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PAPER TRADE JOURNAL

ESTABLISHED IN 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

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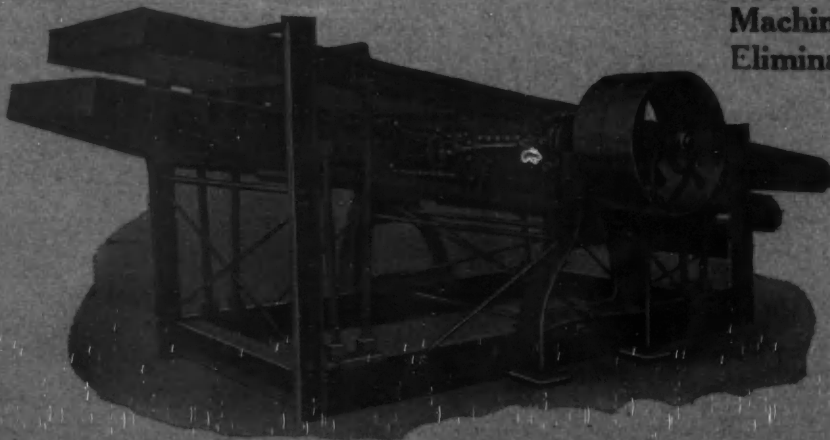
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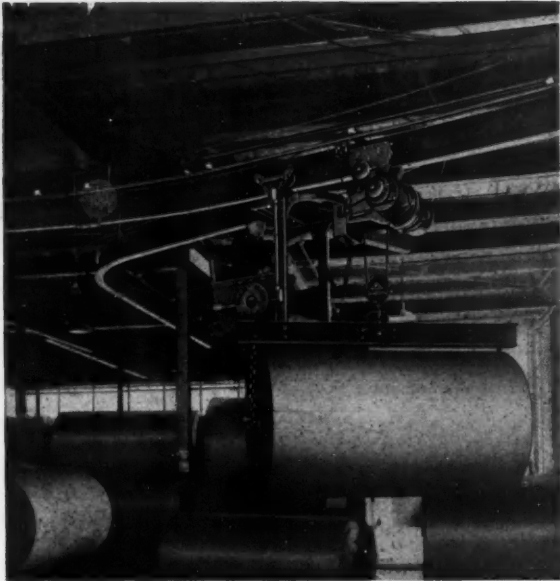


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PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD FIFTY-SECOND YEAR
Published Every Thursday by the

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1923

PAPER TRADE JOURNAL

ESTABLISHED IN 1872

Vol. LXXVII. No. 1

NEW YORK AND CHICAGO

Thursday, July 5, 1923

PRODUCTION OF NEWS PRINT FOR MAY

According to Figures Just Issued by the Federal Trade Commission the Production For May of This Year Compared With May of Last Year Shows an Increase of Seven Per Cent for Total News Print and Five Per Cent for Standard News—The Average Price For the Month in Carload Lots Was \$3.957 Per 100 Pounds.

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., July 3, 1923.—The following is a tabulation of the reports received by the Federal Trade Commission from domestic manufacturers of newsprint paper, from jobbers buying and selling news print paper, and from publishers using news print paper. Import and export statistics of the Department of Commerce for February, March and April, 1923, are also included in this review. Whenever possible the figures for 1923 are compared with those for the corresponding period of 1922, 1921, 1920, 1919 and 1918. With the issuance of the reports regarding the paper industry and trade for the month of May, 1923, the Commission has announced that it will discontinue the collection, compilation and publication of these periodic paper reports.

The statistics which follow show the results of the Commission's tabulation for May, 1918, to 1923, inclusive:

	Number of mills	Stocks on hand 1st of period		Production	Ship-ments	Stocks on hand end of period	
		Net tons	Net tons			Net tons	Net tons
Total News Print:							
May, 1923.....	74	18,943	138,868	136,979	20,833		
May, 1922.....	82	24,874	129,950	130,043	24,781		
May, 1921.....	87	35,106	78,868	82,776	31,198		
May, 1920.....	92	21,673	129,230	128,080	22,823		
May, 1919.....	70	36,385	105,819	115,120	27,084		
May, 1918.....	66	24,864	111,242	109,984	26,122		
Total (5 mos.), 1923....	..	19,253	626,944	625,365	20,832		
Total (5 mos.), 1922....	..	23,934	562,912	562,065	24,781		
Total (5 mos.), 1921....	..	24,763	528,678	522,243	31,198		
Total (5 mos.), 1920....	..	15,369	629,244	621,790	22,823		
Total (5 mos.), 1919....	..	19,408	556,245	548,569	27,084		
Total (5 mos.), 1918....	..	31,713	527,626	533,217	26,122		
Standard News (included in Total News Print):							
May, 1923.....	59	14,610	126,215	124,959	15,866		
May, 1922.....	69	20,101	120,654	121,043	19,715		
May, 1921.....	69	29,680	73,181	75,806	26,955		
May, 1920.....	75	19,085	119,906	118,832	20,159		
May, 1919.....	53	31,236	96,192	105,591	21,837		
May, 1918.....	50	18,891	94,362	94,875	18,378		
Total (5 mos.), 1923....	..	15,176	572,493	571,803	15,866		
Total (5 mos.), 1922....	..	19,607	525,546	525,441	19,712		
Total (5 mos.), 1921....	..	19,573	485,813	485,813	26,955		
Total (5 mos.), 1920....	..	12,338	578,274	570,453	20,159		
Total (5 mos.), 1919....	..	15,656	508,360	502,179	21,837		
Total (5 mos.), 1918....	..	26,482	471,890	479,994	18,378		

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

The average production of total news print and standard news, based upon the total combined production for the years 1918 to 1922, inclusive, amounted to 115,908 tons for total news print, and 105,456 tons for standard news for a period corresponding to May. The actual production for May, 1923, amounted to 138,868 tons of total news print and 126,215 tons of standard news, which was 20 per cent above the average for the five-year period for both news print and standard news.

The production of news print for May, 1923, compared with May, 1922, shows an increase of 7 per cent for total news print and 5 per cent for standard news.

The production for May, 1923, compared with May, 1921, shows an increase of 76 per cent for total news print and 72 per cent for standard news.

The production of total news print for May, 1923, compared with May, 1920, shows an increase of 7 per cent for total news print and 5 per cent for standard news.

The production for May, 1923, compared with May, 1918, shows an increase of 31 per cent for both total news print and standard news.

The production for May, 1923, compared with May, 1918, shows an increase of 25 per cent for total news print and 34 per cent for standard news.

Jobbers' Tonnage

The following tabulation shows the news-print tonnage reported by jobbers during the month of May, 1923, compared with May, 1922, to May, 1918, inclusive, together with commitments to buy and sell.

	On hand first of month	Received during month	Shipped during month	On hand end of month	Commitments to buy	Commitments to sell
	Net tons	Net tons	Net tons	Net tons	Net tons	Net tons
Rolls, May, 1923..	1,967	11,415	10,961	2,421	44,971	41,234
Rolls, May, 1922..	1,400	10,929	10,862	1,467	19,195	21,774
Rolls, May, 1921..	2,536	6,384	6,540	2,380	21,603	25,487
Rolls, May, 1920..	1,939	5,669	5,663	1,945	35,598	39,491
Rolls, May, 1919..	2,768	3,637	3,567	2,838	47,559	56,498
Rolls, May, 1918..	2,865	2,260	1,964	3,161	54,472	54,650
Sheets, May, 1923..	5,963	3,036	2,683	6,316	2,575	1,658
Sheets, May, 1922..	4,268	2,511	2,808	3,971	3,749	2,954
Sheets, May, 1921..	4,237	2,408	2,827	3,818	2,661	1,939
Sheets, May, 1920..	2,757	2,974	3,101	2,630	4,303	3,129
Sheets, May, 1919..	6,912	2,157	2,884	6,185	2,628	1,716
Sheets, May, 1918..	6,253	3,078	2,779	6,552	7,881	6,886
Total News Print:						
May, 1923.....	7,930	14,451	13,644	8,737	47,546	42,892
May, 1922.....	5,668	13,440	13,670	5,438	22,944	24,728
May, 1921.....	6,773	8,792	9,367	6,198	24,264	27,426
May, 1920.....	4,696	8,643	8,764	4,575	39,901	42,620
May, 1919.....	9,680	5,794	6,451	9,023	50,187	58,214
May, 1918.....	9,118	5,338	4,743	9,713	62,353	61,536

More Sheets in Stock

Stocks of rolls in the hands of jobbers at the end of May were 454 tons more than the stocks in the hands of the same jobbers at the beginning of the month. Stocks of sheets were 353 tons more at the end of May than at the beginning of the month. The net increase in the total stocks of news print in the hands of jobbers at the end of May amounted to 807 tons.

Commitments to sell roll news were 3,737 tons less than commitments to sell sheet news were 917 tons less than commitments to buy.

Publishers' Tonnage

Monthly tonnage reports from 558 (a) of the most important newspaper publishing concerns and associations grouped according to the principal business sections of the United States, together with a separate tabulation for agricultural publications show the following results for May, 1923.

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Location of publishers (b)	Number of concerns	On hand first of month	Received during month	Used and sold during month	On hand end of month	In transit end of month
New England.....	70	17,250	20,710	18,847	19,113	3,633
Eastern States.....	141	49,083	66,469	67,660	47,893	17,488
Northern States.....	110	38,854	49,606	46,091	42,369	11,205
Southern States.....	59	9,406	13,322	10,217	12,511	3,479
Middle West.....	123	24,588	31,205	29,169	26,624	7,055
Pacific Coast.....	33	23,581	19,066	17,215	25,432	7,664
Farm Papers (c)...	22	1,895	1,870	1,359	2,406	381
	558	164,657	202,248	190,558	176,347	50,905

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

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

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

Publishers' stocks increased 11,690 tons during the month. Average daily tonnage used during May was 349 tons less than the average used in April.

Publishers' stocks and transit tonnage on May 31, represented 38 days supply at the existing rate of consumption.

Publishers' and Jobbers' total stocks and tonnage in transit on May 31, aggregated 235,989 tons.

The domestic consumption of standard news by metropolitan dailies using between one-half and three-fourths of a million tons annually, for May, 1923, when compared with May, 1922, shows an increase of 15 per cent and an increase of 30 per cent when compared with May, 1921.

The above metropolitan dailies held 60 per cent of the tonnage on hand at the end of the month.

Average Prices Paid by Publishers

The weighted average price of contract deliveries from domestic mills to publishers during May, 1923, f. o. b. mill, in carload lots, for standard news in rolls was \$3.726 per 100 pounds. This weighted average is based upon May deliveries of about 84,000 tons on contracts involving a total tonnage of approximately 602,000 tons of undelivered paper manufactured in the United States.

The weighted average contract prices based on deliveries from Canadian mills of about 63,000 tons of standard roll news in carload lots, f. o. b. mill, in May, 1922, was \$3.777 per 100 pounds. This weighted average is based upon the May deliveries on contracts involving about 186,000 tons of undelivered Canadian paper.

The weighted average market price for May, of Standard roll news in carload lots f. o. b. mill, based upon domestic purchases totaling about 11,000 tons, was \$3.957 per 100 pounds.

Imports and Exports

The imports and exports of printing paper not dutiable (practically all news print) and of wood pulp for the months of February, March and April, 1923, compared with the corresponding months of 1922, as shown by the records of the Department of Commerce, were as follows:

	April, 1923 Net tons	April, 1922 Net tons	March, 1923 Net tons	March, 1922 Net tons	February, 1923 Net tons	February, 1922 Net tons
Imports of news print (total).....	111,712	77,369	112,340	78,031	89,485	82,390
From Canada.....	95,262	67,568	94,447	73,119	76,635	63,658
Germany.....	3,354	2,427	3,615	2,086	1,854	3,098
Sweden.....	6,243	3,180	6,951	532	2,487	10,871
Finland.....	2,627	3,485	2,941	657	4,008	2,263
Norway.....	3,909	667	4,026	1,262	3,389	2,431
Other countries.....	317	42	1,230	375	1,122	171
Exports of news print (total).....	1,475	3,343	1,987	2,793	1,194	836

To Canada.....	72	145	37	109	9	60
Mexico.....	32	33	33	69	31	6
Cuba.....	1,056	537	1,466	681	747	581
Colombia.....	42	76	48	56	23	58
Philippine Islands.....	135	128	192	270	219	0
Central America.....	54	92	73	29	72	46
Salvador.....	10	35	12	14	21	33
Other countries.....	74	2,297	126	1,565	73	52
Imports of ground wood pulp (total).....	17,186	11,979	25,143	12,425	27,766	9,138
Imports of chemical wood pulp (total).....	70,401	65,141	82,078	48,376	97,589	66,443
Unbleached sulphite.....	28,047	28,660	35,001	20,153	57,420	32,955
Bleached sulphite.....	22,512	18,440	28,171	13,478	24,679	14,187
Unbleached sulphate.....	19,322	17,530	18,477	14,548	14,192	19,042
Bleached sulphate.....	520	511	429	197	1,298	259
Paper stock other than wood pulp.....	35,387	15,529	27,996	15,522	19,164	17,258
Exports of domestic wood pulp.....	558	2,493	2,405	2,516	1,771	2,018
Exports of rags and other material made from vegetable fibre.....	5,228	3,644	4,549	5,784	2,730	3,445

The imports of news print for April, 1923 were 34,343 tons more, and the exports 1,868 tons less, than for April, 1922.

The imports of news print for March, 1923, were 34,309 tons more, and the exports 806 tons less, than for March, 1922.

The imports of news print for February, 1923, were 7,105 tons more, and the exports 358 tons more, than for March, 1922.

The tonnage to "other countries" under "Exports of News Print" for April, 1923, includes 22 tons to China, 21 tons to Brazil, 14 tons to Guatemala and 13 tons to Venezuela. Exports to "other countries" for March, 1923, include 40 tons to United Kingdom, 28 tons to Costa Rica, 22 tons to Venezuela, 4 tons to Australia and 8 tons to Peru. Exports to "other countries" for February, 1923, include 34 tons to United Kingdom, 14 tons to Venezuela, 11 tons to Japan and 7 tons to Guatemala.

Carl E. Lincoln Leaves American Writing

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, July 3, 1923.—President S. L. Wilson, of the American Writing Paper Company, announces the resignation of Carl E. Lincoln as general manager of the Sales Department, effective at once. Mr. Lincoln will be succeeded by George J. Cadwell, who has been assistant sales manager for several years. Mr. Lincoln came to the American Writing Paper Company about five years ago.

Mr. Willson has bought of Mrs. Thomas J. Morrow her house at the corner of Oak and Essex streets, and will occupy it as a residence. The house was built by the late Senator George N. Tyner, head of the Holyoke Envelope Company, before it was absorbed by the United States Envelope Company.

May Operate Watson Frye Co., Ltd.

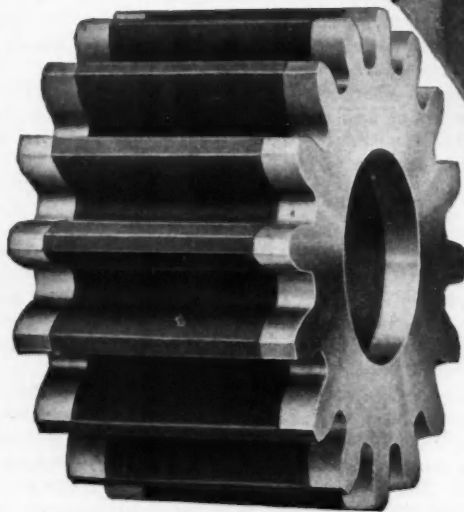
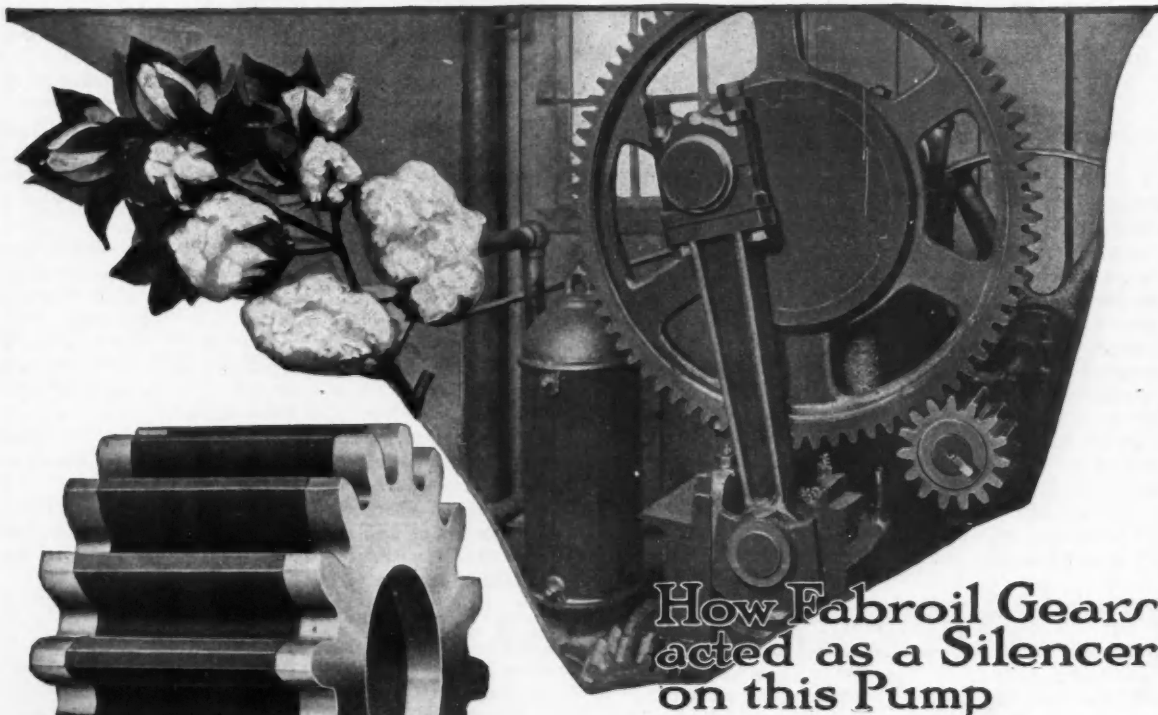
BATH, Me., July 2, 1923.—If the Benjamin Isaacson Company, of Lewiston, purchases the plant of the Watson Frye Company, Ltd., here, now in receivership, it will be operated as a foundry and paper making machine plant, according to a member of the former firm. He stated that it would be put in operation at the earliest opportunity, making pulp and paper machinery, general casting and new lines of manufacture, as well as the rebuilding of paper machinery as now carried on by the Isaacson company.

Leaves Procter & Gamble Distributing Co.

[FROM OUR REGULAR CORRESPONDENT.]

CINCINNATI, Ohio, July 3, 1923.—Stewart E. Seaman who has had charge of the selling of the cotton linter pulp of the Procter & Gamble Distributing Company, Cincinnati, Ohio, has resigned. He is succeeded by W. P. Richardson who has been with the company through the entire period of the introduction of the pulp to the trade.

No Need of Noise in Pumping



Pump manufacturers now equip pumps with Fabroil Gears—if requested. The silent operation, smooth running and long wear of Fabroil Gears make them highly desirable for every plant.

For 8 years the De La Vergne Machine Co., New York, had accepted the noise of a hydraulic pump as a matter of course. One day the shop superintendent decided to replace the cast iron pinion on the pump with a Fabroil Gear. Presto! the noise was stopped, and the pump ran as smoothly as any one could wish.

Since this replacement was so satisfactory, more Fabroil Gears have been installed throughout the plant with equal success on other machines.

Made from cotton, built in sizes from 1 in. to 36 in. diameter—not affected by sudden temperature changes or by dry or damp conditions—quiet in operation—a protection against excessive vibration and shocks to machinery—Fabroil Gears might be considered a necessary part of the equipment of every machine.

General  Electric Company
 General Office Schenectady, N.Y. Sales Offices in all large cities

CARTHAGE SULPHITE CO. HAS \$200,000 FIRE LOSS

Fire Believed to Have Been Due to Spontaneous Combustion Damages Sulphite Mill and Threatens Main Paper Mill—Board of Directors Meet This Week to Consider Plans for Rebuilding—Appellate Division Hands Down Three Decisions Touching on Litigation Between Hearst and Dexter Sulphite Pulp & Paper Company—Sprinkler System Saves Knowlton Brothers From Serious Blaze.

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., July 2, 1923.—Damage that will probably aggregate \$200,000 was done by fire last Monday night to the sulphite mill of the Carthage Sulphite Pulp and Paper Company at Carthage.

The blaze, the origin of which is a mystery, started in the wood room, shot up through the chip-elevator and broke through the roof before water lines were on it despite the quick response of both the West Carthage and Carthage fire departments.

Strenuous efforts of the volunteer firemen, aided by employees of the company, were successful in holding the fire to the building and preventing its spread into the main paper mill directly connected with the sulphite mill.

Fanned by a stiff breeze which carried sparks across the Black River, the fire threatened for a time to be a repetition of the great conflagration of 1884 in which the greater part of Carthage was destroyed. Although one hose company of Carthage took up the fight on the Carthage side of the river to prevent the fire spreading out, fire broke out three times on the property of the National Paper Products Company and the Ryther and Pringle's machine shop.

Operations had been started in the sulphite mill on Monday after it had been idle several months. From 75 to 100 men, evenly divided between skilled and unskilled labor, are thrown out of employment as a result of the fire. The work of clearing away the debris has been started and it is intended to recondition.

The theory that a cigarette stub or a match dropped in the wood mill started the blaze has not been considered seriously by the officials. The theory of defective electric wiring has also been discarded. Spontaneous combustion has been considered the most likely theory of all.

The fact that the wind was blowing across the river prevented the sparks from setting fire to the wood pile which is located a few rods from one end of the structure. There is wood in the pile valued at over \$100,000.

On the opposite side of the river the roof of the mill of the National Paper Products Company caught fire three times but was extinguished before it could do any damage. Rubbish near the public school also caught fire but a blaze was prevented by the departments which liberally sprinkled the land adjacent to the mill and across the river.

The Carthage Sulphite Pulp and Paper Company was formed in 1911 from a consolidation of the Carthage Sulphite Company incorporated in 1898 and the Leray Paper Company formed in 1904. James A. Outterson was president of the company, retaining that position practically continuously until his recent death. After that time the business was conducted by a board representing the executors of the estate until last fall when J. Victor Baron, of this city, was elected president. The superintendent of the plant is Patrick H. Moran who assumed his duties when Mr. Baron was made president. The sulphite mill contained five digesters for the cooking of spruce chips for the manufacture of the sulphite pulp.

Meeting to Reconsider Rebuilding

A meeting of the Board of Directors of the Carthage Sulphite,

Pulp and Paper Company will be held sometime this week J. Victor Baron, president, said today, to determine what steps will be taken toward rebuilding the company's sulphite mill.

Mr. Baron could not indicate what the action of the directors would be. The sulphite mill had just been put in readiness to operate under the direction of George W. Miller after it had been shut down for several months, and it is possible that the board will decide to rebuild since pulp can now be prepared more cheaply by American mills than it can be purchased from foreign mills.

The mill contained six digesters and would have had a capacity of more than 50 tons of pulp a day. Some little time is required to assemble the Carthage Sulphite directors since some of the members live in New York city and Philadelphia. The board as now constituted includes Mr. Baron, Lyman Rhodes, vice-president of the Equitable Trust Company of New York City; John G. Jackson member of the law firm of Taylor, Jackson, Brophy and Nash of New York, and former legal adviser to the late James J. Outterson; Edward S. Robinette, of Stroud and Company, bond dealers of Philadelphia, and I. Wood DeCant, of Carthage.

In the past few months there has come almost a complete change in the attitude of pulp manufactures in this country. Formerly it was cheaper to purchase pulp manufactured in mills located in Sweden and Norway than to make it here. Then came a strike in the Swedish mills with the result that the price of pulp skyrocketed from \$48 to \$68 a ton, the present price of imported pulp in New York. Added to that figure is the cost of transportation to this section from New York which is \$5.

Settlement of the strike in Sweden failed to bring the desired relief for almost immediately there followed a strike among the Norwegian pulp makers which has succeeded in keeping the pulp at the top figure. Therefore domestic manufacturers are turning to the production of their own pulp again and it was in accordance with this trend that the Carthage Sulphite Company was re-opening its sulphite branch.

Decisions on Hearst Contract

Among a batch of 50 decisions handed down Friday by the Appellate Division, fourth department, of Rochester, were three concerning the \$3,500,000 suit brought by the Dexter Sulphite Pulp and Paper Company of Dexter, against William Randolph Hearst to re-open under a contract made by Hearst to purchase the company's mills and counter suit brought by Hearst to rescind the contract on the ground of fraud.

Two of the decisions were favorable to Hearst's side of the controversy and the other was an affirmation for the paper company.

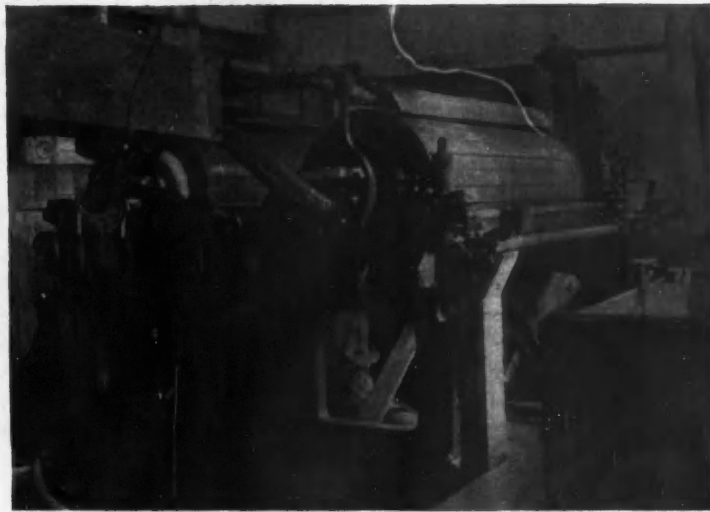
On May 1, 1920, Hearst took over the mills, business and assets of the paper company, paying \$100,000 on an agreed purchase price of \$3,500,000. The plant was run under his direction until February 28, 1921, when Hearst notified the company he considered the purchase contract null and void and demanded return of his first payment.


This demand was based on a claim that Carl F. Zittell, for many years confidential agent for Hearst, had agreed to accept \$125,000 to induce Hearst to purchase them. The company brought suit in Jefferson County to enforce performance of the contract to purchase and for other relief. Hearst countered with a suit in New York to rescind the contract.

When the company brought its suit in Jefferson County, Hearst interposed a demurrer asking dismissal of the complaint. Justice Jerome L. Cheney refused to allow the demurrer. The Appellate Division upholds Justice Cheney with leave granted to Hearst to file an answer to the company's suit within 20 days.

Following the filing of Hearst's New York counter-suit for the company to consolidate his suit with the issue raised in the suit begun by it in Jefferson County, Justice Cheney approved the motion to consolidate and Hearst appealed from the order. The Appellate

(Continued on page 42)



For Ten Years 
COUPON BOND
has been screened through **WALPOLE SCREENS**

The American Writing Paper Company, the largest paper manufacturing company producing high grade writing paper, has built its business and its reputation upon the foundation of Uniform Quality.

Uniform quality, in part, depends upon uniformly screened stock.

The important work of screening the stock for its highest grade paper, Coupon Bond, has been entrusted for ten years to **WALPOLE SCREENS**.

