

MEMBER OF THE A. B. C.  
FIFTIETH YEAR

# PAPER TRADE JOURNAL

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

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*Paper Exporters*  
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Havana Buenos Aires Mexico Rio de Janeiro Naples  
Parsons Trading Company (Australia), Limited  
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**PAGE 21!**

  
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All Kinds **WOOD PULP** Every Description  
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**ASBESTINE PULP** \* **FILLER**  
90% Retention  
REG. U. S. PATENT OFFICE

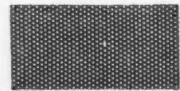
**PULP AND PAPER**  
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EVERY DESCRIPTION  
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CABLE ADDRESS: "HUDTRACO," NEW YORK

## Perforated Metal Screens For Pulp and Paper Mills

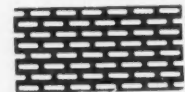
STEEL, COPPER, BRASS, BRONZE  
and other Alloys

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

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.065 Inch Round



1/2 x 1/2 Inch Slots

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Brimstone on the Market . . .

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ESTABLISHED  
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English Weave in Two, Three, Four, Five  
and Six Ply

60 Inches to 176 Inches in Width

Fine Faced Felts for Fine Papers  
Absolutely no Felt Marks in Paper

TRIUNE Three Ply Felts for Coarse Papers



## The Lombard Barker Attachment

can be applied to any make of  
Disc Barker. No matter what  
Disc Barker you may be operat-  
ing—the Lombard Barker attach-  
ment will add to its efficiency—  
saving in wood—easy operation.

**WATERVILLE IRON WORKS**  
Waterville, Maine



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PULP AND PAPER MILLS AT AUSTIN, PA.



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QUALITY  
SULPHITE  
WRAPPING  
PAPERS

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NATH'L L. MILLER, Secy-Treas.

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Domestic and Foreign  
Ground Wood and  
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11" high

8" wide



#### AUTOMATIC DESK MICROMETER

*Immediate Delivery*

Strength and Stretch Testers	Pocket Micrometers
Folding Testers	Desk Micrometers
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Seamless Felts for  
fast running

FELTS AND JACKETS  
FOR EVERY GRADE OF PAPER  
CAMDEN, MAINE

Satin style Felts  
for fine finish

1863

1921



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your requirements for Grease-proof paper on tested quality.

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of

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Exclusively

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

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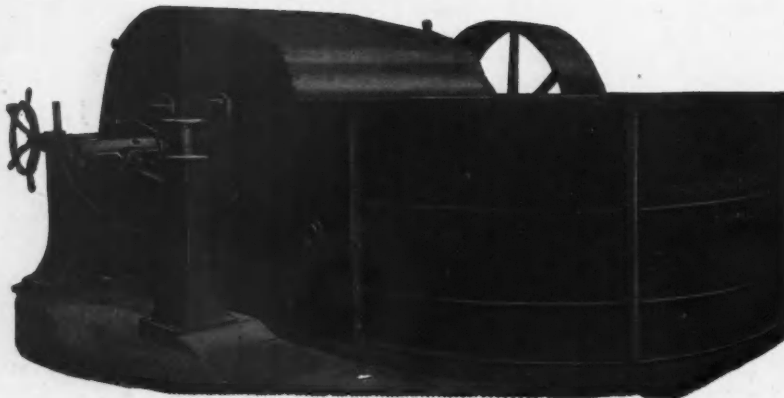


### FELTS and JACKETS

For Every Grade of Paper and Pulp

Correspondence and Orders  
Solicited

Manufactured at  
SKANEATELES FALLS  
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BEATING ENGINES  
WASHING ENGINES  
BREAKING, BLEACHING  
and MIXING ENGINES  
Fly Bars—Bed Plates  
Machine Knives



## Stickle Compound Condensing System and Automatic Steam Control for Paper Machines

The folder we sent out to the mills "HOW TO DRY PAPER" showing our automatic steam control and our compound condensing system for draining the dryers and heating the air with the discharge from the dryers to condition the machine room, should interest you. In many mills we can guarantee a saving of 20% in steam consumed in drying the paper and conditioning the air for the machine room.

