fear to become fearful. In other words, we should be strong and very courageous, ready to go ahead and make the most

of ourselves and our opportunities, and to make our very difficulties count because we are able to overcome them.

Just what do you fear at the present moment? Are these fears right and normal and proper for you to entertain? If they are, can you not entrench yourself so firmly behind a clean life of sterling integrity that your fears will be reduced to a minimum?

What are you fearing just now which is a real menace? Why is this a menace? Are you fighting shy of this problem, or are you walking right up, looking the difficulty squarely in the face and doing your best to conquer those difficulties? If you do your best there is no reason to believe that you cannot better the situation, and perhaps solve the problem, whatever it may be. Perhaps you are dreading what really isn't worth dreading, after all. Many a task isn't really as difficult as it looks!

### British China Clay Trade Prosperous

Looking back on the year as a whole, it has been a very satisfactory one for the British china clay mining industry, according to the London *Financial News*. On the basis of the export figures to date, the total for the year will reach over 488,000 tons, compared with 286,573 tons last year, an increase of over 200,000 tons, and compares with 661,300 tons for the last normal year of 1912. Leaving out 1912, which was a "boom" year for the industry, as compared with the average year of 1910, when 584,123 tons were exported, it will be seen that the industry has still a leeway of something like 100,000 tons per annum to make up. So far, America is the only big china clay importing country that has approached its pre-war business, which in 1912 was over 252,000 tons. Germany's and Russia's pre-war figure was 130,000 tons between them, while their postwar figure is practically nil. The adverse exchange for Belgium, France and Italy, three other big pre-war importing countries, has operated against their taking more than necessary to meet their immediate needs.

Some hopes are entertained that the new scheme of the Exports Credits Department of the Board of Trade may prove useful to the china clay industry in giving an impetus to the opening up of the export business with the smaller European countries. Most of the countries to which the scheme applies were china clay consuming countries. These include Finland, Latvia, Estonia, Poland, Czechoslovakia and Jugo-Slovakia, while the prospects of business in Rumania, Georgia and Bulgaria are not to be ignored.

So, all things considered, it can be claimed for the china clay mining industry that it has enjoyed a year of sound profitable business, and that, soon or later, in 1921 we may see the Continent of Europe adding its weight to the big American and home consumption of this raw material and getting a good deal nearer to the pre-war volume of business.

### Situation in the Swiss Paper Industry

Under date of November 27, 1920, Consul Alfred W. Donegan, Zurich, writes:

During the past few weeks the Basler Papierfabriken Oser & Co. and Stocklin & Co., paper manufacturers, have been forced to close their establishments, with the result that 200 workmen are now without employment. The reason given for this is the momentary complete lack of demand for Swiss paper products. High wages and the heavy cost of raw material make it impossible for Swiss paper manufacturers to compete with foreign exporters to this country. Manufacturers claim that the actual cost of production in Switzerland is greater than the local retail prices of foreign-made products. It is stated that the bulk of the cheap imported paper comes from Germany.

A number of Swiss paper manufacturers are expected, in the

near future, to close their factories entirely, or at least to restrict their production greatly. Negotiations are now being carried on between the Swiss Federal Council and the Syndicate of Swiss Paper Manufacturers with a view to finding a way to overcome the existing crisis in the Swiss paper industry, if possible. The syndicate hopes to be able to induce the Government to issue an order prohibiting the import of paper. Paper factories in Switzerland employ between 3,000 and 4,000 workmen.

### Dudley Paper Co. Election

[FROM OUR REGULAR CORRESPONDENT.]

LANSING, Mich., February 1, 1921.—W. C. Dudley was re-elected president and general manager of the Dudley Paper Company at the annual meeting held recently. C. M. Howland and F. J. Weissinger, two young men who have worked up in the Dudley organization, were given substantial recognition. Mr. Howland becomes treasurer and Mr. Weissinger, secretary. The former began with the organization several years ago in a minor capacity. In addition to being treasurer of the company, Mr. Howland is also credit manager and Mr. Weissinger in conjunction with the secretaryship, is also sales manager. C. C. Woodruff and R. Guy Bronson were elected vice-presidents. The board of directors, as elected by the stockholders, consists of the officers named and C. A. Willemin, R. A. Reed, L. C. Wonch, I. M. Buck and J. A. Church.

Reports of the officers show that 1920 was an unprecedented year in volume of business. Sales were increased by 55 per cent. and losses in accounts were but one-seventeenth of one per cent. The board authorized a 10 per cent. cash dividend, to be paid quarterly.

The Dudley Paper Company, one of Lansing's first jobbing and wholesale organization, now covers practically the entire state. Eight travelers represent the company in the Michigan territory and branch offices are maintained in Saginaw, Bay City and Traverse City. Another office is to be established in Jackson.

### Referendum on Forestry Policy

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., February 2, 1921.—While no official announcement has been made, it is understood that the Board of Directors of the Chamber of Commerce of the United States will ask for a referendum on the national forest policy. President Sisson of the American Paper and Pulp Association appeared before the Board of Directors with others on January 26 urging that such a referendum be called for.

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## VOCATIONAL TRAINING IN THE PAPER TRADE

Principal Payroll Jobs in Pulp and Paper Mills Described in Report Prepared for the Joint Vocational Education Committee of the Technical Associations of Canada and the United States—Definitions of Terms Used in Mill Operations and Trade Names for Materials

(Continued from last week.)

### Course of Stock from Receiving Clerk to the Shipping Clerk

**Receiving clerk and yardman:** Unload, weight, tag, store, and check invoices on all raw material; load finished paper, make out yard time sheet and deliver magazine stock to sorting room as ordered. When magazine stock is brought by elevator to sorting room, bales are opened, inspected by foreman and placed in position for sorters. Sorters either sort the stock directly into the bleach boilers or into basket trucks as required. The stock containing groundwood, leather bindings and covers is placed in a separate basket which is weighed and this weight deducted from the bale weight in order to obtain the correct charge for boilers. Sometimes the steel clips used in the bindings are removed. This waste is put into a baling press along with the bale covers, pressed, rebundled, and shipped out as a by-product.

The **bleach boiler man** with the aid of a helper makes up his standard caustic liquor, levels off the charge of magazines in boiler and runs in the caustic liquor by gravity. Water is added at the same time to give the correct concentration. The heads of the boiler are then swung into place by means of chain falls, the lock nuts on the man-hole cover crates are tightened, the boiler set in motion and steam turned on the boiler. At the end of the cooking period the boiler is stopped, the vent pipe connected to a discharge line and the pressure blown down. The heads are then taken off and the boiler set in motion. This automatically discharges the cooked stock.

The stock falls into large storage vats placed directly under the boiler. The **washer engineer** admits the proper amount of water to the vats and starts the agitator with which the vat is equipped to mix the stock thoroughly. The washer engineer then pumps the stock to the washer engine, where it is washed, then bleach liquor is added from a storage tank by means of a pipe line. After a certain period the stock is washed again to remove the excess bleach liquor, or products, and the washer is then emptied by gravity into a large chest. From this chest the stock is pumped by the washer engineer over a pulp thickener, from which it passes into the beater supply chest.

The **beater engineer** pumps his stock from this supply chest directly into the beater tub. Pulp is added by hand. Size, alum, and filler are drawn direct from the storage tanks. Color is added by hand.

The stock properly beaten is dumped by gravity to the Jordan chest. From the Jordan chest it is pumped through the Jordan refining engine, in which it is cut to desired length and passes directly into the machine chest. The beater engineer controls the operation from the time it is drawn from the beater supply chest until it has reached the machine chest.

The stock is pumped from the machine chest to the machine head box at this point. The **machine tender** regulates the flow by means of an adjustable gate. The stock mixed with water in the sand traps flows through the screens into the flow box and onto the wire. After the machine tender has properly regulated the sheet on the wire the **backtender** skins the sheet from the couch roll onto the first press felt. At the same time a fine stream of water from a jet is run slowly across the wire. This cuts the sheet on a diagonal, the purpose being to enable the backtender to carry the web over the presses easily. The wet web having been transferred to the first felt runs up on the first press and is caught by the doctor blade. The back tender then skins the paper from this press and

transfers it to the second press felt, from the second press felt to the second press, then to the third press and over the driers.

After the sheet passes the driers it is led through a calender stack or two, as the case may be. This is done by the backtender with the help of the third or fourth hand. As the sheet comes through the second calender stack the backtender takes it and passes it by hand around a wooden reel driven at the same or nearly the same speed as the calenders.

The paper is wound up in large reels 26 inches in diameter. As the reel reaches the right size the backtender and third hand break down the sheet and start the web winding on a second reel placed on the same stand with the first. The boss machine tender takes care of the operation of the wet end of the machine.

**First backtender:** Drying and calendering reeling.

**Second backtender:** Slitting and rewinding.

**Third hand:** Front side of rewinder, removing slitter shaving.

**Fourth hand:** Placing paper on winder cores, splicing breaks, removing reels from winder and weighing them.

The first reel is then trimmed to the desired size and split into the number of strips desired by passing the web through slitters, then to a drum winder. This winds up the sheet into the separate rolls as required. Two reel boys take care of the operation.

The wet and dry broke incidental to starting up is thrown down the broke chute by broke boy and is gathered up by the **broke beater man** and helper who load it into an auxiliary beater. It is then worked up into pulp again and pumped back to the screen chest.

The finished rolls are supplied with the proper tickets, loaded by means of chain falls and crane from the winder to platform skids, and are tucked to weighing platform, weighed and taken to finishing room, wrapped, labeled and loaded into freight cars for shipment.

If sheet orders are filled the rolls are placed on the cutter and the sheets cut and sorted. The loads from the layboy at the cutter are then counted into reams, taken to the trimmer and trimmed to desired size, tied, and placed in cases for shipment.

### Analysis of Jobs in a Rag Mill

Following is an analysis of the principal jobs in a rag mill, the job name being given first, followed by particulars of the department, the work connected with it and the trade terms common to it:

#### Receiving Clerk

**Job Name:** Receiving clerk.

**Department:** Rag Stock Room.

**WHAT HE DOES:** Keeps record of cars; weighs rags; keeps time of yard men; makes out receiving reports for raw material; tags bales; checks with invoice file; keeps track of lot numbers on raw materials used in beaters; makes inventory; ships out rag recoveries, and other raw material.

**TRAINING OBJECTIVE:** Keep simple records; make reports to accounting department; judge rags and general condition of materials. (Period of training, one to two months.)

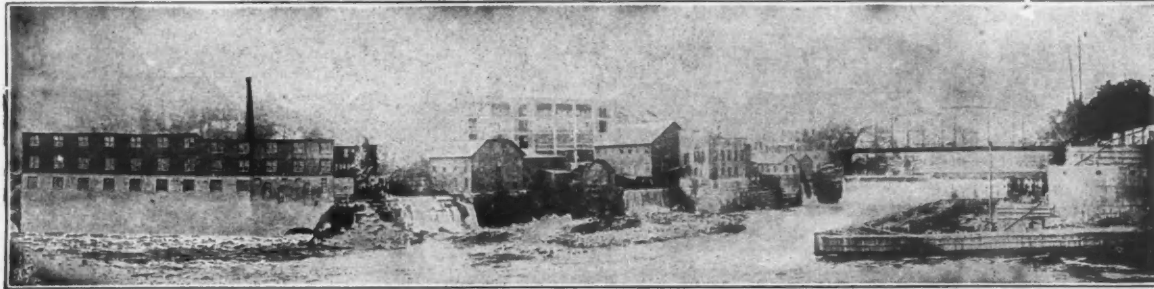
**Promotion:** None, or too little to receive consideration in any training scheme.

#### Trade Terms

(1) **Material:** Rags or paper stock, forms, coal, all raw material, sulphite pulp, soda pulp, sulphate pulp, lime, clay, crown

(Continued on page 50)





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## VOCATIONAL TRAINING IN THE PAPER TRADE

(Continued from page 48)

filler, agalite, colors, vitriol, alum, starch, glue, gum, hides, lubricants, nails, lumber, machine clothing, mill supplies. By-products—bleach, rosin.

(2) *Machinery*: None, except elevators, scales, and trucks.

(3) *Operating*: Receives and passes on material listed above. Storing raw materials—weighing, checking, tagging.

(4) *Location*: Storehouse, color room, felt room, store room, different floors.

(5) *Special*: None.

**STOCK**—(1) *Recognition*: Only in a general way and report to purchasing department. OK's as to grade specified in order. Bad material for report.

(2) *Working properties*: None.

**CARE OF TOOLS**—Care of bale hooks, shovels, crowbars, trucks.

**SAFETY**—Care in operation of elevator, and care in the use of elevator gates.

**DRAWING**—None.

**MATHEMATICS**—Elementary arithmetic through addition, subtraction, multiplication, division, and percentage.

**SCIENCE**—None.

### Yard Man

*Job Name*: Yard Man.

*Department*: Rag Stock Room.

**WHAT HE DOES**: Shovels coal; trucks raw material and loads cars of finished stock. All common labor.

**TRAINING OBJECTIVE**: Should read and write English and be trained to weigh on platform scales. Rest common labor. May work part time as washer helper or beater helper. (Period of training, one week.)

*Promotion*: Washerman or beaterman helper.

### Trade Terms

(1) *Material*: Bales of rags, cars of coal, lumber and other raw material and mill supplies.

(2) *Machinery*: Scales, elevators, trucks.

(3) *Operating*: Loading, unloading, trucking.

(4) *Location*: Same as receiving clerk.

(5) *Special*: None.

**STOCK**—(1) *Recognition*: None.

(2) *Working properties*: None.

**CARE OF TOOLS**—None.

**SAFETY**—Use of elevator.

**DRAWING**—None.

**MATHEMATICS**—None.

**SCIENCE**—None.

### Thrasherman

*Job Name*: Thrasherman.

*Department*: Thrashing, sorting, cutting, bleaching rooms.

**WHAT HE DOES**: Gets bales from stock room; cuts wires and opens bales; fills hopper on thrasher and lets rags into it; opens door to let rags out; dusts and cleans rack and cleans thrasher; weighs up cleanings; weighs up all by-products for receiving clerk.

**TRAINING OBJECTIVE**: Should read and write English, and be trained to use platform scales; judge quality and kind of rags; know how to start and stop electric motor; know simple mechanics for thrashing machine; how heavy to load. (Period of training, one week.)

*Promotion*: No lines.

### Trade Terms

(1) *Material*: Oil for machine, baled rags, Two's and Blue's, Third's and Blue's, hosiery, unbleached muslins, muss, etc., according to mill. (See Rag Packers' Association classification for complete list of paper makers rags.)

(2) *Machinery*: Thrasher, electric motor, belting, cylinder roll, teeth, hopper, rear door, suction fan, pulleys, wire cutters.

(3) *Operating*: Thrashing, cleaning rack, dumping rags off cylinder, cleaning cylinder, cleaning suction fan above thrasher. Loading, pressing and baling muss.

(4) *Location*: Stock room, thrasher room.

(5) *Special*: None.

**STOCK**—(1) *Recognition*: Khaki cuts, fancy shirt, hose, blue overalls, bleached and unbleached shoe cuts, No. 1, whites, bleached shoe cuts, No. 3's, etc.

(2) *Working properties*: None.

**CARE OF TOOLS**—Keeping thrasher equipment clean.

**SAFETY**—Belts, if exposed; shifting belt from loose pulley to tight pulley; exercise care when cleaning rags off cylinder; rag dust.

**DRAWING**—None.

**MATHEMATICS**—None.

**SCIENCE**—None.

### Rag Room Helper

*Job Name*: Rag Room Helpers.

*Department*: Thrashing, sorting, cutting, bleaching rooms.

**WHAT HE DOES**: Bales up stock, waste paper, and pulp covers. Opens bales of new rags for overlookers. Picks up rags and delivers to sorters.