BIRD MACHINE COMPANY

South Walpole

Massachusetts

Western Representative

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

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

THE WALPOLE SCREEN

IMPORTANT PAPER PROJECTS MADE FOR BRITISH COLUMBIA

T. D. Pattulo, Minister of Lands, Announces That Six Separate Groups of Financiers are Negotiating with the Provincial Government for the Establishment of Pulp and Paper Mills in the Province—Judgment is Reserved in the Appeal of the Fort Francis Pulp & Paper Co. Against the Adjustment Awarded the Manitoba Free Press, Ltd., and Others.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., July 3, 1923.—Indicative of the interest being shown by capitalists in the pulp and paper future of British Columbia, Hon. T. D. Pattulo, Minister of Lands, under whose department negotiations are being carried on, announced a few days ago that six separate groups of financiers are negotiating with the Provincial Government for the establishment of pulp and paper mills in the province. "It takes about \$10,000,000 to get one of these concerns going and the details take time to work out, but I am confident that two or three of them will be under way in a short time," said Mr. Pattulo. A powerful group composed of Chicago and San Francisco financial interests is angling for the control of the Bridge River Power Company, which will provide the power for a new pulp and paper enterprise. Minneapolis capital is said to be behind a move to establish a big pulp and paper mill at Usk, on the line of the Canadian National (G. T. P.) and is reported to be interested in the rehabilitation of the plant of the Prince Rupert, Pulp and Paper Company, formerly held by the Emerson interests. Following the death of John A. Emerson the company went into liquidation and recently has been operated only as a sawmill. If the new interests take hold of the property, it will be developed as a pulp and paper concern.

Lords Reserve Paper Verdict

The Judicial Committee of the Privy Council in London has reserved judgment in the appeal of the Fort Frances Pulp and Paper Company against the judgment awarded the Manitoba Free Press Company, Limited, and others, in their claim for money paid for paper in excess of prices fixed by the Paper Control Board. The case of the Manitoba Free Press Company, Limited, and others against the Fort Francis Pulp and Paper Company dates back to the war years, when the Backus interests charged the western publishers a higher price on news print than that fixed by the Paper Control Board. The western publishers obtained an adjustment on the excess price charged on application to the paper appeal tribunal, but in order to make the adjustment absolute, it was necessary to obtain an order from the Supreme Court of Ontario for about \$200,000. E. W. Backus filed a counter suit claiming the difference between the price fixed by the Paper Control Board, and the market value of news print in the United States, which at the time of paper control in Canada was from eighty to one hundred per cent more than the Canadian controlled price. The difference, he claimed, amounted to approximately one million dollars, it is said. The paper company was non-suited by the Ontario Supreme Courts.

Aircraft Did Good Work in Forests

The value of the airplane in fighting forest fires is emphasized in the report of the air board covering the year 1922, which was tabled in the House of Commons. "Thousands of square miles of timber have been saved by the use of the airplane," states the report. "During the season seventy-six fires were spotted by commercial aircraft and put out, either by the crews themselves or by a party from the base which had been notified by the aircraft." Fire-fighting crews have been dispatched by airplane with apparatus to extinguish fires. "One of the areas of fire patrol covers Hailey-

bury, Cobalt and New Liskeard districts, which were scenes of that disastrous conflagration last fall," the report states. "This patrol, unfortunately, was not begun until after the fire, its object being to ascertain the extent of damage and ensure that fire was not spreading to other districts. Had aircraft been used to direct the efforts of the fire-fighters at the beginning of the fire, there is no doubt whatever but that it would have been extinguished before reaching such proportions."

Paper Club to Continue

At an adjourned annual meeting of the Montreal Paper Club, it was the unanimous opinion of the members present that the Paper Club be continued. The president, H. M. Maclean, brought forcibly before the members that on account of the lack of attendance shown, the executive had thought it advisable to put the matter up to its members as to whether the club was of interest and benefit to them, and if so, for them to pledge their support. Many members spoke, including E. T. Reynolds, A. Waters, A. L. Dawe, E. Beck, W. Brown, R. B. Hall and the retiring president, R. M. MacLean, on the fact that the club had been a benefit to the members, and that they had received a great deal of information, and advice by attending its meetings. By these speeches, the executive was strengthened and on putting the vote to the members, it was decided unanimously to continue the Club. After this round table talk the election of officers took place with the following results: A. L. Dawe, president; S. Rodier, vice-president; Messrs. Beck, Home and Reynolds, directors. E. Beck, of the Canadian Pulp and Paper Association, offered to act as honorary secretary and treasurer for the Club. The future policy of the Club will be somewhat changed from the past. Instead of endeavoring to obtain a large membership, it will be the endeavor of the incoming executive to obtain a fewer and selected membership of those who are keenly interested in the well-being of the Club.

Experiments in Re-Seeding Forests

An annual grant of \$5,000 for three successive years for the purpose of conducting investigation and experimental re-seeding of burned and cut-over timber lands in New Brunswick has been made available by the Advisory Council of Scientific Research of Canada. Representative areas of not less than ten acres each will be selected in different climatic conditions on which the experimental work will be conducted.

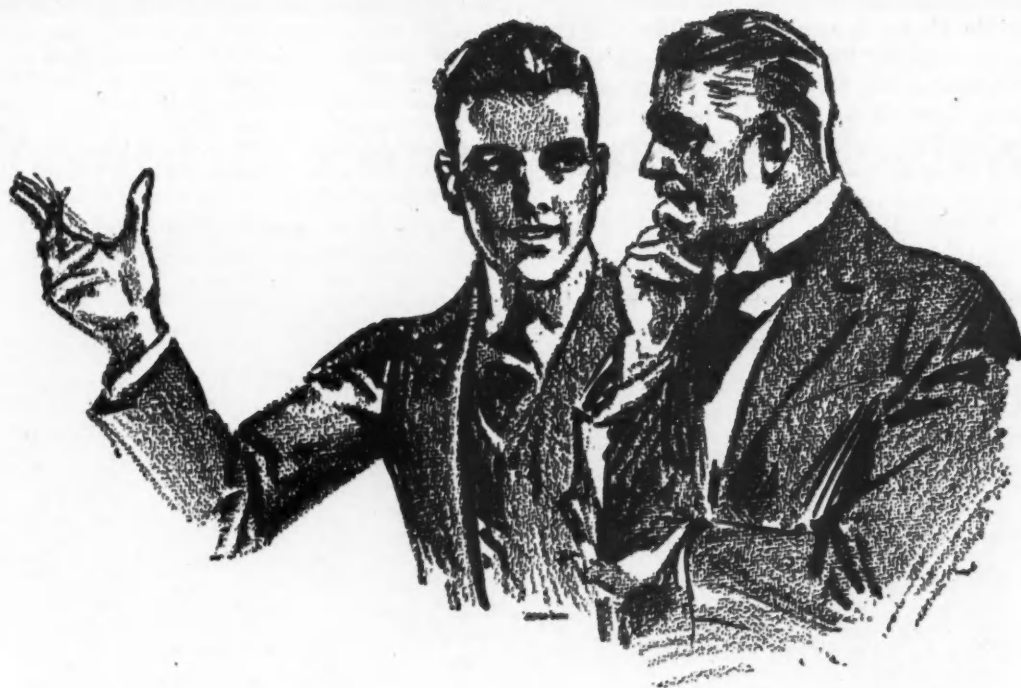
Summer Cut Will be Made

Lumbering operations are to be carried on during the summer months in several parts of New Brunswick, although it has been the custom to cut the logs and haul them during the winter months. During the season just closed the heavy snow in the southern portion of the province made it necessary to curtail the cut, and several operators found themselves without sufficient logs to keep their mills running during the summer. In order to supply their wants in this direction, several firms will have logging crews in the woods for the summer.

Canada's Water Power Development

The water power now developed in Canada represents an investment of over \$620,000,000, according to a report of the Water Powers Branch of the Department of the Interior. In 1940, should the rate of growth in installation during the past fifteen years be continued, this investment will have grown to over \$1,100,000,000. The present development represents an annual equivalent of 26,700,000 tons of coal, which valued at \$10 per ton, represents \$267,000,000. In the year 1940 these annual figures, with the foregoing assumption, will have become 50,000,000 tons in quantity and \$500,000,000 in value.

Fred Leahy, vice-president of the Eastern Manufacturing Co., sailed Wednesday on the *Leviathan* for a six weeks' trip to Paris and London.



You can Sell Once by Advertising—but Performance wins Repeat Orders

During the past year 11 mills, users of Niagara Beaters, have installed 25 additional Niagaras. It would be impossible to obtain a better recommendation for the performance of Niagara beaters.

A post card or letter will bring you full information regarding the manner in which Niagara Beaters give greater production, lower power costs, save labor and time and require a lower initial investment.

Valley Iron Works Company

Plant: Appleton, Wis.

New York Office: 350 Madison Ave.

Builders of Niagara and Holland Beaters, P. A. P. A. Rotary Pulp and Paper Screens, Voith Stock Inlets, Cylinder Machines, Fourdrinier Machines, Board Machines, Centrifugal Pumps, Stuff Pumps, Bandless Beater Rolls, Washing Engines, Bleaching Engines, Jordan Engines, Continuous Beaters.

PAPER DEMAND IS QUIET IN THE PHILADELPHIA MARKET

Slowness of the Market, However, at This Time Causes No Concern—Rags and Paper Stock Also Decidedly Quiet But Quotations Show No Change—V. A. Schoenbucher, Statistical Expert of the National Paper Trade Association to Visit Philadelphia to Advise on a Uniform System of Cost Accounting—Philadelphia Paper Trade Golf Club Meets at Lu Lu Temple Country Club.

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, July 3, 1923.—The paper market has been quiet during the past week. The slowness of the market at this time, however, caused no concern. In the stock market both rags and paper were only changed from the week previous to the extent that they followed the downward trend in mill demand which then was evident. The better grades of paper stock which hitherto remained little affected by the small mill demand, felt the influences of the curtailed buying and shipments declined considerably. However, prices though soft remained unchanged in quotations because old rates still are being paid by many mills and furthermore the supply of this grade of stock which comes principally from the printing industry, fell off in about the same ratio as the mill buying, resulting in a virtual parity of supply and demand. The packers of fine paper stock are inclined to believe that so far as this grade is concerned there may come recovery of firmness of prices in the near future. They do not expect that there will be any immediate improvement in mill quotations and they note that the Western mills which some time ago were very active in this market at least in the way of inquiries are not now manifesting any concern at all.

Schoenbucher to Visit Fine Paper Dealers

The distributors are looking forward with eagerness and real interest to the arrival some time after the middle of this month of N. A. Schoenbucher, statistical expert of the National Paper Trade Association and former Philadelphian, for whom a welcome was bespoken at the meeting last week of the Fine Paper Division of the Philadelphia Paper Trade Association. The specific object of Mr. Schoenbucher's visit here which will last several weeks is to advise on a uniform system of cost accounting and its adoption by all of the houses allied with Association. Just how far Mr. Schoenbucher will find it necessary to open the books of the establishments which he will study was not in evidence at the meeting of the Fine Paper Division but there was consensus of opinion that the utmost freedom in investigation should be accorded him and after considerable discussion, prevailing thought was that upon his arrival in this city there should be called a general meeting of the executives and credit men of all the firms concerned in order that they might hear from him a definite outline of the course he proposes to follow—thus preparing the way for his visit to each of the establishments. In the words of an official of a representative fine paper house "We believe that we know our costs. Probably every other firm is quite sure that it knows its costs. But we believe, and I am of opinion that all others are of like mind that it is entirely possible, yes, probable that we have overlooked something and that we can be aided by a man who is so well qualified as Mr. Schoenbucher and who has had the advantage of a close study of costs in the paper business as it is conducted in the leading centers throughout the United States. It is my personal opinion that he is even better qualified to advise us on what it is actually costing us to do business, than we ourselves are, because we may be too close to see with any perspective and he en-

joys the benefit of this larger and more comprehensive view and of disinterestedness. Even if his figures may not be absolutely accurate—although I believe he can come closer than anyone else—there still will be a great benefit accruing from the universal adoption in the trade here of a uniform cost accounting system. I believe that evils of price cutting, of which we hear more than actually we experience, entirely will disappear, when all really know what their cost is. Price cutters, I believe, proceed more in ignorance than in design. It is unbelievable that a man would sell at an actual loss, through the shading or cutting of prices, if he positively knew what he is doing. Prices probably are cut by those who believe that thereby they will get business away from the other fellow and still will be able to make some profit."

Paper Trade Golf Meet

Good golf and good fellowship were the dual attractions and dual realizations of the meet of the Philadelphia Paper Trade Golf Club, on the grounds of the Lu Lu Temple Country Club on the Limekiln Pike, just outside of Philadelphia last week. Despite a day of sizzling sunshine and record-breaking thermometer, a half hundred enthusiasts assembled on the ground at 9 A. M. made up of approximately one-third paper house executives and salesmen and another third of printer patrons and the remainder of supply house salesmen, comprising delegates from all the firms with whom the printers deal. The committee in charge, with Hal T. Sorensen and Irwin Megargee, paired off all the players into two teams, as nearly equal in skill at golf as possible and irrespective of trade affiliations, thereby promoting fellowship and sportsmanship. The two teams respectively were the Red and Blue, the Blues winning 11 to 8 and thus becoming guests of the Red at the mid-day luncheon. All the afternoon was given over to foursome for a number of valuable prizes offered by the club. The scores are as follows:

BLUE	RED
0 Sorensen	1 Kint, Jr.
1 Neal	0 Donahue
1 Shantz	0 Johnson
0 Morgan	1 Weißenmayer
1 Fry	0 Wheeler
1 Zink	0 McDougal
0 Leitch	1 Kint, Sr.
1 Sherrill	0 Squibb
1 Haydock	0 Olmsted
0 George	1 Conover
0 Lindsay, Jr.	1 Caner, Jr.
0 Roberts	1 Morian
1 Megargee	0 Leary
0 Wilcox	1 Jenkins
1 Smyth	0 Klepper
1 Benedict	0 McIntyre
1 Johnson	0 Stinson
1 Taylor	0 Labor
0 Bowden	1 Fraser
11	8

The Philadelphia Paper Trade Golf Association cup for low net score was won by Chas. Zink, 79-14-65 net.

Second low net prize won by J. H. Taylor, 87-18-69 net.

Third low net prize won by Chas. Kint, Jr., 77-7-70 net.

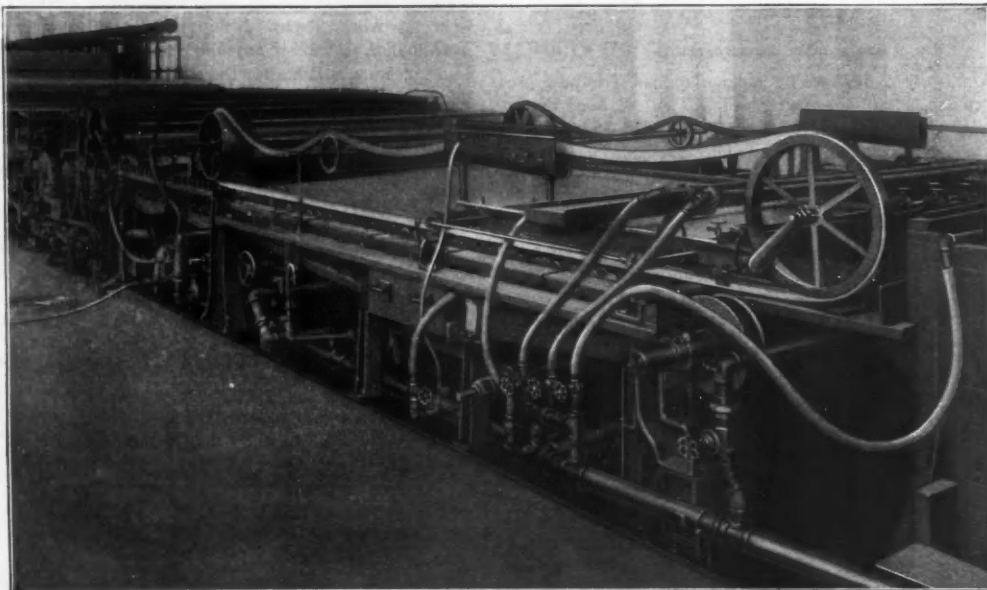
Garrett-Buchanan Baseball Team Organized

After a long discussion in trade circles over organization of a baseball league a start in that direction has been made by the formation of teams by the Garrett-Buchanan Company and the Jessup & Moore Company, and these two will cross bats in the first of what is hoped will be a series of trade contests this summer. The Garrett-Buchanan team has just been organized and its first contest last week with the Lehigh Printing Company resulted

(Continued on page 40)



A Record in Paper-Making Machinery



THE above illustration shows the BELOIT No. 360 straight FOURDRINIER equipped with the patented BELOIT SUCTION BOX OSCILLATOR—a combination that is giving universal satisfaction. There is no excess of pig iron on this machine. It is properly designed and amply strong for the work intended. It is built lighter than other makes in order to gain full effect of the shake. Others use heavy construction which absorbs the shake motion and this is lost in the formation of the sheet where it is needed.

Equipped with the latest type plain bearings, Timken Roller Bearings where shake is used or ball bearings where no shake is used. All bearings are fully enclosed.

When savealls are used, they are made of light non-corrosive metal and are very easy to handle. They are arranged to discharge into a hopper at the back of the machine and from there the whitewater is discharged to the fan pump.

The deckle is easily operated by a crank on each side of the machine. There are no bolts to be removed when lifting off the deckle in changing wires.

If you desire the most modern improvements in paper making, let your next machine be a "Beloit."

Beloit Iron Works



Beloit, Wis., U. S. A.

SEASONAL LULL IN DEMAND IN TORONTO PAPER MARKET

News Print Department Alone Remains Undisturbed by the Summer Slackness—Book Mills Anticipate Slight Let-up and Pulp Prices Show Tendency to Weaken—Gummed Papers, Ltd., Suffers \$75,000 Loss from Electric and Wind Storm—Forest Fires Sweep Northern Ontario Leaving a Loss of Millions of Dollars in Their Trail—Grant & Dunn Bid in Valuable Timber Berths.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ont., July 3, 1923.—The summer quietness is now prevailing. Of course, a fair amount of business will be done during the coming two months but most wholesalers and their staffs are planning for holidays while the printing and other consuming trades also drop off to a considerable extent. There is a fair demand for kraft paper, toilet and tissues, specialties in the latter having a strong warm weather call. Book mills are well employed but will not be so busy from now on. The one department that feels no let-up in demand, is the news print, which enjoys a steady turnover and is the most stable and permanent end of the whole paper activity being less affected by holidays and the ups and downs of commerce than any other branch. The call for pulp is rather quiet and prices have weakened a little on unbleached.

Much Pulpwood is Being Cut

In regard to pulpwood there is a great deal being cut during the present season. One leading firm in the Thunder Bay district say there is bound to be a considerable advance in the price of wood. They state that nearly all the mills have now consumed their reserve stock, which will throw them into the market this fall for large quantities. Some lumbermen have been complaining that they are short of logs and have not been able to obtain from the late Ontario government suitable timber areas at the right price. They declare that it appears wrong for the powers that be to adopt a policy which has as its effect the holding back of the lumber industry, which, they believe, is caused by the large pulpwood concessions granted to pulp and paper companies where they use only a small portion of the merchantable timber on a given area.

Gummed Papers Suffer Heavy Loss

During a recent electric and wind storm the plant of Gummed Papers, Limited, at Brampton, Ont., was badly damaged. The roof and top story were completely destroyed and the wall on the west side of the structure is in danger of collapse. At one place there is a hole in the building as big as an ordinary office. A smaller building in the rear used for oils and fuel was carried from its foundation on the C. P. R. tracks. The damage is estimated to be in the vicinity of \$75,000. Some two years ago the plant was visited by fire and the loss was not nearly as heavy on that occasion as on the present one. The company has been very busy and the present blow is all the more serious as it will be a considerable period before repairs can be made and operations resumed. Fortunately all the workers had left the building before the plant was struck by lightning. Charles Buntin was the only one in the factory when the crash came and he was rendered unconscious for some time.

Many Barking Drums Placed

The Canadian Barking Drum Co., Limited, of Toronto, of which B. Branch is manager, report business as being very active at the present time. Recently an order was received from the Laurentide Co., Grand Mere, Que., for two 10x47-foot drums, while the

Mattagami Pulp & Paper Co., Smooth Rock Falls, has also placed an order for two 10x30-foot drums. These will be added by the firm to their installation of two drums, making a total of four. Recent orders from the United States include one 10x30-foot drum for the Tomahawk Kraft Paper Co., Tomahawk, Wis., and one 10x20-foot drum for the West Virginia Pulp & Paper Co., Piedmont, W. Va.

Heavy Damage by Northern Fires

The recent forest fires in Northern Ontario levelled more valuable timber than the woodmen's axes have during the last six years. The damage, it is expected, will run into millions of dollars. New growth is having a hard battle for existence, because of the waste material which is left by timber operators after the territory had been cut over. These "slashings" as they are called, fall an easy prey to flames and, if anything, assist the fire demon in its work of destruction. Blame for the starting of fires may be cast on many things, sparks from railway engines, fishermen who leave burning embers of fires, broken bottle glass which concentrates the sun's ray to the ignition point, settlers who purposely set out fires for clearing land. These are said to be the important causes of fires.

More Timber Berths Are Sold

The Department of Lands and Forests recently announced that Messrs. Grant & Dunn of Latchford, Ont., are the successful bidders for certain timber berths lately put up for sale. They secure a tract of forest in the township of Barr, south and west of the Montreal River, 11½ miles in area, paying for the timber which consists entirely of red and white pine, \$15.53 per 1,000 feet. They also secure a tract in the township of Kitson in the Timagami Forest Reserve, 4½ square miles in extent, paying the following prices: Red and white pine, \$15.53; jack pine, \$10.75; spruce \$12.25; poplar and basswood, \$8; other timber, \$7.25; ties, 25 cents; spruce pulp, \$1.60; other pulp 80 cents; cedar posts, less than 20 feet, 23 cents; less than 30 feet, 50 cents; less than 40 feet, 80 cents; less than 50 feet, \$1.25; over 50 feet, \$1.75. Crown dues in all cases are included.

Abitibi Co. Shuts Out Forest Visitors

The Abitibi Transportation & Navigation Co., Limited, have issued an order that no pleasure parties are allowed on the right of way or other property of the company. This will shut out hunters, fishermen, picnickers, campers and others. The action was taken owing to the danger from forest fires at the present time and the dry weather early in the season. The Abitibi Company have large quantities of prepared pulpwood in the bush which they are naturally bound to protect from fire risk by taking every precautionary method possible. No employee of the Abitibi Company can travel over the railway without a permit, and then only with the further permission and despatched instructions from headquarters.

Notes and Jottings of the Trade

George K. Guild has established an industry in Edmonton, and is producing a hard stiff board for making a number of industrial products from waste paper, etc. He is turning out a pulp board pulley which is reported to be giving every satisfaction.

George B. Nicholson, of Austin & Nicholson, Chapleau, Ont., who are extensive pulpwood contractors and lumbermen, was in Toronto recently calling upon the trade.

A gift of \$1,000 to the Memorial Hospital Fund, St. Thomas, Ont., was recently made by I. H. Weldon, president of the Provincial Paper Mills, Limited, Toronto. Mr. Weldon is a former resident of that city.

B. Branch, of Toronto, representing the Canadian Barking Drum Co., left recently on a business trip to the Eastern States and before returning will spend his holidays on the Maine Coast.

FOR QUALITY PAPERS
USE

A-1 Bleached Sulphite Pulp

MANUFACTURED BY

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

SOLE AGENTS FOR U. S.

J. Andersen & Co.

21 East 40th Street

New York, N. Y.

WAYAGAMACK

KRAFT PULP

Uniform in Quality
Essential for Strength Requirement

The Pulp and Paper Trading Company

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

Sole Agents for United States for

CANADIAN KRAFT, Ltd.

Three Rivers, CANADA

PRODUCTION OF ALL PAPER DURING THE MONTH OF MAY

Report to Federal Trade Commission on Total Production, Shipments and Stock of Paper Mills Throughout United States Shows Book Paper Mill Stock Equalled 14 Days' Average Output and News Print Paper Mill Stock Five Days' Average—Bag Paper Mill Stocks Equalled Nine Days' Average Output and Felts and Building Paper Mill Stocks, Eight Days'.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., July 3, 1923.—The attached tabulation is a summary of total production, shipments and stock of paper mills in the United States, as reported to the Federal Trade Commission, for the month of May, 1923. This summary is compared with the month of May, 1918 to 1922, inclusive.

Following the tabulation of total production, shipments and stocks for all mills reporting, is a tabulation for identical mills reporting to the Commission for April and May, 1921, 1922 and 1923, in news print, book, paper board, wrapping and fine.

The average total production for each grade (except boxboard) is based upon the production for the years 1918 to 1922, inclusive, and the average stocks on hand at the end of the month are for the 60 months of 1918 to 1922, inclusive. Figures for boxboard prior to March, 1922, were included in paperboard. The average production and stocks for boxboard are based upon the figures tabulated during the period March, 1920, to December 31, 1922.

The production has been classified, for convenience, into 12 grades, according to the grades of paper manufactured by the reporting mills.

For each grade in the number of mills includes all mills commonly operating on that grade, regardless of whether they produced any tonnage of that particular grade during the month. In other words, it includes all mills reporting either production or merely stocks or shipments of that 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.

With the issuance of the reports regarding the paper industry and trade for the month of May, 1923, the commission has announced that it will discontinue the collection, compilation and publication of these periodic paper reports.