**OPEN COIL HEATER & PURIFIER CO.**  
INDIANAPOLIS, IND.

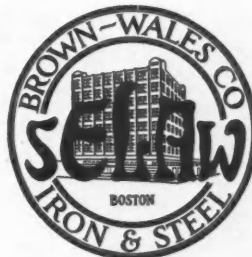
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PHILADELPHIA

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Quality Paper  
Quantity Production

is another way of saying

APPLETON  
Felts and Jackets

## APPLETON WOOLEN MILLS

APPLETON, WIS.

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DE-FIBERING AND DE-INKING PROCESS

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Height of Machine Over All, 12 Feet

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

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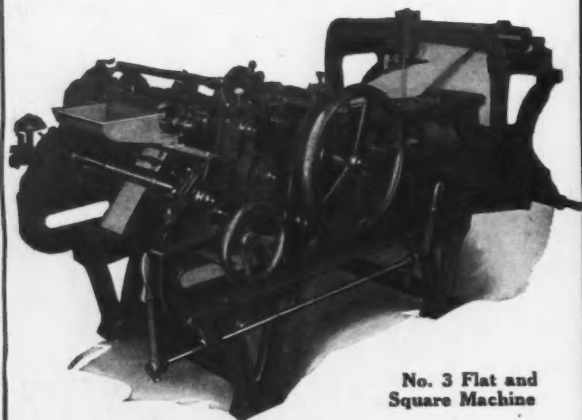
Builders in the United States

Waterous Engine Works Co., Ltd., Builders and Selling Agents for Canada, Brantford, Canada.

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To make all sizes of Flat and Square Bags. Also sacks in 1/16, 1/8 and 1/4 bbl. sizes. Very fast and compact. The bag is made complete from a roll of paper.

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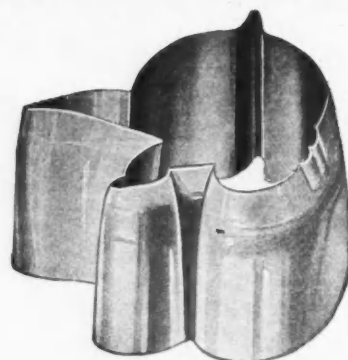


No. 3 Flat and Square Machine

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**N**O matter how intricate or involved the design is, we'll make it and make it right. Every die of carefully selected steel, guaranteed flawless and warranted to give long, satisfactory service. The die illustrated above, made by us for a St. Louis concern has been in almost constant use for over fourteen months, and as yet shows no signs of wear. This isn't unusual—we expect such service from any of our dies. The more difficult your die-cutting problems the more we'll enjoy helping you solve them. Send us a rough sketch or description of what you want and we'll quote you a price that will please you.

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for **PAPER**

Newport Acid Bordeaux B Conc

AND

Newport Paper Red 2 B

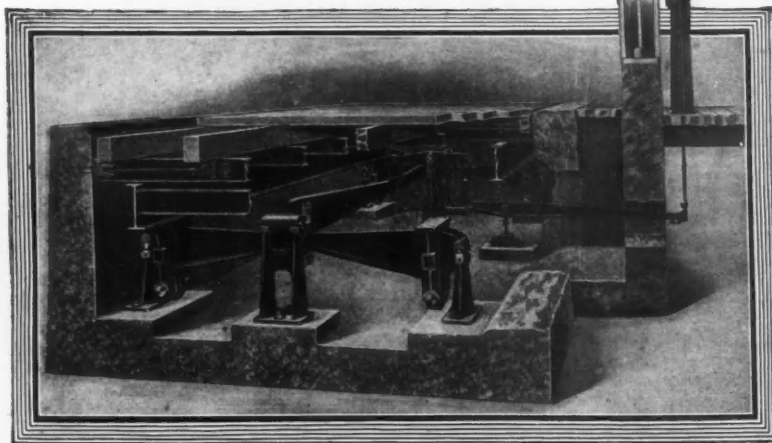
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POWER FOR BOTH LIGHTER AND  
DEEP SHADES.



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

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1 type "P" Auto Truck Scale

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Auto truck weighing requires the strength and special construction embodied in the Type "P" Auto Truck Scale.

Each of the scale bearings is designed to carry 50% of the rated capacity of the scale or 100% on each end of the scale.

Suspended platform construction gives a free weighing system which allows platform to return to its normal position by gravity after displacement by load—means continuous accuracy and long life.