**TRAINING OBJECTIVE**: Same as thrasherman.

*Promotion*: Thrasherman only.

### Trade Terms

(Same as Thrasherman.)

### Rag Room Inspector

*Job Name*: Overlookers or Inspectors.

*Department*: Thrashing, sorting, cutting, and bleaching rooms.

**WHAT SHE DOES**: Examines new stock to remove bad colors and foreign substances. Inspects work of sorters.

**TRAINING OBJECTIVE**: Should be able to judge cleanliness of rags; foreign substances; classify all grades of rags; recognize color; keen observer of stock. (Training period three weeks to one year.)

*Promotion*: To finishing room as sorters.

### Trade Terms

(1) *Material*: Tar, paint, greasy rags, wool, silk, buttons, eyelets, hooks and eyes, rubber, cork, pieces of wood, feathers, all foreign substances. Grades into 3's (blacks, dark woolens, light woolens, quilts), 4's (overalls). New rags (see rag classification).

(2) *Machinery*: None.

(3) *Operating*: Sorting, classifying, picking.

(4) *Location*: Rag sorting room; location of boxes or baskets into which sorted rags are put.

(5) *Special*:

**STOCK**—(1) *Recognition*: Must recognize 4's, blacks, 3's, wool, silk, foreign substances. Rubber, metal, buttons, pins.

(2) *Working properties*: None.

**CARE OF TOOLS**—None.

**SAFETY**—Danger from rag dust.

**DRAWING**—None.

**MATHEMATICS**—None.

**SCIENCE**—None.

### Rag Room Sorter

*Job Name*: Sorters.

*Department*: Rag sorting room.

**WHAT SHE DOES**: Cuts out rubber, elastic; opens seams; cuts  
(Continued on page 52)



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## VOCATIONAL TRAINING IN THE PAPER TRADE

(Continued from page 50)

up big rags, cuts off buttons, hooks and eyes; picks out woolens, silks, and certain colors, and sends same to "muss" woman.

**TRAINING OBJECTIVE:** In general same as overlookers. (Training period 3 weeks to 1 year).

**Promotion:** None.

### Trade Terms

(1) **Material:** See rag packers' classification for grades. Thrashed rag.

(2) **Machinery:** Rag knife, rag tables, rag baskets, trucks, and boxes.

(3) **Operating:** Sorting from rags, rubber, metal, buttons, wool and silk; opens seams.

(4) **Location:** Rag sorting room.

(5) **Special:** None.

**STOCK—(1) Recognition:** All grades of rags and presence of all foreign material.

(2) **Working properties:** None.

**CARE OF TOOLS—**Care of knife, not to cut foreign substances; grinding or whetting knife.

**SAFETY—**Danger of cutting hands on knife; danger from rag dust.

**DRAWING—**None.

**MATHEMATICS—**None.

**SCIENCE—**None.

### Muss Woman

**Job Name:** "Muss" Woman.

**Department:** Rag sorting room.

**WHAT SHE DOES:** Sorts "muss" into separate baskets, as woolens and other grades.

**TRAINING OBJECTIVE:** Should be able to recognize different grades of rags and pick out woolens. (Period of training, one week).

**Promotion:** To sorter or overlooker.

### Trade Terms

(Same as sorters.)

(1) **Material:** Muss—from sorting tables.

(2) **Machinery:** None.

(3) **Operating:** Sorting.

(4) **Location:** Rag sorting room.

(5) **Special:**

**STOCK—(1) Recognition:** Woolen, colors.

(2) **Working properties:**

**CARE OF TOOLS—**None.

**SAFETY—**Dangers from dust.

**DRAWING—**None.

**MATHEMATICS—**None.

**SCIENCE—**None.

### Cutter Man

**Job Name:** Cutter man and helper.

**Department:** Rag sorting room.

**WHAT HE DOES:** Oils all machines in cutter room; changes knives when needed; runs cutter; feeds rags into feeder; cleans out pin duster; pulls dust out from under duster, shovels it into baskets, and dumps in press (modern dusters are down draft and do not require this procedure); supplies rags to table for cutter man.

**TRAINING OBJECTIVE:** Should be trained in simple mechanics of cutter; to operate electric motor or other power; when to oil machine. In some cases grind cutter knives on grinder; set knives when ground. (Period of training, one week).

**Promotion:** None for cutter except to foreman or assistant foreman.

### Trade Terms

(1) **Material:** Twos and threes, bleached and unbleached shoe cuts, blue overalls, fancy shirt cuts, silencias, hosiery, ticking.

(2) **Machinery:** Cutter and cutter parts: First and second apron, pin duster, drum, 1/8 in. mesh wire, suction (exhaust) fan, belt chains and conveyors, rag knife, bed knife, slitters.

(3) **Operating:** Feeding, beating, cutting, grinding, setting knives, changing belts.

(4) **Location:** Bleach boiler room; rag sorting room.

(5) **Special:** None.

**STOCK—(1) Recognition:** Grades listed under material; grade of rags for speed of feeding.

(2) **Working properties:** None.

**CARE OF TOOLS—**Care of cutter, wrenches, grinding bed knife.

**SAFETY—**Cutting fingers on knives.

**DRAWING—**None.

**MATHEMATICS—**None.

**SCIENCE—**None.

### Bleach Boiler Man

**Job Name:** Bleach boiler man.

**Department:** Rag sorting room.

**WHAT HE DOES:** Sets boiler; places guide in hoppers; gets lime ready and fills tank three-fourths full of water; opens bags of lime and dumps into lime tank; in some mills makes caustic of soda ash and lime; packs boiler and runs lime water in; puts heads on and sets boiler revolving; runs from one-half to one hour; turns on steam; oils boiler; slushes gears; runs boiler for proper period; opens and blows off. Next morning turns boiler up and takes heads off; turns boiler down; puts cars under, and empties rags into boxes; sweeps floor; puts paper sheets showing number of bleach on top of boxes.

**TRAINING OBJECTIVE:** Should count to 100; should be trained in simple mechanics of machine; to operate steam valve and read gauges; to read amount of water by eye; to operate a shifting lever. (Period of training, one week).

**Promotion:** If any, to washerman's helper.

### Trade Terms

(1) **Material:** Cut rags, different grades of rags, lime, water, soda, ash.

(2) **Machinery:** Lime agitator tank, rotary bleacher, bleach boilers and gears, shafting, steam valves, boiler head, crab.

(3) **Operating:** Mixing lime (or caustic), packing boiler, bleaching, cooking rags, "pulling a bleach."

(4) **Location:** Lime store room or piles and location of soda ash, boiler heads; stock room; bleach boiler room.

(5) **Special:** None.

**STOCK—(1) Recognition:** Grades of rag stock.

(2) **Working properties:** None.

**CARE OF TOOLS—**Boiler, gears.

**SAFETY—**Danger of steam being turned on when man is in boiler; burns from liquor.

**DRAWING—**None.

**MATHEMATICS—**None.

**SCIENCE—**None.

### Washer Engineer

**Job Name:** Washer engineer and helpers.

**Department:** Washer and draining room.

**WHAT HE DOES:** "Breaks in" rags; washes and bleaches and puts into drainer. Helper assists washer engineer; oils all equipment; cleans floors; washes cylinders; puts bleach into washers.

**TRAINING OBJECTIVE:** Should read and write English; should

(Continued on page 54)

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## VOCATIONAL TRAINING IN THE PAPER TRADE

(Continued from page 52)

be trained in simple mechanics of his equipment; to operate belt or electrically driven washer; repair screens on cylinders; know operation of washer roll; judge condition of washed stock—this latter is very important; judge bleach by color and smell and test. (Period of training, one year).

*Promotion:* To beater engineer; helper to washer engineer.

### Trade Terms

(1) *Material:* Boiled rags, bleach liquor, alum solution, acids, half stuff, or half stock.

(2) *Machinery:* Washer or breaking engine, washer or cylinder, filler washer stand or rack, valve, lighter bar, bed plate, roll bars, button catcher, tub, mid-feather, roll cover or bonnet, tail boards, spindle, bleach tank, brass screen for covering washer cylinder, washer gate, pulley, washer gears, stock cars and hooks.

(3) *Operating:* Bleaching and washing rags, draining, drawing out, cleaning up, setting stuff gates, raising cylinder, turn on water, testing bleach and alum, using hydrometer.

(4) *Location:* Rotary boiler room (to get bleach and rags), alum and bleach tanks, drainers.

(5) *Special:* None.

*Stock*—(1) *Recognition:* Recognize kind of raw rag as grades 1, 2, and 3; No. 1 hosiery, shoe cuts, etc. Same as rag room. Different grades of half-stock.

(2) *Working properties:* Strength of rag, length of rag fiber, whether free or slow; strength of bleach and alum or acids.

*CARE OF TOOLS*—Only wrench, crowbar, hammer, stock hook, oiling stock cars. (See Care of Tools, under Stock Diggers.)

*SAFETY*—Danger from fingers in belts, fingers crushed between paddle and side of washer; elevator operation.

*DRAWING*—Read blue prints and sketches so as to suggest improvements on machines, understand drawings of machines or machine parts, floor layouts.

*MATHEMATICS*—Elementary arithmetic.

*SCIENCE*—Very little; use of hydrometer.

### Stock Digger in Rag Mill

*Job Name:* Stock diggers.

*Department:* Washer and draining rooms.

*WHAT HE DOES:* Goes into drainers and digs rag stock into cars; pushes cars into elevator and leaves them in beater room.

*TRAINING OBJECTIVE:* Should read and write English; should be trained to judge and classify drainer "half stuff"; to operate elevator. (Period of training, one day).

*Promotion:* To washer helper.

### Trade Terms

(1) *Material:* Boiled rags of different grades, washed and bleached rags (See rag room classification).

(2) *Machinery:* Hook and fork, car or truck, elevator, stock cans, stock hook.

(3) *Operating:* Digging half-stuff, oiling car, operating elevator, furnishing washer with rags and water, setting roll, drawing out rags, putting down cylinder, lifting, dumping washer, loading cars.

(4) *Location:* Drainer room, washer room, beater room, elevator, drainers in drainer room.

(5) *Special:* None.

*Stock*—(1) *Recognition:* Half-stock, grade of rags furnished to washer.

(2) *Working properties:* Knack of using hook, knowledge of how to handle different grades of rags in washer.

*CARE OF TOOLS*—Hook and pitchfork; care of washer engine but not mill-wright work on it.

*SAFETY*—Operating freight elevator; danger of falling on pick, of straining oneself, of contracting rheumatism or pneumonia;

coming in contact with exposed belts; or with roll in using paddle in washer to push rags under roll.

*DRAWING*—None.

*MATHEMATICS*—Elementary arithmetic.

*SCIENCE*—None.

### Beater Engineer in Rag Mill

*Job Name:* Beater engineer and helper.

*Department:* Beater room.

*WHAT HE DOES:* Has charge of beating the stock, preparing it for final treatment before being made into paper; puts in filler and color; sees that right amount of alum and size goes in; responsible for correct stock; takes care of chests; has charge of Jordan or refining engines; sees that proper stock is put into the beaters. Helper fills beaters with stock, woodpulp, size and alum; empties beaters into chests; keeps room clean and washes out chests.

*TRAINING OBJECTIVE:* Should read and write English, and be able to count to 100; judge condition of half-stock; start beater by belt shipper or idler pulley or motor; judge correct quantity of water to put in beater; determine from beater report amount of half-stuff to put in; know when to put in starch, alum, size, filler, and color; condition of stock for dumping; setting of beater rolls during different stages of beating; simple mechanics of beater; how to start stuff pumps on Jordan or refining chest. Should be able to judge degree of cutting action of Jordan engine and condition of stuff coming through; know condition of tackle; must have good eye for color. (Period of training, five years).

*Promotion:* Beater engineer to boss beaterman or assistant superintendent; helper to beater engineer.

### Trade Terms

(1) *Material:* Half-stuff or stock, alum, rosin, size, color, starch, clay, crown filler, agalite, dry broke, sulphite pulp, soda pulp, rosin size solution, wet broke, pulp stock, half-stock, beater stock, crown filler, talc clay, silicate of soda, straw pulp, anti-chlor.

(2) *Machinery:* Beater engine, regining engine, stuff pumps (same parts as washer), pulper, beater roll lighter, pulley and roll, beater valves.

(3) *Operating:* Putting in alum, starch, rosin size, color and filler, "furnishing beater," dumping, beating off plate, operation of valves to allow stock to flow into the Jordan chest, operation of the Jordan and beater roll, drawing out or beating stuff, setting roll, slowing or freeing up stuff. Test for and correct excess bleach.

(4) *Location:* Same as washer, including location of Jordan and machine chests, alum solution, rosin size storage tanks, Jordan engines, filler stock room, machine room.

(5) *Special:* None.

*Stock*—(1) *Recognition:* Rag and chemical stock.

(2) *Working properties:* Long, short, slow, or free stock, in beater and on machine and in finished paper.

*CARE OF TOOLS*—All equipment of beater room.

*SAFETY*—Same as washer.

*DRAWING*—Simple drawing.

*MATHEMATICS*—Arithmetic.

*SCIENCE*—Knowledge of properties of fibers, rosin size, alum, starch, filler, color.

### Machine Tender in Rag Mill

*Job Name:* Machine tender, back tender, and helper.

*Department:* Machine room.

*WHAT HE DOES:* Turns on water into head box; puts stuff on by gate valve; starts pulp on wire screen; has helper bring paper over machine and sees that weight of paper is right; regulates weight by gate or variable speed drive; sees that paper dries right; that water-mark is right; that felt and wires are steady; that

(Continued on page 56)



# EASTERN

## MANUFACTURING COMPANY

Manufacturers of BLEACHED SULPHITE made entirely from spruce grown on our own timberlands in Northern Maine.

*Write for samples.*

**EASTERN MANUFACTURING COMPANY, General Sales Offices: 501 Fifth Ave., New York**  
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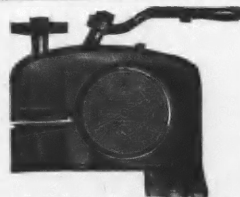
### F. L. SMITHE MACHINE CO.

MANUFACTURERS OF

## Envelope Machines

and special paper handling machinery  
designing, pattern making, machine  
work.

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**The Ashcroft  
Paper Tester**



**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.**

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Canadian Sales Agents: The Canadian Fairbank's Morse Co., Montreal and Toronto.

ESTABLISHED 1843

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CYLINDER  
MOLDS

# CHENEY

# BIGELOW

# WIRE WORKS

SPRINGFIELD, MASS.

MANUFACTURERS

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

## VOCATIONAL TRAINING IN THE PAPER TRADE

(Continued from page 54)

sheets are of right size as to width; and that cutter cuts right length. Supervises whole machine. Back tender assists machine tender in above operations. Cleans screen, keeps size right; keeps machine clean; oils up and takes loads off cutter when 15 in. high.

**TRAINING OBJECTIVE:** Should read and write English; be trained to use beam and quadrant scale and make tests for ream weight; know operation of machine chest pump, of screen, of valves on machine flow box; how to get on apron and side pieces; proper operation of wet end of machine; operation of press rolls and their condition; how to "take paper over machine"; operation of mechanism of driers; putting on, care of, and operation of drier felts; proper steam pressure to carry on driers. Must know proper speed of paper machine for required grade of paper; care and operation of calender stacks; care and operation of size press; care and operation of reels or "layboy." Must be able to judge condition of paper, the correct procedure of operation of machine; how to make necessary adjustments to obtain required results; must be good judge of color. (Period of training, five years).

**Promotion:** Machine tender to boss machine tender, assistant superintendent or superintendent; back tender to machine tender; helpers to back tender or machine tender.

### Trade Terms

(1) **Materials:** Stuff, water, stuff box.