Total Tonnage Summary

Total reported production, shipments and stocks of paper, by grades, for the month of May, 1923, compared with May, 1922, to May, 1918, inclusive, together 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
News Print (Standard and Special Grades of News):					
May, 1923	74	18,943	138,868	136,979	20,832
May, 1922	82	24,874	129,950	130,043	24,781
May, 1921	87	35,106	78,868	82,776	31,198
May, 1920	92	21,673	129,230	128,080	22,823
May, 1919	70	36,385	105,819	115,120	27,084
May, 1918	66	24,864	111,242	109,984	26,122
Average	...	...	115,908	...	24,813
Standard News (Included in News Print):					
May, 1923	59	14,610	126,215	124,959	15,866
May, 1922	69	20,101	120,654	121,043	19,712
May, 1921	69	29,580	73,181	75,806	26,955
May, 1920	75	19,085	119,906	118,832	20,159
May, 1919	53	31,236	96,192	105,591	21,837
May, 1918	50	18,891	94,362	94,875	18,378
Average	...	...	105,456	...	20,368

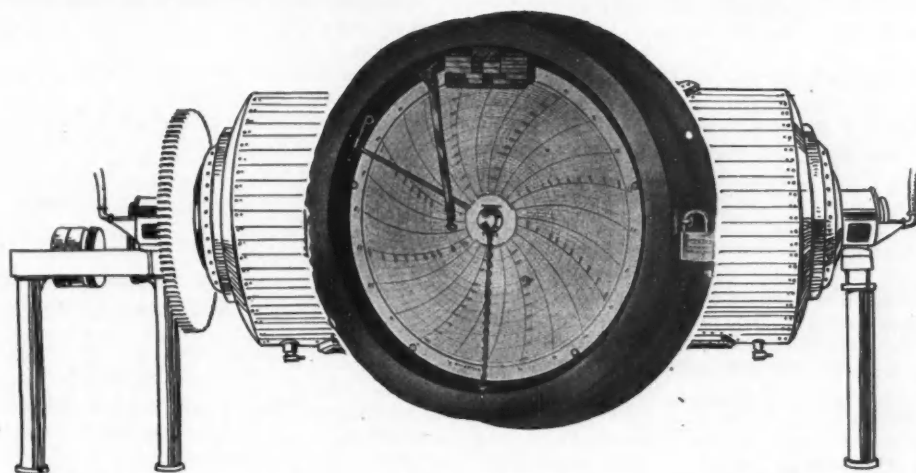
Grade	Number of Mills	Stocks on hand first of month Net tons	Production Net tons	Shipments Net tons	Stocks on hand end of month Net tons
Book (M. F., S. S. C. and Coated):					
May, 1923	90	38,276	97,221	94,883	40,614
May, 1922	92	37,367	82,574	80,450	39,491
May, 1921	93	38,255	52,642	51,258	39,639
May, 1920	94	27,001	92,856	97,555	22,302
May, 1919	88	35,145	76,821	75,905	36,061
May, 1918	92	28,851	78,455	74,568	32,738
Average	...	...	77,766	...	31,889
Paperboard—total (Straw, Fiber, Leather, Chip, Box, etc.):					
May, 1923	194	52,232	199,939	196,064	56,107
May, 1922	227	69,756	176,790	180,844	65,702
May, 1921	238	70,780	122,801	125,602	67,979
May, 1920	248	46,938	213,475	217,595	42,818
May, 1919	237	62,262	151,651	152,041	61,872
May, 1918	235	38,394	174,894	173,421	39,867
Average	...	...	170,118	...	52,102
Boxboard (included in Paperboard):					
May, 1923	109	23,152	135,185	134,204	24,133
May, 1922	134	32,723	130,078	131,529	31,272
May, 1921	137	35,233	85,546	88,141	32,638
May, 1920	143	21,555	149,867	154,114	17,308
Average	...	...	122,096	...	27,078
Wrapping (Kraft, Manila, Fiber, etc.):					
May, 1923	132	42,039	85,348	83,372	44,015
May, 1922	149	68,401	71,494	68,989	70,906
May, 1921	145	58,622	53,084	52,203	59,503
May, 1920	148	31,036	70,511	75,892	25,644
May, 1919	164	75,982	56,579	56,696	75,865
May, 1918	151	40,054	61,763	58,689	43,128
Average	...	...	63,362	...	47,015
Bag (all kinds):					
May, 1923	35	2,128	10,581	10,554	2,155
May, 1922	46	3,401	17,345	17,442	3,304
May, 1921	37	3,432	7,323	7,363	3,392
May, 1920	44	3,595	19,351	20,197	2,949
May, 1919	43	5,552	11,831	12,125	5,258
May, 1918	28	2,015	14,653	14,008	2,660
Average	...	...	15,418	...	3,417
Fine (Writing, Bonds, Ledgers, etc.):					
May, 1923	100	39,627	35,196	33,866	40,957
May, 1922	103	35,806	30,129	28,950	36,985
May, 1921	107	40,083	17,485	16,425	41,143
May, 1920	115	32,218	31,575	35,759	28,034
May, 1919	115	38,239	25,010	22,992	40,257
May, 1918	102	34,661	33,542	41,571	26,632
Average	...	...	28,964	...	33,880
Tissue (Toilet, Crepe, Fruit Wrappers, etc.):					
May, 1923	80	7,454	16,589	15,587	8,456
May, 1922	95	8,529	14,688	14,100	9,117
May, 1921	94	7,746	11,135	11,560	7,321
May, 1920	101	6,839	16,053	17,003	5,889
May, 1919	88	9,368	11,711	11,339	9,740
May, 1918	75	5,995	11,672	12,244	5,423
Average	...	...	13,962	...	7,083
Hanging (No. 2 Blank, Oatmeal, Tile, etc.):					
May, 1923	17	3,119	6,805	5,898	4,026
May, 1922	26	5,323	6,414	5,646	6,091
May, 1921	22	10,087	2,479	2,044	10,572
May, 1920	24	1,171	10,776	10,952	995
May, 1919	20	4,080	6,297	5,059	5,318
May, 1918	22	5,824	4,714	4,913	5,625
Average	...	...	7,332	...	4,823
Felts & Building (Roofing, Sheathing, etc.):					
May, 1923	43	7,340	39,773	39,007	8,166
May, 1922	46	11,584	35,391	36,240	10,735
May, 1921	54	9,669	24,058	23,577	10,150
May, 1920	56	9,971	34,048	33,383	10,636
May, 1919	47	7,738	21,972	21,401	8,309
May, 1918	42	4,581	26,077	25,399	5,259
Average	...	...	27,898	...	8,983
Miscellaneous Grades (Specialties not otherwise classified):					
May, 1923	98	20,223	28,705	28,324	20,604
May, 1922	107	19,821	25,196	26,400	18,617
May, 1921	98	19,985	14,120	13,863	20,242
May, 1920	90	15,791	27,338	26,171	16,958
May, 1919	64	13,243	12,480	11,431	14,292
May, 1918	32	6,528	21,404	23,111	4,821
Average	...	...	22,230	...	15,663
Total—all grades:					
May, 1923	...	231,381	659,025	644,534	245,872
May, 1922	...	284,862	589,971	589,104	285,729
May, 1921	...	293,765	383,995	386,671	291,089
May, 1920	...	196,233	645,413	662,587	179,059
May, 1919	...	287,994	480,171	484,109	284,056
May, 1918	...	191,767	538,416	537,908	192,275
Average	...	...	542,958	...	230,217

(Continued on page 38)

The Committee on Beater Furnish said:

"A recording thermometer to show the actual temperature in the rotary is advised in place of pressure gauges for cooking control. A gauge on the steam line gives no indication of the temperature in the caustic solution."

The Foxboro Recording Thermometer is especially adapted for this service. It is furnished with a special bulb that is unaffected by alkaline solutions. Its scale is adapted to the particular temperature range. It is permanently accurate.



The Foxboro Instrument you install is from the standpoint of accuracy, dependability, and importance of information recorded, "The Compass of Industry."

Write for Bulletin BH-104-1

THE FOXBORO CO., Inc.

Foxboro, Mass., U. S. A.

New York
Pittsburgh

Chicago
Philadelphia

Boston
San Francisco

Tulsa
Rochester

Cleveland
Birmingham

Peacock Brothers, Limited, 179 Delorimier Avenue
Montreal, Canada

FOXBORO

REG. U. S. PAT. OFF.

THE COMPASS OF INDUSTRY

New York Trade Jottings

Dr. Hugh P. Baker, executive secretary of the American Paper and Pulp Association, has left town for a two weeks' vacation in Wisconsin where he has a camp.

Warren B. Bullock, director of the information service of the American Paper and Pulp Association, 18 East Forty-first Street, has returned from a business trip to the West.

The Arrowhead Mills, Inc., removed on Monday of this week from their former location at 489 Fifth avenue to larger and more desirable quarters in the Pershing Square Building, 100 East 42nd street. The phone number of the firm, Murray Hill 0492, remains unchanged.

The copartnership firm of Vito G. Cantasano & Bros., paper stock dealers of 185 South street, New York City, has been dissolved by mutual consent. The business will be continued by Charles Cantasano and Angelo Cantasano under the firm name of Cantasano Brothers. Vito G. Cantasano will continue to have his office and place of business at the same place.

R. S. Kellogg, secretary of the News Print Service Bureau, has returned to his offices in this city from a business trip to Canada. He will leave again on Friday for a tour through the mills of the East as far as Wisconsin. In this trip he will combine business with pleasure for he intends to make the tour by automobile accompanied by Mrs. Kellogg. He will be away for seven weeks.

The Interstate Commerce Commission has handed down a decision in case 13877 of the Tidewater Paper Mills Company against the Bush Terminal Railroad Company et al. In their syllabus in this case the Commissioners say: "Rates on wood pulp, in carloads, from points in Ontario and Quebec, Canada, to New York, N. Y., found not unreasonable or otherwise unlawful. Complaint dismissed."

A fire that threatened the entire paper stock of the Ravenswood Paper Mill, at 24 Marion street, Long Island City, occurred at the mill Wednesday afternoon of last week. The mill is located in the thickly populated section of Ravenswood, and two alarms were turned in. After more than an hour the flames were extinguished. The loss was estimated at \$5,000. The vat was completely burned, and a large quantity of paper recently milled was also burned.

The Interstate Commerce Commission has handed down a decision in case 13854 of Gerard, Ragone & Son, of New York City v. New York Central Railroad Company, et al. In their syllabus in this case, the Commissioners say: "Payments made by complainants to individuals for performing the service of loading paper stock, in bales, at pier stations of defendants in New York, N. Y., found not to have been overcharges. Complaint dismissed."

Securities of the Whalen Pulp & Paper Mills, Ltd., which have their main market in Toronto and are at times active in the unlisted market in New York, says the *New York Commercial*, have been in good demand recently, aided by official announcement that everything points to one of the most successful years in the company's history. T. W. McGarry, president of the company, states that the three pulp mills and the two lumber and shingle mills have been operating at capacity for the past six months, and orders have been booked ahead for several months at profitable figures. The company's 7 per cent debentures are now selling around 65 as compared with a low at 35 in 1921, when they

were hit by the general depression then prevailing in the pulp and paper industry and the lumber trade. The preferred stock has been selling around 18 and the common around 4.

PRODUCTION OF PAPER FOR MAY

(Continued from page 36)

The following stocks were reported on hand at terminal and delivery points on May 31, in addition to the mill stocks shown in the tabulation: Book paper, 3,117 tons; paperboard, 100 tons; wrapping, 42 tons; fine, 16 tons; and miscellaneous grades, 209 tons; total 3,484 tons.

Stocks of all grades increased during the month.

Stocks of all grades reported by manufacturers at the end of May amounted to 249,356 tons, including the stocks at terminal and delivery points. In addition to these stocks, jobbers and publishers reported news print stocks and tonnage in transit aggregating 235,989 tons.

Ratio of Stocks to Average Production

Comparing the stocks on hand at the domestic mills on May 31, with their average daily production, based upon the combined production for 1918 to 1922, inclusive, the figures show that:

News print paper mill stocks equal 5 days' average output.

Book paper mill stocks equal 14 days' average output.

Paperboard mill stocks equal 9 days' average output.

Wrapping paper mill stocks equal 18 days' average output.

Bag paper mill stocks equal 4 days' average output.

Fine paper mill stocks equal 37 days' average output.

Tissue paper mill stocks equal 16 days' average output.

Hanging paper mill stocks equal 14 days' average output.

Felts and building paper mill stocks equal 8 days' average output.

Miscellaneous paper mill stocks equal 24 days' average output.

Total paper mill stocks of all grades equal 12 days' average output.

Protest Embargo on Pulpwood

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., July 2, 1923.—Congressman Luther W. Mott has sent a strong telegram to the Secretary of State asking that he file a protest with the Canadian Government against the action contemplated by the Dominion Legislature in prohibiting the export of all Canadian pulpwood out of freehold and privately owned land.

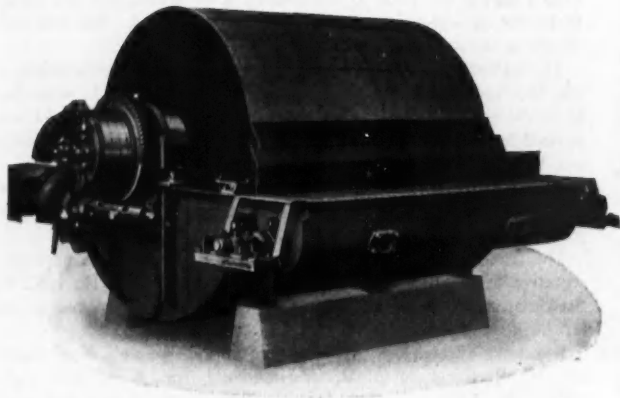
On June 25 the House of Commons at Ottawa passed the resolution and it is now pending before the Dominion Senate. Mr. Mott wired Secretary Hughes that should this resolution be passed and become a law and the government exercise this power thus given it many mills in this section of the country which now depend almost entirely for their operation upon this pulpwood, would be forced to close and thousands of men would be thrown out of employment.

This is particularly true, he said, since pulpwood from crown land in Canada has been prohibited from export since 1910. Congressman Mott told Mr. Hughes that should the resolution be passed hostile feeling was sure to result on this side of the border. The congressman said that he intended to take the matter up with Senator James W. Wadsworth.

Buy Chase & Cooledge

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., July 3, 1923.—About fifty years ago Henry M. Cooledge and John E. Chase started a mill supply business under the name of Chase & Cooledge at 12 Main street, where the firm has remained ever since. Mr. Chase died several years ago and Cooledge, who is now very old, has sold the business to four of the older employees—Walter E. Lindell, Roy McCorkindale, Edward E. Bogart and William Turner.



Oliver Continuous Filter with Repulper.

Other Oliver Products:

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

How the **OLIVER** *Thickens Pulp* *Before Bleaching*

"Shrinkage" is reduced by thickening pulp before bleaching.

Olivers, operating almost without attention, are thickening pulp at a cost per ton that is practically negligible, thus insuring great economy and assuring uniformity in the bleaching process.

The continuously revolving sectionalized drum of the Oliver steadily removes water from the pulp and delivers it in a condition most favorable for a quick bleach.

Oliver Filters are also widely used for washing wood pulp direct from the digestors, as a decker and save-all, removing all fiber and filler from waste water, and for handling lime mud in the manufacture of caustic soda.

Write for recent Oliver bulletins on each of these important processes.

Oliver Continuous Filter Co.

San Francisco
503 Market St.

New York
33 W. 42nd St.

London
11-13 Southampton Row, W. C.

Obituary

John H. McGill

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., June 29, 1923.—John H. McGill, president of Lombard & Co., Inc., died on June 24, at his home in Melrose, Mass., after an illness extending over a considerable period. Mr. McGill had been identified with the pulp industry for over fifty years, in March last celebrating the golden anniversary of his connection with his firm.

Mr. McGill was one of the pioneers in the development of the ground wood process and gave much of his time and study to pulp grinding. He always found pleasure in assisting in solving the problems connected with the production of pulp and gave freely of his services and the knowledge he acquired through his years of world travel. His passing away will be keenly felt by his many friends in the pulp industry.

John S. Graham

John S. Graham died at his residence in Brooklyn June 20, age 87 years. Mr. Graham was widely known in the Paper Trade for more than fifty years in the late firm of Woolworth & Graham. He was a man of the highest character. Such as he are becoming fewer—they are much needed in this country in these times.

PHILADELPHIA DEMAND QUIET

(Continued from page 32)

in a victory. The members of the Paper House team all of whom are associated with either the sales or the shipping department are under Captain Mark Beebe whose catcher and whose team mates include John Kerns, Royston Engle, George Ritinger, Walter Dickfield, Walter Streetler, John Taylor and Doyle Heverly. Charles Robinson, Paul McKee, Charles Levero, James Malone, Howard Klaiiss, and Tom Kerns. The Garrett-Buchanan Co., completely outfitted the team with new uniforms, bats and balls.

Charles Beck Co. Agents for U. S. Bond

Announcement will be made during the week by the Charles Beck Company, 6th and Chestnut streets that henceforth it will stock "Uncle Sam Bond" made by the Hawthorn Paper Company of Kalamazoo, Mich., and for which it has become the sole Philadelphia agent. This brand of 50 per cent rag and 50 per cent selected Burgess sulphite is widely known throughout the country but is new to Philadelphia and is especially recommended for business forms and large edition letter heads with envelopes to match. The Beck firm will carry in its warehouse blue, canary, corn, golden rod, grey, green, russet and pink in 22x34—40 but will carry white in four sizes and in many substances. All the other items listed in a sample book conveniently indexed and showing the full line promptly will be furnished from mill stock.

A Correction

C. H. Morian, vice-president of the J. L. N. Smythe Company has sent the following communication to the PAPER TRADE JOURNAL.

"I notice in your issue of June 21, page 24, in the Philadelphia items, the article under the heading, "Coarse Paper and Twine Merchants to Organize."

"I will appreciate your correcting the impression conveyed by the above mentioned article that the writer is the vice-president of the Coarse Paper and Twine Service Bureau. As I am in no way associated with this Bureau your correction in this matter will be greatly appreciated.

Trade News Notes

President Norbert A. Considine of the Paper House of Pennsylvania, wrote to the home folks during the week that he had finished with his mill visitations in Sweden and Finland, and that he

proposed to spend some time in England and would take passage on the Cunarder *Berengaria* on July 6, arriving in Philadelphia a week later.

President John H. Sinex of the Garrett-Buchanan Company, returned during the week from a short trip to Maine, but will revisit there for an extensive vacation trip after July 4. He has purchased a summer cottage in Maine.

The \$230,000 estate left by Alfred Mellor, long vice-president of the MacAndrews & Forbes Company, Gloucester, N. J., who died at his home, 152 West Walnut Lane, Germantown, on May 30, was devised by will to his widow, Mrs. Isabella Mellor, two sons, Ralph and Walter Mellor and several grand children.

Congratulations are being extended to Asher Humes, Wilkes-Barre, representative of the D. L. Ward Co., who during the week joined the ranks of benedicts.

The trade enjoyed during the week the first visit of a new representative of the Charles H. Clinton Paper Company. He is C. G. Stewart and he succeeds Peter N. Selvig who has resigned to enter business for himself.

Benjamin Fitzgibbons, representing D. S. Walton, New York, and W. R. Earnholm of R. F. Hammond, Inc., were other trade callers, the latter reporting during recent months larger purchases of foreign made wrapping and news print paper than he had ever known in long services in the trade.

Hawthorne Paper Co. Entertains Distributors

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., June 23, 1923.—The distributors of Uncle Sam Bond and Hawthorne Ledger met at the mill of the Hawthorne Paper Company for the summer meeting, June 14, 15 and 16.

The advertising campaign, as planned by the advertising committee of the distributors and worked out by George K. Hebb, of Evans, Winter & Hebb, of Detroit, for direct-by-mail to the consumer, to the printer and for national magazine advertising was adopted.

A. H. Dwight, president of the Hawthorne Company, complimented the advertising committee and Mr. Hebb highly on the campaign as planned and invited the members of the association to be his guests at the Battle Creek Country Club, where the cup-hunters qualified with large scores for the prizes to be awarded the following day in the golf tournament at Kalamazoo. "Uncle" John Church, of Cincinnati; Paul E. Vernon, of New York City; Ed McAfee, of Minneapolis; Bert Reeves, of Rochester; Charlie Elliott, of St. Louis, and a few of the other contestants won enough golf balls to last them through the season and take care of their Scotch foursome losses at home.

After the second day's play Bob Pease presented Martin Kratz with the "Gold Pot" to be used as receptacle for ill-gotten gains. "Uncle" John Church, of the Cincinnati Cordage & Paper Company, repeated as winner of the championship flight. Col. Tom Smith, of the Louisville Paper House, was the winner of the Runner-Up trophy. Ed F. McAfee, of the John Leslie Paper Company, won the second flight trophy, with Bert Reeves, of Alling & Cory Company's Rochester Division, Runner-Up. Ned Carpenter, of Dwight Bros. Paper Company, Grand Rapids, won the third flight, while Charlie Elliott, of Mack-Elliott, St. Louis, was Runner-Up. Ed W. Walters, Western Paper Company, Omaha, won the fourth flight.

After the awarding of prizes for the golf tournament the mill tendered a banquet to the distributors at the Kalamazoo Country Club. J. B. Jones, of the Western Paper Company, Omaha, in a few well-chosen remarks, thanked the mill on behalf of the members present for a "Bully" time, assured Mr. Dwight of the active co-operation of all of the members for the coming year and warned the winners, for himself and the other losers, of some hotly contested games for the next annual meeting of the distributors' association.

Established 1886

Confidence

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

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

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

M. GOTTESMAN & COMPANY

—INCORPORATED—

18 East 41st Street
New York, N. Y.
U. S. A.

European Offices:
Stureplan 13,
Stockholm, Sweden

P.S.
Our new telephone
number is
Vanderbilt
4600

To Prohibit Pulpwood Exports in Canada

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., July 2, 1923.—The most important happening of the week in Canada in the pulp and paper industry has been the passing by the House of Commons of a resolution giving power to the Government to make regulations prohibiting the export of pulpwood from Canada. There was no serious opposition to the resolution, although several members pointed out that an embargo on pulpwood would be a hardship to settlers who found a good market in the U. S. for pulpwood cut by them in clearing their farms. As foreshadowed in these columns last week, however, settlers will be allowed to export pulpwood, at any rate for a time. Premier King, in reply to a question, stated that the pulpwood grown by farmers on their own property should be exempted from the regulation in regard to export. It is expected, as already stated, that this means that they will be allowed to export pulpwood under a license.

The Montreal Gazette questions the wisdom of the resolution, saying that the matter is not as simple a one as it may seem. It proceeds to say: "It is unquestionable that it would be well if all the pulpwood that grows in Canada were manufactured into paper in this country, as it would be well if all the saw logs cut were turned into doors, sashes, furniture, etc., before being sold to outsiders, all the wheat into flour, all the ores into metals, etc. The case is like that of the export of saw logs, which was discussed in all its phases in the days of the Macdonald Government. Action taken to secure that logs cut in Canada should be sawn in Canada was met by action by the United States which caused a strong demand from lumber interests in Canada that the policy entered upon should be abandoned; and it was abandoned. The issue involved in the matter before Parliament needs to be considered from more than one phase."

It is generally expected that an Order-in-Council putting the resolution into effect will be passed at an early date and that while settlers will be allowed to export their wood, prohibition will be made absolute in the case of pulp and paper manufacturers or other large holders who are in the habit of sending out large quantities of pulpwood to their own mills or to their customers in the U. S. For some years past about 1,000,000 cords of pulpwood per annum have been exported to the United States, running in values from \$7,000,000 to \$15,000,000. It is argued that if this wood were manufactured into pulp or news print, the export value would be from 3 to 5 times as much. It is generally estimated that about two-thirds of the pulpwood cut in Canada is now manufactured here and one-third exported, and that if an embargo goes into effect, a number of the U. S. mills which are dependent on Canada will take the first opportunity to establish pulp mills in this country. It is admitted that the present capacity of Canadian pulp mills is not nearly sufficient to permit the absorption of the extra million cords a year.

An embargo, therefore, would in a few years result in the whole of the present export supply being manufactured in this country and thus proved great impetus to the industry.

CARTHAGE SULPHITE CO. BURNED

(Continued from page 28)

Division reversed Justice Cheney on this point and the reversal must be tried in New York.

The paper company also moved to restrain Hearst from trying the New York counter suit until after the determination of the Jefferson County action. Justice Cheney refused to grant an injunction at the same time granting leave to the paper company to renew the motion for an injunction at some future time. Justice Cheney denied the company injunctive relief because he previously had approved the move to consolidate the two actions. This order was affirmed with a modification striking out the right granted to

the company to renew the motion for an injunction. All five justices concurred in the decisions on the three appeals.

Mill Saved by Sprinkler System

The sprinkler system on the top floor of the three story brick building of the Knowlton Brothers Paper Mill probably saved the whole mill from destruction by fire Friday.

Fire broke out in the bales of waste paper stored on the top floor. Just as the flames were discovered by the janitor the plug on the automatic sprinkler melted and a deluge of water broke forth on the fire. The alarm was spread and several pieces of apparatus were called. Smoke was issuing from every window on the top floor of the entire structure and a big fire was imminent. Four lines of hose were laid and taken into the windows leading into the top floor.

The top floor of the building is congested with tons of waste paper. Despite this fact and the heavy volumes of smoke which seemed to indicate a large blaze, the firemen found little fire when they entered with the hose. This was due to the efficiency of the sprinkler system which confined the blaze to an area of about 50 square feet. Firemen were frank in declaring that had it not been for the sprinkler system the entire top floor of the structure would have been a mass of flames before an adequate fight could be launched.

Although nothing definite has been discovered which would point to the origin of the fire it is believed that the electric wires running along the ceiling were defective and caused a short circuit which resulted in the blaze.

1923 Miami Valley Superintendents Meet

[FROM OUR REGULAR CORRESPONDENT.]

PIQUA, Ohio, June 30, 1923.—Members of the Miami Valley Division of the American Pulp and Paper Mill Superintendents' Association and invited guests were entertained on Friday, June 29, by officers of the Orr Felt and Blanket Company. The guests were welcomed by Mr. Burrell, vice-president and general manager of the company who in a short address, expressed the pleasure of the company over their presence. L. O. Koester, secretary and treasurer of the company, also welcomed the guests.

About seventy-five members of the association accepted the invitation of the company to take dinner in the cafeteria of the factory and immediately afterward the visitors were taken on a tour of the plant. Mr. Burrell, later addressed the visitors on manufacturing papermakers' felts.

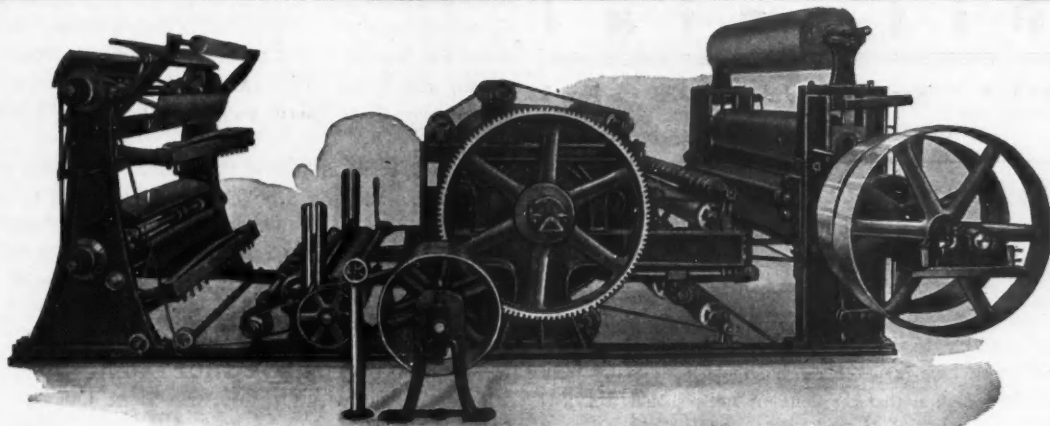
William U. Hanke, superintendent of the plant fully explained the technical details of the manufacture from the time the raw product is taken up until the finished product is turned out. Many questions were asked of Mr. Hanke who was kept busy answering them for an hour or more.

After the business session was ended an informal reception was tendered the superintendents by the officers of the company and many were taken on automobile rides through the city and vicinity.

American Strawboard Co. to Be Sold

Frank M. McKey, trustee in bankruptcy of the American Strawboard Company, bankrupt, will sell on Wednesday, July 18, all the property of the bankrupt concern. The sale will take place at 10 o'clock in the forenoon, Central Standard time, at the office of Frank L. Wean, Referee in Bankruptcy, 437 Monadnock Block, Chicago, Ill.

The property to be sold includes vacant real estate at Chestertown, Md., the plants of the company in Circleville, Ohio, Noblesville, Ind., Quincy, Ill., Wilmington, Ill., Winchester, Va. real estate at Barberton, Ohio, Tiffin, Ohio, all raw material goods in process of manufacture, etc.



Latest Type Crepe Machine

This Crepe Machine is equipped with our Automatic Collapsing Reels and Drum Winders, which enable the operator to run off a certain amount of sheets and then immediately transfer to roll winding, or vice versa, as the operator may choose.

The Drum Winder is for winding tight Jumbo rolls, and is equipped with slitter attachment; the Automatic Collapsing Reels for cutting sheets of equal length.

With the Double Reel arrangement it is not necessary to stop the machine to transfer from one reel to the other.

Chilled Rolls and Dryers are of standard design.

Furnished with or without drum winders or reels, arranged to suit your requirements. This same machine can be built in any desired width and with any number of dryers.

We also manufacture Pneumatic Bundling Machines, Baling Presses, Rapid Toilet Winders, Soft Roll Rewinders and Twin Napkin Folders. Write for Complete Catalog.

HUDSON-SHARP MACHINE COMPANY, GREEN BAY, WIS.

Agents

SUNDS AKTIEBOLAG
STRONG SULPHITE
indirect cooking

PERKINS-GOODWIN CO.
NEW YORK

PULP and PAPER

Agents A/S Tøten Cellulosefabrik

BLEACHED SULPHITE

AGENTS GULSKOGEN

CELLULOSEFABRIK
EASY BLEACHING
SULPHITE

Editorial

Vol. LXXVII New York, July 5, 1923 No. 1

HENRY J. BERGER, Editor

THE CANADIAN PULPWOOD EMBARGO

The adoption of a resolution by the Canadian parliament giving the council power to declare an embargo on pulpwood has created considerable consternation among the American news print manufacturers, many of whom depend almost entirely upon our northern neighbor for their supply of raw material. Approximately 1,000,000 cords of pulpwood have been coming into the United States from Canada and it is natural that the domestic mills should feel considerable anxiety over the cutting off of any part of this.