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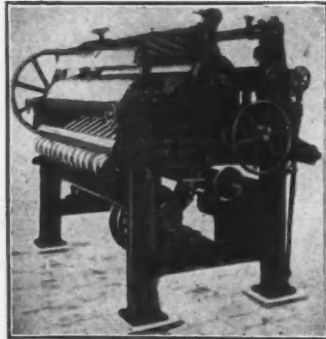
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OUR SOURCE OF SUPPLY IS  
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Lapidolith, the liquid chemical, completes the hydration of the cement, and fills the pores with a new crystalline substance.

Lapidolized floors are as hard as granite, and do not wear or dust even when subjected to constant

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They are watertight and sanitary, an advantage which paper makers will appreciate.

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TRADE MARK

has been flushed on over 200,000,000 square feet of concrete floors. They will never dust or wear.

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**Lignophol**—the modern wood preservative gives new life to old or new wooden floors.

**Stormtight**—the protective roof coating for all kinds of worn or new roofs. Save labor and material cost of new roofs.

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*High Grade Fly Bars, Bed Plates, Jordan Fillings and Knives*

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IN STEEL AND ALLOYED METALS

For Pulp and Paper Mills



Elevator Buckets, Conveyor Flights  
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“Papers made in the Adirondacks”

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92" trim Cylinder machine for Heavy Papers .010 to .025    56" trim Fourdrinier machine for Medium Weight Papers  
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Special Standard Cover (antique  
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White and Colored Papers for Special Requirements

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# **NUERA PAPER CO., Inc.**

General Offices and Mill: Hadley, New York

W. J. Blackley  
General Sales Manager

# “ALBANY”

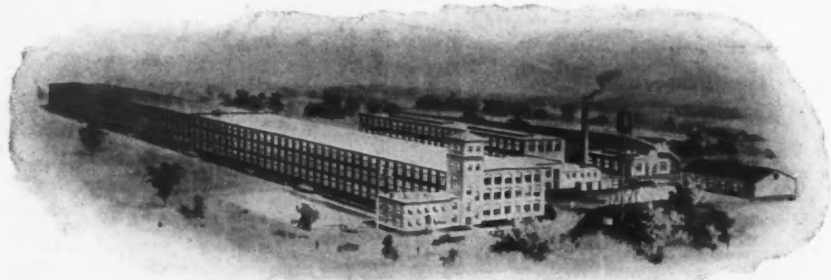
## FELTS and JACKETS for Paper and Pulp Mills

**A**LBANY FELTS are adapted for every type of Paper and Pulp Machine, and for every kind of stock. Every one is made of Pure Wool of the very best quality.

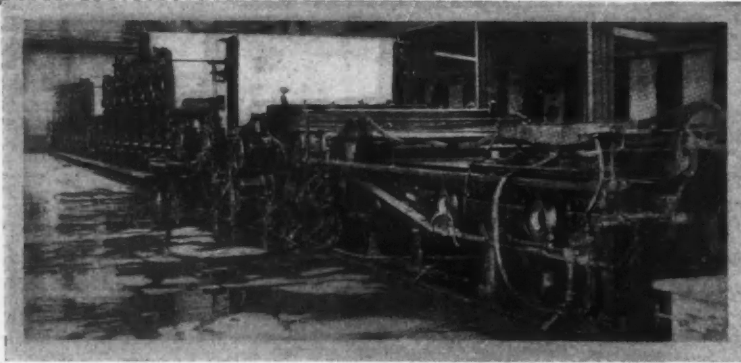
☐ Twenty-five years' experience in making Paper Makers Felts and Jackets has shown us how to make them as best suited to the needs of various kinds of machines and stock.

☐ Every possible effort is made to give our customers the best satisfaction and to weave into our Felts and Jackets the longest possible life.

ALBANY, **ALBANY FELT COMPANY** NEW YORK



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is quality plus efficiency which equals economy. Constructed with an exceptional tube and extra heavy wear resisting cover. Losant will fill every requirement of Paper Mill Service.