(2) **Machinery:** Sand tables, or traps, screens, thread box or flow box, spring roll, cooling rolls, baby drier, Harper cylinder and Fourdrinier machines, flow box, apron, breast roll, upper couch roll, bottom couch roll, table rolls, guide roll, stretch roll, rolls for wire, hand guide roll, dandy roll, deckle wash trough, deckle wheel, deckle pulley, slices, deckle frame, deckle straps, deckle supports, shake rail, shake, stationary rails, table roll, bars, suction boxes, wire stretcher, save-all boxes, save-all stands, vertical supports for breast roll, shower pipes, cut squirt or water jet, doctor, couch housings, bell crank arms, hand wheel, beams or board, mar, top press rolls of first and second presses, top press roll for third press, bottom press rolls, press doctors, press housings, bell crank, swing arm, hand wheel, couch and press frames, felt suction box, felt whippers, felt whipper bearings, felt stretcher, hand wheel for felt stretchers, felt rolls, stretch rolls, felt guides, paper rolls at third press, foot boards, screws, press rolls, driers, gears, clutches, belts, speed change, calenders, reels, slitters, winder or layboy.

(3) **Operating:** Keeping paper off the couch roll, taking paper off wire, putting on felt, "making a tail," carrying paper over machines, putting size into size roll, putting it on reel, regulate flow of apron, changing draws, putting on lagging or pulleys, regulating steam on driers, sewing dry felts, raking screens, weighing sheets, running "shake," warming stuff if too slow, changing screen. Wet broke, broke boy, dry broke. Starting up machine, operation of machinery, furnishing machine with water for starting up, putting stuff on the wire, tearing tail or skinning press, turning up the set or shifting the web of paper from full reel to empty reel when the correct size or diameter of roll is reached. Wet broken, waste paper made at wet end of machine before taken over driers. Dry broken—waste paper made at dry end of machine or after paper has passed driers, i.e., putting it through calender stack, putting on reel, putting on winder. Slitter shaving—trimming at the edge of sheet necessary to produce desired size of roll on winder or sheets on layboy. Weighting the presses—placing of weights on lever arms of top press rolls in order to squeeze out all water possible from sheet. Sandy crush—lumpy or blotchy formation of sheet due to working too much water on wire with stuff. Coucher crush—caused by too much weighting, or water in sheet.

(4) **Location:** Wire, apron, breast roll, couch roll, suction boxes, reels, tube rolls, deckle frame, deckle straps, dandy roll, and water mark. Screen sand traps, stuff box, first press and first felt, second press and second felt, third press and third felt, top drier felt and bottom drier felt, slitters, layboy car, size pump, stuff chest, size tanks, beater room, Jordan chest and machine chest, machine room.

(5) **Special:** Waste car, shavings.

**STOCK—**(1) **Recognition:** Slow, or free stock (if too slow must "free" up), slippery stock (all operation tests), stock too thick or too thin, wet stuff, slow stuff, uneven power, color and formation.

(2) **Working properties:** All working properties for producing finished product.

**CARE OF TOOLS—**None, or very little—wrench, screw driver, hammer, needle for sewing felts.

**SAFETY—**Catching arm or hand in driers, cutting fingers on slitter or cutter knife, hand in size or press rolls, gears and pulleys when oiling, electric switch when electric power is used, stepping on hooks.

**DRAWING—**Not necessary. Elementary drawing for use in making drawings of parts of machine for improvements and reading blue prints of improved machine or machine parts desirable.

**MATHEMATICS—**Elementary arithmetic.

**SCIENCE—**Mechanics. Must understand levelling, accurate measurement, and adjusting.

(To be continued)

### Inland Empire Paper Co. Improvements

[FROM OUR REGULAR CORRESPONDENT.]

SPokane, Wash., February 1, 1921.—Improvements at the Inland Empire Paper Company, at Millwood, a suburb of Spokane, Wash., which will mean an expenditure of approximately \$125,000, according to W. A. Brazeau, secretary of the company, will be completed about February.

A considerable amount of new machinery for the plant is expected to arrive about the middle of January and when this is installed and with the completion of other work, the plant will have an output increased about 25 to 30 per cent.

"Business is good," said Mr. Brazeau, "and the outlook for 1921 is excellent. I believe that much better times are ahead for every one."

Sawlog rates on pulpwood from points on the Chicago, Milwaukee & St. Paul, Spokane International and O.-W. R. & N. railroads to the plant of the Inland Empire Paper mills at Millwood were asked in a hearing in Spokane before Examiner Keeler of the Interstate Commerce Commission.

The company holds that the purpose for which the wood was to be used has no bearing on the rates charged and that the logs, whether sent to the saw mills or to the paper mills, used the same railway equipment and were handled at no additional expense.

### To Start Shipping Fibre Core Plant

WATERTOWN, N. Y., February 1, 1921.—The St. Regis Paper Company is planning the erection of a fibre shipping case plant, to be operated in connection with its board plant at Herrings, N. Y. This new plant will be known as the fibre shipping case division of the St. Regis Paper Company and will be under the management of B. M. Williams, who was formerly assistant general manager of the Paper Container Company, Battle Creek, Mich.

The entire output of this plant will be offered to the general consuming trade. It is expected that the plant will be in operation about August 1 of this year.



**Connect With Our Strong  
Organization for Handling  
Your**

**Surplus Production in  
Certain Grades of  
Box Boards and  
Paper Board  
Specialties**

We have the equipment and sales-organization. Our reputation for square dealing is our best recommendation. Write today. No obligation.

**The C. L. LaBoiteaux Co.**  
Cincinnati Chicago New York Cleveland

**The Procter & Gamble  
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CINCINNATI, OHIO

*Mills at Augusta, Georgia and Memphis, Tennessee*

*Makers of*

**Highest Grades Bleached Chemical  
Pulp from Cottonseed Hull Fibre**

*Offered under the Following Brands:*

**"P & G"**

BLEACHED PULP



**BUCKEYE**

BLEACHED PULP



*Especially Suitable for the Better Grades of Paper*

SOLE AGENTS IN UNITED STATES AND CANADA

**The Pulp & Paper Trading Co.**

21 East 40th Street, New York City

**De Laval  
Motor-Driven Pumps  
give large capacity in small space**

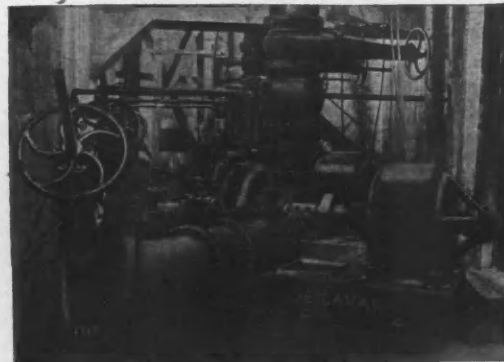
THE three De Laval motor-driven centrifugal pumps shown herewith each handle 14,000 gal. per min. against 110 ft. head. Reciprocating pumps would have involved inconvenience and greater construction costs, and would also require frequent attention for the adjustment and renewal of packings and valves, and for lubrication.

THE high efficiency of De Laval centrifugal pumps suits them especially for motor drive. A few per cent. lower efficiency soon amount to more than the cost of the pump.

*All De Laval pumps are guaranteed as to both capacity and efficiency, and are tested before leaving the shops*

**De Laval  
Steam Turbine Co.**  
Trenton, N. J.

91-B



## PAPER MAKING MATERIALS

COMPILED BY CLARENCE JAY WEST, INFORMATION DEPARTMENT, ARTHUR D. LITTLE, INC., CAMBRIDGE, MASS.  
(Committee on Bibliography, Technical Association of the Pulp and Paper Industry; Contribution No. 23.)  
(COPYRIGHTED, 1921, BY CLARENCE JAY WEST.)

Continued from PAPER TRADE JOURNAL, lxxii, No. 5, page 68

- McELHENIE, T. D.**  
Weed papers. Paper Mill xxxiii, 21 (1910); C. A. iv, 1804.
- Macrochloea tenacissima.** See *Stipa tenacissima*.
- Macrocystis pyrifera.** Kelp. Giant seaweed.
- ANTHONY, CHARLES E.** Kelp for making pulp. Paper Makers' Mo. J. xl, No. 2, 50 (Feb. 15, 1902); Paper Mill xxv, No. 2, 19 (Jan. 11, 1902).  
Dodge, C. R., 1897, page 231.  
KELP for papermaking. Paper Mill, Sept. 30, 1911, page 6.
- Macrozamis apiralis.** Zamis palm.  
Lightfoot, Bull. No. 11, page 28.
- Madagascariennis.** Urania.  
Davis.
- Madar.** See *Calotropis gigantea*.
- Madder.** See *Rubiaceae*.
- Madran hemp.** See *Crotalaria juncea*.
- Maguey.** See *Agave*.
- Mahagua.** See *Hibiscus arboreus*.
- Mahaut tree.** See *Hibiscus arboreus*.
- MAIN, F.**  
Raw material for papermaking. J. agri. trop.; Paper Makers' Mo. J. xlvii, No. 5, 163-164 (May 15, 1909); World's Paper Trade Rev. li, No. 8, 297; C. A. iii, 1458.
- Maize.** See *Zea mays*.
- Malachra rotundifolia.**  
Liotard, page 78.
- Mallow.** See *Abutilon avicennae*.  
*Althaea officinalis*.
- Maloo climber.** See *Bauhinia racemosa*.
- Malpighiaceae.**  
Davis.
- Malva castillo.**  
MEXICAN malva fiber. Paper Trade J. xliii. No. 10, 28 (Sept. 6, 1906).  
Veitch.
- Malva sylvestris.** Mallow of India. Grand mauve.  
LEROY, JULES E. New fiber. French Patent 482,023. Feb. 12, 1917, Pulp Paper Mag. Can. xvi, 73; Paper xxi, No. 21, 21.
- Malvaceae.**  
Guilfoyle.  
Strother, 1883.
- Mamaki bast.** See *Pepturus albidus*.
- Mandios.** See *Jathropha manihot*.
- Mangel wurzel.** See *Beta vulgaris*.
- Manila grass.**  
Hofmann, 1873, pages 317-321.
- Manila hemp.** See *Musa textilis*.
- Manispermum.**  
Davis.
- Maranta arundinacea.** Arrowroot.  
Davis.  
von POSSANNER, —. Fibers from the German colonies for the manufacture of paper. Papierfabr., Fest- und Ausland Heft, 1912, 60-62; C. A. vi, 2527.  
von POSSANNER, —. New raw materials for papermaking. Papierfabr. x, 60-61 (1912); Paper viii, No. 13, 27 (Sept. 11, 1912).
- Marica northiana.**  
Davis.
- Marine algae.** See *Fucus vesiculosus*.
- Marine fiber.** See *Posidina australis*.
- Marram grass.** See *Ammophila arenaria*.
- MARSDEN, M. W.**  
Papermaking fibers. U. S. Patent 1,251,261. Dec. 25, 1917. Paper xxii, 11.
- MARSDEN, M. W.**  
Pulp from vegetable fibers. U. S. Patent 1,269,476. June 11, 1918. Paper xxiii, 358.
- Marsdenia tenacissima.** Rajmahal creeper. Geld.  
Dodge, C. R., 1897, page 235.  
Liotard.
- Marsh flag.** See *Iris versicolor*.
- Marsh gladden.** See *Scirpus lacustris*.
- Marsh grass.** See *Glyceria aquatica*.
- Marsh mallow.** See *Althaea officinalis*.
- Marsh rush.** See *Juncus roemerianus*.  
See *Scirpus palustris*.
- MARTENS, N.**  
Manufacture of paper in Japan. Bull. soc. encour. ind. nat., 1889, 495-498; J. Soc. Chem. Ind. ix, 210.
- Marzi.**  
Davis.
- Masahual hibiscus.**  
Strother, 1883.
- Mat grass.** See *Cyperus variegata*.  
See *Nardus stricta*.
- Mat rush.** See *Cyperus textilis*.
- Mat rush of Japan.** See *Juncus effusus*.
- Matjesgoed fiber.**  
PAPER pulp from Cape fibers. Agr. J. Cape Good Hope xxxii, 208 (Feb., 1908); Paper Makers' Mo. J. xlvi, No. 4, 131 (Apr. 15, 1908); Paper Making xxvii, No. 5, 195 (May, 1908); Board Trade J., Mar. 26, 1908; J. Soc. Chem. Ind. xxvii, 352.  
Juritz, page 80.
- Matova.** See *Hypbaena thebaica*.
- Mauritis hemp.** See *Fucrea gigantea*.
- Mautia puya.** Wild hemp. Pua hemp.  
Dodge, C. R., 1897, page 235.  
Rieder.
- Mayapis.** See *Anisoptera vidaliana*.
- Mealie leaves.**  
PAPERMAKING from mealie leaves. Paper Making xxviii, No. 9, 354 (Sept., 1909).
- Medicago sativa.** Alfalfa. Lucerne.  
LOTTERO, C. O. Pulp for paper or cardboard. U. S. Patent 1,341,991. June 1, 1920. C. A. xiv, 2263.  
MATERIALS for board manufacture. Papierfabr. viii, 49-52.  
Mierzinski, page 46.  
SCHIAPPAPIETRA, S. Pulp for the manufacture of paper. French Patent 485,206. Dec. 20, 1917. C. A. xiii, 1929.  
SUBSIDIARY materials for board making. Paper Making xxix, No. 3, 91 (Mar., 1910).

(Continued on page 60)

# NEWSPRINT ROLLS SHEETS M. F. and GLAZED

also all other papers made by the 31 Paper Mills in Finland

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**AMERICAN WOODPULP CORPORATION**  
FOREIGN AND DOMESTIC  
CHEMICAL and MECHANICAL  
WOODPULPS

*Rags, New Cuttings, Bagging, Etc.  
Chemicals of All Descriptions*

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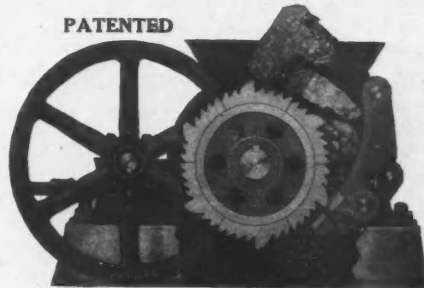
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- Lake Superior Paper Co.
- Bryant Paper Co.
- St. Croix Paper Co.
- Union Bag & Paper Co.
- The Laurentide Co., Ltd.