From the Canadian standpoint the move is a shrewd one. Canada is neither so large nor so plentifully supplied with raw materials as this country. Her government is standing squarely behind all efforts on the part of individuals to bring industrial success. An embargo on the export of pulpwood simply means that American capital would have to move much of the domestic industry into Canada. Wood enough does not at the present time exist in the United States to supply the needs of all of the news print manufacturers. This would be greatly to the advantage of Canada and she has never made any effort to conceal the fact that she is out to compete vigorously with our domestic mills.

Large manufacturers in this country regard the resolution as extremely unfriendly. They point out that without two products—coal and sulphur—Canada would be helpless as far as the production of paper is concerned. The United States has been furnishing these two products for a long time duty free.

A decade ago Canada started the policy of encouraging her paper industry when she embargoed pulpwood from Crown lands. The resolution which was passed last week is simply a continuation of this policy, but after all, as manufacturers here are willing to concede, the Canadian paper men naturally want to gain every advantage they can over their competitors. They are not in business simply for the fun of it.

The American newspaper publishers have much to do with the exit of the news print industry from the United States. It has been their policy to use the tremendous influence they have to keep news print paper on the free list because it suited their selfish interests of the moment to force the American industry into competition with the cheap labor of post war Europe. This may prove to be a boomerang, however, for once the news print industry is forced out of the country it will be in the hands of manufacturers who are not restricted by any Sherman anti-trust law. It is not difficult to predict the consequences.

There is no doubt that the domestic manufacturers will fight the latest move by Canada to gain control of the paper industry. Attempts at retaliation are inevitable. This is extremely unfortunate since the interests of the two countries economically interlock as closely as those of New York and Pennsylvania.

Perhaps the domestic manufacturers are viewing the situation with undue alarm because a very distinct joker does appear in the resolution. When it was adopted it was decided to exclude the

wood of farmers from it. This means that if a farmer is clearing his land he may sell his wood in the United States. Perhaps this clause was inserted through the influence of the Canadian farm bloc. At any rate it will allow many cords a year to come into this country even if the council does decide to put the resolution into effect.

What will be the attitude of the Canadian freeholder, who is not a farmer, but who sees a neighbor selling his wood to the United States at a good profit? Will he not raise a cry of discrimination and rush to parliament for redress? There must be many such persons and their sympathies will probably be more with the American than with the Canadian paper manufacturers.

LABOR SHORTAGE

It has been suggested that the PAPER TRADE JOURNAL reprint the following editorial article by Mr. Charles Piez, president of the Link Belt Company, in *Management Engineering* on the subject "Is Labor Shortage an Unmixed Evil?" Mr. Piez handles this important subject so interestingly that this suggestion is gladly complied with.

"A review of the business chart of the Link-Belt Company shows a pronounced upward trend with very few serious peaks, or depressions, from 1908 to the beginning of 1914, a decided drop at the middle of 1914, followed by a rapid rise beginning in 1915 and culminating in 1918; then a short recession after the armistice, followed by a spectacular rebound which culminated in the phenomenal peak of 1920.

"After that came the collapse of 1921, when prices dropped 30 per cent and volume 50 per cent. Then came the slow recovery of 1922, followed by the present wave of prosperity.

"A mere glance at the chart leads to the reflection that, if a part of the demand in 1920 could have been postponed for six or nine months, and a part of the demand of the past six months could have been quickened by a similar period, a fine business curve would have resulted, and a general business disaster and wide-spread unemployment would have been avoided.

"I can understand the vagaries of business during the war, for then the natural laws of trade were subordinated to the war emergency.

"But why did everyone, in the face of rapidly rising prices, want to buy lavishly in 1920?

"I can appreciate why buying stopped in 1921, but can anyone explain why, after the wholesome reduction in prices resulting from the recession of 1921, there should again be such a concentration of demand as to advance both wages and prices to almost the levels that brought disaster in 1920.

"Our producing capacity would have proved amply sufficient to have taken care of all the business of the past four years without overtime, if it had come in with a fair degree of uniformity.

"But the buying microbe, like the influenza germ, seems to attack all simultaneously, and in consequence, we have hectic booms, with prices exorbitantly high in 1920, and nerve racking depressions with prices too low in 1921.

"As a remedy, the manufacturer asks for a removal of the restrictions on immigration to reduce labor costs, and the consumer asks the Government to prosecute the profiteer, and enforce general price reductions through federal control of industry.

"Neither remedy will effect a cure, in fact, the application of either will but aggravate the difficulty.

"American business must be stabilized so that a fairly uniform demand can be met by regular employment of both the workers and the facilities in industry.

"Feed a cold and starve a fever is a household adage, and the latter half suggests a mighty good remedy for what ailed business in 1920, and what is ailing it, though in a much milder form, today.

"There would be no labor shortage, no towering prices, no serious and continued unemployment, if some of the demand at the peak were postponed to swell the volume during the recession that is bound to follow.

"Bringing in foreign labor, to meet the peak demand, will but swell the list of the unemployed during the depression that inevitably succeeds the boom.

"Forcing down prices through Government action will but increase the demand when the buying fever is upon us, and will but prolong the period of recovery.

"The health of the State is of greater importance than excessive prosperity of business, and, to provide for that, we need a more homogeneous citizenship. That can't be attained by removing restrictions on immigration, but it can be improved by a wiser selection.

"I doubt very much whether Congress will permit a material increase in number of immigrants in the near future, and business must, therefore, learn to cut its coat to suit its cloth. It must find a way of regularizing the demand, so that, industry running normally, can supply it.

"Business had a severe lesson in 1920, and still remembers vividly the 'cold gray dawn of the morning after.' It is proceeding cautiously, for it has no desire to encourage a runaway market; and the banks are assisting by advising postponement of construction and large purchase, whenever advancing prices show danger.

"The banks themselves were responsible for much of the inflation in 1920, and they too, have learned that a uniform business, on a moderate scale, is both safer and sounder for all, than one that fluctuates from freezing to boiling.

"We can't do all the business of three years in a single year, and demand postponed doesn't mean that it will never reappear. We need business for 1924 and 1925.

"Then why bid for labor that doesn't exist, why increase the fever of buying by foolish promises of delivery or unnecessarily tempting terms of credit?

Impatience is an expensive trait, and when a man is willing to pay an exorbitant price for prompt delivery of a luxury rather than wait a few months and save twenty-five per cent, he is in a dangerous way and needs attention. And when that state becomes general among all of our people, then a labor shortage and exorbitant prices are the only remedies. So let us stop whining and give the remedies time to effect a cure."

To Be Chief of Paper Laboratory

WASHINGTON, D. C., July 3, 1923.—B. W. Scribner has been selected by the Bureau of Standards as successor to F. A. Curtis, chief of the paper laboratory of the bureau who resigned as of July 1. Mr. Scribner is a chemist of the West Virginia Pulp and Paper Company. It is understood that Mr. Scribner will come to Washington about the middle of July to assume his new duties.

New Technical Association Members

Since publication of the last list, the following have been admitted to membership in the Technical Association of the Pulp and Paper Industry:

- F. W. Aikin, International Burr Corporation, Watertown, N. Y.
 H. A. Allen, Waltham Paper Mill, Waltham, Mass.
 E. T. Bellew, 668 State street, Madison, Wis.
 F. F. Bishop, Potsdam, N. Y.
 S. C. Brayton, Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis.
 A. M. Cadigan, Nashwaak Pulp and Paper Company, St. John, N. B.
 S. H. Childs, Scovell, Wellington & Co., New York, N. Y.
 A. B. Clark, J. O. Ross Engineering Corporation, New York, N. Y.
 E. T. A. Coughlin, Allied Paper Mills, Kalamazoo, Mich.
 L. W. Crouse, Arabol Manufacturing Company, New York, N. Y.
 R. M. DeCew, Price Bros. & Co., Ltd., Kenogami, P. Q.
 S. J. Dickhaut, Martin Cantine Company, Saugerties, N. Y.
 R. I. Drake, W. F. Hall Printing Company, Chicago, Ill.
 Ernst Erickson, York Haven Paper Company, York Haven, Pa.
 C. S. Hamm, Mead Fibre Company, Kingsport, Tenn.
 P. L. Herren, Cushnoc Paper Company, Augusta, Me.
 H. L. Joachim, Bogalusa Paper Company, Bogalusa, La.
 E. J. Johnstone, Paper Makers Chemical Company, Holyoke, Mass.
 Paul Koenig, The Continental Paper and Bag Mills, New York, N. Y.
 D. V. Lowe, Lowe Paper Company, Ridgefield, N. J.
 R. R. Machmer, Government Printing Office, Washington, D. C.
 G. F. Magnuson, Uddeholms Aktiebolag, Skoghall, Sweden.
 M. M. Manshel, American Writing Paper Company, Holyoke, Mass.
 John McEwan, American Tissue Mills, Holyoke, Mass.
 A. E. Montgomery, J. O. Ross Engineering Corporation, Chicago, Ill.
 F. J. Morrison, Hummel-Ross Fibre Corporation, Hopewell, Va.
 J. E. Plumstead, Jessup & Moore Paper Company, Wilmington, Del.
 A. K. Sen, Assam Paper Mills, Ltd., Calcutta, India.
 G. W. Sullivan, Nashua Gunned and Coated Paper Company, Nashua, N. H.
 G. R. Wadleigh, West Virginia Pulp and Paper Company, New York.

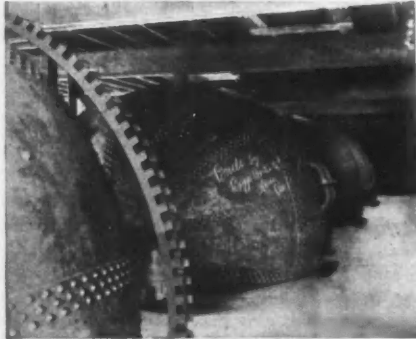
CORPORATE MEMBERS

- Chemical Paper Manufacturing Company, Holyoke, Mass.
 Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis.
 Crocker-McElwain Company, Holyoke, Mass.
 Crown Willamette Paper Company, San Francisco, Cal.
 International Paper Company, New York.
 Oswego Falls Corporation, Fulton, N. Y.
 Pejepscot Paper Company, New York.

Proceedings of Superintendents' Meeting

The proceedings of the convention of the Northwestern Division of the American Pulp & Paper Mill Superintendents' Association at Wisconsin Rapids and Port Edward, Wis., May 18-19, are just being distributed. The proceedings include papers on "Paper Drying," J. O. Woodsome, of J. O. Woodsome Company; "Suction Rolls," W. H. Millspaugh, of Sandusky Foundry and Machine Company; "The Wood Room," C. K. Boyer, Consolidated Water Power and Paper Company; "Heat Transfer and Vapor Economizer," J. L. Williamson, of J. O. Ross Engineering Company; "The Sulphite Mill," Vance P. Edwardes, of Interlake Pulp and Paper Company, Appleton, Wis., etc.

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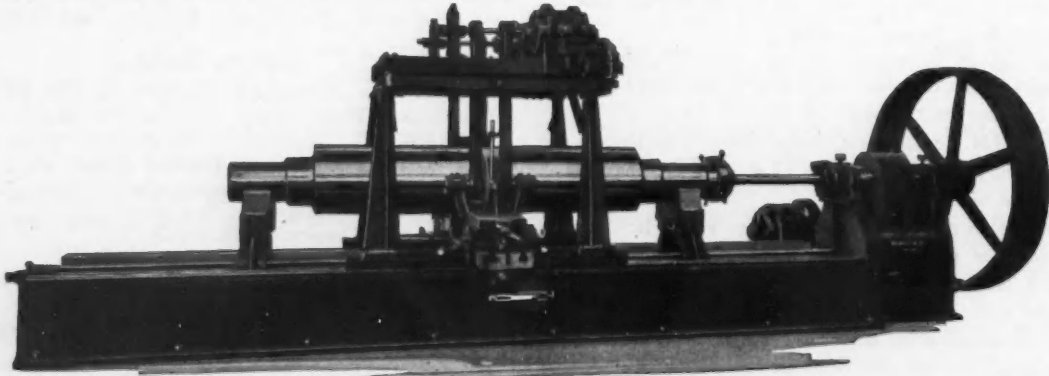
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Section of the

Technical Association of the Pulp and Paper Industry



AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.



Conducted by W.G. Mac NAUGHTON, Secretary

CURRENT PAPER TRADE LITERATURE

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

Paper Testing

Some Investigations with the Mullen Tester. W. Herzberg. *Mitteilungen des Materialprüfungsamtes zu Berlin-Dahlem* 5 (1923); *Wochb. Papierfabr.* 54, 770-772 (Mar. 17, 1923); *Papierfabr.* 21, 180-182 (April 1, 1923). According to 24 tests made on two German newspapers there appeared to be no definite relationship between the Mullen values and the breaking length, per cent stretch, and folding endurance.—J. L. P.

The Densometer. *Paper Mill* 47, No. 18, 18 (May 5, 1923). The densometer is an instrument which measures the density of the material tested in terms of the number of seconds required for 100 cc. of air to pass through its pores or interstices under constant pressure. The test can be made in about one minute. The scope of its usefulness in papermaking is briefly discussed.—A. P.-C.

Determination of the Fiber Content of Paper. E. O. Reed and R. R. Machmer. *Paper Trade J.* 76, No. 17, 47-49 (April 26, 1923). Results of co-operative microscopical analysis of papers submitted by the testing section of the Government Printing Office are tabulated. The results reported by most of the analysts are considered very close on the majority of the samples, indicating clearly that the fiber analysis of paper has been well developed and that by experienced analysts the three methods tried out (count, Spence and Kraus, estimation) give fairly concordant results. Results by the Government Printing Office testing section by the count method are very satisfactory on each sample and compare very favorably with those of the other analysts. The method is described in detail.—A. P.-C.

A Quick Test for the Determination of the Brittleness of Paper. Paul L. Houston. *Paper Trade J.* 76, No. 15, 233-235 (Apr. 12, 1923). The author gives the results of Mullen tests on ten grades of paper after creasing (both single and double creases) in the machine, cross, and both directions, and gives the grading as to quality according to the results of these and of the other usual physical tests. The results of the bursting strength on creased paper and the results of the folding endurance test give the papers the same grading. He concludes that the bursting strength test of the creased paper determines a more reliable value of the strength, brittleness and wearing quality than the ordinary bursting strength test without crease, and recommends that a study be made to determine the best size and weight of steel rolls to be used in the baby stack of calenders for creasing the paper and the optimum number of creases to be made.—A. P.-C.

The Effect of Atmospheric Humidity in the Physical Testing of Paper. Paul L. Houston, F. T. Carson and R. S. Kirkwood. *Paper Trade J.* 76, No. 15, 237-251 (Apr. 12, 1923). The results of an extended investigation by the Bureau of Standards into the effect of humidity changes on the physical properties of paper are presented. Data and extracts from the literature are cited to indicate that the physical qualities are determined by relative humidity rather than by absolute humidity. The data are presented as graphs of the per cent variations from values at 65 per cent relative humidity, since this condition is used almost universally in the paper industries. Eleven grades of paper were tested for nine physical properties at eight relative humidities varying from 15 per cent to 83 per cent. A description of the method of procedure for each test is given and is accompanied by a discussion of results. It is shown that folding endurance, elongation and tearing resistance increase considerably with relative humidity over the observed range; tensile breaking strength and bursting strength increase up to about 40 per cent relative humidity and then decrease; the increase with humidity of moisture content, ream weight and thickness is relatively small and the per cent change of dimensions of the sheet is smaller still.—A. P.-C.

Green's Improved Standard Folding Tester. *Paper Mill* 47, No. 13, 10, 32, 34 (Mar. 31, 1923). A detailed description of the instrument with a discussion of its merits.—A. P.-C.

Effect of Length and Width of Tests Specimen on the Breaking Strength and Elongation of Paper. Paul L. Houston. *Paper Trade J.* 76, No. 12, 54-55 (Mar. 22, 1923). Results given show that the inclinable balance type of breaking strength machine gives varying results, because the swing of the pendulum is in itself a variable. However, for paper testing the variation in breaking strength is of the same order of magnitude as the experimental error and may for practical purposes be neglected. The question of length of test specimen is not important when only the breaking strength of the paper is desired. If the per cent elongation is desired, it is of the utmost importance that the length as well as the width be controlled and standardized. It is suggested that a length of 3.5 inches (approximately 90 mm.) and a width of 1 inch (approximately 25 mm.) be adopted as standard.—A. P.-C.

Relationship Between Breaking Strength and Bursting Strength of Paper. A Possible Calibration of the Mullen Tester. Paul L. Houston. *Paper Trade J.* 76, No. 13, 47-48 (Mar. 29, 1923). The strengths of eight different grades of paper were tested

with a 50 kilo breaking strength machine and with a Mullen tester with an attachment for measuring deflection (from which elongation could be calculated). The results show that for every grade the ratio of breaking strength to elongation is practically equal to the ratio of bursting strength to elongation. The author recommends that his results be checked by tests on a great number of different grades of paper; and if they are checked that the equation

$$\frac{\text{breaking strength}}{\text{elongation}} = \frac{\text{bursting strength}}{\text{elongation}}$$

be used as a means of calibrating the complete Mullen tester and creating a standard bursting strength machine.—A. P. C.

Raw Material

Use of Decayed Wood in Paper Making. Otto Schierbeck. *Pulp & Paper* 21, 262-264 (Mar. 8, 1923). The author describes "pig rot," "feather rot," "hemlock rot," and "sapwood rot," which affect balsam, and rot caused by *Trametes pini* which attacks spruce, showing how they affect the paper making qualities of balsam and of spruce.—A. P.-C.

Decayed Wood in Paper Making. C. S. V. Hawkings. *Pulp & Paper* 21, 287-289 (Mar. 15, 1923). The author describes mill scale experiments carried out in January, 1922, comparing sound wood, wood containing 12 per cent and 26 per cent respectively of rot for the manufacture of news, sulphite, groundwood and newsprint. The results seem to indicate that 10 per cent is a maximum figure for rotten wood if both groundwood and sulphite are supplied with wood from the same source. He then discusses the best means of making the most of the decayed wood (the proportion of which is continuously increasing in pulpwood) and suggests sorting sound from rotten wood and using the latter mostly for chemical pulp.—A. P.-C.

Pulp Treatment and Drying

The Kamyrl Pulp Press Machine. O. L. Berger. *Paper Trade J.* 75, No. 26, 51-2 (Dec. 28, 1922); *Paper* 31, No. 9, 14-15 (Dec. 20, 1922); *Paper Mill* 45, No. 52, 18 (Dec. 30, 1922). In its complete form it consists of a suction cylinder mold with vacuum pump, two pair of corrugated presses, and a pulp cutter. The pulp leaves the mold testing 22 to 24 per cent air dry. The first press brings this up to 40 per cent and the second press up to 55 per cent air dry. The high test of the pulp leaving the mold in connection with the special construction of the grooved and corrugated presses make it possible to run through the presses without the use of felts. (Compare U. S. A. patent 1,387,954 and Can. pat. 219,484; *Pulp and Paper* 20, 655 (Aug. 3, 1922); *Paper Trade J.* 75, No. 7, 56 (Aug. 17, 1922). Also Can. pat. 219,279; *Pulp & Paper* 20, 794 (Sept. 14, 1923); *Paper Trade J.* 75, No. 12, 51 (Sept. 21, 1922).—A. P.-C.

Bale Press. W. Lindemann. Fr. pat. 546,894, Sept. 5, 1922. *Papier* 25, 541-542 (Dec. 1922). The patent covers a portable press. The tracks on which the truck rests during the pressing stage are connected directly to the frame of the press, which does not have to be anchored to the ground. The box containing the bale before pressing can be removed after pressing without having to wait until the bale has been wired or otherwise fastened.—A. P.-C.

Centrifugal Pulp Thickener. R. C. Mabry. U. S. pat. 1,415,939, May 16, 1922; Can. pat. 228,515, Feb. 6, 1923. The stock is fed into a rapidly rotating conical screen, the water being thrown out by centrifugal force and the thickened stock discharged at the bottom. A "cleaning member" is provided for preventing the screen from becoming choked with the stock. It is claimed that stock can be thickened to a consistency of 10 to 18 per cent and that the water removed is freer from fiber than by usual methods.—A. P.-C.

Water Supplying Device for Flat Screens. A. H. Borresen and K. Holter. Can. pat. 228,775, Feb. 20, 1923. The water is supplied through a longitudinal slot located substantially in the screening plane and directing the current of water along the surface of the screening plates in the direction of flow of the pulp. It is thus

supplied below the layer of pulp, instead of from above, and exerts the best possible feeding and diluting effect on the pulp.—A. P.-C.

Sulphite Process

Highly Pressed Sulphite Cellulose. G. K. Bergman, E. Almborg and K. E. Ekholm. *Pappers Och. Travarutidsk. fur Finland. Paper* 31, No. 23, 9-12 (Mar. 28, 1923); No. 24, 9-11 (Apr. 4, 1923). Highly pressed sulphite imported from Finland into the United States was found to give trouble in breaking and bleaching. The authors investigated the properties of this class of pulps, comparing them with pulps prepared in the usual manner. From a strictly chemical standpoint (bleaching 5 hours at 40° C., with 10 per cent of chlorine) there was practically no difference in the bleaching qualities. The variations in chemical composition were within the experimental error. Commercially, it was found that the highly pressed pulp was much more difficult to break up in the heater and more time was required to bleach it. Four out of five samples of highly pressed pulp were found to be slightly darker in color than the corresponding non-compressed pulps, and in the fifth case the colors were practically the same. There is practically no difference in color and strength between the two classes of pulp (strength tests are described in detail).—A. P.-C.

Filling Digesters with Hot Sulphite Liquor. H. Clemm, assignor to Zellstoffabrik Waldhof. Can. Pat. 228,418, Jan. 30, 1923. The liquor is forced under pressure into the digester, which is closed by means of an excess pressure valve.—A. P.-C.

The Sulphur Industry of the United States. Albert G. Wolf. *Pulp & Paper*, International No. 153-157 (Dec. 1922). An outline of the development of the U. S. sulphur industry and of its present status.—A. P.-C.

Sulphur Burner. H. D. Wells. U. S. pat. 1,422,801, July 4, 1922; Can. pat. 228,631, Feb. 2, 1923. A pipe agitator, partly immersed in molten sulphur, rotates within a shell, the level of the molten sulphur being regulated by means of a suitable float valve. The sulphur-melting tank is in the upper portion of the shell. The combustion chamber is placed over the front end of the melting pot and is supplied with necessary air inlets and dampers, etc. In the combustion chamber are three baffles, the first and third being disk baffles and the middle a ring baffle.—A. P.-C.

Method of Burning Sulphur. H. S. Davis, assignor to Texas Gulf Sulphur Co. Can. pat. 229,191, Feb. 27, 1923. Sulphur containing traces of oil and similar impurities (0.1 to 0.2 per cent) is not free burning owing to their reacting with the sulphur to form asphaltic material which spreads over the surface and which, having a very high ignition temperature, extinguishes the flame. Certain materials such as asbestos, magnesia, and certain types of porous bricks ("Nonpareil" brick), and to a lesser extent magnesium carbonate, infusorial earth and fuller's earth, have a peculiar accelerating effect on the burning of sulphur and render impure sulphur free-burning. They may be used in all forms of burners; e. g., as a lining in rotary burners.—A. P.-C.

Gas and Liquor Relief Recovery. L. B. Decker. Can. pat. 229,288, Mar. 6, 1923. Two (or more) digesters are connected in such a manner that the gas and liquor relieved from one may be conducted into the other at the bottom. All the digesters of the system are connected to an acid storage tank into which the gases given off may be conducted as desired. It is claimed this gives a greater yield of No. 1 pulp and that the quality of the stock is better and more uniform.—A. P.-C.

Sulphur Furnace. A. Hansen. Can. pat. 228,807, Feb. 20, 1923. A ribbed rotating drum is partly immersed in molten sulphur in a suitable vessel, thus carrying the molten sulphur up into intimate contact with the combustion air. Combustion is completed in a combustion chamber as usual.—A. P.-C.

Help of Flowmeters in the Sulphite Cooking Process. Halvar Lundberg. *Paper Trade J.* 76, No. 15, 165-166 (Apr. 12, 1923); *Paper Ind.* 5, 106-108 (April 1923). A discussion of the advantages of using steam flowmeters in order to obtain uniform method of cooking and uniform quality of stock.—A. P.-C.

REPORT ON DRYING OF PAPER*

S. B. JONES, THE R. B. WOLF CO.; W. F. GOLDSMITH, PEJEPSCOT PAPER CO.

At the fall meeting of TAPPI in Detroit, the Paper Drying Committee discussed the desirability of making tests on drier parts of paper machines operating under the varied conditions found in members' mills with the purpose in mind of determining as nearly as possible what happens to the stock from the time it enters the head box to the time it goes on the reel, as expressions of opinion of various paper makers indicated that everything that happened between the head box and reel has some bearing upon the amount of steam required to dry paper. At this meeting more or less tentative arrangements for as complete as possible drier part tests were considered, hoping that some of these tests could be made on machines with single headers and later with some drying system.

There are several proprietary drying systems on the market which are designed with the purpose in view of getting better use of the drier part. There does not appear to have been sufficient data on the action of the individual drier to have enabled the designer to get the best results. Many of the systems show better economies than the common system of connecting all driers to one steam supply header and to one discharge header.

The Pejepsot Paper Company has in its Pejepsot mill a 144 in. fourdrinier machine running normally 525 ft. per min., making news print and hanging. The drier part has a single supply and a single

the ten testing tanks is so connected with valves and cocks to three driers that a test can be made on any one of the group at any time and quickly changed to any other drier of the group of three. These ten groups include all the driers (30) on the machine.

In making tests on individual driers, care was taken to keep the back pressure on the syphon pipe the same as that in the discharge header, without which the weight tanks equipped with cooling coils

SECTION I
A. AIR SUPPLY SYSTEM
TYPE: STURTEVANT MULTIVANE FAN SIZE 10
CAPACITY: 10,000 CUBIC FEET PER MIN.
SKETCH OF AIR SUPPLY AND REMOVAL SYSTEM

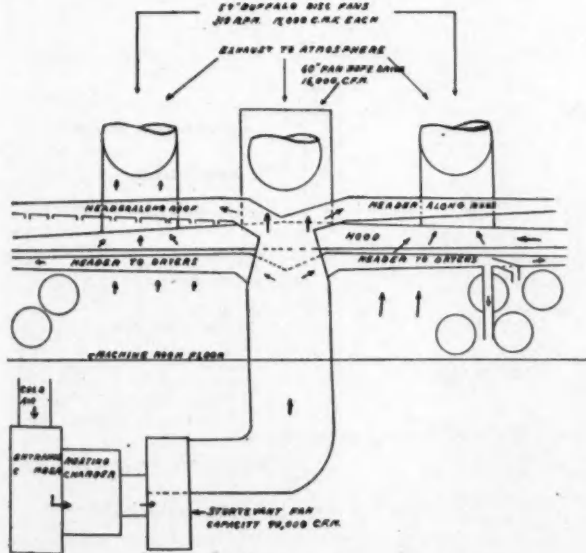


FIG. 1

discharge header, the drying being done by the exhaust from the reciprocating engine driving the machine and helped along by live steam.

In the early winter, sufficient equipment was installed on this machine to allow ten individual driers to be tested at one time by means of ten tanks, and at the same time a check on the performance of the machine as a whole was able to be obtained by the use of two large tanks mounted on scales and so connected to the discharge header by means of quick-opening valves operated by a lever that a continuous record of the condensate was maintained. Each of

*Presented at the annual meeting of the Technical Association of the Pulp and Paper Industry.