*Made either plain ends or with tapered rubber nozzle.*

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Bond            Wrapping  
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**Coated Cardboard, Boxboard and Lithograph Paper, including Lithograph Blanks, Postal Card Stock, Tough Check, Railroad, Thick China, Transluents and Menu Board.**

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Manufacturers of

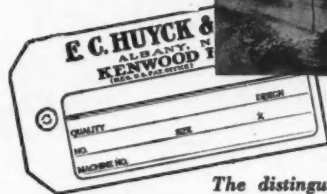
**LOFT DRIED PAPERS  
LEDGERS  
BONDS  
WRITING PAPERS**

**Mill: North Wilbraham, Mass.**

**Main Office:  
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Strength and Openness  
are two Kenwood advantages of  
particular importance to the  
paper maker.



*The distinguishing mark  
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comprising all and every sulphite, Sulphate and Kraft pulp mill in Finland. Manufacturers of superior grades of Bleached and Unbleached Sulphites, Easy Bleaching Sulphates and Kraft Pulps.

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a combination of the foremost Ground Wood Pulp and Board mills in Finland, makers of various kinds of boards and dry and wet Brown and White Mechanical Wood Pulp.

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MEMBER OF THE A. B. C.

# PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

## FIFTIETH YEAR

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

LESLIE R. PALMER, President

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2381 } Vanderbilt

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## MIAMI PAPER COMPANY SUES AMERICAN WOODPULP CORP.

**Contract Was for \$74,000 Second Quality Easy Bleaching Sulphite—Miami Says It Proved to Be Inferior to Sample—Ohio Company Holds Back \$12,000 Payment on Another Contract—American Woodpulp Attaches Miami's Assets in This City—Claimed That Sale Was Made by Brand Not By Sample—Ira Beebe Asked to Act as Arbitrator for American Woodpulp Corporation.**

Some of the details of the litigation between the Miami Paper Company, of West Carrollton, Ohio, and the American Woodpulp Corporation, of this city, have come to light. The contract was for the sale of \$74,000 worth of Essvik Second Quality Easy Bleaching Sulphite, which is made at the mills of the Sundsvalls, Celluloso Aktiebolag in Sweden.

After using some of the pulp the Miami Paper Company says that it discovered the pulp to be inferior to the sample on which it alleges to have bought the shipment and, since the entire purchase price had already been paid, a \$12,000 payment on another contract with the American Woodpulp Corporation was held up as a partial protection for the Ohio company.

The American Woodpulp Corporation then attached the Miami Paper Company's assets in this city and started suit in New York courts for the recovery of the \$12,000. At about the same time the Miami Paper Company served writs of attachment on the customers of the American Woodpulp Corporation in Ohio, but, according to information received from reliable source, there was no money owing to the New York company in the state of Ohio so that nothing was actually attached. The Miami Paper Company, however, started suit to recover \$63,000, the value of the pulp which it had not yet used.

It is claimed that the \$63,000 is not owing to the American Woodpulp Corporation, however, but to the Swedish mill, for which the New York concern was merely acting as agent. The \$12,000 on the contrary is a debt to the American Woodpulp Corporation and it is for the recovery of this that the New York company is suing. It was said, moreover, that the sale was not made by sample but by brand, and that the sample was sent several days after the signing of the contract in order that the Miami Paper Company might have the opportunity to make certain tests on it.

It is also reported that the American Woodpulp Corporation made every effort to arbitrate the dispute and even went so far as to ask Ira Beebe, a well known pulp dealer of this city, to act as its arbitrator.

### P. Jouanneau Visits American Mills

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., September 12, 1921.—P. Jouanneau, of Vendome, France, has been visiting paper mills in this valley during the past week. It is a part of an extended tour of study of American paper making covering several months. Upon his return home next week he will enter the paper making business with his father in the Vaissier, Caron & Co. mills of Vendome. Mrs. Jouanneau is accompanying him on his trip. He has traveled extensively throughout the United States and Canada.

"I have been very much interested in Canadian and American mills I have visited," said Mr. Jouanneau. "I have passed about three months in Canada and about a month and a half in the United States. Your mills are very much different than ours. In France we have no fast machines, the fastest being 400 feet, while some here run 1,000 feet a minute."

He visited the plant of the Wausau Fibre Company at Mosinee,

Wis., where the Bagley & Sewell machine that established the 1,000 foot record is located. He has visited most of the mills in this city and section, including the St. Regis, Sherman, Brownville and Harmon Paper Company mills.

"One thing that impresses me is that all your news print mills make white paper, while in France we use many colors. Each newspaper has its distinctive color. It would be better if France used but one color so the supply might be purchased from any mill.