## PAPER MAKING MATERIALS

(Continued from page 58)

- Medichey.**  
Davis.
- Megass.** See *Bagasse*.
- Melaleuca armillaris.** Tea tree.  
Dodge, C. R., 1897, page 240.  
Mueller, 1867.
- Melaleuca eridifolia.** Swamp tea tree.  
Davis.  
Mueller, 1867.
- Melaleuca gentsifolia.** Broom leaved tea tree.  
Davis.
- Melaleuca scurrosa.** Victorian yellow wood.  
Mueller, 1867.
- Melastozaceae.**  
Davis.
- Melic grass.** See *Molinia caerulea*.
- Melilotus alba.** White sweet clover.  
Dodge, C. R., 1897, page 240.
- Melilotus arborea.**  
Piette.
- Melocanna.**  
Raitt, 1912.
- Melochia liliacefolia.** Urania.  
Davis.
- Memorialis pentandra.** Indian nettle. **Pousolsia.**  
KAINDLER, —. Bamboo and pousolsia for papermaking. Paper Making xxv, 522-523 (Nov., 1906); J. Soc. Chem. Ind. xxv, 1114.  
von POSSANER, —. Fibers from the German colonies for manufacture of paper. Papierfabr., Fest- und Ausland Heft, 1912, 60-62; C. A. vi, 2527.
- Meshta.** See *Hibiscus*.
- Mesquite.** See *Proconia juliflora*.
- Messmate.** See *Eucalyptus fissilis*.
- Mesta pat.** See *Hibiscus cannabinus*.
- Mexican fiber.** See *Agave heteracantha*.  
See *Karalas plumiere*.
- Mexican fiber silk grass.** See *Nidularium karatas*.
- Mexican whisk.** See *Epicamps macroura*.
- MICHETTE, FILICION.**  
Plants for papermaking. Compt. rend. agr. France, iv, 142-146 (1918).
- MIERZINSKI, STANISLAUS.**  
Handbuch der praktischen Papierfabrikation. Wien (etc.), A. Hartleben, 1886.  
3 v. illus., 2 fold, pl. 18 cm. (on cover; A. Hartleben's chemisch-technische Bibliothek, No. cxxxviii).  
Contents: Bd. 1. Die Herstellung des Papiers aus Hadern auf der Papier-Maschine. Bd. 2. Die Ersatzmittel der Hadern. Bd. 3. Anleitung zur Untersuchung der in der Papierfabrikation vorkommenden Rohprodukte.  
*Handbook of practical papermaking.*  
Contents: Vol. 1. Manufacture of rag paper on the paper machine. Vol. 2. Substitutes for rags. Vol. 3. Guide to the examination of raw products for paper manufacture.
- Milkweed.** See *Asclepias syrica*.
- Millet.** See *Andropogon sorghum vulgaris*.
- Mimosa bark.**  
WASTE materials for paper. Paper Maker lvii, 686.
- Mitsumata.** See *Edgeworthia*.
- Mohaut tree.** See *Hibiscus arboreus*.
- Molinia caerulea.** Melic grass. Blue moor grass. Mohiva.  
Dodge, C. R., 1897, page 242.  
Hannan, page 126.  
Phillips, S. C., 1915, vol. 49, page 631.
- Molucca palm.** See *Nipa fruticans*.
- Monkey bread tree.** See *Adansonia digitata*.
- Monkey grass.** See *Para grass*.
- Monkey pot.** See *Lecythis ollaria*.
- Monkey puzzle tree.** See *Araucaria imbricata*.
- MONTESSUS de BALLORE, HENRY de.**  
La fabrication des celluloses de papeterie autres que celle du bois. Description et traitement des principales plantes utilisables en papeterie. Paris, H. Dunod et E. Pinat, 1913.  
*Manufacture of paper cellulose other than that of wood. Description and treatment of principal plants that may be used in papermaking.*
- Moorva.** See *Sansevieria*.
- Morea tricuspis.**  
Phillips, S. C., 1915, page 261.
- Morus alba.** White mulberry. Kawa.  
Dodge, C. R., 1897, page 243.  
Haines, 1913.  
JAPANESE papermaking. Foreign Office Diplomatic and Consular Reports, 1905, No. 635; J. Soc. Chem. Ind. xxiv, 937.  
Setlik, Papier-Ztg., xxxii.
- Morus indica.** Mulberry.  
Liotard.
- Morus nigra.** Mulberry.  
Mierzinski, page 6.
- Morus papyrifera.** Paper mulberry.  
Piette.  
Setlik, Papier-Ztg., xxxii.
- Morus tartarica.**  
Davis.
- Moschus.**  
WEST AFRICAN fibers for papermaking purposes. World's Paper Trade Rev. lii, No. 1, 25 (1909).
- Mosses.**  
Charpentier, page 33.
- Mothwort.**  
Schaeffer, 1772.
- Mountain flax.** See *Cordylone indivisa*.
- Moya grass.** See *Pennisetum alopecuroides*.
- Mudar.** See *Calotropis gigantea*.
- MUELLER, FERDINAND, Freiherr von.**  
Report on vegetable products (exhibited at the Inter-colonial Exhibition of 1866-1867). Melbourne, Blundell and Co., printers, 1867.  
Paper, pages 27-34, 42, etc.
- MUELLER, FERDINAND.**  
Select extra-tropical plants readily eligible for industrial culture or naturalization with indications of their native countries and some of their uses.
- MUELLER, LOUIS, i. e., FERDINAND ALBRECHT LOUIS.**  
Die Fabrikation des Papiers in Sonderheit des auf der Maschine gefertigten nebst grundleglicher Auseinandersetzung der in ihr Vorkommenden chemischen Prozesse und Anweisung zur

(Continued on page 62)

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Most any machine of passable construction, if reasonably well fitted to its job, will give a degree of satisfaction—at first.

But the real test comes later. There's nothing like long service for establishing beyond question whether a machine has or has not the ability to handle its work satisfactorily.

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Paper Working Machinery*

## Install Your Own Bleach Plant *It Pays! It Pays!*

**No matter what the  
market price  
of bleach**

It is poor economy to buy bleach at the present high prices, when you can write off the initial cost of a Bleach Plant before prices come down.

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**We design, construct and put in operation complete Bleach Plants and electrolytic plants for chlorine and caustic soda, using the Nelson Cell, which produces more chlorine and caustic soda per Dollar than any other cell.**

Plants are simple, and easily operated.

We also advise as to the proper method of using liquid chlorine for making bleach.

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## PAPER MAKING MATERIALS

(Continued from page 60)

- Prüfung der angewandten Materialien. 4 neu bearb. und verm. Aufl., Berlin, J. Springer, 1877.  
xi, (1) 434 (1) p. illus. xi fold. pl. in pocket, tables. 26 cm.  
*Papermaking, especially by machinery, with a thorough explanation of the chemical processes involved and directions for testing materials.*
- Muguguboya bark.**  
INVESTIGATION of materials suggested for the manufacture of paper. Bull. Imp. Inst. xvii, No. 2, 148-150 (1919).
- Mugwort.** See *Artemisia vulgaris*.
- Mulberry.**  
Special Consular Reports, xix, page 384.  
USHIJIMA, G. Treating mulberry fiber for papermaking. Japanese Patent 29,962. July 16, 1917. C. A. xii, 224; Pulp Paper Mag. Can. xvi, 278.  
See also:  
*Alpina magnifica.*  
*Cordia myxa.*  
*Ficus morus.*  
*Ixoro cuneifolia.*  
*Morus.*
- Mummy cloth (Flax).**  
Dodge, C. R., 1897, page 244.  
Munsell.
- Mungongo.** See *Ricinodendron rautanenii*.
- Munja grass.** See *Saccharum sara*.
- MUNSELL, JOEL.**  
A chronology of paper and papermaking. Albany, 1856. 58 p. 31. 24 cm.  
5th edition, with additions, 1876.  
2 p. 1. 263 p. front. illus. 20 cm.
- Musa banksii.**  
Mueller, 1867, page 33.
- Musa ensete.**  
Lindsay, 1858.
- Musanga smithii.**  
HERZBERG, W. Pulp woods from the Cameroons. Papierfabr. ix, 914-917, 948-950 (1911); C. A. vi, 3517.  
SUGGESTED manufacture of pulp at Kamerun. Paper iii, No. 12, 26, 28 (June 7, 1911).
- Musasa bark.**  
PAPERMAKING fibers from Africa. Paper xxi, No. 7, 22 (Oct. 24, 1917).
- Musa paradisiaca.** Plantain.  
Boomer, 1919.  
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(Continued from page 62)

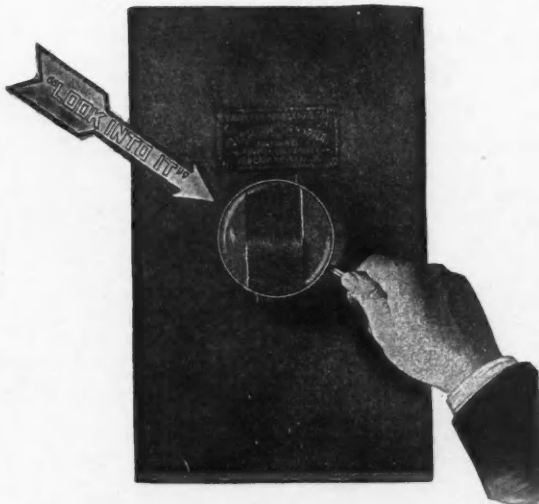
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- Muscovy mats.**  
Munsell.
- Musk mallow.** See *Hibiscus abelmoschus*.  
**Musk okra.** See *Hibiscus esculentus*.  
**Musk thistle.** See *Carduus nutans*.  
**Mustard.** See *Cruciferae*.
- Mya grass.**  
Davis.
- Myriaceae.**  
Davis.
- N
- Napal paper.** See *Edgeworthia gardneri*.  
**Nardus stricta.** Mat grass.  
Lindsay, 1858.  
**Nasturtium armoracia.** (*Cochlearia amoracia*.) Horse-radish.  
Davis.  
Lindsay, 1858.  
**Needle palm.** See *Yucca brevifolia*.  
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**Nepal paper plant.** See *Daphne cannabina*.  
**Nettle.** See *Boehmeria*.  
See *Urtica*.  
**Nettle tree.** See *Laportea giga*.
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**NEW fibers for papermaking.**  
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- NEW sources of paper pulp.**  
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**New Zealand flax.** See *Phorium tenax*.  
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Hofmann, 1873, page 322; 1897, page 1668.  
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Spon, vol. I, page 985.
- Nipa fruticans.** Nipa palm. Molucca palm.  
Hannan, page 135.  
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Spon, vol. I, page 985.
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- NUNEZ, V. E.**  
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**Oats.** See *Avena sativa*.

(Continued on page 66)



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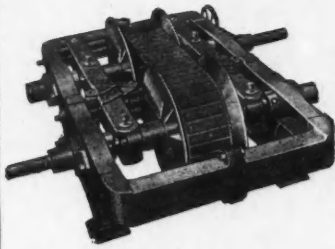
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## PAPER MAKING MATERIALS

(Continued from page 64)

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Spon, vol. I, page 986.
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Setlik, B., 1907.
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- OLMEDILLA y PUIG, J.**  
Noticias y dates acerca de la historia del papel. Madrid, 1891.
- Onocarpus batava.**  
Davis.
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Dodge, C. R., 1897, page 253.  
Lightfoot, Bull. No. 11, page 30.  
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Dodge, C. R., 1897, page 254.  
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Kirchner, vol. II, page 58.  
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- Osier.** See *Salix alba*.
- Paddy straw.** See *Oryza sativa*.
- Padi straw.** See *Oryza sativa*.
- Paja biava.** Bog grass.  
NEW paper industry in Argentina. Commerce Reports, No. 273, 799 (Nov. 19, 1920).
- Palm.** See Buri palm, etc.
- Palmetto.** See *Chamerops excelsa*.
- Palungor.** See *Hibiscus cannabinus*.
- Pamiet.** See *Prionium palmata*.
- Palmyra palm.** See *Borassus flabellifer*.
- Palygaleae.**  
Davis.
- Pampas grass.** See *Arundo sellowiana*.  
See *Gynerium argentinum*.
- Panama hat straw.** See *Carludovica palmata*.
- Pandanus odoratissimus.** Caldera bush. Screw pine.  
Archer, 1876.  
Dodge, C. R., 1897, page 257.  
Liotard.  
Piette.  
Spon, vol. I, page 986.  
Watt, vol. VI, part I, page 5.
- Pandanus utilis.** Vacona.  
Dodge, C. R., 1897, page 257.  
Mueller, L., 1877.  
Spon, vol. I, page 986.
- Panicled acacia.** See *Acacia leucophloea*.
- Panicum myurus.** Camelote.  
Dodge, C. R., 1897, page 257.
- Panicum obscurens.**  
INVESTIGATIONS of materials suggested for the manufacture of paper. Bull. Imp. Inst. xvii, No. 2, 147-148 (1919).  
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- Papaveriaceae.** Poppy.  
Davis.
- Papaw.** Anonaceae.  
Papaw papermaking material. Paper Makers' Mo. J. xliii, No. 9, 325 (Sept. 15, 1915).
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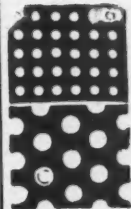
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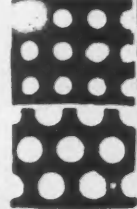
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PAPER industry in Japan.

Wochbl. Papierfabr. xxxvi, 3029-3032 (Sept. 5, 1908); C. A. ii, 3282.

PAPER manufacture in Southern Brazil.

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Paper mulberry. See *Broussonetis papyrifera*.

PAPER pulp from Australian lalang grass.

Paper Makers' Mo. J. iv, 250 (Aug. 15, 1917).

PAPERMAKING fibers.

Paper Mill, Apr. 24, 1909; Paper Trade J., Apr. 22, 1909.

PAPERMAKING fibers in Brazil.

Paper Maker lv, 353 (Apr. 1, 1918).

PAPERMAKING in Australia.

Paper Maker liv, No. 6, 545-546 (Dec. 1, 1917); lvii, No. 6, 662 (June 2, 1919).

PAPERMAKING in Ceylon.

Paper Making xxviii, No. 11, 437 (Nov., 1909); xxx, No. 8, 301 (Aug., 1911).

PAPERMAKING in Japan.

Wochenschr. Papier Schreibwaren Handel, Aug. 11, 1918; Paper xxiii, 566.

PAPERMAKING materials.

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PAPERMAKING materials in Australia.

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PAPERMAKING possibilities in Australia.

Paper Maker lii, No. 6, 528 (Dec. 1, 1916).

Papkuil fiber.

Juritz, page 82.

PAPER pulp from Cape fibers. Agr. J. Cape Good Hope

xxxii, 208 (Feb., 1908); Paper Makers' Mo. J. xlvi, No. 4, 131

(Apr. 15, 1908); Paper Maker xxvii, No. 5, 195 (May, 1908);

J. Soc. Chem. Ind. xxvii, 352.

Pappus.

Munsell.

Papyrus. See *Cyperus papyrus*.Papyrus antiquorum. See *Cyperus papyrus*.

Para grass. Monkey grass.

Mierzinski.

Paratium tiliaceum. See *Hibiscus arboreus*.

Parkia roxburghii. Cupang.

Richmond, 1907.

Parkinsonia aculeata. Jerusalem thorn.

Cross, Bevan, and King, page 55.

Dodge, C. R., 1897, page 259.

Mueller, L., 1867.

Piette.

Royle, 1855, page 391.

Watt, vol. VI, part I, page 110.

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Manufacturers of

## PAPER BAGS and SACKS of EVERY DESCRIPTION

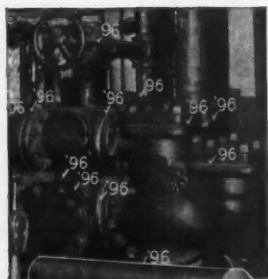
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### Jenkins '96 Packing

original unvulcanized sheet packing

Jenkins '96, a black packing, is compounded to form a sheet of great strength and durability, and is recommended for service where saturated steam is used, under all pressure, high and low—equally good for hot or cold water and other liquids.



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#### JENKINS BROS.

New York Chicago San Francisco  
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### Jenkins Packing



"World's Model Paper Mill"



Pure, Genuine Vegetable Parchment  
Waxed Paper, plain or printed  
Bond Paper, white or in colors  
Blood-proof Meat Paper

These four grades of paper made in our Mill by contented, conscientious and skilled folks.

Both jobber and customer will be satisfied; they get their money's worth in the purchase of KVP brands.

Quick Delivery—Any Quantity  
Ask for Samples

### Kalamazoo Vegetable Parchment Co.

Kalamazoo, Mich.

Temperature Accuracy Guaranteed

by the

TAG Temperature Control SYSTEM  
for Paper-Machine Dryers

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C. J. TAGLIABUE MFG. CO.  
18<sup>th</sup> 88 Thirty Third Street,  
BROOKLYN, N.Y.

### SHERMAN PAPER COMPANY

Manufacturers of Roll Newsprint. H. W. & W. Process

Entire Product for 1921 Contracted

Mills at Felts Mills, Great Bend & Lefebvre, N. Y.  
Main Office, Trust Co. Building, Watertown, N. Y.