SECTION I
B. AIR SUPPLY AND REMOVAL SYSTEM
HOOD: MADE OF LIGHT WOOD, BRACED WITH STEEL ROGS

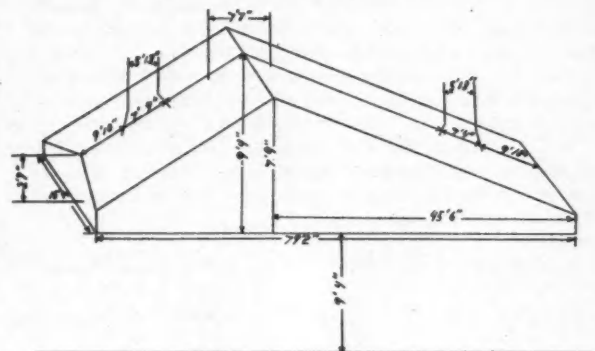


FIG. 2

would have acted as condensers and would have produced an artificial condition in the driers and carried a different rate of circulation within it.

We were fortunate in getting this equipment and our home-made equipment arranged so that from the very first tests there were no real difficulties, no big changes, and no interference with production.

The larger weigh tanks (4 ft. x 5 ft.) were first equipped with a galvanized iron hood with cooling water pouring over the surface for condensing the vapor rising from the condensate. The cooling area was not large enough, some vapor escaping to the air. Later on, this outside water was dispensed with and sprinkler heads calibrated and supplied by a constant head were placed under the hood, eliminating the error of lost steam.

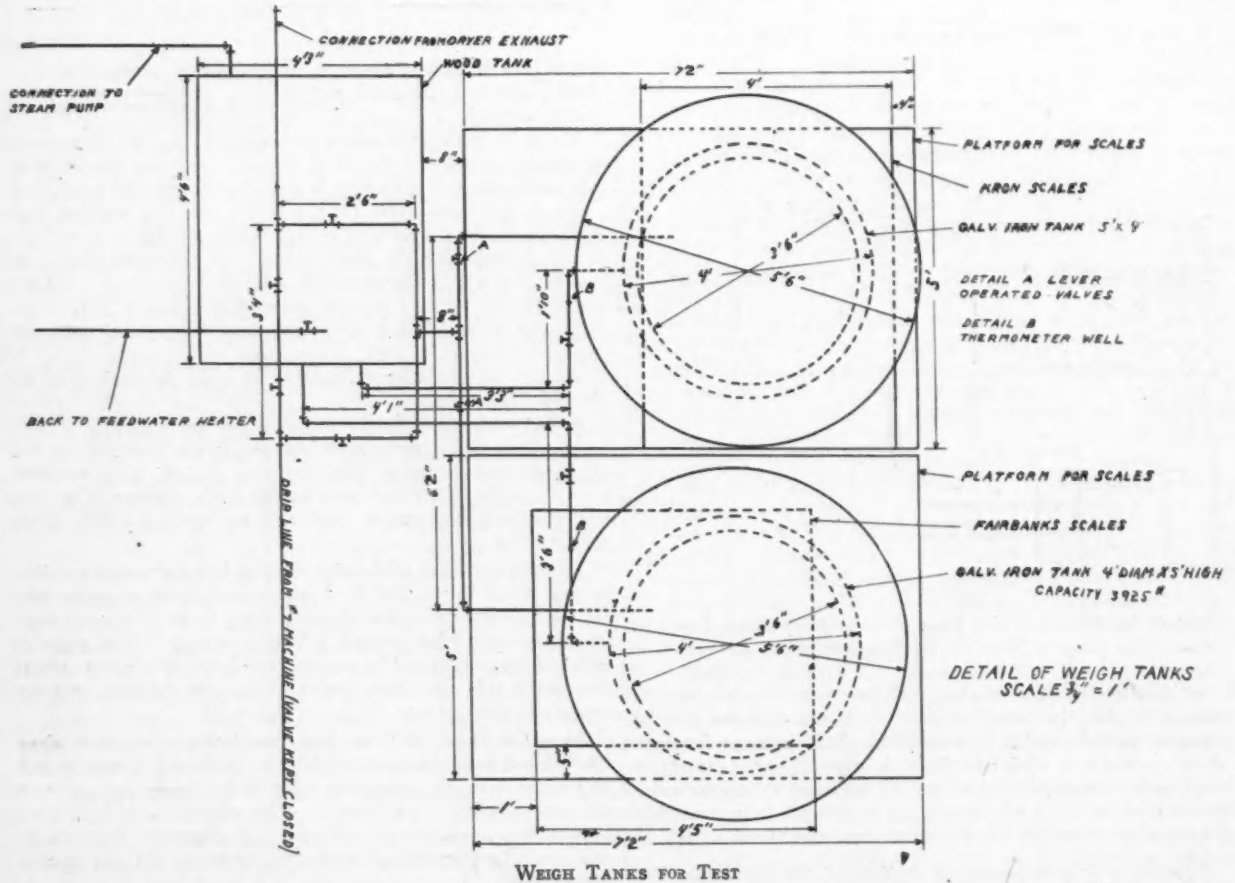
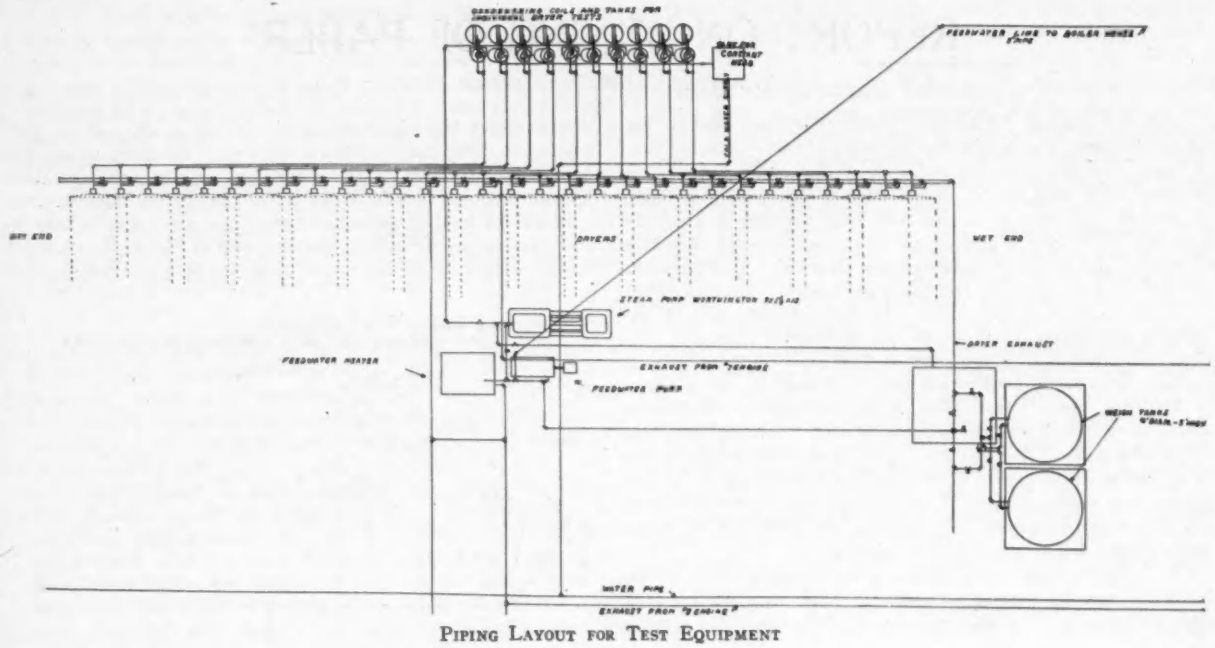
We met with no difficulty whatever in using the small tanks for the individual driers.

In the purchased equipment we might mention,

An electro psychrometer made with an electric battery-driven fan so arranged as to induce a circulation of the air to be measured over the bulbs. This gave accurate and quick readings, in no case requiring over three minutes, ordinarily not over one minute to get good readings.

Temperatures were taken with standard laboratory mercury thermometers and thermocouples. Before using the thermocouples tests on their accuracy were run checking them against a mercury thermometer suspended in several pails of constantly stirred water at different temperatures. The couples were found to be correct within one degree and the potentiometer at no time required over ten seconds to come to rest.

As we all know, there has been considerable controversy about methods and means of procuring drier temperatures. It may be well to mention here our reasons for using thermocouples and also why we place confidence in the results. The principal sources of error arising from their use are—radiation and conduction losses, parasitic e.m.f., temperature lag, instrument calibration and cold junction temperature.



We used couples of copper and constantan wire 0.0027 in. diameter made by twisting the ends of the wires together, being careful to obtain a good thermal connection. These couples are accurate to 0.5° C. up to 320° C. and may even be used for higher temperatures. However, around 520° C. the copper volatilizes rapidly and must be renewed frequently. This size wire not enclosed in protecting tubes prevents loss due to radiation and conduction; also, any possible error due to parasitic e.m.f., arising from bends or twists in the wire. The before mentioned test assured us that no difficulties would obtain from temperature lag. A check on the standard cell was all that was necessary to eliminate error from instrument calibration and the potentiometer used was equipped with an automatic cold junction compensator so that no cumbersome buried cold junctions were necessary.

The temperatures of the surfaces of the driers were obtained by using a very small wood box so arranged around the thermocouple as to keep out outside air and to hold the couple itself about 1/32 in. away from the face of the drier, in much the same manner as the mercury thermometer used by Slater and Warner with the added advantage that only a few seconds were required for the reading and no pulling out of the box is required until all readings on any one drier are completed. The box is mounted on a wood handle similar to a drier spear and divided in inches along its length so that a line of readings can be taken at any predetermined spot on each drier. A record of the broke was obtained by a curve drawing volt meter so connected that a small piece of chain dragged

on the surface of (in this case) the baby drier roll and completed the circuit when a break occurred, but was insulated when paper ran safe over the machine. This works well. A light connected to light up at the test table called the operator's attention to the break.

Revolution counters actuated by the driers give the average speed. No recording tachometers were available at the time of the tests.

Anemometers and pitot tubes were both used for air velocities, the readings of one being checked by the other. As there is often some differences in pressure between the outside and inside air, we first considered using barometers. This difference being small, accurate readings would be difficult. To meet this situation, an inclined tube differential draft gauge was connected so that one end would respond to outside air pressure and the other to the inside air pressure. This was found to give excellent results:

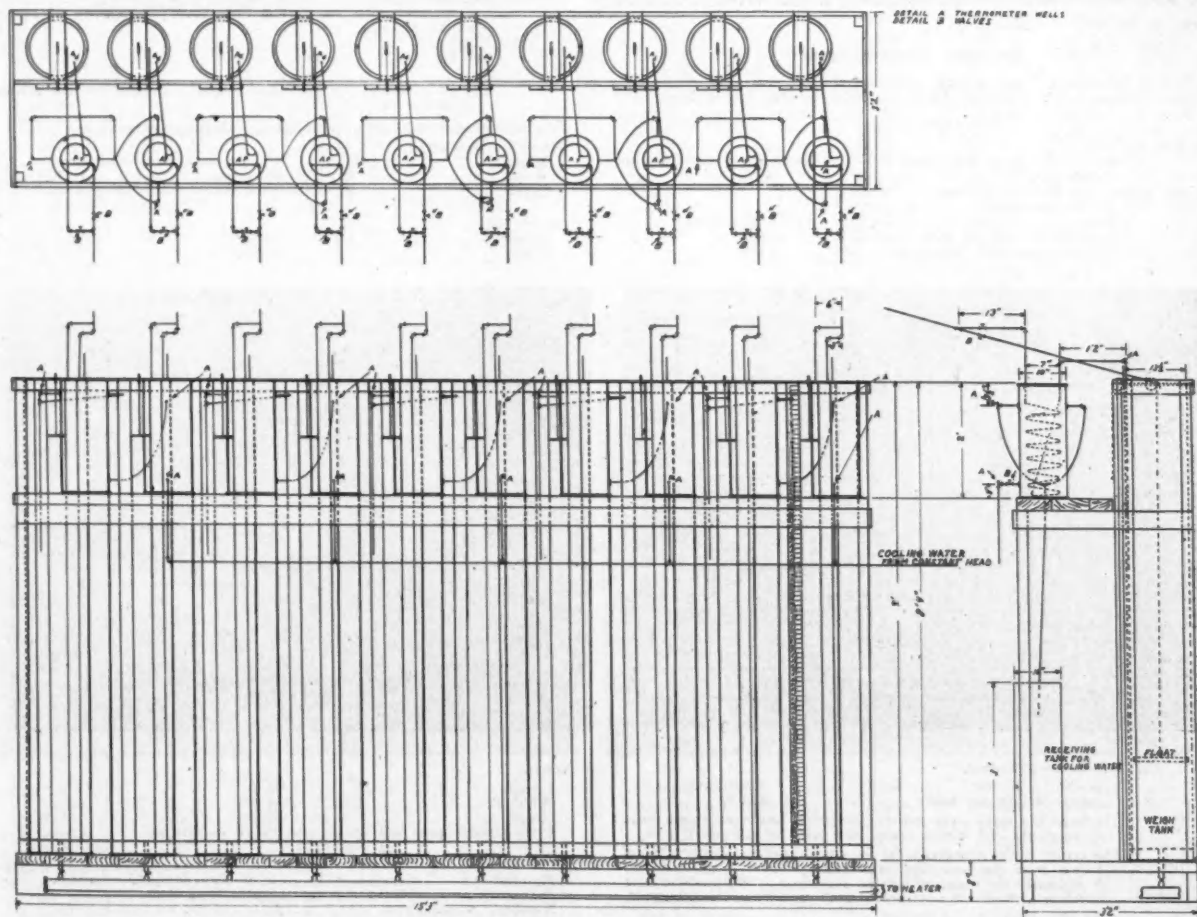
Many partial tests were run to establish the suitability and accuracy of the equipment and for the test operators to familiarize themselves with conditions.

While operating conditions have been very much against us on this work, at no time has there been more than two men required.

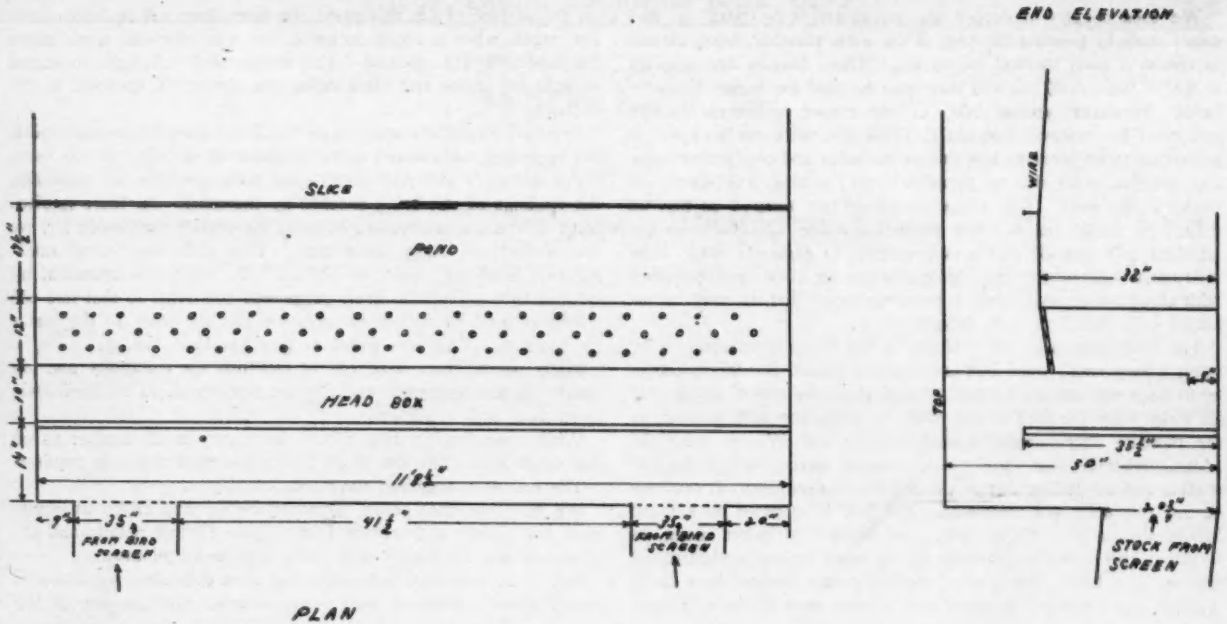
The results throughout have been consistent.

We have prepared prints, sketches, curves and tables of equipment and results and will be glad to give further details and the benefit of our experience with these tests and equipment.

Due to an unusually bad winter and some difficulties in the boiler house, steam conditions were very irregular and because of this



COOLING TANKS AND COILS USED IN TEST



we have labored under constant difficulties which prevented us from getting the best results.

Moisture Removal Test

Test of fourdrinier, Pusey & Jones paper machine; to determine efficiency of driers; Pejepsot mill, Pejepsot Paper Company; product—news print.

SECTION 1

- A. Building: Made of brick, frame and frame ironclad. Basement of machine room—*one story.*
- B. Air Supply and Removal System:
 - 1. Air Supply System.
 - Type Sturtevant
 - Capacity (cu. ft. per min.) 40,000
 - Sketch, giving full dimensions Fig. 1

The end outlets hold 54 in. Buffalo disk fans operating at approximately 310 r.p.m., and each having a capacity of 14,000 cu. ft. per min. (See Fig. 1.)

- 3. Hood. See Fig. 2.
- 4. Pit. The pit is part of the basement. It has brick sides and the bottom is partly open.

C. Machine: Other than drier part features affecting performance.

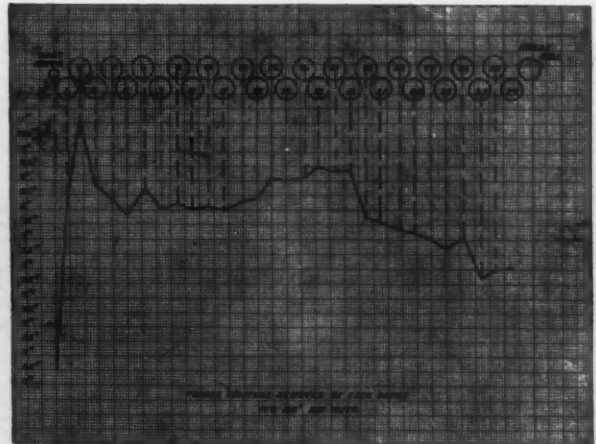
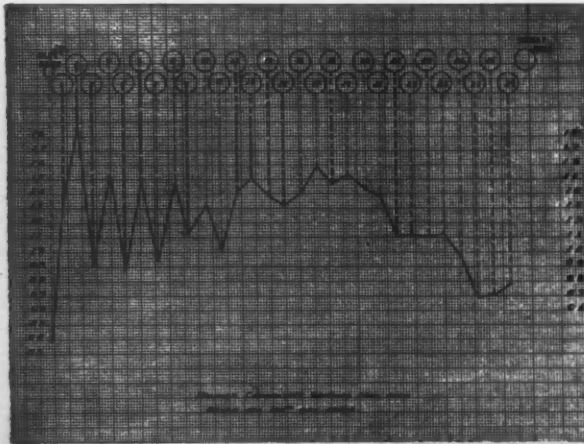
Head box and slice:

Material	Wooden head box; steel slice.
Width	Head box—11 ft. 8 1/2 in.; slice.
Depth	Head box—50 in.; slice 6 in.

(Fig. 3)

Breast rolls:

Diameter	16 in.
Width	146 in.



- 2. Air Removal System.
 - Type Sturtevant
 - Capacity (cu. ft. per min.) 44,000
 - The hood has three large outlets, the center one square and made of wood, the end outlets round and made of galvanized iron.
 - The center outlet contains a 60 in. multi-vane fan which is rope-driven from the back line drive shaft. This set up increases or decreases the speed of the fan according as the machine goes faster or slower. It has an estimated capacity of 16,000 cu. ft. per min.

Wires:

Length	65 ft.
Width	144 in.
Gauge	60 in.
Pitch— <i>inches per foot.</i>	0.225 in. per ft.

Tube rolls:

Material	6 of aluminum, 27 of brass.
Diameter	5 1/2 in. and 5 in.
Number	32.

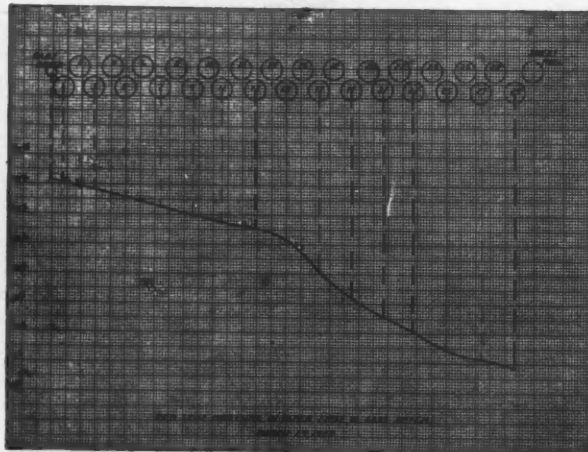
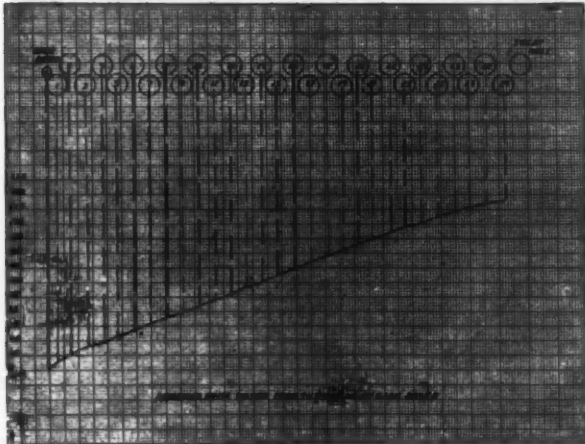
Suction boxes:
 Number and location..... 3 before dandy, 3 after dandy.
 Width 8 1/2 in.
 Kind and area of openings..... 1/2 in. round holes; total area 2.1 sq. ft.

Couch roll:
 Length 142 in.
 Diameter 48 in.
 Jacket, kind Kenwood 1980-6; felt.
 Weight 63 lb.

D. Drier Part Features Affecting Performance:
 Drier cylinders:

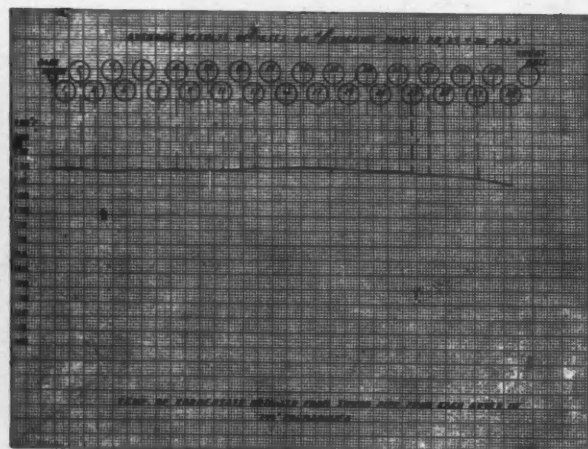
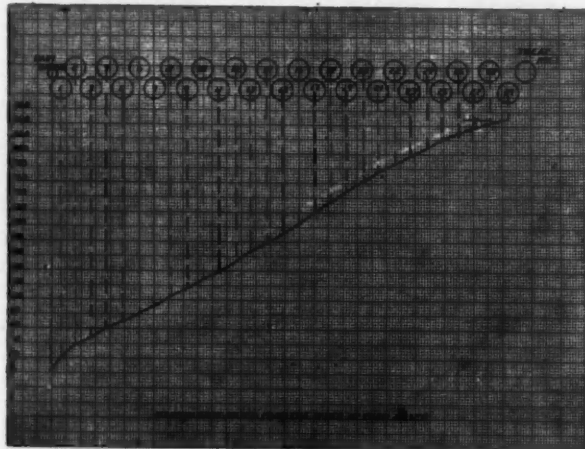
Header—number of sections.....One.
 Diameter of 1st section.....8 in.
 Diameter of 2nd section.....None.
 Condensate removal:
 Kind and make of removal system.Syphon system; 3/4 in. pipe from each drier.
 Number of header sections.....One.
 First section; size of.....4 in.
 Number driers connected.....20 including baby drier.

A. Presses and Felts: SECTION 2



Number 30.
 Length 142 in.
 Diameter 48 in.
 Area of cylinder..... 148.6 sq. ft.
 Area of heads..... 12.36 sq. ft.
 Total area of driers..... 5,211.5 sq. ft.
 Total area of driers incl. baby drier. 5,292.1 sq. ft.; 1.6 ft. for baby.
 Arc of contact with paper..... 9.1 ft. for 28 driers; 8.3 ft. for 2 driers.
 Total area in contact with paper. 1,210.66 sq. ft.
 Effective area in contact with paper. 1,085.96 sq. ft.
 Arc of contact with felts..... 7 ft. for 28 driers; 6.06 ft. for 2 driers.
 Total area in contact with felts. 3,464.7 sq. ft.
 Baby drier 24 in. diam.
 Sweat rolls one; 48 in. diam.
 Felt driers one.

	Test No. Date	Test No. Date	Test No. Date	Avg. of Tests
Couch roll: Pressure per inch of width.....	34.2 lb.	35.5 lb.	36.2 lb.	...
Material.....	Wool	Wool	Wool	...
Age of jacket.....	9 days	10 days	11 days	...
Condition.....	Good	Good	Good	...
Weight.....	63 lb.	63 lb.	63 lb.	...
First felt: Pressure per inch of width.....	33.5 lb.	32.5 lb.	30.8 lb.	...
Material.....	Wool	Wool	Wool	...
Age of felt.....	12 days	3 hrs.	1 day	...
Condition.....	Poor	Good	Good	...
Weight.....	67 lb.	67 lb.	67 lb.	...
Second felt: Pressure per inch of width.....	32.2 lb.	32.6 lb.	31.4 lb.	...



Felts—
 Number 4.
 Width 148 in.
 Length Bottom 262 ft., top 242 ft.
 Total area 6,215.8 sq. ft.

Material.....	Wool	Wool	Wool	...
Age of felt.....	5 days	6 days	7 days	...
Condition.....	Good	Good	Good	...
Weight.....	79 lb.	79 lb.	79 lb.	...
Third felts: Pressure per inch of width.....	37.8 lb.	39.0 lb.	39.0 lb.	...
Material.....	Wool	Wool	Wool	...
Age of felt.....	23 days	24 days	25 days	...
Condition.....	Fair	Fair	Fair	...
Weight.....	90 lb.	90 lb.	90 lb.	...

E. Steam Supply and Condensate Removal:
 Steam supply system:
 High pressure—size supply line. 2 in.
 Kind and size of regulating valve. 2 in. Davis regulating.
 Low pressure—size supply line. 3 in.
 Kind and size of regulating valve. 3 in. Davis regulating (Pickles regulator).

Drier felts:				
Upper—Material	Cotton	Cotton	Cotton	...
Weight	1,009 lb.	1,009 lb.	1,009 lb.	...
Age	44 days	45 days	46 days	...
Condition	Fair	Fair	Fair	...
Lower—Material	Cotton	Cotton	Cotton	...
Weight	1,087 lb.	1,087 lb.	1,087 lb.	...
Age	37 days	38 days	39 days	...
Condition	Fair	Fair	Fair	...