"The mills in your country are comparatively new, are large and much better than any of ours. My father's mill was making paper 400 years ago. In France we have very few mills with more than three machines and many have less. The low duty on German paper has resulted in many of our mills being shut down. Unless a duty is placed on paper that will keep German paper out of our market our mills will all have to shut down."

### Change of Address for T.A.P.P.I.

Changes are impending in the secretary's office of the Technical Association of the Pulp and Paper Industry. The office itself has been removed from 542 Fifth Avenue to the general offices of the American Paper and Pulp Association, 18 East Forty-first street, New York, where quarters have been provided on the sixth floor by Executive Secretary Baker.

A meeting of the executive committee of T. A. P. P. I. takes place this week on Thursday, September 15, at which important action will be taken concerning the proposed Fall meeting at Washington and other points, October 18 to 21. There is a growing sentiment among the officers of T. A. P. P. I. and the committee of arrangements for the meeting, that the severe depression now existing in the paper industry is a reason why the Fall meeting should either be cancelled or postponed to a date in 1922. A definite decision on this question will be reached at the meeting of the executive committee, at which new policies for the Association are also likely to be put into effect.

Recent elections of members and transfers of grades are reported as follows:

Junior members: Costa P. Genberg, chemist, Nekoosa-Edwards Paper Company, Port Edwards, Wis., August 15, 1921; James C. Bullard, chemist, Crocker-McElwain Company, Holyoke, Mass., August 11, 1921.

C. W. Whitehouse, sulphite superintendent, Abitibi Power and Paper Company, Iroquois Falls, Ont., has, upon his application, been transferred by the executive committee from the grade of associate members to that of active member, dating from August first.

### Conditions in Sweden Improving

STOCKHOLM, August 20, 1921.—After a year's depression, an improvement in the wood pulp market is visible. The paper mills have been able to start up one machine after the other, inspiring hope that a stable change in the conditions are at hand, writes *Svensk Pappers-tidning*.

The improved conditions of the English market have resulted in considerable shipping orders on running contracts to England. Some English paper mills even desire earlier deliveries than the contracts stipulate.

As regards France and Belgium, the situation has not improved so much.

The market, which has most recuperated itself, is the American market. It is reported that during the last week about 10,000 tons of kraft sulphate have been placed in the American market.

According to the *Dagens Nyheter* and other dailies, the following mills have recently begun production: Göta Sulphite Mill, Vivistavarf's Sulphite Mill, Fredriksberg's Sulphate Mill, The Karskär Sulphite Mill, The Iggesund Ground Wood Pulp Mill.



## FOREST CROPS ARE URGED TO FURNISH PULPWOOD

**American Forestry Association Suggests 81,000,000 Acres of Idle Land Be Utilized—Says Publishers Must Act—Statement Estimates 30,000 Square Mile Tract Would Furnish Perpetual Supply of News Print—More Than 160,000 Forest Fires In United States in Last Five Years of Which 80 Per Cent Were Due To Human Agencies and Therefore Preventable.**

WASHINGTON, September 12, 1921.—Need of eliminating waste in the printing business, as shown in the report just issued by the Committee on Elimination of Waste in Industry of the American Engineering Council, is one of the most powerful arguments ever put forth for a national forest, says a statement from the American Forestry Association, which has called on the World Press Congress, which meets in Honolulu in October, to take some action on the forestry question.

"Upon what does the newspaper depend for existence," says the statement. "It depends upon paper made from wood pulp. There are about 2,500 daily newspapers in the country. Our annual consumption of 2,000,000 tons of news print a year means a strip of paper as wide as the regulation daily paper, and about 40,000,000 miles long. Just as a measure of distance, remember that the sun is 92,000,000 miles away. It would also make a two-foot-wide ribbon of newspaper around the world 1,600 times.

### Publications Must Retrench

"The time is coming when the economic law of necessity will bring our own publications to some sort of retrenchment. The editors of the United States and of the world must take up this question. Already more than one-third of our pulpwood comes from across the Canadian border, and Canada, profiting by our mistakes, is now taking steps to forbid the cutting of timber at a rate more rapid than its growth. That means primarily that our annual importation of Canadian pulpwood has practically reached the maximum, and for the other two-thirds at least we will have to look after ourselves.