NOT only for ocean transportation, but wherever dampness and damage are a shipping menace, you need "NATIONAL DUPLEX," the highest development of waterproof case lining.

### National Duplex Waterproof Case Lining

NATIONAL WATERPROOFING COMPANY  
1054-1056 Drexel Bldg., 5th & Chestnut Sts., PHILADELPHIA, PA.  
Manufacturers of Waxed Papers

## New York Market Review

Office of the PAPER TRADE JOURNAL,  
WEDNESDAY, February 2, 1921.

One of the most noteworthy occurrences in the trade during the week was the substantial cutting of price on some of the grades of fine papers by one of the largest companies in the field. It has been learned from a reliable source that this cut has been made not because of any falling off in the cost of production but because the manufacturer wished to do his share toward the general reduction of prices in order to lighten the burden as much as possible for the ultimate consumer. It is reasonable to venture that the other manufacturers will follow this lead and do likewise. It is too early yet to say exactly what the effect of this move has been on buying in fine papers.

This is a step in the right direction. It shows that producers are willing to co-operate with buyers, and if more manufacturers would take such an attitude this abnormal condition would soon be at an end. As soon as news print went down, business improved; board made large cuts in price and business there now appears to be resuming; waste material dealers did not attempt to hang on to their high prices and consequently many of the grades of waste paper have become firmer.

The market in general, however, is by no means normal. Trading is very slow in the main and prices are still largely nominal, but the underlying current of good cheer is cropping out here and there with a resumption of the demand, which, though irregular, is better. The number of inquiries and price feelers has increased. The whole tone of the paper market is improving.

Business in the contract market for news print remained good during the week and prices were firm. The open market is also steady and while there is not a tremendous lot of buying stock is moving along with reasonable dispatch. There are some importations, but most of these are to fill orders which were contracted for some months ago and the only time that the foreign stock gets on the spot market is when an order is cancelled. The buying is not yet up to what it should be but the increased number of inquiries causes the dealers to believe that it soon will be.

Book paper is showing remarkable steadiness in price through this period of readjustment. Thus far the manufacturers have given no indication that they expect to reduce prices. On the other hand the buying is not very brisk, although most of the producers say they will have no difficulty in disposing of all of their product during the coming year. There has been little change in this market during the week.

Fine papers have been reduced in price and it is expected that this will cause an increase in the demand. Although the reduction is as yet confined to a few grades there seems to be good reason to believe that this will spread through the entire fine paper field. This move is a favorable one and should do much toward bringing business back to normal.

Wrapping paper is rather dull except for a small demand for some of the lower grades; outside of this there is little doing in this stock. Dealers, however, believe that good buying is approaching, but just at present it seems to be practically dead. Tissue is reported to be improving very gradually, but prices are still easy and trading pretty slack. Little of the stock is moving save in very small orders. The light demand which developed for chip board a week or two ago now seems to be spreading to the entire field and board dealers are more cheerful than they have been in some time. This does not mean that a tremendous demand has suddenly developed, but business is sufficiently improved to permit several of the mills that were closed down to reopen.

### Mechanical Pulp

The market for ground wood was inactive during the week and prices were ragged. The supply is not any larger than usual, but

buyers seem determined to get the price down. There can be no revival in this field until the mills have entirely exhausted their reserve supplies and it is difficult to hazard a guess as to when that will be, although it is doubtful if they have enough to last them very long now, should the demand pick up for paper.

### Chemical Pulp

The chemical pulp market was slow during the week and there are rumors about that manufacturers are going to put their prices down just the same as fine paper manufacturers. At any rate there is little trading being done except in soda pulp and occasionally in some kinds of sulphite.

### Old Rope and Bagging

Rope was very slow last week and the mills seem determined not to buy as yet. Dealers are not making much effort to sell and are sitting tight waiting for the demand to pick up again. Bagging also continued dull.

### Rags

Rags are very quiet and prices are nominal. There is some slight movement in the lower grades but that is all. Importations have fallen off a good deal.

### Waste Paper

News and mixed papers are reported as considerably firmer and the tone of the whole market is greatly improved, but actual trading is so slow that prices are largely nominal.

### Twine

Twine is showing a slight improvement and dealers are optimistic. Prices are firm, however.

### Pulp Market in Sweden

The paper industry in Europe has now come seriously to feel the severe economic crisis that prevails at present in practically all countries, states *Swedish Export*, the journal of the General Export Association of Sweden. Paper mills are so short of orders that part of the goods produced are made for stock, and the wood pulp market has very naturally been greatly influenced by this fact, having been reduced to a minimum. Only the United States has appeared lately as a buyer on anything but the smallest scale, and this is due to the fact that the paper industry is working under more favorable conditions in America than in Europe.

The production of sulphite cellulose in Sweden during the present year is estimated at about 68,000 tons of bleached sulphite and about 710,000 tons of unbleached sulphite. Of this amount Swedish paper mills consume about 23,000 tons of bleached sulphite and about 160,000 tons of unbleached sulphite, so that the exportable surplus this year is calculated to be about 45,000 tons of bleached sulphite and about 550,000 tons of unbleached sulphite. Of the quantities thus available for export there have already been sold, and for the most part delivered, 42,500 tons of bleached sulphite and 524,000 tons of unbleached sulphite, so that there is only a very small fraction left to sell.

The total production of sulphate cellulose is estimated at about 7,000 tons of bleached pulp and 210,000 tons of unbleached pulp. Of this total the Swedish paper mills consume about 500 tons of bleached and about 60,000 tons of unbleached sulphate, so that the surplus for export during the present year is calculated to be about 6,500 tons of bleached and 150,000 tons of unbleached sulphate. Of the quantities thus available for export there have been sold to date, and for the most part shipped, 5,500 tons of bleached and 143,000 tons of unbleached sulphate.

Under ordinary circumstances the Scandinavian grinders have no market for their production in the United States, as the Canadian exports are large enough to satisfy the United States' demand for mechanical pulp.

Market Quotations

Paper Company Securities

New York Stock Exchange closing quotations February 2, 1921:

Table of Paper Company Securities with columns for Stock Name, Bid, and Asked prices.

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

Paper

Table listing Paper products such as Bonds, Ledgers, Writing, and various types of paper with their prices.

Mechanical Pulp

Table for Mechanical Pulp products including No. 1 and No. 2 F. o. b. Mill.

Chemical Pulp

Table for Chemical Pulp products including Sulphite and Sulphate.

Table for Bleached Paper products including Sulphite and Sulphate.

Domestic Rags

Table for Domestic Rags products including Shirt Cuttings and Cottons.

Table for Domestic Rags (continued) including White, No. 1 and No. 2.

Table for Domestic Rags (continued) including White, No. 2 and St. Soiled White.

Table for Domestic Rags (continued) including Thirds and Blues, Repacked, and Cloth Stockings.

Table for Foreign Rags including New Light Silesias, Light Flannels, and various types of rags.

Table for Bagging products including Gunny No. 1, Foreign, and Domestic.

Table for Twines products including Cotton, India, and Jute.

Table for Unfinished India, Paper Makers Twine, and other twine products.

Old Waste Papers

(F. o. b. New York)

Table for Old Waste Papers including Hard White, No. 1.

Table for Flat Stock, News, and various paper products with prices.

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Table for Chicago Paper products including 100 Test, Solid Wood Pulp, and Straw Board.

Old Papers

Table for Old Papers products including Shavings, Ledgers and Writing, and Solid Books.

PHILADELPHIA

[BY OUR REGULAR CORRESPONDENT.]

Table for Philadelphia Paper products including Best Tarred, 2-ply and 3-ply.

Bagging

Table for Bagging products including Gunny No. 1, Foreign, and Domestic.

Old Papers

Table for Old Papers products including Shavings, No. 1, Hard, and No. 2, Hard.

(Continued on page 74)

# Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

## NEW YORK IMPORTS

WEEK ENDING JANUARY 22, 1921.

News print.....	1,545	reels, 5,635	rolls	
Printing paper.....	1,258	bls., 504	rolls, 25	cs.
Cigarette paper.....	1,960	cs.		
Hangings.....	63	bls., 4	cs.	
Wall paper.....	1	ca.		
Wrapping.....	519	bls.		
Packing.....	1,533	bls., 50	rolls	
Litho paper.....	55	ca.		
Box boards.....	75	pkgs., 433	reels	
Filter paper.....	5	bls., 59	cs.	
Transfer paper.....	13	cs.		
Crepe paper.....	25	cs.		
Blueprint paper.....	68	rolls		
Drawing paper.....	79	cs.		
Tissue paper.....	7	bls.		
Colored paper.....	34	bls., 3	cs.	
Miscellaneous paper.....	64	ca., 1,866	rolls	

### CIGARETTE PAPER.

R. J. Reynolds, East Side, Bordeaux, 1,260 ca.  
American Tobacco Company, by same, 200 ca.  
American Tobacco Company, Montana, Bordeaux, 500 ca.

### NEWS PRINT.

Union Alliance Corporation, Turbioria, Norrkoping, 1,985 reels.  
Agar Bernsson Corporation, Homer City, Hamburg, 560 reels.  
N. Y. American, Bolmen, Hallstavik, 4,787 rolls.  
Brasch & Rothenstein, F. Luckenbach, Hamburg, 848 rolls.

### PRINTING PAPER.

Pulp & Paper Trading Company, Homer City, Hamburg, 440 bls.  
Chase National Bank, American, Hamburg, 79 rolls.  
National City Bank, by same, 425 rolls.  
Pulp & Paper Trading Company, Sartatia, Hamburg, 1,618 bls.  
F. Heujes, Jr., American, Hamburg, 7 ca.  
B. F. Drakenfeld & Co., Carmania, Liverpool, 14 ca.  
H. Reeve, Angel & Co., Vindellia, Glasgow, 4 ca.

### PAPER HANGINGS.

A. C. Dodman, Jr., Inc., Carmania, Liverpool, 29 bls.  
W. H. S. Lloyd & Co., Montauk, London, 34 bls., 4 cs.

### WALL PAPER.

The Prager Company, La Savoie, Havre, 1 ca.

### WRAPPING PAPER.

S. Aborn, Can. Volunteer, Hamburg, 13 bls.  
Foreign Trade Banking Corporation, Sartatia, Hamburg, 506 bls.

### PACKING PAPER.

Republic Bag & Paper Company, American, Hamburg, 369 bls.  
Hermann Paper Company, by same, 24 bls.  
American Express Company, F. Luckenbach, Hamburg, 50 rolls, 179 bls.  
Republic Bag & Paper Company, by same, 961 bls.

### LITHO PAPER.

Bernardaud & Co., Tsuyama Maru, Hong Kong, 30 cs.  
Ault & Wiborg, by same, 25 cs.

### BOX BOARDS.

Guaranty Trust Company, Homer City, Hamburg, 75 pgs.  
Interstate Corrugated Box Company, Langley, Antwerp, 363 reels.  
Interstate Corrugated Box Company, Montana, Bordeaux, 70 reels.

### FILTER PAPER.

A. Geisa & Son, American, Hamburg, 5 bls.  
E. Fougere & Co., Montana, Bordeaux, 41 cs.  
Druggists' Supply Company, East Side, Bordeaux, 18 cs.

### TRANSFER PAPER.

Berger & Wirth, Homer City, Hamburg, 13 ca.

### CREPE PAPER.

W. A. Foster & Co., American, Hamburg, 25 ca.

### BLUEPRINT PAPER.

Keuffel & Esser, American, Hamburg, 68 rolls.

### DRAWING PAPER.

Keuffel & Esser, American, Hamburg, 78 rolls.  
H. Reeve, Angel & Co., Montauk, London, 1 ca.

### TISSUE PAPER.

R. Hoe & Co., Montauk, London, 7 bls.

### COLORED PAPER.

A. C. Dodman, Jr., Inc., Langley, Antwerp, 34 bls., 3 cs.

### PAPER.

Hermann Paper Company, Homer City, Hamburg, 30 bls.  
D. J. Coluca & Co., La Savoie, Havre, 9 cs.  
Seaman Paper Company, Rosalind, St. Johns, N. F., 250 rolls.  
J. F. Patton & Co., Inc., by same, 1,616 rolls.  
Japan Paper Company, Toba Maru, Yokohama, 22 cs.  
E. Daiber, Langley, Antwerp, 3 ca.  
To SYRACUSE.

B. F. Drakenfeld & Co., Carmania, Liverpool, 4 cs. printing paper.

### RAGS, BAGGINGS, ETC.

Salomon Brothers & Co., Homer City, Hamburg, 156 bls. rags.  
E. J. Keller Company, New Britain, Antwerp, 138 bls. new cuttings.  
A. Katzenstein, by same, 743 bls. rags.  
E. Butterworth & Co., Lake Fontana, Belfast, 212 bls. old waste.  
Ladenburg, Thalman & Co., by same, 38 bls. paper stock.  
E. J. Keller Company, Langley, Antwerp, 125 bls. rags, 294 bls. bagging.  
State Bank, by same, 51 bls. new cuttings.  
M. O'Meara Company, Montana, Bordeaux, 67 bls. rags.  
Castle, Gotthel & Overton, Montana, Havre, 604 bls. rags.  
Ladenburg, Thalman & Co., Sartatia, Hamburg, 42 bls. flax waste.  
Salomon Brothers & Co., by same, 66 bls. rags.

### OLD ROPE.

Old Colony Trust Company, New Britain, Antwerp, 76 coils.

### CHINA CLAY.

Paper Makers Chemical Company, L. Frohna, Bristol, 472 tons.

## RIORDON CO., LTD., PLANT

(Continued from page 40)

The successful operation of an electrolytic bleach plant depends to a very large extent upon the electrolytic cell. The Nelson cell was purchased by the Riordon Company for the purpose of its work after it had made a careful and extended investigation of all cells available. It was chosen because of its high power and current efficiency; the ease with which it can be assembled and repaired; the long life of the asbestos diaphragm; the infrequency of repair; the extraordinary durability of all its parts; the long life of the graphite anodes owing to the special Nelson treatment which more than doubles the ordinary life of graphite anodes; and because of the fact that the Nelson cell can be repeatedly shut down and started without appreciably affecting its efficiency.

It is difficult to operate a chlorine or other plant continually on account of accidents, various repairs to auxiliary apparatus, and various power and plant interruptions, and it is desirable at times to operate only portions of the chlorine plant when the requirements of bleach are not at the maximum.

The Nelson cell can be shut down and started repeatedly without affecting its efficiency or causing trouble with the asbestos diaphragms. The Nelson cell in a number of plants is being operated six days per week, shutting down over Sunday, without loss of efficiency.

Due to the peculiar combination of the asbestos materials used

for the diaphragms, efficient and continuous operation of the Nelson cell is secured for periods of from eight to nine months without renewal of diaphragms.

Plants are now being installed, or have been installed in the last eighteen months for the Riordon Company, Ltd., Temiskaming, Que.; Howard Smith Paper Mills, Ltd., Cornwall, Ont.; Kellner-Partington Pulp and Paper Company, Norway; Iggesund-Bruk, Sweden; Diesen Wood Company, Finland; Titaghur Paper Mills, India; and the Mead Fibre Company, Kingsport, Tenn. These plants are all making bleach for the pulp industry and when operating will have a capacity of the equivalent of 140 tons of 35 per cent bleach per day. The Riordon Company permanent plant when built will be the largest bleach plant in the world directly connected with a pulp mill.

### Asbestos Board and Paper

Chief Engineer K. A. Weniger has written a book on Asbestos Board and Paper, published by Hartleben at Vienna and Leipzig. It treats of the production of asbestos, the manufacture of board, board making machinery, the use of asbestos board, asbestos paper making, distribution of power in a mill making both asbestos board and asbestos paper, water and its supply, power for asbestos board and paper mills, computation tables based on practical experience in asbestos board and paper making and the future of the asbestos industry. Interesting drawings accompany the 175 pages of reading matter.