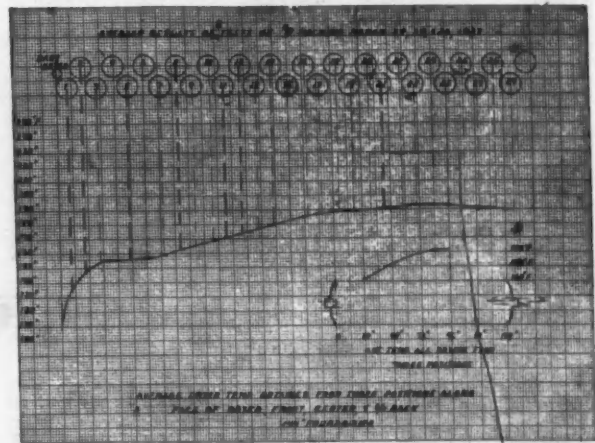
SECTION 3

Test Data

	1923			
	Test No. Date 3/28	Test No. Date 3/29	Test No. Date 3/30	Avg. of Tests
A. Furnish:				
Groundwood, per cent.	80.57	79.72	81.79	.....
Sulphite, per cent.	19.	19.8	17.8	.....
Talc, per cent.	0.43	0.48	0.41	.....
B. Paper:				
Grade	News	News	News	.....
Basis weight	32.2	32.34	34.4	32.68
Finish	Medium	Medium	High	.....
Width leaving last drier, inches	137.63	135.88	135.88	136.46
C. Moisture:				
Stock:				
Consistency in head box	0.74	0.79	0.75	0.76
Freedom in head box	36.	36.	36.	36.
Leaving wire	84.6	84.85	85.7	85.05
Leaving 1st press	79.	80.19	81.5	80.23
Leaving 2nd press	75.6	73.90	74.9	74.80
Leaving 3rd press	73.7	72.4	72.9	72.93
Leaving baby drier	73.06	71.6	72.4	72.35
Leaving Drier No. 1	.....	70.1	.....	.....
Leaving Drier No. 2	72.58	.....	70.5	.....
Leaving Drier No. 3	.....	68.7	.....	.....
Leaving Drier No. 4	71.9	.....	69.4	.....
Leaving Drier No. 5	.....	65.2	.....	.....
Leaving Drier No. 6	69.3	.....	68.4	.....
Leaving Drier No. 7	.....	62.4	.....	.....
Leaving Drier No. 8	66.1	.....	66.3	.....
Leaving Drier No. 9	.....	59.8	.....	.....
Leaving Drier No. 10	64.8	.....	64.2	.....
Leaving Drier No. 11	.....	57.4	.....	.....
Leaving Drier No. 12	61.2	.....	61.1	.....
Leaving Drier No. 13	.....	55.2	.....	.....
Leaving Drier No. 14	59.3	.....	59.2	.....
Leaving Drier No. 15	.....	51.4	.....	.....
Leaving Drier No. 16	55.7	.....	52.2	.....
Leaving Drier No. 17	.....	40.6	.....	.....
Leaving Drier No. 18	50.6	.....	49.3	.....
Leaving Drier No. 19	.....	32.8	.....	.....
Leaving Drier No. 20	42.4	.....	39.9	.....
Leaving Drier No. 21	.....	25.6	.....	.....
Leaving Drier No. 22	35.3	.....	34.1	.....
Leaving Drier No. 23	.....	20.86	.....	.....
Leaving Drier No. 24	27.6	.....	28.2	.....
Leaving Drier No. 25	.....	14.61	.....	.....
Leaving Drier No. 26	24.5	.....	18.24	.....
Leaving Drier No. 27	.....	11.7	.....	.....
Leaving Drier No. 28	13.2	.....	10.6	.....
Leaving Drier No. 29	.....	8.9	.....	.....
Leaving last drier	8.6	8.87	8.5	8.66
Air:				
Entering air (humidity)	10.3	5.2	5.3	6.93
Leaving air (humidity) average weighted	74.7	76.	63.3	71.33
Outside air (humidity)	62.	48.	52.	54.
D. Temperatures:				
Stock:				
In head box	45°F.	47°F.	47°F.	46.3°F.
Leaving wire	46	48	50	48
Leaving 1st press	46	48	51	48.3
Leaving 2nd press	48	50	53	50.3
Leaving 3rd press	51	54	55	53.3
Leaving baby drier	52	55	56	54.3
Leaving last drier	162	165	163	163.3
Steam:				
Reduced pressure supply	275°F.	272°F.	276°F.	274.3°F.
Exhaust pressure supply	224	225	234	227.7
Entering drier section	226	228	238	230.7
Leaving drier section	219	219	220	218.7
Air (locate positions on sketch):				
Room air, position No. 1	68°F.	78°F.	78°F.	74.7°F.
Room air, position No. 2	82	84	83	83
Supplied	128	154	158	146.7
Discharged, weighted	104 Ave.	108 Ave.	113 Ave.	108.3
Outside	26	22	46	31.3
E. Pressures:				
Steam supply:				
High pressure	110	111	110	110.3
Reduced pressure	30.2	30	30.5	30.23
Exhaust	6	6.1	14	8.7
Drier header	6.5	6.3	14	8.93
Discharge:				
Drier header	0.5	0.5	1.5	0.83
Air:				
Outside barometer	} Difference .. .00016 in. .00017 in. .00016 in. .0016 in.			
Inside barometer				
Supplied air pressure	0.037 in.	0.39 in.	0.39 in.	0.383 in.
Removed air pressure—average weighted	0.045 in.	0.046 in.	0.046 in.	0.046 in.

TECHNICAL SECTION, PAGE 8

	1923			
	Test No. Date 3/28	Test No. Date 3/29	Test No. Date 3/30	Avg. of Tests
F. Speeds—Ft. Per Min.:				
Paper speed	483.8	490.4	488.8	487.7
Entering air velocity	2,608	2,710	2,710	2,676
Discharged air velocity—average weighted	580	610	610	600
Wind velocity	250	500	320	356.7
G. Quantities:				
Pounds of water per hour at:				
Head box	440,810	402,658	464,000	435,823
Entering 1st press	18,360	17,800	20,820	18,993.3
Entering 2nd press	12,280	12,800	15,310	13,463.3
Entering 3rd press	10,100	9,000	10,380	9,826.7
Entering drier part	9,150	8,520	9,250	8,973.3
Leaving last drier	447	432	978	619.3
Pounds of stock bone dry per hour at:				
Head box	3,262	3,181	3,480	3,307.7
Entering 1st press	3,262	3,181	3,480	3,307.7
Entering drier header	11,563	12,038	12,173.7	11,924.9



SECTION 4				
Discharge:				
Drier header	11,563	12,038	12,173.7	11,924.9
Pounds of air supplied by ventilating system per hour				
	1,967.63	1,975	1,781.2	1,907.9
Pounds of air removed by ventilating system per hour				
	2,905.1	2,975.4	2,961.25	.....
B.t.u. in sheet:				
Entering drier part	1,661,400	1,731,440	2,107,080	1,771,777
Leaving drier part	1,615,775	1,768,952	1,736,108	1,735,326
B.t.u. in steam:				
Entering drier part	55,312,142	51,137,424	51,546,996	50,616,923
Leaving drier part	12,610,420	11,286,420	11,392,184	11,295,955
B.t.u. in air:				
Entering room	61,484	73,763	75,100	67,838
Leaving room	84,935	91,920	103,690	90,369
Results:				
Hours run	4.5	4	4	Weighted
Pounds paper made	14,679	12,724	13,920	13,242.9
Pounds of moisture removed	36,350	32,152	33,088	32,477.7
Pounds of steam used 212°				
—14.7 lb. absolute (as made)	52,034	48,152	48,492	.....
	3.24	3.36	3.18	3.26
Pounds of steam per pound of paper (bone dry)	3.61	3.78	3.48	3.62
Pounds of water removed per hr. per sq. ft. of drying surface—				
a. Total	2.51	2.50	2.58	2.53
b. Effective	2.61	2.61	2.68	2.63
Pounds of steam per lb. water removed				
	1.435	1.5	1.452	1.46
B.t.u. supplies				
Entering drier part	55,312,142	51,137,429	41,846,996	50,616,620
B.t.u. required, 100% ef-				
iciency	42,483,302	37,462,320	38,825,469	38,016,908
Efficiency	76.7	73.4	75.3	75.13
Time lost by breaks	2 min.	4 min.	.....	.....

At a subsequent meeting of those interested in the subject of paper drying an abridged form of the Paper Drying Code was prepared.

SHORT FORM OF DRYING CODE

- Item 1 Company. Mill
 2 Machine.
 3 Date.
 4 Duration of test.
 5 Time lost during breaks.
 6 Barometric pressure in machine room.
 7 Temperature of air surrounding driers.
 8 Relative humidity of air surrounding driers.
 9 Temperature of air in exhaust duct. Total Per hr.
 10 Relative humidity of air in exhaust duct.
 11 Lb. of air leaving exhaust duct.

Paper Data

- 12 Grade of paper.
 13 Basis weight.
 (a) Customary designation... sheets $\times \dots = \dots$ lb.
 (b) Bureau of Standards 500 sheets $25 \times 40 = \dots$ lb.
 14 Total width of sheet leaving last drier.
 15 Speed of machine.
 16 Lb. of paper dried.
 17 Temperature of stock entering driers.
 18 Per cent bone dry fiber in sheet entering driers.
 19 Per cent of bone dry fiber in sheet leaving last drier.
 20 Lb. of moisture evaporated from sheet per lb. of paper dried.
 21 Lb. of moisture evaporated from sheet.

Steam Data

- 22 Lb. of steam entering driers.
 23 Average pressure of steam entering driers.
 24 Average temperature of steam entering driers.
 25 Average quality of steam entering driers.
 26 Heat units per lb. of steam entering driers.
 27 Heat units entering driers.
 28 Average gauge pressure of discharge from driers.
 29 Average temperature of discharge from driers.
 30 Heat units per lb. of discharge from driers.
 31 Heat units in discharge from driers.
 32 Heat units absorbed by driers.
 33 Heat units absorbed by driers per lb. of moisture evaporated from sheet.

Auxiliary System

- 34 Heat units to the auxiliary paper-drying system per lb. of moisture evaporated from sheet.
 35 Total overall heat units used per lb. of moisture evaporated from sheet.

SHORT FORM OF DRYING CODE

Working Sheet and Method of Computation

- Item 1 Company. Mill
 2 Machine.
 3 Date.
 4 Duration of test.
 (Minimum of 4 hr. of good running necessary and 8 to 24 hr. test preferable.)
 5 Time lost during breaks.
 (Actual time paper is not on driers.)

Air Data

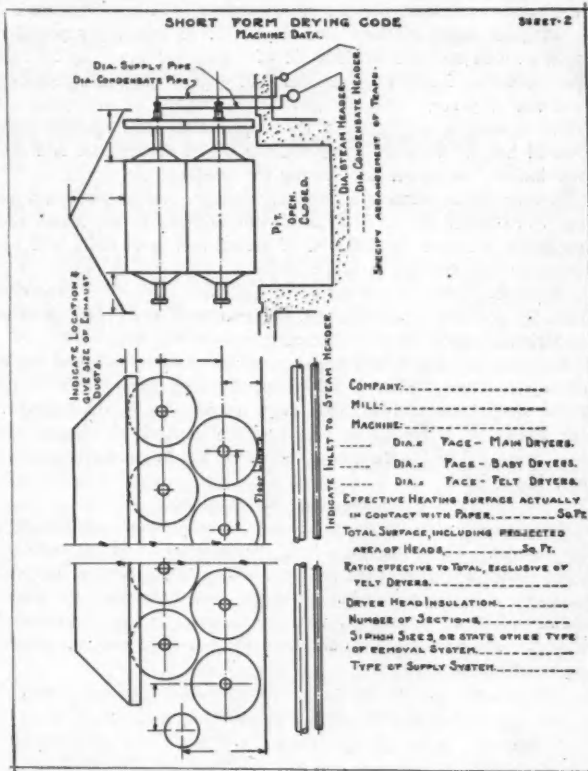
- 6 Barometric pressure in machine room.
 (If this data is not actually taken the standard barometric pressure of 29.92 may be assumed. A variation of one inch in barometric pressure may affect the final results approximately 1%.)
 7 Temperature of air surrounding driers ($^{\circ}$ F.).
 (Average of hourly readings at several stations on each side of machine 6 ft. away and 5 ft. above floor. If the machine has an open pit hourly readings should be taken at two or more stations 4 ft. below the felt.)
 8 Relative humidity of air surrounding driers.
 (Readings taken simultaneously with the data of Item 7.)
 8a Lb. of water per lb. of dry air in air surrounding machine.
 9 Temperature of air in exhaust duct.
 (Average of hourly readings.)
 10 Relative humidity of air in exhaust duct.
 (Average of hourly readings.)
 10a Lb. of water per lb. of dry air in exhaust duct.
 (Obtained from Carrier's Psychrometric charts.)

Paper Data

- 11 Lb. of air leaving exhaust duct = $\frac{\text{Item 21}}{\text{Item 10a minus Item 8a}}$ Total Per hr.
 12 Grade of paper.
 (Note approximate furnish per cent.)
 13 Basis weight.
 (a) Customary designation... sheets $\times \dots = \dots$ lb.
 (b) Bureau of Standards 500 sheets $25 \times 40 = \dots$ lb.
 14 Total width of sheet leaving last drier (inches).
 15 Speed of machine at calendars (ft. per min.).
 16 Lb. of paper dried (as made).
 17 Temperature of stock entering driers ($^{\circ}$ F.).
 (Thermometer bulb should be surrounded by large sample of stock so as to obtain true reading.)
 18 Per cent bone dry fiber in sheet entering driers.
 (Average of samples taken across sheet at least every hour. These may be conveniently obtained when changing reels.)
 19 Per cent bone dry fiber in sheet leaving last drier.
 (Average of samples taken at least every hour. Strip across full width of sheet obtained as in Item 18.)
 20 Lb. of moisture evaporated from sheet per lb. of paper dried = $\frac{\text{Item 19}}{\text{Item 18}}$ minus 1.
 21 Lb. of moisture evaporated from sheet = Item 20 \times Item 16.

Steam Data

- 22 Lb. of steam entering driers.
 (To be obtained by measuring total discharge from driers.)
 23 Average pressure of steam entering driers ($^{\circ}$ F.).
 24 Average temperature of steam entering driers ($^{\circ}$ F.).
 (Taken near pressure gage.)
 25 Average quality of steam entering driers (% moisture or superheat).
 26 Heat units per lb. steam entering driers (Marks & Davis Table) (B.t.u.).
 27 Heat units entering driers (B.t.u.).
 (Item 27 \times Item 22 = Total B.t.u.)
 28 Average gauge pressure of discharge from driers.
 29 Average temperature of discharge from driers ($^{\circ}$ F.).
 (Taken near pressure gage.)



- 30 Heat units per lb. of discharge from driers (B.t.u.)
 (Includes condensate and all steam or vapor. State method—Barrel calorimeter, surface condenser, etc.)
 31 Heat units in discharge from driers (B.t.u.).
 32 Heat units absorbed by driers (B.t.u.).
 Item 27 minus Item 31 = Total B.t.u.
 33 Heat units absorbed by driers per pound of moisture evaporated from sheet.
 Item 32 divided by Item 21.

Auxiliary System

- 34 Heat units to the auxiliary paper drying system per lb. of moisture evaporated from sheet (B.t.u.)
 (Measured from condensate of coils or calculated from air data of data of auxiliary system.)
 35 Total overall heat units used per lb. of moisture evaporated from sheet.
 Item 33 plus Item 34 (B.t.u.).

Support Textbook Fund

The Vocational Education Committee has received additional contributions towards the fund for the completion of the textbooks, "The Manufacture of Pulp and Paper."
 Beloit Iron Works, \$100.
 Appleton Wire Works, \$100.
 Appleton Woolen Mills, \$100.
 Wisconsin Wire Works, \$100.
 Sandy Hill Iron and Brass Works, \$25.
 The fourth volume is expected to be published in October and considerable progress has been made on the fifth volume.

EFFICIENCY OF PAPER MACHINE DRIERS

By JOHN E. ALEXANDER

The efficiency of a paper machine cannot be any greater than the efficiency of the driers themselves. In good paper machine practice the efficiency of the ordinary paper machine will be around 76 per cent. Unfortunately, however, the majority of the paper machines in this country have not got this efficiency and consequently the pounds of steam per pound of product is greatly increased.

In good paper machine efficiency 3 lb. of steam per pound of product will be used or 6000 lb. of steam per ton. At 50 cents per 1000 lb. of steam this means that \$3 will be the cost to dry one ton of paper. Multiply this by the number of tons your machine is making and you will then know what it is costing you to run 24 hours. This will give you the actual drying cost and does not include the power for driving the machine, etc.

It must be remembered, however, that the above conditions and costs are under almost ideal conditions both as to the steam consumption and cost per 1000 lb. of steam, and most mills will run in excess of these amounts.

As stated, where the efficiency of the paper machine is dependent upon its power to transmit heat, the transmission of heat, likewise, is dependent upon the rate of conductivity of the drier shell.

If you ask a paper mill engineer, superintendent, machine tender or any of them "What is the temperature on the outside of the drier shell?" his answer will very frankly be "I don't know." He knows it is hot as he has probably burned his fingers and bare arms and he knows it dries the paper, but he can't tell you just how hot it is.

Interesting Experiments

Some experiments in the laboratory revealed some very interesting figures. Three mercury bulb thermometers and an ordinary three switch hot plate were used and all switches were on in order to insure a uniform distribution of the heat throughout the metal. Calibrated small glass rods were set under the thermometers at various distances from the surface of the hot plate and the following results were obtained:

Position of Thermometer	Temp. of 306°	Diff. in Temp.
.0510 in. from plate	270	36
.1135 " " "	195	175
.1280 " " "	182	13
.257 " " "	166	16

Where the mercury bulb was directly on the metal surface of the plate a maximum temperature of 306° F. was observed. A difference of only 5/100 of one inch dropped this temperature 36° F. and a difference of 1/10 of an inch dropped the temperature 175° F., etc. The drop after this was not as great as first two differences. I realize that there are very few driers that reach as high a temperature as 306° F., corresponding to the hot plate, but the example is indicative of what actually takes place.

The transfer of heat through a drier is dependent mainly on two things.

1. Film coatings on inside and outside of shell.
2. Conductivity of the metal.

There are, of course, other factors besides these, but these are the two biggest factors. Conductivity, of course, is dependent upon film coatings, but not directly in proportion to it.

The majority of people think heat transfer is dependent upon conductivity and it is of course to a large extent. There is no question that a copper drier or aluminum or alloyed metal will give a greater conductivity, and allow a larger heat transfer than the ordinary cast iron drier such as used today.

Scale the Biggest Enemy

The biggest enemy today, however, is scale and the film coat that forms on the surface of the shell. This applies even more to

the inside of the drier than the outside and usually becomes worse because it is not only harder to get at but harder to see and usually goes a long while before it receives any attention, if at all. If a microscopic slide were made of a cast iron drier you would find that the metal surface resembled a saw tooth and its jagged edge. It is in these pockets and crevices that the scale and films collect and it does not take much scale or film to make 5/100 of one inch. This very fine film would actually check or reduce the heat transfer 36 degrees on the outside of the drier. This, of course, means a reduction in the efficiency of drier and paper machine itself.

Clean Driers for Best Result

If the above is true, it would mean that in order to obtain the highest efficiency in paper machines, two things should be done.

1. Grind and polish the inside of the drier as well as the outside.
2. Have a systematic cleaning of the inside and outside of shell in order to remove scale and films.

I believe most driers are bored out on the inside and smoothed up, but very few receive the attention on the inside that they do on the outside where the paper passes over it. It is true you need the high polished finish on the outside of the drier in order to finish the sheet. But this is only one reason, you need the finish in order to get heat transfer and allow a many B.t.u. as possible to make its way through the cast iron shell and dry the paper. If this is retarded and like the notches in a saw these notches are filled up with film and scale in order to force the B.t.u.s through a higher pressure will have to be carried in the drier which means a greater steam consumption per pound of paper and hence loss in efficiency. If you have scale and film on the outside of the drier the conditions are doubly worse inside the shell and there should be a systematic time and method for removing film or scale that might accumulate.

By doing this you will not only reduce the cost of drying, but an increase in production will be realized on account of the increased efficiency of the machine itself.

Dismiss Complaint Against Washington Pulp Corp.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., July 3, 1923.—The Federal Trade Commission has dismissed its proceedings against the Washington Pulp and Paper Corporation, of Seattle, Washington.

The Concern was named in a complaint with a number of other respondents and the Commission's dismissal of this particular respondent was for the reasons that the company is not a wholesaler of paper and paper products, is not and never was a member of any of respondent associations, and is not engaged in the practices set out in the complaint.

Hearing on Proposed Casein Tariff Change

WASHINGTON, D. C., July 3, 1923.—The Tariff Commission has ordered a hearing to be held at the offices of the Commission in Washington, D. C., at 10 o'clock a. m., on August 13, 1923, in connection with the investigation of casein now being conducted in accordance with provisions of Section 315 of Title III of the Tariff Act of 1922.

At this hearing all interested parties will be given an opportunity to be present and to produce evidence regarding cost of production and other facts pertinent to this investigation.

Section of the

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PAYMENT OF DIVIDENDS BEFORE RESTORING IMPAIRED CAPITAL*

BY CHARLES F. SCHLATTER

Several American accounting texts make the statement that a loss of corporation capital in a past period need not be considered in the current year for the purpose of determining the amount available for dividends. Several others state either directly or indirectly that dividends can be paid only from surplus. Many are discreetly silent on this point.

But the accountants are not the only ones who are not agreed upon this point. A writer on corporation finance says: "A board of directors may declare a dividend whenever the affairs of the corporation show that it has a surplus and up to the amount of the surplus." Another says: "The courts, however, do not enforce any such harsh rule. On the contrary, provided state statutes, or the provisions of the charter, or by-laws do not prevent, and that the declaration of the dividend does not render the corporation insolvent or leave it in such an embarrassed condition as to render dividends manifestly improper, no account need be taken of an impairment of preceding years."

Legal Writers Not in Accord

Legal writers also are not in accord on this point. For example, Cook says in section 546 of his work on corporations: "In estimating the profits for the year for the purpose of declaring dividend, it is not necessary to take into account the difference in value of the assets and the impairment of the capital stock of the company prior to that year. The fact that in a year prior to the declaration of the dividend some portion of the capital of an incorporated company has been lost and has not since been made good affords no ground for restraining the payment of dividends out of the profits subsequently earned." But on the other hand, Fletcher says in his work on corporation law: "It is a settled rule, therefore, even in the absence of any statutory provisions that a corporation cannot declare dividends out of its capital stock, and thereby reduce the same, or out of assets which are needed to pay corporate debts. They can be declared only out of surplus profits."

The accountant feels that he should be able to rely upon the statements of the writers on finance and law, but he is somewhat at a loss to know whether the differences in their statements are more apparent than real, or whether some of the otherwise careful writers have erred, or whether the differences are due to variations in the laws of the states. The writers themselves give us no help in

explaining the differences. They cite many cases purporting to be in support of their statements. A peculiar thing about these citations is that some are quoted by both sides. Therefore, in order to arrive at a more definite conclusion, it will be necessary to go back to the original source of information, that is, to statutes and court decisions.

The writers stating that impaired capital need not be restored before declaring dividends cites many English cases and only a very few American cases since English cases are often quoted by American legal writers, and not infrequently by American courts, it is necessary that the accountant get something of the English viewpoint. It is not always safe to rely upon the published digests of cases, because often the digest removes the decision from its setting in the background of circumstances, a fact which gives a twist to the decision that never was intended by the court. Therefore, one must go directly to the reports of the cases and read them in their entirety to avoid false conclusions as to their significance.

The First English Case

The first English case of a long line of cases on our subject was that of *Dent v. Tramways*, in 1880. But, before one can grasp the real significance of this case, it is necessary to go back one year to the case of *Davison v. Gillies*, Davison, on behalf of the ordinary stockholders, sued the directors of the London tramways to prevent them from paying out in the form of dividends the capital of the company. The articles of incorporation provided that a reserve for depreciation should be set up each year before the amount available for dividends could be found. For eight years no such reserve had been created. The court held that the directors should not declare dividends on the ordinary shares until the impairment of the capital by depreciation or otherwise has been made good. It is in this case that Jessel, M. R., delivered his famous opinion on depreciation as an expense which is so widely quoted by accounting and auditing texts.

The next year, in *Dent v. Tramways*, the same judge in the same court, when a holder of preference shares was suing the same company, held that the directors must declare a dividend to holders of preference shares in spite of the fact that the impairment of the capital through depreciation of the past years had not been made good. The court attempted to explain away the apparent inconsistency of its decisions in these two cases. In *Davison v. Gillies*

*From "The Journal of Accountancy."

it held that the ordinary shareholders, who had the voting power, could have no dividends until a reserve for depreciation which they had failed to take care of in past years was brought up to date. In *Dent v. Tramways* it followed the line of thought that since the preference shareholders did not have any control, they should not suffer for the past sins of the ordinary shareholders, because if the reserve had been properly set up each year in the past, not so much would have to be set up now, which would have left sufficient profits for a dividend on preferred shares. Therefore it ruled that preference shareholders might have their dividend if the profit-and-loss account of the current year showed sufficient profits after one year's depreciation was deducted.

Way Opened for Long Line of Decisions

Whether or not these two rulings can be reconciled is not important. We are concerned with the fact that the decision giving the holders of preference shares a dividend before restoring impaired capital opened up the way for a long line of English decisions allowing dividends to both ordinary and preference shareholders before restoring capital impaired in prior periods. These decisions were rendered in 1879 and 1880. Since then down to the *Ammonia Soda Company v. Chamberlain* (1 Ch. 266) in 1918, which is, as far as could be ascertained, the latest English case on the subject, the English courts have held almost without exception to the opinion that the profit-and-loss account for the current year shows whether or not a dividend can be declared. If there is no profit for the year, no attention need be paid to losses of capital of a prior period, nor to losses of fixed capital of the present period.

These courts have all held that when there are no operating profits there can be no dividends, and that dividends must not be declared from capital. They believe that when fixed capital has been lost and that when dividends are then paid they are not paid from capital. How can one pay from that which was lost? They make a distinction between a loss of fixed capital and of circulating capital. They are unanimously agreed that the circulating capital of the current period must be recovered before profits exist, but that fixed capital need not be so maintained.

Peterson, J., in *Ammonia Soda Company v. Chamberlain* states this point of view clearly: "If during the year there is no balance to the credit of the profit-and-loss account, any dividend which is paid must be provided out of the paid-up capital and any such payment must reduce the paid-up capital. Such payment is clearly a reduction of paid-up capital and is ultra vires. But where a company has made losses in past years and then made a profit out of which it pays a dividend the question is a different one. Such a dividend is not paid out of paid-up capital. . . . Such a payment does not involve the reduction of capital; it involves a failure to make good capital which has already been lost." The case was appealed and among the decisions of the different lords justice of the appeal court, appears the following statement of Scrutton, L. J.: "What was lost? It was not profits, because there were no profits to lose. It could be nothing else than capital that was lost, and when you have lost a thing you cannot use it for anything else, because you have lost it. You cannot pay dividends out of a thing which you have lost, because it is not there to pay dividends out of."

An Interesting Point

The obiter dicta in a number of cases are interesting to us on this point. One case in which this question was discussed by the justices in the appeal court, although the case was decided upon an entirely different point, was the famous case of *Lee v. Neuchatel Asphalt Company* (41 Ch. D. 1), in 1889. Lindley, L. J., says: "Suppose a company is formed to start a daily newspaper, supposing it sinks 250,000 pounds sterling before the receipts from sales and advertising equal expenses, and supposing it then goes on, is it to be said that the company must come to a stop, or that it cannot divide profits until it has replaced its 250,000 pounds sterling which have been sunk in building up a property which, if put up for sale, would perhaps yield 10,000 pounds sterling. That is a business

matter left to business men. If they think their prospects of success are considerable, so long as they pay their creditors, there is no reason why they should not go on and divide profits, so far as I can see, although every shilling of the capital may be lost." He naively adds that he hopes he is not saying anything which will lead anyone to be dishonest.

These few cases out of many give a sufficiently clear idea of the English viewpoint on the subject of dividends as it exists in all the courts below the house of lords. The house of lords has never been called upon for a decision, but it is probable that when a case involving this question does reach it, its opinion will not be contrary to a line of decisions of the lower courts extending over a period of nearly forty years. So it seems that we are justified in accepting this as the English law.

No Clear-Cut Decisions in America

When we come to study the American viewpoint we have no such clear-cut line of court decisions, which makes it difficult to ascertain what the law is. The first difficulty is that there are nearly as many statutes in regard to dividends as there are states. In a number of the states the statutes are silent on the subject of dividends. In a few, they declare only that capital shall not be reduced except by due process of law. In others, the statutes declare that no dividends shall be paid except from profits; others say, from surplus profits; others say that dividends may not be paid when the company is insolvent or when payment would render it insolvent; still others assert that there shall be no dividend when insolvent or when payment would render it insolvent or would diminish the capital; and at least one declares no dividend shall be paid except from surplus arising from the business. A number of states prohibit unlawful dividends without fixing any penalty; others make the directors voting for an illegal dividend liable to creditors who were creditors at the time of payment or became creditors any time after payment.

A second difficulty is that the courts of one state are not bound to follow precedents established by courts of another state even when the points involved are concerned with common law or equity. Of course, courts of one state cannot follow courts of another when the point in question is a point of statute law if the statutes differ.

The third difficulty is that many court decisions are not clearly stated. The terms profits, surplus profits, liabilities, capital, capital stock, and many other terms are very loosely used, and some of their definitions are absurd, to state it mildly. The following quotations are selected at random and are probably representative of the poorer definitions. "The term profits, out of which dividends can properly be declared, denotes what remains after defraying every expense, including loans falling due, as well as interest on such loans." This definition is widely quoted by American courts and, as far as could be ascertained, had its origin in England in (*Correy v. Londonderry* 29 Beav. 263). But of all the absurd definitions, this definition perpetrated by an English judge wins first place. He said that the proper way to determine profits available for dividends was to find the excess of receipts over expenditures in the cash account. The American courts have not gone quite to that extreme. The following definition of profits is found in the decisions of at least three American courts, one of which is the Supreme Court of the United States: "Net earnings are what is left after paying current expenses and interest on debt and everything else which stockholders, preferred and common, as a body corporate, are liable to pay." The expression "everything else" is quite comprehensive. Is it intended by the courts using the definition that accounts payable, bonds payable, and so forth, shall be paid before dividends can be declared? No one knows.

What the American Law Is

However, in spite of all the difficulties, it was possible to determine fairly accurately what the American law is as established

by court decisions. In the United States, as in England, the general understanding is that dividends shall be paid only from profits and never from capital. But the question in which we are interested is the question of whether the profit-and-loss account of each year alone is to be taken as the test, or whether the balance of profit-and-loss of one year, especially a debit balance, shall be carried over to the next year and be a factor in determining profits available for dividends for that year. In other words, to what shall we look in finding the amount available for dividends—the balance-sheet or the profit-and-loss account?

As far as it was possible to ascertain after a thorough search, there is but one court decision on the books of the United States which comes out with a definite statement that dividends may be paid when capital is known to be impaired. The decision was rendered in Iowa in 1886 in the case of *Müller v. Pradish* (69 Iowa 278). In this case a creditor was trying to follow dividends into the hands of a stockholder of an insolvent company. A dividend 10 per cent had been paid three years before at a time when the liabilities exceeded the assets by about \$6,000. The plaintiff contended that such a payment was fraudulent by the definition in section 1072 of the Iowa statute which reads as follows: "The diversion of the funds of the corporation to other objects than those mentioned in their articles, and in the notices published, as aforesaid, if any person is thereby injured, and the payment of dividends leaves insufficient funds to meet the liabilities of the corporation, shall be deemed such frauds as will subject those concerned to the penalties of the preceding section; and such dividends, or their equivalent, in the hands of the individual stockholders, shall be subject to such liabilities." The judge held that the word liabilities in this section did not include the capital stock and that the "assets, resources and funds of the corporation must consist of cash and other property," and if such assets exceed the liabilities, a dividend may be declared. He also stated it was no concern of the creditors that the capital was impaired when the dividend was paid as the company was not insolvent.

A California Case

The case of *Excelsior Water and Mining Company v. Pierce*, decided in the supreme court of California in 1891 (27 P. 44), is quoted by several authors on corporation law, and by *Corpus Juris* as being "contrary to the general rule that dividends can be paid only from profits." One would get the same impression from the published digests and even from a hurried reading of the case itself. But a careful reading does not bear out their statement that it is contrary to what they call the general rule. The Excelsior Water and Mining Company had purchased some mining property for which it had gone into debt. This property was conservatively valued upon the books. The Company had dug a tunnel and made other improvements which had been capitalized at a conservative figure. It also operated other mining property and had earned profits and had declared dividends while making these improvements. After it had begun operations of hydraulic mining on the new property, the land owners down the river stopped operations by a permanent injunction because the silt from the mining operations washed over their land and damaged it. The injunction rendered improvements, costing hundreds of thousands of dollars, valueless, a condition which could not have been foreseen. The plaintiff, suing in the name of the corporation, contended that the directors should not have paid any dividends in the past until payment had been made for the improvements, now rendered valueless by the injunction. He demanded that the directors replace the money paid out in dividends. The court held: "When the expenditure was made they (the improvements) were no doubt considered judicious, and, if the event has proved the contrary, the result must be treated as a loss of capital, and the expenditures must not be converted *ex post facto* into current working capital."

It is difficult to see how this case could be construed to mean that a loss of capital need not be restored before paying dividends.

What it does mean is that if a dividend be paid from the excess of the assets at a fair valuation at the time of declaration, over the amount of liabilities and capital, no subsequent unforeseen decrease in value will convert the past dividend into an illegal dividend, that is, a dividend out of capital. This is in no way contrary to the general rule.

Cases in Other States

In Connecticut, it was held that dividends upon preferred stock might be declared where net earnings had been made since the issue of the preferred stock though prior to such issue the capital stock had been impaired and had not been restored. (*Cotting v. N. Y., etc., Ry.*, 54 Conn. 156). The idea was that so far as the holders of the new stock were concerned the capital of the corporation consisted of the impaired capital plus the amount paid in by them. The creditors would in no way be injured by the dividend as the capital contributed by the preference shareholders increased the capital over what it would have been unimpaired without the preference share.

In New Jersey, the court of errors and appeals in the case of *Goodnow v. American Writing Paper Company* (69 Atl. 1015), in 1908, held that the directors could declare dividends before removing the water from the corporation's capitalization. This could hardly be construed as permitting dividends while capital was impaired but it is sometimes quoted as doing so. It does mean that the amount actually paid in is the real capital to be considered when determining surplus for dividends.

In Delaware, the court of chancery in *Peters v. United States Mortgage Company*, in 1921, held that dividends might be declared although only \$1,700,000 was realized on its issue of \$3,000,000 par-value capital stock. The court held that the remaining \$1,300,000 need not be made up before paying dividends as the amount actually received for the stock was the capital.

In Georgia, a court held that "a corporation which is insolvent may, from its actual legitimate earnings on its investment for a particular and definite period, pay a dividend, and an insolvent corporation may, for a particular period, have legitimate earnings." This seems to be patterned after the English view in that it is looking only to the profit-and-loss account of the current period. The case was appealed and was reversed by the higher court. (*Mangham et al. v. State*, 75 SE 508). The justice of the court of appeals said of the lower court's opinion: "We think it is not sound. . . . We think it absolutely a condition precedent to the declaration and distribution of dividends, that there must be a surplus previously accumulated or made during the current year." The court of appeals put the test as to whether or not dividends are proper back to the balance-sheet.

In Indiana the appellate court, in 1913, in *Fricke v. Augemer*, said: "A dividend cannot rightly be declared until there is a showing that a profit had been really earned for the year when such dividend was declared." This also seems to look only to the profit-and-loss account for dividends. It can hardly be taken seriously, however, because Indiana corporations undoubtedly declare dividends without hindrance, from surplus earned in prior years even though no profits were earned in the current year.

Cases That Inclined to English View

No pretense is made that every case bearing on the subject was read, but a thorough search was made particularly for those cases that might be inclined toward the English view. The cases just quoted were chosen for presentation because they are representative of those cited by the writers who say that dividends may be paid while capital is impaired. In fact they are the cases most favorable to that side of the question. Except *Müller v. Bradish*, not one is so clear and to the point that it may be said to be in accord with the English view; on the other hand some are so clear and definite when read in the light of all the circumstances surrounding them that one can only conclude that they are not in accord with the English view.

Of course it is understood that a corporation formed to work a wasting property, a patent, or a lease for a term of years, need pay no attention to depletion and that in such cases dividends will be paid partly from profits and partly from capital.

The weight of authority as expressed in American decisions seems to indicate that when the balance-sheet shows a surplus a dividend may be declared and that when it does not show a surplus a dividend cannot be declared. The weight of authority also seems to indicate that the surplus of the balance-sheet means the figure which represents the excess value of the assets on the date of the dividend, over the amount of the liabilities plus the capital; and that capital here means the amount actually received for the stock issued whether at par or at less than par.

A Few Important Cases

A very brief statement of a few important cases holding to the view that the balance-sheet is the test as to whether dividends are legal or illegal may be of interest.

In Georgia the statutes declare that dividends shall be declared only from "actual legitimate net earnings of its investments." The court of appeals says of this in *Mangham v. State*: "This prohibition of the statute is but the declaration of the general rule that dividends can be declared and paid only out of profits or surplus earnings of the company. What is meant by the term *net earnings*? This term is simply a synonym for the profits of the business, and popularly speaking, the net receipts of a business are its profits, and the surplus over and above the debts constitute profits." This decision is quoted because the corporation laws of that state say nothing about dividends being declared only from surplus; yet the court held that even in the absence of such statutory provisions, the balance-sheet surplus is the source of dividends.

In another decision in the same state, the court held that no declaration of dividends is lawful in a condition of insolvency or impairment of capital; for any profits that may be made must first be applied to the payment of the debts of the corporation and to the restoration of the capital stock. (*Cabaniss v. State*, 68 SE 849).

In Missouri the statutes do not mention surplus as being the source from which dividends may be paid. But its supreme court holds that that is the law. In *Shield v. Hobart* (72 SW 273), Gantt, J., said: ". . . it is a fundamental rule that dividends can be paid only out of profits or the net increase of the capital of a corporation, and cannot be drawn upon the capital contributed by the shareholders for the purpose of carrying on the company's business." It is assumed that the phrase "or the net increase of the capital" is explanatory of "profits."

Balance Sheet the Test

There is some evidence that the supreme court of Washington believes the balance-sheet to be the test whether or not there is anything available for dividends, although the statutes do not mention surplus in conjunction with dividends. The court said in *Northern Bank & Trust Company v. Day* (145 P. 182): "But we have another rule that, while stockholders act honestly and in good faith in placing a value upon the assets of a corporation for the purpose of paying subscriptions to capital stock or in declaring dividends, no creditor can successfully complain unless he can show fraud of some character."

The Wisconsin statutes say: ". . . the total amount of such dividend shall not exceed the actual cash value of the assets owned by the corporation in excess of its total liabilities including its capital stock." Justice Marshall of the Supreme Court of Wisconsin said of this statute: "This is but a statutory declaration of what has become unwritten law by uniform trend of decisions." (*Soehnlein v. Soehnlein*.)

Since California, Connecticut, Delaware, Montana, Nevada, New York, New Mexico, North Carolina, North Dakota, New Jersey, Ohio, Oklahoma, and South Dakota have statutes that declare that dividends may be paid only from surplus profits, no cases have been

reported from their courts. There are many which could be quoted; and all of them, because of their statutes if for no other reason, hold that dividends can be declared only when assets exceed the liabilities and the capital.

Vermont has expressed in her statutes what seems to be the American view as contrasted to the English view. "A dividend is paid out of capital if, and so far as, the value of the assets of the corporation remaining after such dividend is paid, are not equal to the amount of its liabilities, including par value of outstanding stock as a liability." Certainly in Vermont the English view is not prevalent. The Vermont statute, however, goes farther than most statutes or courts when it says "including par value of outstanding stock as a liability." Except in those states requiring capital stock to be subscribed for and paid for at par before beginning business, this rule is modified by the courts so that capital means that which was contributed as a fund to be used by the corporation in the conduct of its business, whether at par or less than par. That is, they mean real capital as distinguished from nominal capital. Several cases have already been quoted bearing on this phase of the subject.

In *Merchants' and Insurers' Reporting Company v. Youtz et al.* in the district court of appeals of California, the court held that, "the entire proceeds of sales by a corporation of its own stock, even when sold for more than par value, are part of its capital stock, and cannot therefore be profits earned through the conduct of its business out of which dividends can be paid." Because of the California statute this case goes a little farther than seems to be the general rule. Other courts not bound by such a statute have held that such premiums may be distributed as profits especially if the premium was received on a later issue of stock.

Another important question which arises at this point is: "Do retained profits become capital to be added to liabilities and the sum deducted from assets before finding the amount available for dividends?" A few courts have so held if the surplus be permanently invested in the business. Two of the leading cases in which this view was held was decided by the same judge in a Massachusetts court. The great majority of American courts, however, do not hold that view. They do hold that surplus does not become capital until made capital through the declaration of stock dividends. One of the latest cases in which the court expresses its opinion on this point is that of *Dodge v. Ford* in 1919 (170 NW 668). The court said: "Profits and undeclared dividends used by a corporation in its business are not capital stock within the meaning of the law."

In *Williams v. Western Union Telegraph Company* (93 NY 162), Earl, J., gave his opinion as follows: "The capital stock in this section does not mean share-stock, but is the property of the corporation contributed by its shareholders or otherwise obtained by it, to the extent required by its charter." In this same decision he also says: "By loss or misfortune or misconduct of the managing officers of a corporation, its capital stock may be reduced below the amount limited by its charter, but whatever property it has up to that limit must be regarded as its special stock." This is a clear statement that dividends paid while capital is impaired would be considered as being paid from capital. It is also additional proof that the courts look to the balance-sheet for the amount available for dividends.

Trust Fund Theory

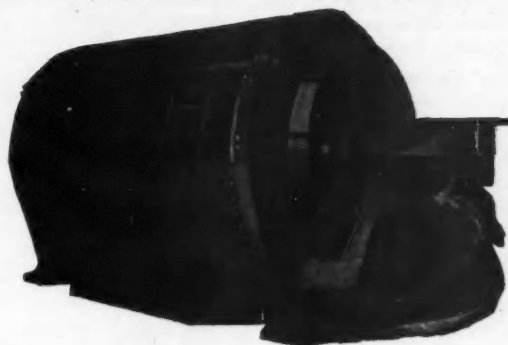
There is a long list of decisions of the courts in the United States holding to what has been called the trust-fund theory. This theory is that the corporation holds its capital as a trust fund for the benefit of the creditors and that no part of the capital can be returned to the stockholders until the corporation is being dissolved, and not even then until all creditors have been paid. It can easily be inferred that this means that if dividends be paid while capital is impaired, such dividends are paid from capital. While it is true that some of the recent decisions, and a few not so recent, object to this theory on the ground that the capital is not a trust fund until

(Continued on page 62)

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PRODUCTION OF GROUND WOOD DURING THE MONTH OF MAY

According to Statistics Just Issued by the Federal Trade Commission the Stocks on Hand of Ground Wood at the End of the Month Equalled Twenty-seven Days' Average Output, of News Grade Sulphite Eight Days' Average Output, of Bleached Sulphite Ten Days' Average Output, and of Easy Bleaching Sulphite Four Days' Average Output—Stocks on Hand of Other Varieties.

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., July 3, 1923.—In connection with the Federal Trade Commission's current statistics of the paper industry, a summary of the monthly reports from manufacturers of wood pulp and other kinds of pulp used in paper making is submitted herewith for the month of May, 1923. The table shows the kind of pulp, the stocks, production, pulp used and shipments for the month. The pulp shipped during each month represents only pulp shipped to a concern different from the one producing it.

Pulp Production

With the issuance of the reports regarding the paper industry and trade for the month of May, 1923, the Commission has announced that it will discontinue the collection, compilation and publication of these periodic paper reports. The following is a tabulation of the production, pulp used by the company producing it, shipments to outside concerns, and stocks of finished pulp in tons of 2,000 pounds on an air-dry basis, for May, 1923, compared with May, 1922 to 1919, inclusive, for the operating mills. The average production is based upon the reports covering the years 1919 to 1922, inclusive, and the average stocks on hand at the end of the month are for the 48 months of 1919 to 1922, inclusive.

	Number of Mills	On hand first of month Net tons	Production for month Net tons	Used during month Net tons	Shipped during month Net tons	On hand end of month Net tons
Ground Wood Pulp:						
May, 1923.....	148	86,924	187,908	142,475	6,123	126,234
May, 1922.....	158	159,712	167,197	134,702	9,340	182,867
May, 1921.....	163	217,308	97,963	80,750	8,432	226,089
May, 1920.....	168	126,693	172,341	132,665	13,396	152,975
May, 1919.....	162	175,026	144,146	118,129	8,692	192,351
Average.....			122,746			144,471
Sulphite, News Grade:						
May, 1923.....	55	16,673	68,690	59,469	6,820	19,074
May, 1922.....	62	22,976	61,654	55,347	8,679	20,604
May, 1921.....	65	23,345	42,167	36,541	6,721	22,250
May, 1920.....	64	18,348	71,422	62,507	10,610	15,553
May, 1919.....	62	28,346	52,740	47,491	7,162	26,433
Average.....			61,828			20,839
Sulphite, Bleached:						
May, 1923.....	23	16,921	41,800	27,655	14,551	16,515
May, 1922.....	32	9,400	38,244	25,450	12,438	9,756
May, 1921.....	33	13,707	27,793	17,198	7,688	16,614
May, 1920.....	32	4,754	50,010	26,652	23,816	4,296
May, 1919.....	31	16,320	39,994	21,538	18,324	16,452
Average.....			41,028			9,591
Sulphite, Easy Bleaching:						
May, 1923.....	6	974	3,979	3,967	166	820
May, 1922.....	10	1,053	5,066	3,420	1,013	1,686
May, 1921.....	10	776	8,170	3,838	3,814	1,294
May, 1920.....	7	574	6,895	3,615	2,997	858
May, 1919.....	8	2,930	6,421	3,518	2,914	2,919
Average.....			5,538			1,318
Sulphite, Mitscherlich:						
May, 1923.....	7	1,363	7,613	6,826	709	1,441
May, 1922.....	7	2,748	5,901	3,455	3,019	2,175
May, 1921.....	7	2,277	4,883	3,991	1,072	2,097
May, 1920.....	7	1,786	5,338	4,086	1,233	1,805
May, 1919.....	7	2,450	6,363	3,886	2,649	2,278
Average.....			6,292			1,854
Sulphate Pulp:						
May, 1923.....	20	5,348	26,701	17,719	8,004	6,326
May, 1922.....	22	7,394	21,913	16,112	5,931	7,264
May, 1921.....	20	7,140	12,856	9,432	3,287	7,277
May, 1920.....	21	4,368	18,799	11,262	7,769	4,136
May, 1919.....	22	7,091	12,848	8,943	2,509	8,487
Average.....			16,536			6,706

	Number of Mills	On hand first of month Net tons	Production for month Net tons	Used during month Net tons	Shipped during month Net tons	On hand end of month Net tons
Soda Pulp:						
May, 1923.....	25	5,456	33,514	20,303	10,914	4,753
May, 1922.....	28	9,467	31,061	18,878	13,650	8,000
May, 1921.....	27	9,545	21,730	13,104	7,781	10,390
May, 1920.....	27	3,898	38,243	20,124	17,871	4,146
May, 1919.....	28	9,620	30,539	17,826	13,300	9,033
Average.....			31,122			7,327
Other than Wood Pulp:						
May, 1923.....	5	156	1,294	1,054	96	309
May, 1922.....	5	146	658	622	81	101
May, 1921.....	5	194	539	470	58	203
May, 1920.....	5	194	766	756	95	109
May, 1919.....	7	65	1,016	941	42	98
Average.....			789			194
Total—for all grades:						
May, 1923.....		133,815	371,499	279,468	50,383	175,463
May, 1922.....		212,896	331,694	257,986	54,151	232,453
May, 1921.....		274,292	216,101	165,324	38,853	286,216
May, 1920.....		160,515	363,815	262,667	77,787	183,876
May, 1919.....		241,848	294,067	222,272	55,592	258,051
Average.....			285,870			192,300

Total stocks of all grades of pulp in the mills on May 31, amounted to 175,463 tons. Mill stocks of bleached, easy bleached, and soda pulp decreased during the months, all other grades increased.

Ratio of Stocks to Average Production

Comparing the stocks on hand at the domestic pulp mills at the end of the month with their average daily production based on the reports covering the years 1919-1922, inclusive, the figures show that:

Ground wood pulp stocks equal 27 days' average output.

News grade sulphite mill stocks equal 8 days' average output.

Bleached sulphite mill stocks equal 10 days' average output.

Easy bleaching sulphite mill stocks equal 4 days' average output.

Mitscherlich sulphite mill stocks equal 6 days' average output.

PAYMENT OF DIVIDENDS

(Continued from page 60)

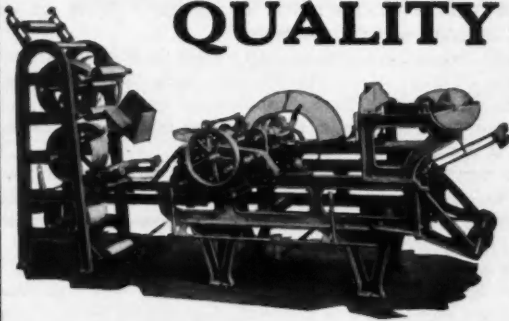
the corporation is insolvent and its affairs are put into the hands of the court of administration, yet a majority of decisions still holds to the theory in part. It has been modified so that a dividend innocently declared out of the capital of a solvent corporation and received by the stockholder, because of a mistake as to the condition of the corporation, cannot be followed into the hands of a stockholder by a creditor.

The theory was invented by Chief Justice Story in *Wood v. Drummer*. A careful reading of this case in all its background of circumstances would lead one to believe that some of the courts have misinterpreted his meaning and have given it an application beyond that which is intended. He evidently does not say that capital is a trust fund, but that it is very much like a trust fund—which is really an important distinction. Its true interpretation according to an increasing number of decisions seems to amount to this: Since a corporation has limited liability the creditors can look only to its capital as security for their claims. When they grant credit to it, they, of course, know the capital may be lost through misfortune or mismanagement, a risk which they may be willing to assume; but they have the right to be secured against having that risk increased by a return of capital to the stockholder, and the right to have the capital restored from profits.

There is still a door, apparently wide open in most of the states, through which a corporation may return its capital to its stockholders by means of the purchase of its own stock, but the discussion of this has no place in this paper.

In making this investigation of the law of dividends, the truth was sought without attempting to prove one side right and the other wrong. It is, however, with a feeling of satisfaction that we find the prevailing American view to be the one which every accountant must believe to be the correct one—that capital even though impaired in a prior period must be restored before dividends may be declared.

QUALITY *plus* PRODUCTION



MR. BAG MANUFACTURER: For quality and production every machine is guaranteed, so you take no risk. The Superintendent of a large bag plant, unsolicited, writes: "All the machines used by this Company have been furnished by you. During my fifteen years in the bag line I have used your machines, and consider them the best square and flat bag machines on the market. I see no reason why the bag manufacturers should not be satisfied with your machines. The design of the Fischer machines and workmanship are A No. 1." Let us quote you on your requirements of flat and square, as well as satchel bottom, machines for making 1/16, 1/8 and 1/4 barrel sizes.

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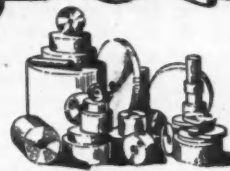
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All kinds and styles of Felts for all kinds and styles of Papers.

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| CLOCK ROLLS, | TELAUTOGRAPH, |
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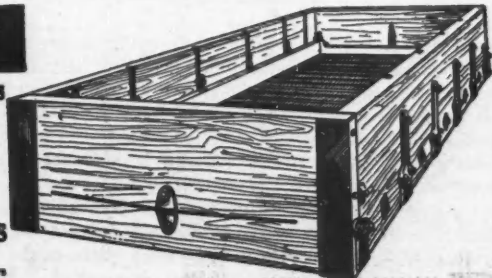
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THE ORIGINAL
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THE BEST
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New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
TUESDAY, July 3, 1923.

The news that the Canadian parliament has passed a resolution permitting an embargo on pulpwood in case the council decides to enforce was probably the most talked of subject in the market during the week. Just what the direct influence is going to be is difficult to say at this time, but there is no doubt in the minds of manufacturers that it is going to have a very definite bearing on prices in the near future.

Even the distant prospect of cutting off 1,000,000 cords of pulpwood from the United States in a year is enough to frighten many mills, who depend in a large part upon this supply for their raw material, into stocking up against a shortage. Some predict that this movement will begin as soon as the members of the industry come to the full realization of the situation.

"If the embargo is actually put into effect it will mean that many mills in this country will have to close down," was the terse way in which the president of probably the largest company producing paper in the United States summed up the situation. He seemed to have no doubt at all that the thing would have a definite and almost immediate bearing on the market situation.

Many manufacturers expressed bitter sentiment towards our Canadian neighbors when they first heard of the resolution. Others pointed to the fact that the clause in it allowing Canadian farmers to continue their export of pulpwood would leave a big hole in the effect of the legislation.

Whatever the ultimate outcome of the thing is going to be the domestic manufacturers, who look at the problem far sightedly and without rancor, will begin to dig in so that they will be able to meet any emergency that may rise. This means that buying on the open market, which was already beginning to become brisker owing to labor difficulties in Norway, will receive a considerable stimulus in all grades of pulp.

Mechanical pulp will, naturally, be the first to feel the pressure, but the movement will be communicated to the chemical pulps also. Summer is the normal time for dullness and if the market receives abnormal impetus at this time it will undoubtedly be affected adversely later.

Meanwhile things are remaining much the same in the market and dealers together with the buyers are waiting to see what is going to happen. For the present week at any rate buying has not been particularly heavy and seasonal lassitude hangs on although there is a general feeling that the unusual conditions this summer are going to banish it within a short time. Any sharp movement is bound to have far reaching affect in a quiet time just as dropping a stone in quiet waters creates much more disturbance than in a fast running stream.

In the fine paper market things remained constant. Prices were the same and trading in the open market was spotty and in small lots. The mills are still fairly busy with back contracts but they are getting ready for the usual period of a week or two shut down with the consequent overhauling of equipment and preparation for the fall and business production which is expected to be unusually good.

Book paper is in the same shape as fine. Buyers are not evincing any tremendous interest, but on the other hand they are showing more inclination to come into the market than they have since the boom summer several years ago. Prices were steady with no prospect of any immediate change.

News print in rolls is still enjoying the good demand that it has although in some quarters it is reported to be not quite so good as it was a week ago. Other varieties of news print are showing very distinct signs of yielding to the midsummer dullness and it is altogether possible that they may be in for a slight period of dullness. Prophecies are liable to go astray, however, in a market in which several uncertainties have been suddenly ejected in the past

two or three weeks. Dealers say they would not be surprised at a sudden break in either direction at any time. Prices are still firm and the same as they have been.

Although tissues have been in fairly good condition considering the season of the year during the past week they have shown symptoms of lassitude. There was little softening in the quotations except in isolated cases where a distressed lot was seeking a buyer at a sacrifice.

Coarse papers are not in the good demand they were but they are not expected to be. Dealers are optimistic and believe that since they were the first to suffer from the arrival of summer that they will return from their vacation first.

Dealers and manufacturers report board as a little slower this week, but say they expect a better demand. It has been confidently predicted that there will be a stiffening of quotations by next week in several of the most important grades.