# **RIORDON SALES COMPANY**

LIMITED

367 BEAVERHALL SQ.

MONTREAL, CANADA



The operation at "KIPAWA" mill of  
**TWO ADDITIONAL DIGESTERS**  
now provides an  
EXCEPTIONALLY STRONG FIBRE  
**HIGH GRADE ELECTROLYTIC BLEACHED  
SULPHITE WOOD PULP**  
for  
**IMMEDIATE AND FUTURE DELIVERY  
AT PREVAILING MARKET PRICES**

*INQUIRIES WILL RECEIVE PROMPT ATTENTION*

**T. J. STEVENSON**

Sales Managers

**GEO. E. CHALLES**

## Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,  
WEDNESDAY, February 2, 1921.

The general tone of the entire chemical market has changed somewhat for the better and it seems now assured that this market will soon be steadily, if slowly, climbing. The heavy chemicals are all showing slight improvement in interest in future orders and even rosin is exhibiting signs of life, although the price is still low. Chemical men are optimistic and they now believe that this period of readjustment is about over.

**ALUM.**—The contract side of the alum market is slightly better but trading on the open market is still dull. There has been an increase in the number of inquiries and all signs are pointing to betterment. The price is about the same with lump stock at 4 cents per pound, 4.50 for the ground and 5 cents for the powdered.

**BRIMSTONE.**—There is little action in the brimstone market either in spot goods or in futures, but the manufacturers apparently have little fear that they will be able to dispose of their product since the price is still up around \$15 or \$16 per ton.

**BLEACHING FOWDER.**—Bleach is in more demand than most of the other articles in this market. Even on spot there has been some turn over, although it is by no means rapid. Contracts, however, have been more normal and although they are slow in coming in some of the manufacturers say that they have now most of their production taken care of for the coming year. It is quoted at about 3.50 cents per pound.

**CASEIN.**—Casein is still in a depressed condition, but the price is quite firm at 14 to 15 cents per pound. The supply of this product is subnormal and for this reason the dealers believe that when buying does begin again the price is more likely to rise than to decline.

**CAUSTIC SODA.**—There is still little demand for caustic soda on the open market, but contracts are showing signs of improvement and the indications seem to point to a freshening of business in all the heavy chemicals, including this particular product. The price is still around 3.80 or 3.90 cents per pound.

**CHINA CLAY.**—Nobody appears to be interested in china clay at present except to the extent of sending out inquiries. The picking up of the demand in this market is largely contingent upon business in general. Importations are not very heavy. The price on the domestic grades, both washed and unwashed, is \$9.25 to \$12.00 and the imported is around \$13 or \$14.

**ROSIN.**—Turpentine products appear to have taken a slight change for the better and dealers report an increase in inquiries. Trading in contracts and on the open market is still slow, but an improvement in the general tone is reported. The price on grades E, F and G is around \$8.75 or \$9 per barrel.

**SATIN WHITE.**—The satin white market has not shown any considerable improvement as yet. The demand is way below normal as in other parts of the market and the price is around 2 or 3 cents still.

**SODA ASH.**—There has been some improvement in soda ash and buyers are evincing considerably more interest. Contracts are coming in, although the spot market is still slow. The price is about 2.10 cents.

**STARCH.**—Starch is reported as slightly better, although it is still in a sluggish condition as regards both open and contract markets. Paper starch is still about 2.93 to 3.50 cents per pound.

**SULPHATE OF ALUMINA.**—Sulphate of alumina is somewhat improved and dealers say they have a large portion of the supply for the year taken care of. Iron free is selling for about 3.50 cents per pound and commercial for about 2.50.

**TALC.**—Talc remains the same as last week. The demand is slow and the supply is large in relation to it. The price is firm at \$18 per ton.

## Market Quotations

(Continued from page 71)

Solid Ledger Stock	3.25 @ 3.50	New Black Soft	.04 1/4 @ .04 3/4
Writing Paper	3.00 @ 3.25	New Light Sec-	
No. 1 Books, heavy	2.00 @ 2.50	cnds	.03 @ .03 1/4
No. 2 Books, light	1.25 @ 1.50	Khaki Cuttings	.04 1/4 @ .04 3/4
No. 1 New Manila	4.00 @ 4.25	Corduroy	.03 @ .03 1/4
No. 1 Old Manila	1.25 @ 1.50	New Canvas	11.00 @ 11.50
Container Manila	1.00 @ 1.25	New Black Mixed	4.15 @ 4.25
Old Kraft	3.50 @ 4.00	Old	
Overissue News	1.50 @ 1.75	White, No. 1—	
Old Newspaper	.60 @ .70	Repacked	.08 1/2 @ .09
No. 1 Mixed Paper	.65 @ .75	Miscellaneous	.07 1/4 @ .07 3/4
Common Paper	.35 @ .40	White, No. 2—	
Straw Board, Chip	.75 @ 1.00	Repacked	.04 1/2 @ .04 3/4
Binders' Bd. Chip	.75 @ 1.00	Miscellaneous	.04 @ .04 1/4
Domestic Rags—New		Thirds and Blues—	
Price to Mill, f. o. b. Phila.		Repacked	.02 1/2 @ .02 3/4
Shirt Cuttings—		Miscellaneous	.02 @ .02 1/4
New White, No. 1	.14 1/4 @ .15 1/4	Black stockings	2.50 @ 2.75
New White, No. 2	.09 @ .09 1/2	Roofing Stock—	
Silicias, No. 1	.08 3/4 @ .09	No. 1	.90 @ 1.00
New unbleached	.10 1/4 @ .11	No. 2	.80 @ .90
Washables	.05 1/2 @ .06	No. 3	.70 @ .80
Fancy	.08 1/4 @ .08 1/2	No. 4	.75 @ .85
Cottons—according to grades—		No. 5A	Nominal
Blue Overall	.07 1/4 @ .07 3/4	B	Nominal
New Blue	.03 1/4 @ .03 3/4	C	Nominal

### BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

<b>Paper</b>		News Vat Lined	.47.50 @ 52.50
Bonds	.17 @ —	Wood Vat Lined	60.00 @ 70.00
Ledgers	.19 @ —	Filled News Board	50.00 @ —
Writings—		Solid News Board	55.00 @ 90.00
Superfine	.19 @ —	S. Manila Chip	.70.00 @ —
Fine	.20 1/4 @ —	Pat. Coated	110.00 @ 120.00
Books, S. & S. C.	.13 1/2 @ —	<b>Old Papers</b>	
Books, M. F.	.13 @ —	Shavings—	
Book, coated	.19 @ —	No. 1 Hard White	.04 1/2 @ —
Label	.22 @ —	No. 1 Soft White	.04 @ .04 1/4
News, Sheets	.13 1/4 @ —	No. 1 Mixed	.01 3/4 @ .02
News, Rolls	.08 @ .08 1/2	Ledger and Writ-	
Manilas—		ings	.01 1/2 @ —
No. 1 Manila	.08 @ .09 1/4	Solid Books	.01 1/4 @ .01 3/4
No. 1 Fiber	.09 @ .09 1/2	Blanks	.02 @ —
No. 1 Jute	.14 @ .14 1/4	No. 2 Books, light	.01 1/4 @ .01 1/2
Kraft Wrapping	.10 @ .13	No. 1 Manila	.02 @ —
Common Bogus	.04 1/4 @ .05	Folded News (over-	
<b>Boards</b>		issues)	.01 @ —
(Per ton f. o. b. mill)		Old Newspapers	12.00 @ —
Chip	45.00 @ 50.00	Mixed Paper	6.00 @ 8.00
		Gunny Bagging	.01 @ —
		Manila rope	.03 1/2 @ —

### TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

<b>Paper</b>		Sulphite, bleached	155.00 @ 160.00
(Mill Prices to Jobbers f. o. b. Mill)		Sulphate	120.00 @ 125.00
Bond—		<b>Old Waste Papers</b>	
Sulphite	23 1/4 @ —	(In carload lots, f. o. b. Toronto)	
Light tinted	24 1/4 @ —	Shavings—	
Dark tinted	26 @ —	White Env. Cut	6.00 @ —
Ledgers	24 @ —	Soft White Book	— @ —
Writing	20 1/4 @ —	Shavings	5.50 @ —
News, f. o. b. Mills—		White Bk News	2.50 @ —
Rolls (carloads)	5.50 @ 6.00	Book and Ledger—	
Sheets (2 tons or		Flat Magazine and	
over)	6.00 @ 6.50	Book Stock	
Sheets (less than		(old)	1.90 @ —
2 tons)	6.50 @ 6.75	Light and Crum-	
Book—		plee book Stock	1.65 @ —
No. 1 M. F. (car-		Ledgers and Writ-	
loads)	19.00 @ —	ings	3.50 @ —
No. 2 M. F. (car-		Solid Ledgers	3.50 @ —
loads)	18.00 @ —	Manilas—	
No. 3 M. F. (car-		New Manila Cut	3.00 @ —
loads)	17.00 @ —	Printed Manilas	1.25 @ —
No. 1 S. C. (car-		Kraft	2.75 @ —
loads)	19.50 @ —	News and Scrap—	
No. 2 S. C. (car-		Strictly Overissue	1.25 @ —
loads)	18.50 @ —	Folded News	.90 @ —
No. 1 Coated and		No. 1 Mixed Pa-	
litho.	19.00 @ —	pers	.60 @ —
No. 2 Coated and		Domestic Rags—	
litho.	18.00 @ —	Price to mills, f. o. b. Toronto.	
No. 3 Coated and		Per lb.	
litho.	17.50 @ —	No. 1 White shirt	
Coated and litho.,		cuttings	.18 1/2 @ .19
colored	20.00 @ —	No. 2 White shirt	
Wrapping—		cuttings	.11 @ .12
Grey	8.50 @ —	Fancy shirt cut-	
"B" Manila	9.00 @ —	tings	.10 @ .11
No. 1 Manila	11.00 @ —	No. 1 Old whites	.06 @ .06 1/4
Fibre	10.50 @ —	Thirds and blues	.03 @ —
Kraft, M. F. or		<b>Per cwt.</b>	
M. G.	11.50 @ —	Black stockings	3.00 @ —
<b>Pulp</b>		Roofing stock	1.50 @ —
(F. o. b. Mill)		No. 1	1.50 @ —
Ground Wood	\$65.00 @ \$80.00	No. 2	1.30 @ —
Sulphite, easy bleach-		Roofing stock	
ing	115.00 @ 120.00	Manila rope	.04 @ —
Sulphite, new grade	95.00 @ 100.00	Gunny bagging	3.00 @ —
		No. 2	2.75 @ —

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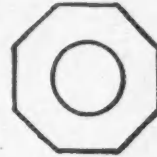
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OF BREAD AND CONFECTIONS

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# WANT AND FOR SALE ADVERTISEMENTS

## HELP WANTED

**WANTED**—First Class Sulphite Cook or Chemist having experience as Sulphite Cook. State experience and salary in first letter. Address, Box 2996, care Paper Trade Journal. F-17

**TWO OR THREE EXPERIENCED PAPER SALESMEN** for city and adjacent territory wanted by jobbing house doing largely mill order business. State fully your experience and class of trade you have been selling and whether commission or salary is desired. This opportunity is offered to men of ability and earning capacity. Address, Box 2997, care Paper Trade Journal. F-3

**WANTED**—A Boss Pipe Fitter with Paper Mill and Sulphite experience. Mill located in Middle West. Steady position for reliable man. Address, Box 2998, care Paper Trade Journal. F-17

**WANTED**—Superintendent for two-machine mill, running tissues and light weight papers on cylinder machines. Wanted high grade man, and to such would be paid satisfactory salary. Address, Box 2580, care Paper Trade Journal. F-17

**WANTED**—A good, sober, steady Machine Tender for Container Box Board Mill. Good wages to the right party. Two tours. Address, Box 2983, care Paper Trade Journal. F-3

**WANTED**—Machine tender, sober and reliable, for Cylinder Board Machine. Must be experienced on Test Board, News, Chip and all Combination Boards. Two shifts, 70c per hour. Address, Box 2981, care Paper Trade Journal. F-3

**WANTED**—Assistant Manager in large mill manufacturing lightweight papers, including tissue and waxing papers. Must have executive ability and office experience. Wonderful opportunity for right party. Address, Box 2948, care Paper Trade Journal. F-17

**A LOFT DRIED TUB SIZED PAPER MILL** is open for a first class superintendent. The mill has two machines, this is a good opportunity for the right man. Apply, giving full particulars, which will be considered confidential. Address, Box 2963, care Paper Trade Journal. F-12

**WANTED**—A first class millwright for a board mill. Production, 45 tons. Address, Ravenswood Paper Mill Company, L. I. City, N. Y. F-5

**WANTED**—A GENERAL SUPERINTENDENT, must be a practical paper maker and thoroughly experienced and qualified, to take charge of production of a paper mill now being organized and to be located in Wisconsin; character of paper to be manufactured is dependent upon the special ability of superintendent. Will let right man in on the ground floor. A life-time opportunity. Write full particulars about yourself and the paper you are qualified to make. Strictly confidential. Address, Box 2984, care Paper Trade Journal. F-10

**EXCEPTIONAL OPPORTUNITY** for Felt Mill and Roofing Plant to obtain high grade General Superintendent or Manager. Right up to the minute on modern methods of manufacture. Thoroughly practical in the manufacture of Dry Felts, Flooring Felts and Ready Roofings. Understand the blowing and blending of Asphalts and Fluxes. Executive ability. Results guaranteed. Will be ready to go to work March 1. Address, Box 2994, care Paper Trade Journal. F-17

## HELP WANTED

**WANTED**—American machine tenders for Eastern Roofing Mill, three tours; state age and give references. Address, Box 2980, care Paper Trade Journal. F-3

## SITUATIONS WANTED

**ENVELOPE MANUFACTURERS ATTENTION**—Have had 25 years' experience, from adjusting to having full charge. Experienced on plunger, open end, and box machinery. What have you to offer? Address, Box 2999, care Paper Trade Journal. F-17

**MAN WITH 25 YEARS' EXPERIENCE** as Sales Agent, Manager of Sales and General Manager of Mills. Well versed on all grades of Paper and Board. Personally acquainted with Dealers and Converters in United States and Canada. Also export trade. Best of references. Now open for position. Address, Box 3000, care Paper Trade Journal. F-10

**POSITION WANTED AS SUPERINTENDENT** or Assistant. 25 years' practical experience in manufacturing Roofing Felt, Flooring and Prepared Roofing and Shingles. Now employed as Assistant Superintendent. Desires change. Address, Box 3001, care Paper Trade Journal. F-3

**WANTED**—Position as Tour Boss or will accept job running machines. Experienced on most all grades made on Cylinder Machine. Wide experience on Boxboard and Tags. Address, Box 3002, care Paper Trade Journal. F-3

**BEATER ENGINEER** wishes to make a change from his present position. Experienced on Bonds, Ledgers, Tissues, also all grades of Boxboards. Married, steady and sober. Address, Box 3003, care Paper Trade Journal. F-3

**WANTED**—Position by practical Superintendent. Have had wide experience on all grades of Book, Writings, Specialties, made from Rags, Wood Pulp and Old Paper. Thoroughly up-to-date and efficient. Employed at present. Good reason for wanting to change. Address, Box 3005, care Paper Trade Journal. F-17

**BOARD MILL SUPERINTENDENT** wishes to make change from his present position. Experienced on all grades of Boxboard. Good on colors. Married, steady, sober. Address, Box 3004, care Paper Trade Journal. F-3