Mechanical Pulp

Ground wood was in better demand during the week. There were several causes for this and not the least of these was the threatening of low water and the consequent buying for future use. The price is not showing any tendency to soar on the open market, however, in spite of the improvement.

Chemical Pulp

Chemical pulp also showed signs of picking up and everything indicated an increasing rather than a diminishing demand. Difficulties in Scandinavia are bringing more and more takers into the domestic market and the impetus given through this is carrying dealers along from week to week through the summer. Some are hopeful enough to prophesy that the demand will continue to increase throughout the summer.

Old Rope and Bagging

Old rope and bagging were reported as moving more rapidly. The motion was well nigh imperceptible, but prominent dealers claim that it is there and they are consequently more cheerful. Prices have a firmer trend although they are remaining at about the same level.

Rags

Domestic and imported rags are still in poor demand and paper men are not showing much interest although quotations remained the same. The dealers' attitude recalls that of Bluebeard's wife's sister watching from the housetop for their brothers. "Do you see anyone coming?" is probably one of the most frequent questions asked these days in that market. Someone will come, there is no doubt of that, but at the present time there is not even a cloud of dust on the horizon. Meanwhile the rags are piling up in the warehouses.

Waste Paper

Although the green bay tree has considerable on the waste paper market when it comes to flourishing, dealers reported that they have had a fairly good week. There was nothing to change prices and so they remain substantially the same.

Twine

Twine is still away on vacation, but is expected to be back again soon. Quotations seem to be firm and the demand is far from startling but good enough to keep things going for the dealers.

Tissue Mills Sold

HINSDALE, N. H., July 2, 1923.—The tissue mills operated by Robertson Bros., E. C. Robertson & Son and W. F. Robertson & Co. have been purchased by The Robertson Company of Hinsdale, N. H.

The Robertson Company will operate these companies as divisions of the parent company under the same management as in the past, with E. C. Robertson as president and W. F. Robertson as treasurer and general manager. Each division will handle its own business as formerly.

Market Quotations

PAPER COMPANY SECURITIES

New York Stock Exchange closing quotations July 3, 1923.

Table with columns: Company Name, BID, ASKED. Includes American Writing Paper Company, International Paper Company, etc.

Paper

Table listing Paper (F. o. b. Mill) with prices for Ledgers, Bonds, etc.

Writings

Table listing Writings: Extra Superfine, Superfine, Tub Sized, Engine Sized.

News-f. o. b. Mill

Table listing News-f. o. b. Mill: Rolls, contract, Rolls, transit, Sheets, etc.

Book, Cased-f. o. b. Mill

Table listing Book, Cased-f. o. b. Mill: S. & S. C., M. F., Coated and Enamel, Lithograph.

Tissues-f. o. b. Mill

Table listing Tissues-f. o. b. Mill: White No. 1, White No. 2, Colored, Anti-Tarnish, Kraft, Manila.

Kraft-f. o. b. Mill

Table listing Kraft-f. o. b. Mill: No. 1 Domestic, No. 2 Domestic, Imported, Screenings.

Manila

Table listing Manila: No. 1 Jute, No. 2 Jute, No. 1 Wood, No. 2 Wood, Butchers.

Fibre Papers

Table listing Fibre Papers: No. 1 Fibre, No. 2 Fibre, Common Bogus, Card Middies.

Boards-per ton

Table listing Boards-per ton: News, Straw, Chip, Binders' Boards, Sgl. M.L.I. Chip, Wood Pulp, Container.

Wax Paper

Table listing Wax Paper: Self Sealing White, Waxed Tissue.

Glassine

Table listing Glassine: Bleached, basis 25 lbs., Bleached, basis 20 lbs.

Papermakers' Felts

Table listing Papermakers' Felts: Dry, Saturated, Sheathing Paper, Rosin Sized.

Mechanical Pulp

Table listing Mechanical Pulp: (Ex-Dock), No. 1 Imported, No. 1 Domestic.

Chemical Pulp

Table listing Chemical Pulp: (Ex-Dock, Atlantic Ports.), Sulphite (Imported), Bleached, Easy Bleaching.

Table listing Chemical Pulp: No. 1 strong unbleached, No. 2 Strong unbleached, No. 1 Kraft.

Table listing Chemical Pulp: Sulphate, Bleached, (F. o. b. Pulp Mill.), Sulphite (Domestic), Bleached, Strong unbleached.

Easy Bleaching

Table listing Easy Bleaching: Sulphite, News Sulphite, Mitscherlich, Kraft (Domestic), Soda Bleached.

Domestic Rags

Table listing Domestic Rags: Prices to Mill, f. o. b. N. Y., Shirt Cuttings, New White, New White, No. 2, Silesias, No. 1, New Unbleached, Washables, Fancy.

Table listing Domestic Rags: Cotton-according to Grades, Blue Overall, New Blue, New Black Soft, New Light Secunda, O. D. Khaki Cuttings, Men's Corduray, New Canvas, New Black Mixed, Old.

Table listing Domestic Rags: White, No. 1, Repacked, Miscellaneous, White, No. 2, Repacked, Miscellaneous, St. Soiled, White 190, Thirds and Blues, Repacked, Miscellaneous, Black Stockings.

Table listing Domestic Rags: Roofing Rags, Cloth Strippings, No. 1, No. 2, No. 3, No. 4, No. 5A.

Foreign Rags

Table listing Foreign Rags: New Light Silesias, Light Flannelettes, Unbleached Cottons, New White Cuttings, New Light Oxfords, New Light Prints, New Mixed Cuttings, New Dark Cuttings, No. 1 White Linens, No. 2 White Linens, No. 3 White Linens, No. 4 White Linens, Old Extra Light Prints, Ord. Light Prints, Med. Light Prints, Dutch Blue Cotton, German Blue Cottons, Ger. Blue Linens, Checks and Blues, Dark Cottons, Shoppery, French Blues.

Bagging

Table listing Bagging: Prices to Mill F. o. b. N. Y., Gunny No. 1, Foreign, Domestic, Wool, Tares, heavy, Bright Bagging, Sound Bagging, Manila Rope, Foreign, Domestic, New Bu. Cut, Hessian Jute Threads, Foreign, Domestic, Mixed Strings.

Twines

Table listing Twines: Cotton-(F. o. b. Mill), No. 1, No. 2, No. 3, India, No. 6 basis, Light, Dark, B. C. 18 basis, A. B. Italian, 18 Basis, Finished Jute, Dark, 18 basis, Light, 18 basis, Jute Wrapping, 3-6 Ply, No. 1, No. 2, Tube Rope, 4-ply and larger, Fine Tube Yarn, 5-ply and larger, 4-ply, 3-ply, Unfinished India, Basis, Paper Makers Twine, Balls, Box Twine, 2-3 ply, Jute Rope, Amer. Hemp, 6, Signal Hay Rope, No. 1 Basis, No. 2 Basis.

Table listing Signal Lath Yarn: No. 1, No. 2, Manila Rope.

Old Waste Papers

Table listing Old Waste Papers: (F. o. b. New York), Shavings, Hard, White, No. 1, Hard, White, No. 2, Soft, White, No. 1, Flat Stock, Stitchless, Over Issue Mag., Solid Flat Book, Crumpled No. 1, Solid Book Ledger, Ledger Stock, New B. B. Chips, Manila, New Env. Cut, New Cut No. 1, Extra No. 1 old, Print, Container Board, Bogus Wrapper, Old Krafts, machine compressed Bales.

Table listing Old Waste Papers: No. 1 White News, Strictly overissue, Strictly Folded, No. 1 Mixed Paper, Common paper.

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Table listing Paper (F. o. b. Mill): All Rag Bond, No. 1 Rag Bond, No. 2 Rag Bond, Water Marked Sulphite Bond, Sulphite Ledger, Superfine Writing, No. 1 Fine Writing, No. 2 Fine Writing, No. 3 Fine Writing, No. 1 M. F. Book, No. 1 S. & S. C. Book, Coated Book, Coated Label, News-Rolls mill, News-Sheets, mill, No. 1 Manila, No. 1 Fibre, No. 2 Manila, Butchers' Manila, No. 1 Kraft, No. 2 Kraft, Wood Tag Boards, Screenings.

Table listing Paper: Boards, per ton, Plain Chip, Solid News, Manila Lined, Chip, Container Lined, 85 Test, 100 Test.

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Table listing Paper: Boards, per ton, Plain Chip, Solid News, Manila Lined, Chip, Container Lined, 85 Test, 100 Test.

Old Papers

Table listing Old Papers: F. o. b. Chicago, Shavings, No. 1 Hard White, No. 1 Soft Shav., No. 1 Mixed, No. 2 Mixed, White Envel. Cuttings.

Table listing Old Papers: Ledgers and writings, Solid Books, No. 1 Books, Light, Blanks, Ex. No. 1 Manila, Manila Envelope Cuttings.

Table listing Old Papers: No. 1 Manilas, Folders News (over issue), Old Newspaper, Mixed Papers, Straw Clippings, Binders Clippings, Kraft, New Kraft Cuts.

Table listing Old Papers: Roofing Stock, f. o. b. Chicago, Net Cash, No. 1, No. 2, No. 3, No. 4.

Table listing Old Papers: No. 1, No. 2, No. 3, No. 4.

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Table listing Old Papers: No. 1, No. 2, No. 3, No. 4.

(Continued on page 68)

Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING JUNE 30, 1923

SUMMARY

News Print.....668 rolls, 149 bls.
Printing Paper.....24 cs., 206 bls., 277 rolls.
Wrapping Paper.....108 bls., 834 rolls.
Wall Paper.....246 rolls, 1,043 bls., 4cs.
Drawing Paper.....1 cs.
Filter Paper.....18 cs.
Cigarette Paper.....5 cs.
Copy Paper.....25 cs.
Coated Paper.....55 cs.
Kraft Paper.....66 bls., 10 rolls.
Miscellaneous Paper.....50 cs., 22 bls.

CIGARETTE PAPER

Rose & Frank, McKeesport, Havre, 5 cs.

FILTER PAPER

O. A. Brown Co., McKeesport, Havre, 5 cs.
H. Reeve Angel & Co., Olympic, London, 1 cs.
H. Reeve Angel & Co., Saxonia, London, 5 cs.

DRAWING PAPER

E. Dietzgen & Co., Saxonia, London, 1 cs.

WALL PAPER

W. H. S. Lloyd & Co., Saxonia, London, 19 bls.
W. H. S. Lloyd, by same, 4 cs.
Nat'l City Bank, Canopic, Bremen, 1,024 bls.
The Prager Co., Finland, Antwerp, 246 rolls.

NEWS PRINT

Corn Exchange Bank, Finland, Antwerp, 34 rolls.
Parsons & Whittemore, Hjelmsaren, Helsingfors, 604 rolls.
Parsons & Whittemore, by same, 149 bls.
J. B. Harris, by same, 30 rolls.

PRINTING PAPER

Carl Steiner, Bremen, Bremen, 24 cs.
L. Schulman Co., Fred. VIII, Kotka, 140 bls.
L. Schulman Co., by same, 277 rolls.
M. O'Meara Co., by same, 66 bls.

WRAPPING PAPER

Wilkinson Bros. & Co., Inc., Fred. VIII, Trondhjem, 108 bls.
Wilkinson Bros. & Co., Inc., by same, 585 rolls.
Melby Kuttroff & Co., by same, 249 rolls.

COPY PAPER

Japan Paper Co., Taketoyo Maru, Yokohama, 23 cs.
Thomsen & Co., by same, 2 cs.

COATED PAPER

Globe Shipping Co., Bremen, Bremen, 45 cs.
M. G. Lange & Co., by same, 10 cs.

KRAFT PAPER

M. O'Meara Co., Finland, Hamburg, 66 bls.
M. O'Meara Co., by same, 10 rolls.

PAPER

M. O'Meara Co., Finland, Hamburg, 22 cs.
Carl Steiner, by same, 11 cs.
Bendix Paper Co., by same, 11 bls.
De Manduit Paper Corp., McKeesport, Havre, 25 cs.
Coenca, Morrison & Co., Rochambeau, Havre, 3 cs.

RAGS, BAGGING, ETC.

Wilkinson Bros. & Co., Inc., Eastern Dawn, Rotterdam, 36 bls. rags.
P. Berlowitz, by same, 122 bls. rags.
Castle & Overton, by same, 112 bls. rags.
E. J. Keller Co., Inc., by same, 51 bls. rags.
E. J. Keller Co., Inc., by same, 110 bls. bagging.
Waste Material Trading Corp., by same, 229 bls. bagging.

L. H. Abenheimer, by same, 113 bls. bagging.
S. Silberman, by same, 279 bls. bagging.
S. Silberman, by same, 39 bls. rags.
Hughes Fawcett, by same, 19 bls. cotton waste.
Ayres, Oddy & Co., Ninian, Manchester, 37 bls. cotton waste.
E. Butterworth & Co., Inc., by same, 162 bls. bagging.
Brown Bros. & Co., by same, 200 bls. bagging.
American Wood Pulp Corp., Chicago, Havre, 11 bls. new cuttings.
Castle & Overton, by same, 112 bls. rags.

CHINA CLAY

Williams & Terhune, Eastern Dawn, Rotterdam, 346 tons.

CASEIN

T. M. Duche & Sons, Hyacinthus, Buenos Aires, 834 bags.

WOOD PULP

Castle & Overton, Bremen, Bremen, 253 bls. wood pulp.
R. F. Hammond, Inc., Topdalsfjord, Christiania, 2,000 bls, 400 tons wood pulp.
R. F. Hammond, Westport, Gothenburg, 1,000 bls., 200 tons wood pulp.
Tidewater Papermills Co., Bornholm, Liverpool, N. S., 12,344 bls. wood pulp.
Pagel, Horton & Co., Inc., Hellenic, Domsjo, 3,300 bls. dry sulphite.
Pagel, Horton & Co., Hellenic, Obbola, 3,500 bls. dry sulphite.
Pagel, Horton & Co., Inc., Hellenic, Husum, 1,500 bls. dry sulphite.

WOOD PULP BOARDS

Lagerloef Trading Co., Hellenic, Kotka, 518 bls.
Lagerloef Trading Co., Hellenic, Raumo, 1,242 bls.

BALTIMORE IMPORTS

WEEK ENDING JUNE 30, 1923

WOOD PULP

R. F. Hammond, Inc., Kolsnoren, Gothenburg, 500 bls, 100 tons wood pulp.
R. F. Hammond, Inc., Aspen, Sundsvall, 500 bls, 100 tons wood pulp.
Lagerloef Trading Co., Hjelmsaren, Kotka, 1,016 bls. dry soda pulp.
Lagerloef Trading Co., by same, 4,603 bls. sulphite pulp.
Lagerloef Trading Co., Hjelmsaren, Helsingfors, 1,218 bls. bleached sulphite pulp.
Lagerloef Trading Co., by same, 630 bls. strong sulphite pulp.
Lagerloef Trading Co., by same, 1,355 bls. strong unbleached sulphite pulp.
Lagerloef Trading Co., by same, 850 bls. easy bleaching sulphate pulp.

CHINA CLAY

J. Richardson & Co., Hartfield, Fowey, 40 tons.
Baring Bros. & Co., by same, 1,093 tons.
J. W. Higman, by same, 199 tons.
Paper Makers Chemical Co., by same, 1,404 tons.
Paper Makers Importing Co., by same, 3,635 tons.

BOSTON IMPORTS

WEEK ENDING JUNE 30, 1923

PAPER

G. F. Malcolm, Ninian, Manchester, 26 cs. tissue paper.

CASEIN

Equitable Trust Co., Waimana, Auckland, 214 bags.
First Nat'l Bank of Boston, by same, 560 bags.
First Nat'l Bank of Boston, Waimana, Wellington, 163 bags.
First Nat'l Bank of Boston, McKeesport, Havre, 100 bags.

RAGS, BAGGING, ETC.

Katzenstein & Keene, Inc., Sahale, Rotterdam, 123 bls. rags.

Castle & Overton, McKeesport, Havre, 39 bls. new cuttings.
Ayres, Oddy & Co., by same, 49 bls. cotton waste.
Ayres, Oddy & Co., Ninian, Manchester, 129 bls. cotton waste.
First Nat'l Bank of Boston, by same, 130 bls. cotton waste.
Brown Bros. & Co., by same, 70 bls. cotton waste.
Irving Bank, Columbia Trust Co., by same, 20 bls. new cuttings.
T. D. Downing & Co., by same, 113 bls. new cuttings.
Baring Bros. & Co., by same, 95 bls. new cuttings.
Andrews & Cook, by the same, 14 bls. flax waste.
Hollingsworth, Vose Co., by same, 63 bls. bagging.
E. Butterworth & Co., Inc., by same, 64 bls. waste paper.
E. Butterworth & Co., Inc., by same, 132 bls. rags.
G. M. Graves & Co., by same, 64 bls. rags.
Baring Bros. & Co., by same, 394 bgs. hide cuttings.
J. B. Moors & Co., by same, 1,126 bls. hide cuttings.
New England Waste Co., Karachi Maru, Genoa, 227 bls. cotton waste.

OLD ROPE

Old Colony Trust Co., Karachi Maru, 104 coils.
Old Colony Trust Co., Karachi Maru, Naples, 67 coils.
Brown Bros. & Co., Ninian, Manchester, 75 coils.
Brown Bros. & Co., by same, 19 bls.

PHILADELPHIA IMPORTS

WEEK ENDING JUNE 30, 1923

PAPER

Paper House of Penna., Hellenic, Kotka, 289 bls. news print.

RAGS, BAGGING, ETC.

E. J. Keller Co., Inc., Eastern Dawn, Rotterdam, 331 bls. rags.
S. Birkenstein & Son, by same, 921 bls. rags.
Waste Material Trading Corp., by same, 605 bls. rags.
American Wood Pulp Corp., by same, 72 bls. rags.
Castle & Overton, by same, 509 bls. rags.
D. J. Murphy & Co., by same, 119 bls. rags.
Katzenstein & Keene, Inc., Allegheny, Leith, 73 bls. rags.
Katzenstein & Keene, Inc., Sonora, Havre, 88 bls. rags.
Katzenstein & Keene, Inc., M. Merchant, Liverpool, 58 bls. new cuttings.

WOOD PULP

Lagerloef Trading Co., Hjelmsaren, Kotka, 3,813 bls. sulphite pulp.
Lagerloef Trading Co., Hjelmsaren, Helsingfors, 1,740 bls. strong sulphite pulp.
Lagerloef Trading Co., by same, 1,696 bls. unbleached sulphite pulp.
Lagerloef Trading Co., Hellenic, Kotka, 5,722 bls. dry sulphate pulp.
Lagerloef Trading Co., Hellenic, Raumo, 1,866 bls. cellulose pulp.
Pagel, Horton & Co., Inc., Hellenic, Husum, 3,000 bls. dry sulphite pulp.
Pagel, Horton & Co., Inc., Hellenic, Domsjo, 2,220 bls. dry sulphite.
Pagel, Horton & Co., Inc., Hellenic, Obbola, 2,100 bls. dry sulphate pulp.

WOOD PULP BOARDS

Lagerloef Trading Co., Hellenic, Kotka, 367 bls.

NEWPORT NEWS IMPORTS

WEEK ENDING JUNE 30, 1923

WOOD PULP

Lagerloef Trading Co., Hellenic, Kotka, 2,602 bls. dry sulphite pulp.
Lagerloef Trading Co., Hellenic, Raumo, 4,818 bls. cellulose.

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Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
TUESDAY, JULY 3, 1923.

Things are still jogging along at the usual pace in the chemical market. With the season now approaching midsummer and the time for vacations, inventory and repairs at hand there is little great desire on the part of either producers or consumers to push things. Manufacturers feel that the demand simply is not there so they are making no attempt to force the market with price cutting. Their tendency is to keep prices at the same level and wait until the paper mills are ready to buy again, which may be thirty days or may be less.

BLEACHING POWDER.—Bleach has been the exception to the general rule of keeping prices steady. Warm weather has made jobbers dread being caught with stocks that have deteriorated on their hands and many lots have been sold in the open market at a sacrifice. The mills, on the other hand, have not shown a very great tendency to come into the market and in spite of lower quotations trading on the whole is dull. The price is now quoted in the neighborhood of 1.55 to 1.65 cents a pound.

CHINA CLAY.—So far as the paper mills are concerned there is little call for china clay either in the imported or the domestic grades. Dealers and importers are not particularly worried over the situation, however, and they are keeping prices at about the same point with no immediate promise of any lowering. Domestic remains at from \$14 to \$17 a ton and imported at from \$15 to \$23.

BLANC FIXE.—Blanc fixe remained steady during the week and the price failed to change a single point. Trading on the open market was still rather spotty and dealers say that they do not expect this condition to change for a period of a few weeks. It is quoted at from \$50 to \$55 a ton on the pulp grade and \$80 to \$85 on the dry.

CAUSTIC SODA.—Buyers did not evince much interest in caustic soda during the week and most of them seem to have enough on hand to meet their needs. The price, although apparently changed, has remained the same as quoted on a flat instead of a sixty per cent basis. It is at about 2.60 cents a pound.

CASEIN.—Casein has not recovered any in price from the slight falling off it suffered a week or two ago and buyers are still shy about sending in many orders. The price is still at 16 to 17.50 cents a pound.

ROSIN.—Little demand marked the naval stores market so far as the paper mills were concerned during the past week. The price on the grades of interest to them remained at from 6.10 to 6.15 cents a pound.

SALTCAKE.—Saltcake is not in as good demand as it was during the busy season but dealers report that the call is pretty good for a summer market. The price remains quite firm at \$25 to \$27 a ton.

LIQUID CHLORINE.—Chlorine is in about the same class as other chemicals so far as market conditions are concerned. Paper mills are buying only for their present needs. There has been little change in the price which is around 4.40 to 5.20 cents a pound in tanks.

SATIN WHITE.—The condition of satin white has remained exactly the same during the past week as it has been for a month. The price is level at 1.50 to 2.00 cents a pound.

SODA ASH.—No great amount of trading went on in the open market for soda ash during the week and producers are contenting themselves with working along on standing orders. The price on a flat basis, instead of 48 per cent, is at about 1.40 cents a pound.

STARCH.—Drifting in the doldrums of the midsummer market, starch is not causing much excitement. The price is firm at from 2.80 to 3.10 cents a pound.

SULPHATE OF ALUMINA.—Alumina sulphate remained in poor demand during the week that has just passed, the iron free grade is still quoted at 2.15 to 2.40 cents a pound and the commercial 1.35 to 1.45.

Market Quotations

(Continued from page 65)

No. 1 Mixed	1.60	1.75	New Blue	.02 1/2	.02 1/4
No. 2 Mixed	1.25	1.50	New Black Soft	.06 1/4	.06 1/4
Solid Ledger Stock	2.50	2.75	New Light		
Writing Paper	2.25	2.50	onds	.02 1/4	.02 1/4
No. 1 Books, heavy	2.00	2.25	Khaki Cuttings	.11	.04 1/4
No. 2 Books, light	1.40	1.50	Corduroy	.03 1/4	.04
No. 1 New Manila	2.75	3.00	New Canvas	.08 1/4	.08 1/4
No. 1 Old Manila	1.50	1.75	New Black Mixed	.04	
Container Manila	1.35	1.50	Old		
Old Kraft	2.25	2.50	White, No. 1—		
Overissue News	1.50	1.60	Repacked	.06	.06 1/4
Old Newspaper	1.00	1.50	Miscellaneous	.04 1/4	.04 1/4
No. 1 Mixer Paper	1.00	1.10	White, No. 2—		
Common Paper	.80	.90	Repacked	.03 1/4	.04
Straw Board, Chip	1.00	1.10	Miscellaneous	.03	.03 1/4
Binders Bd., Chip	1.00	1.10	Thirds and Blues—		
Domestic Rags—New			Repacked	2.00	2.25
Price to Mill, f. o. b. Phila.			Miscellaneous	1.85	1.50
Shirt Cuttings—			Black Stockings	2.75	3.00
New White, No. 1	.12	.12 1/4	Roofing Stock—		
New White, No. 2	.07		No. 1	1.35	1.40
Silicious, No. 1	.07 1/4	.07 1/4	No. 2	1.25	1.30
New unbleached	.10	.11	No. 3	1.15	1.20
Washables	.04 1/4		No. 4	1.15	1.20
Fancy	.05 1/4	.05 1/4	No. 5A	1.10	
Cottons—according to grades—			B		nominal
Blue Overall	.05 1/4	.05 1/4	C		nominal

BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

Paper			Filled News Board	65.00	@	80.00
Bonds	.09 1/4	.63	Solid News Board	75.00	@	80.00
Ledgers	.09 1/4	.55	S. Manila Chip	75.00	@	80.00
Writings	.08 1/4	.42	Pat. Coated	90.00	@	105.00
Superfine	.16	.26	Old Papers			
Fine	.15	.18	Shavings—			
Books, S. & S. C.	.07 1/4	.12	No. 1 Hard White	4.15	@	4.25
Books, M. F.	.06 1/4	.09 1/4	No. 1 Soft White	3.35	@	3.50
Books, coated	.09	.15	No. 1 Mixed	.90	@	1.00
Label	.09	.13	Ledgers & Writing	2.00	@	2.25
News, sheets	4.75	6.00	Solid Books	1.75	@	1.90
News, rolls	4.50	5.75	Blanks	1.25	@	1.50
Manilas—			No. 2 Light Books	1.50	@	
No. 1 Manila	\$6.00	@	7.00			
No. 1 Fiber	.06 1/4	@	.07			
No. 1 Jute	9.00	@	10.50			
Kraft Wrapping	.07	@				
Common Bogus	3.50	@	3.85			
Boards			(Per Ton Destination)			
Chip	\$62.50	@	65.00			
News, Vat Lined	65.00	@	70.00			
Wood, Vat Lined	72.50	@	75.00			

TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

Paper			Sulphite, bleached	.90.00	@	92.50
(Mill Prices to Jobbers f. o. b. Mill)			Sulphate	.70.00	@	72.50
Bond—			Old Waste Papers			
Sulphite	.11	@	.12 1/4			
Light tinted	.12	@	.13 1/4			
Dark tinted	.13 1/4	@	.15			
Ledgers (sulphite)	.13	@	.13			
Writing	.09 1/4	@	.12			
News, f. o. b. Mills—						
Rolls (carloads)	3.75	@	—			
Sheets (carloads)	—	@	4.50			
Sheets (2 tons or over)	—	@	4.75			
Book—						
No. 1 M. F. (carloads)	9.00	@	—			
No. 2 M. F. (carloads)	8.00	@	—			
No. 3 M. F. (carloads)	7.50	@	—			
No. 1 S. C. (carloads)	9.50	@	—			
No. 2 S. C. (carloads)	8.50	@	—			
No. 1 Coated and litho.	14.00	@	—			
No. 2 Coated and litho.	13.00	@	—			
No. 3 Coated and litho.	12.25	@	—			
Coated and litho, colored	14.25	@	—			
Wrapping—						
Grey	5.00	@	—			
White Wrap	5.75	@	—			
"B" Manila	6.00	@	—			
No. 1 Manila	7.25	@	—			
Fiber	7.25	@	—			
Kraft, M. F.	8.00	@	—			
M. G.	8.15	@	—			
Pulp						
(F. o. b. Mill)						
Ground wood	\$36.00	@	38.00			
Sulphite easy bleach-						
ing	60.00	@	65.00			
Sulphite news grade	50.00	@	55.00			

No. 1 White shirt cuttings	12	@	—
No. 2 White shirt cuttings	.06	@	—
Fancy shirt cuttings	.05 1/4	@	—
No. 1 Old Whites	.04 1/4	@	—
Third and blues	.02 1/4	@	.02 1/4
Per cwt			
Black stockings	.03	@	—
Roofing stock:			
No. 1	—	@	—
No. 2	—	@	—
Roofing stock:			
Manila rope	.05 1/4	@	—
No. 2	1.55	@	—
Gunny bagging	.01 1/4	@	—