**PAPER EXPORTER**—Many years of experience in this country and abroad. Thoroughly familiar with all phases of the paper trade, foreign markets, requirements, etc., desires to connect with an important paper export organization. Energetic, competent, organizer, linguist, able manager, with personal connections in many foreign countries. Willing to take charge of home office or develop trade abroad. Address, Box 3006, care Paper Trade Journal. F-17

## ATTENTION PAPER WORKING PLANT

**MECHANICAL and PAPER ENGINEER** desires connection with progressive manufacturer of products made of paper (Fibre Containers of all classes, Waterproof Paper, Pasted Stock, Crepe Paper, etc.) for development of new products and the building of special machinery for same. Established record in this work. **WOULD TAKE FINANCIAL INTEREST AND MANAGEMENT OF NEW PROPOSITION.** Address Box 2995, care Paper Trade Journal. F-10

## SITUATIONS WANTED

**SALESMAN—SURFACE COATED PAPER.** New York city representation wanted by a party with long experience in the manufacture and sales of Clay Coated Papers and Boards. Headquarters to be in New York city, with representation throughout the East and Atlantic states. Intimate knowledge of the Lithograph and Printing field. Able to secure and retain quantity business. Compensation to be on a basis of 1 per cent gross sales with a minimum guarantee of not less than four thousand dollars per year. Address, Box 3007, care Paper Trade Journal. F-10

**SUPERINTENDENT** desires position, 18 years' experience on Tissues, Crepe, Semi-Crepe, Toilet, Towels, Napkins and Colored Crepe Tissues, Pattern and Fruit Wraps. High grade man on Kraft and Waxing Tissue, Twine and Carpet Fillers. All on colors; first class references. Samples showing my work can be submitted if desired. Address, Box 2987, care Paper Trade Journal. F-10

**PAPER AND PULP MILL ENGINEER** of exceptional ability and 15 years of broad practical experience, in the operation of Steam, Electrical and Hydraulic Machinery in Book and News Mills and the economical maintenance of equipment, desires position in charge of plant engineering. Address, Box 2989, care Paper Trade Journal. F-10

**CYLINDER MACHINE TENDER** desires position. Prefer mill making Container or Box Boards. Good reference. Address, Box 2990, care Paper Trade Journal. F-10

**WANTED**—Position as Boss Machine Tender or Machine Tender in mill running on container or box board. Have had 22 years' experience in the business in up-to-date mills. Can handle help to an advantage and can get results. Employed at present. Have satisfactory reasons for making a change. Address, Box 2917, care Paper Trade Journal. F-17

**BOSS FINISHER** desires to make a change. Employed at present. Understands handling of help. Steady and industrious. Married. Understands finishing, cutters and super calenders. References. Address, Box 2883, care Paper Trade Journal. D-30

**WANTED**—Position as Machine Tender in mill running on tag or any grade of boards. Have had fifteen years' experience on cylinder machines. Good on repairs and can get results. Address, Box 2964, care Paper Trade Journal. F-12

**POSITION WANTED** by Superintendent who is a practical Papermaker with eighteen years' experience on all the better grades of Combination and Container Board. Thoroughly familiar with all repairs and general upkeep of mill and a knowledge of steam and power plant operation. Can furnish the very best of references. Address, Box 2782, care Paper Trade Journal. F-17

**CYLINDER MACHINE TENDER**, experienced on News, Chip and Folding Box Board, Tag, Duplex, Wall Board, seeks position. Address, Box 2953, care Paper Trade Journal. F-12

## Superintendent

with 20 years' Technical and Practical experience, desires to connect with live concern, either as Superintendent or Production Manager. Well up in the manufacture of Bag, Sulphite and Ground Wood Specialties, Manila, Book and Bond. Can handle help and produce results. Age 38. Married. Address, Box 3012, care Paper Trade Journal. F-3

**SITUATIONS WANTED**

**YOUNG GRADUATE MECHANICAL ENGINEER**, with Paper Mill Experience, wishes to make permanent connection with progressive Pulp and Paper Mill. Address, Box 2985, care Paper Trade Journal. F-3

**WANTED**—Position as Superintendent or Assistant Manager in Paper Mill making Wrapping, News, Hangings or Board. Have ten years' experience and college education. Will guarantee to increase production and cut down cost. Address, Box 2986, care Paper Trade Journal. F-3

**ENGINEER, CIVIL AND MECHANICAL**, desires change. Experienced on lay-out, design and installation of Pulp and Paper Mills. Would like position as Engineer and Master Mechanic. Have had several years' experience in large mills, also in prominent Pulp and Paper Mill Engineer's office. Address, Box 2988, care Paper Trade Journal. F-10

**POSITION WANTED**—Superintendent for twenty years in best mills in the country, solicits correspondence. Have been in on the ground floor and gone through organization, planning, construction and starting of three large book mills, and one box and straw board mill which are all running successfully today. Also took stock and served as director in the book mills. Would take stock as guarantee in up-to-date new mill. Prompt attention given to all correspondence. Address, Box 2973, care Paper Trade Journal. F-5

**WANTED**—Position as Managing Superintendent by a man with twenty years' experience in the manufacture of fine tissues, such as carbon tissues, and other allied lines. If you want to change your mill over from cheap tissues to high grade specialties that are worth while, this is your opportunity. Address, Box 2968, care Paper Trade Journal. F-5

**MANAGER** open for engagement by one who has had years of experience in the actual manufacture of high grade specialties and is qualified to go into the mill and supervise the manufacture in all its branches. Address, Box 2969, care Paper Trade Journal. F-5

**PRACTICAL PAPER MAKER** wishes to connect with a mill desiring sales representation in New York on specialties in fine tissues. Competent to supervise the manufacture and dispose of the output. Address, Box 2970, care Paper Trade Journal. F-5

**WANTED—POSITION as Master Mechanic**, 19 years' actual experience installing and maintenance of paper and board pulp mill machinery. Can handle men and get good results. Can keep mill in good shape as my motto is to do good jobs in good time. References furnished. Address, Box 2987, care Paper Trade Journal. J-6

**POSITION WANTED** as Superintendent of two-machine mill or larger, by Superintendent now operating large board mill. Wide experience on all grades; twelve years as Superintendent on fine papers. Can meet present demands for quality and lower production costs, as well as maintain your mill in A-1 condition. Address, Box 2966, care Paper Trade Journal. F-12

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AIR COMPRESSOR  
FOR SALE**

Class N. F.—1 size 12 and 14½x12. Operating at 190 R.P.M., has a piston displacement of 400 cubic feet of free air per minute, discharge pressure from 40 to 80 lb.; and requires 50 to 73 I.H.P. in the steam cylinders. Address, Box 2922, care Paper Trade Journal. eow-3t

**FOR SALE**

**FOR SALE**—"Auto Press" rebuilt within last year, with new feeder of latest model. This is a money maker if you can use it. We need floor space. Will show the machine in action and make price right. Address, Box 3008, care Paper Trade Journal. F-3

**FOR SALE CHEAP**—One 122" Moore & White Duplex Cutter with automatic lay-boy and drive complete. Price \$5,200. Two Waterville disc Barkers, one left hand and one right hand, with Lombard attachments. Price \$225 each. One Carthage disc Barker with Lombard attachment. Price \$325. One Greenbay continuous disc Barker. Price \$1,000. One 72" Seybold Automatic Knife Grinder. Price \$525. One Mitts and Merrill No. 17 Chipper and Shredder. Price \$1,000. One Downingtown Duplex Cutter, 12 rolls. 118" swing Knife, Reeves drive. Good condition. Price \$1,000. All in A-1 condition, immediate delivery. Address, Gibbs-Brower Company, 261 Broadway, New York City, N. Y. F-10

**FOR SALE**—Two ten-foot North Sav-A-lls, low inlet type. Two four-inch Black & Clawson single plunger stuff pumps. The Boehme & Rauch Company, Monroe, Mich. EOW-tf

**MACHINERY FOR SALE** in good condition. One large size Thresher Duster, two Whipper Dusters, two Holyoke Wing Dusters, four Daniels Rag Cutters, iron frames, double blades. Address Box 2960, care Paper Trade Journal. tf

**FOR SALE**—Three paper machines in good condition. A bargain. Size of paper, 2.30 m. by 2.85 m. Delivery in eight months. Price exceptionally favorable. We desire to order a machine making paper of 4x4.50 m. width. Communicate with Grosbott, 11 Rue Guy-Patin, Paris, France. M-3

**FOR SALE**—One Corliss Engine. Maker, Wm. A. Harris, Providence, R. I. Bore 20", stroke 42", fly-wheel 24" face, 14 ft diam. Speed about 75 R.P.M. Equipped with new valves and new cylinders. Used eighteen months. Also one No. 10 Moore & White Speed Change, first class condition. No reasonable offer refused. S. Austin Bicking Paper Mfg. Co., East Downingtown, Penna. F-5

**FOR SALE**—Pulpwood rights. We control several high-class freehold properties on rivers entering into the Atlantic Ocean, containing large quantities of spruce pulpwood. We would sell outright, or stumpage rights and agree to deliver the wood on vessels. Address, Box 2971, Care Paper Trade Journal. F-12

**MISCELLANEOUS**

**WANTED**—One Cylinder mould, 30"x48", with couch roll and frames. Will purchase all or part. Paterson Asbestos Mfg. Co., 170 Clay St., Paterson, N. J. F-3

**FOR SALE**

1 62" Langston Surface or Drum Rewinder and Slitter, with 21 sets of cutters, for immediate delivery.

For price address St. Louis Paper Can & Tube Co., St. Louis, Mo. tf

**MISCELLANEOUS**

**WANTED**—Three to five 36x88½ Paper Machine Dryers. Address, Box 3009, care Paper Trade Journal. F-3

**WITH VIEW TO INVESTING FUNDS** am open to negotiate with controlling interests for the purpose of purchasing or reconstructing and extending Paper Mill with record of substantial earnings and assets. Strictly confidential. Before disclosing data write for my address. Reply, Box 3010, care Paper Trade Journal. F-24

**ATTENTION PAPERMAKERS**—Shortest method known, Absolutely Correct. Find number of pounds machine is making per hour. Any weight, any width, any speed. One simple multiplication, no other figures. Send one dollar (cash or money order), width and weight of sheet. Will show you how to get pounds per hour at any speed by simply multiplying one number by another. Absolutely correct to the fraction of a pound. Address, W. H. Fusey, 613 Rothstock Building, Watertown, N. Y. F-3

**WANTED**—For immediate delivery, one Centrifugal Screen for ground wood. Improved Paper Machinery preferred. Also two wet machines in good running order, either 72 or 84-inch cylinders. Itasca Paper Company, Grand Rapids, Minnesota. F-10

**WANTED**—Bottoming Machine for 12 lb. and 24 lb. sizes Rope Stock Paper Flour Bags. Will pay cash for satisfactory machine. Communicate at once with Box 3013, Care Paper Trade Journal. F-10

**PAPER MILL MACHINERY**

In Good Operating Condition and Ready for Immediate Delivery

1 Stack Machine Calenders, 112" face, 18 Rolls, bottom 20" dia. 1-14", 7-9", top 14". Equipped with box cored frame, rolls removable through side. Doctors, Levers and Weights. Complete with Marshall Drive, self-contained 7" Mortise gear and friction clutch pulley. Rolls recently reground.

1 55" Holyoke Super-Calender, 9 rolls. Equipped with levers and weights. Late type. Arranged for motor drive.

1 122" Moore & White Duplex Revolving sheet cutters, heavy type, including Moore & White drive.

1 122" Moore & White Lay-boy, 5 partition, for above cutters.

1 124", 4 drum Moore & White Slitter & Winder, heavy type, practically new.

4 Beaters, 72"x44" Noble & Wood, with Washers.

1 Baker & Shevlin Screen.  
10 12 Plate openside Packer Screens.

Wandel Screen, single cylinder.  
2 Wandel Screens, double cylinder.

1 Nash Dryer Exhaust Unit, size E.  
2 Grinders, Bagley & Sewell, 4 pocket.

5 Grinders, Friction pulley, 3 pocket.  
1 Rotary Boiler 7"x22".

2 No. 20 Taylor-Stiles Rag Cutters.  
1 Fourdrinier Part which takes a wire 75"x50".

FRANK H. DAVIS CO.

175 Richdale Ave. Cambridge, 40, Mass.

## Wanted

Roll paper printing press for printing in one, two or three colors four electrotypes and rewinding paper in roll. Press must be modern and in first class condition and available for immediate delivery. Send full particulars and cut with reply, stating price, and point where machine may be seen. Address, Box 3011, care Paper Trade Journal. F-10

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We are in the market for Pulp and Paper of Any Description  
Rolls or Sheets. Any Size or Thickness. Perfect or Damaged  
Can Use Most Any Quantity  
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WE ARE looking for Paper Specialties, particularly Sanitary Specialties that can be used in Office, Home, Factory, Club, Hotel or Hospital. Our Sales Plan will find NEW USERS for high grade Lines.

Send samples and full information. Hilltop Company, 25 West 42d St., New York City. tf

## PAPER MACHINE FOR SALE

New Downingtown Manufacturing Company's 86" trim 3-cylinder .009 Straw Corrugated Machine. Light board not exceeding .015 can also be run. Can be altered to make heavier board. Delivery, without alterations, February first, 1921. YOUR OPPORTUNITY.

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Paper and Pulp Mill Brokers  
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Telephone—Barclay 8620  
OUR MOTTO—"Service First" F-10

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Second-hand 86" Pusey and Jones Fourdrinier machine, trimming 78". Wire 66' long. Three 12-plate packer screens, suction boxes, couchpress, two felt presses, 26 dryers 36" in diameter. Two stacks of nine-roll calendars, double reels, slitter and double drum winder. Machine now running up to 420 feet paper per minute, driven by Ball Variable Speed Engine with reserve cone pulley drive. Immediate delivery. Can be purchased at very low figure. You must act quickly.

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- JORDANS**—Several Horne and Emerson on way to our works. One Noble & Wood; two No. 1 Clafins.
- KOLLERGANGS**—One kollergang; size of stone 56" x 15" face.
- PULLEYS**—One 97" dia. x 34", double arm, modern pulley. Large cone pulleys. Large stock of iron pulleys, including some cone pulleys for Marshall drives. New wood pulleys with friction clutches. Also steel pulleys.
- PUMPS**—One dry suction, single vacuum, 12 x 22 x 18 Knowles; one 1,000-gallon Blake Tank Pump; several 7" and 8" Lawrence Machine Company, Class A, High Duty Pumps; Fan Pumps; new stock pumps, single and double.
- PRESS ROLLS**—Large number of different sizes on hand. Some suitable for rubber covering. Six rolls about 15" x 98" just received. Some brass and some rubber covered.
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- RAG CUTTERS**—One Daniels No. 2; one Taylor & Stiles.
- SLITTERS**—Two Dietz Slitters.
- SCREENS**—One 10-plate open side Packer with plates; one 12-plate open side Packer with practically new plates. Three Ruth centrifugal.
- WINDERS**—One 80" single drum P & J make; one 100" double drum, P. & J make.

Advise us of your wants.

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LAWRENCE, MASS.

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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.

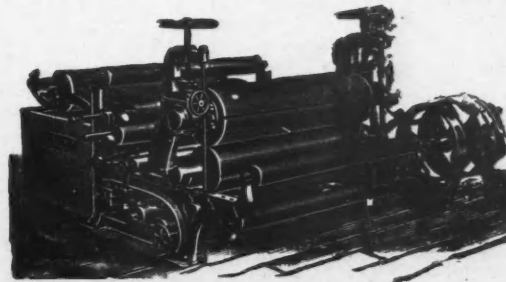
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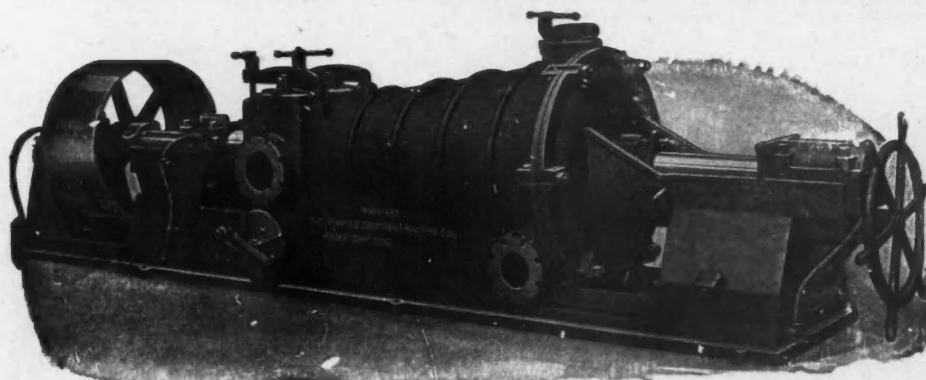
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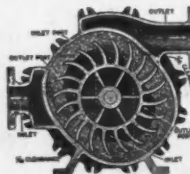
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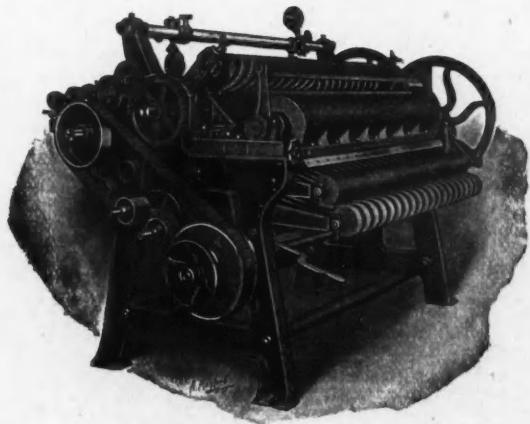
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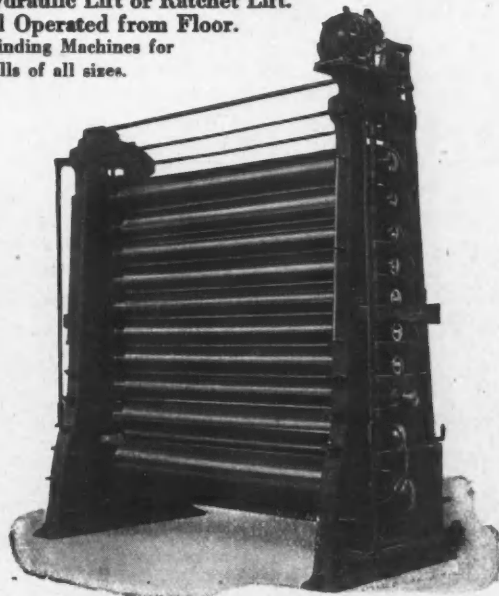
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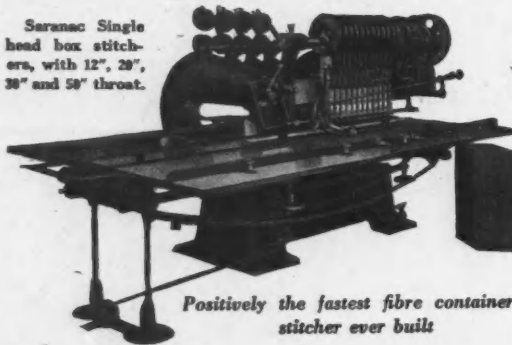
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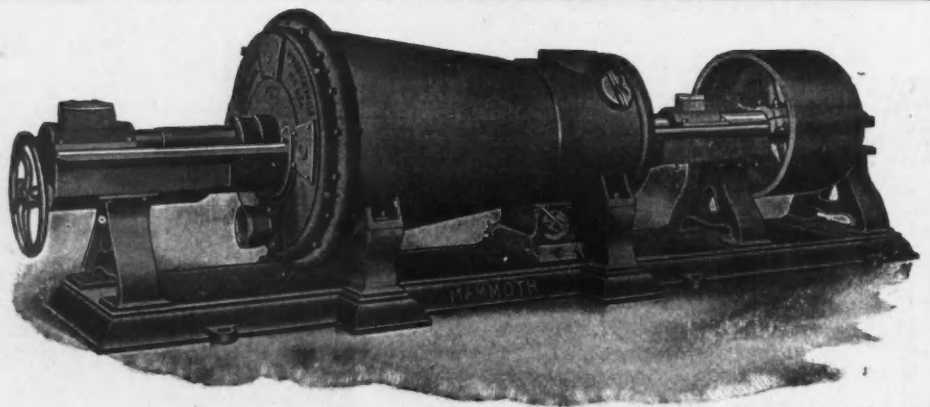
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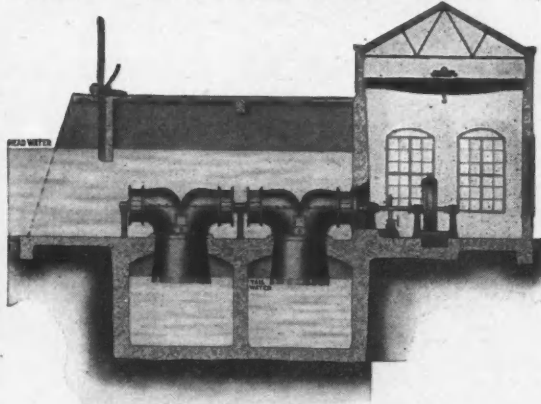
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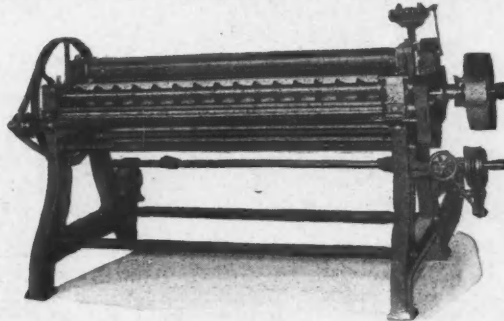
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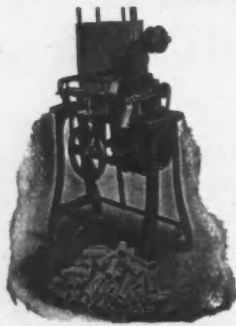
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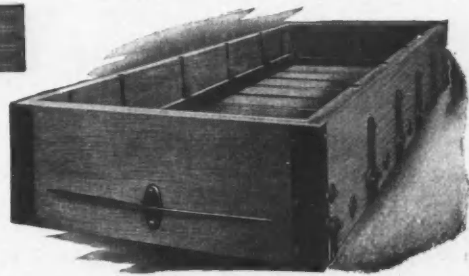
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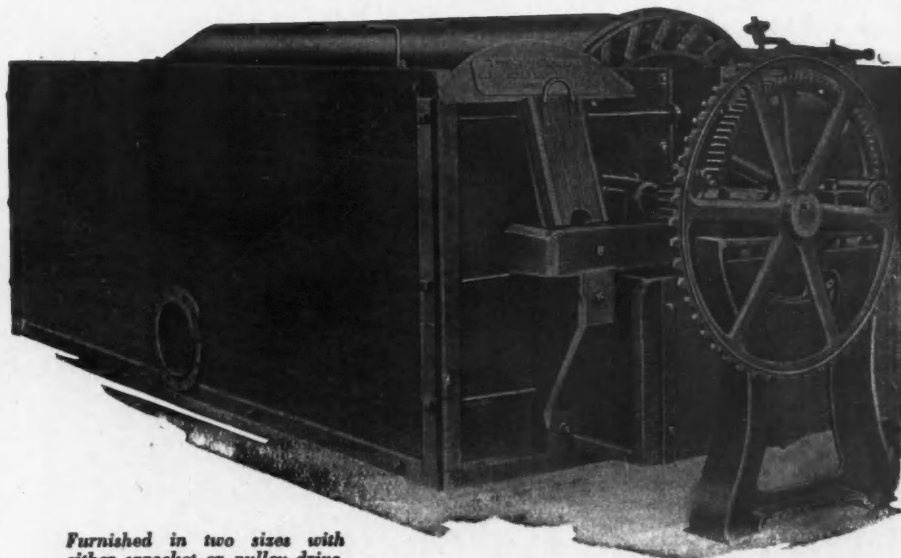
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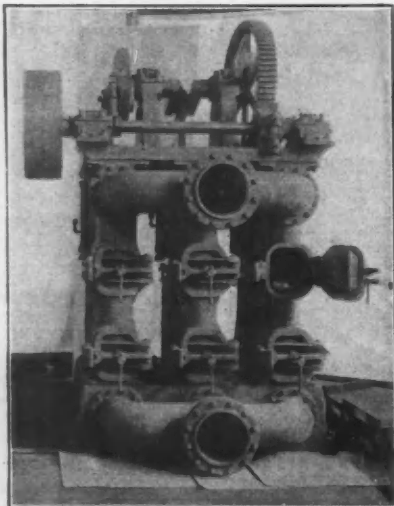
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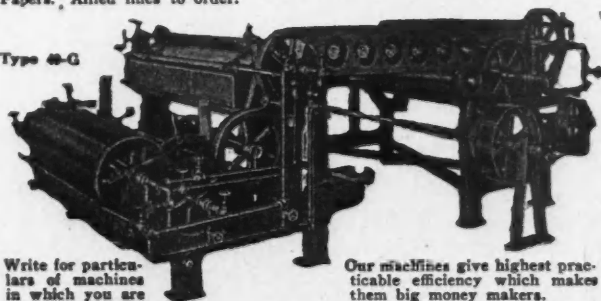
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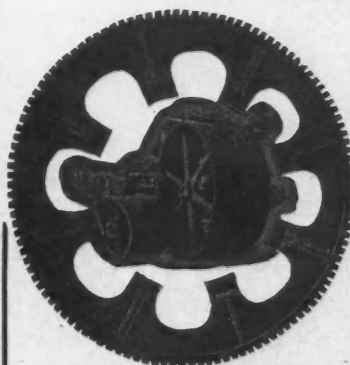
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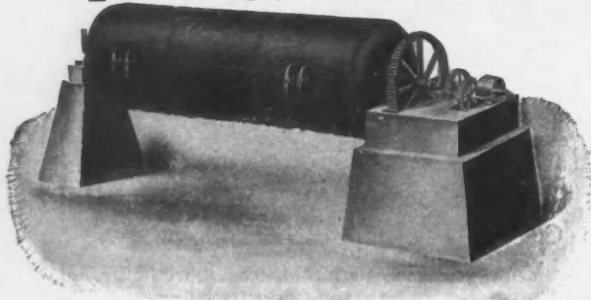
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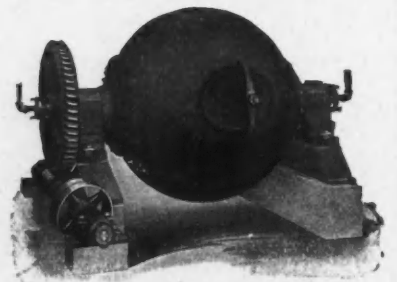


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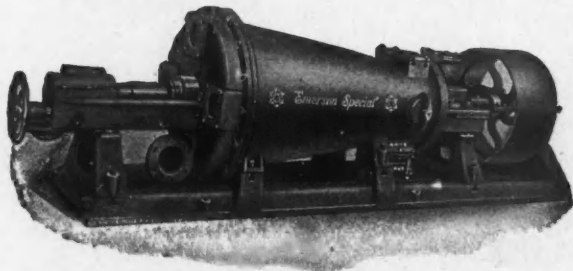
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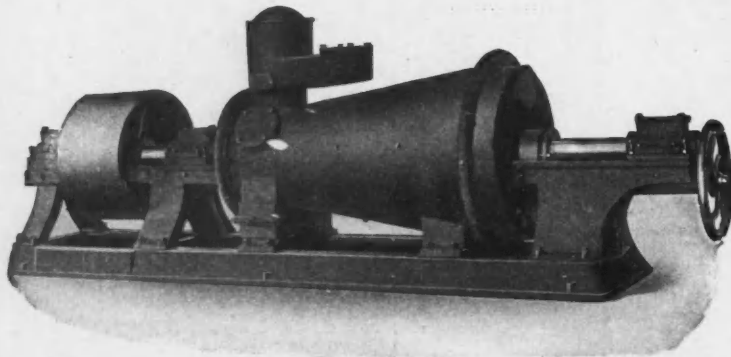
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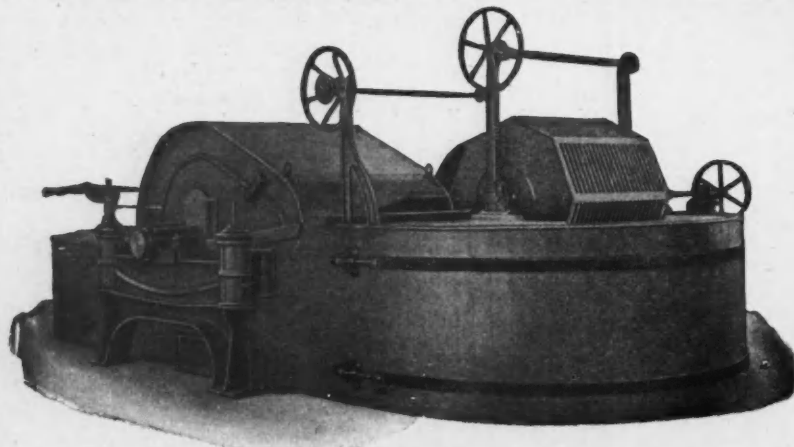
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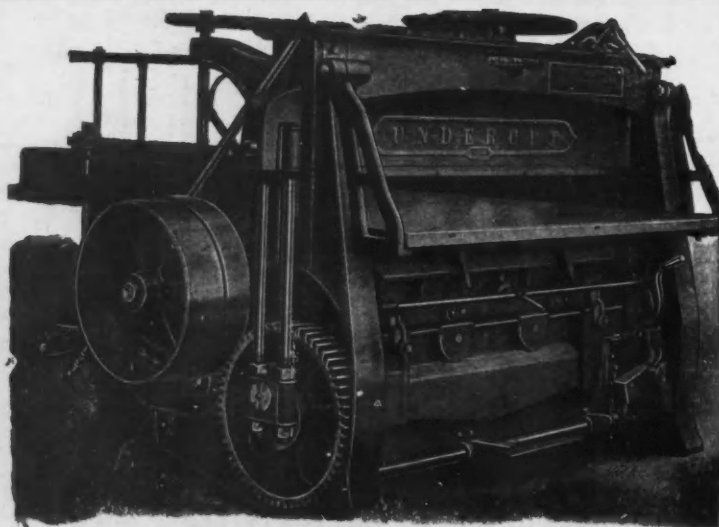
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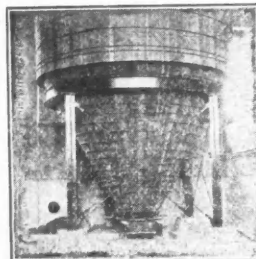
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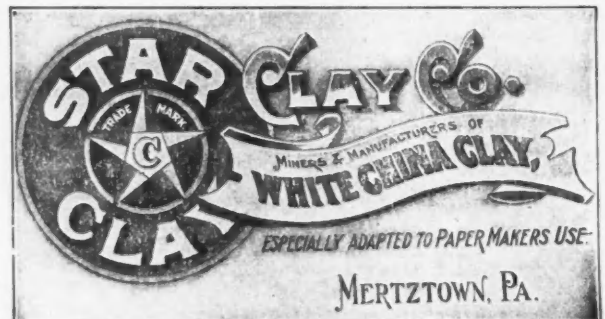
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