"If we once squarely face the facts, the solution of the problem will not be difficult. It is estimated that about 3,000,000 cords of wood per year are manufactured into paper for magazines and newspapers. At ten cords per acre this would mean 300,000 acres. Supposing that it takes about forty to fifty years to grow good pulpwood spruce, and allowing for possible loss by fire, wind, blight or failure of seeding, a tract of 30,000 square miles, planted with forty successive crops of timber, each crop coming to maturity at one year intervals, would, under proper care and management, furnish a perpetual supply of pulpwood for news print. This means an area a little smaller than the State of Ohio, but represents less than one-tenth of the area of our cut-over lands, most of which are now almost entirely unproductive.

### Perpetual Supply Is a Practical Scheme

"There is no question but that a perpetual supply of pulpwood for all needs is a possible and practical scheme. It will not, however, come merely for the asking. There must be, first, a proper national forestry law with adequate provisions for fire protection and government reforestation on a scale large enough to demonstrate the economic soundness of the idea; second, every State must adopt thorough-going forestry principles with provisions to protect growing timber from exorbitant taxation; and, finally, with these laws as a basis, the pulp and paper

industry, together with all other wood-using industries, must be made to see that in practical reforestation and conservation lies their only salvation. To accomplish these three things will require the united efforts of every man and woman. We should not leave to any group of foresters and legislators the sole initiative in solving such an important economic problem; but, by the continued expression of our thought and conviction, we can urge those groups to supply our imminent need.

"Here is waste that staggers the imagination. Forest fires annually destroy 2,000,000 feet of timber, or material enough to build a five-room frame house every 100 feet on both sides of a road extending from New York to Chicago.

### Most Forest Fires Preventable

"More than 160,000 forest fires have occurred in the United States during the last five years, 80 per cent of which were due to human agencies and therefore preventable. These conflagrations burned over 56,488,000 acres—an area greater than that included within the States of Ohio and Pennsylvania—and destroyed \$85,700,000 worth of timber and property. If this needless waste were stopped and the material thus saved put into houses, the various business interests concerned in building construction, such as lumber dealers, carpenters, masons and supply houses, would, it is estimated, benefit to the extent of more than \$400,000,000 annually. Bankers and real estate dealers would also profit through the sale of lands and by loans on homes to the extent of an additional \$300,000,000.

### Idle Lands Should Grow Trees

"There are 81,000,000 acres of idle land in this country that should be put to work growing trees at once," the association's statement ends. "This is a proposition directly tied up with national prosperity now and in the future. All the money in the world will not buy food if there is no food. All the money in the world will not produce trees to order. We must begin right now to protect what forests we have and to have forest crops every year just as we have corn and wheat crops. The Committee on the Elimination of Waste in Industry has performed a valuable service, but the great waste is idle land, and a great part of it is in the East and Middle West close to the great newspapers, the greatest consumers, who are now paying thousands of dollars on freight rates, to say nothing of a high market price."

### To Reduce Accidents in Michigan

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., September 12, 1921.—A concerted effort to bring preventable accidents in Michigan down to an irreducible minimum has been instituted by Labor Commissioner Carl Young. The state department of labor and industry, together with compensation insurable companies and the manufacturers of the state will participate in this move.

One of the first steps in the proposed campaign to eliminate accidents is to be a conference between state officials and representatives of the Michigan Manufacturers' association. This organization includes in its membership most of the large paper mills in the Kalamazoo valley district and others throughout the state. George P. Wigginton, president of the Kalamazoo Loose Leaf Binder Company, is a member of the board of directors.

Plans for systematized methods of safeguarding machinery and of teaching employees to take advantage of the safeguards will be outlined. Commissioner Young believes that the manufacturers of the state will co-operate to the fullest extent in making industry safe for the employees. He points out that while the initial cost of completely safeguarding machinery is sometimes a little high, inspections by the state department will compel all employers to safeguard unprotected machinery and if the safeguards are not added to new equipment they will have to be added at considerable expense.

## BETTER DEMAND FOR PAPER IN PHILADELPHIA MARKET

**Reports of the Meeting of the Fine and Coarse Paper Divisions of the Philadelphia Paper Trade Association Indicate a Considerable Betterment in the Request For Paper Since the First of Month—Reductions in the Price of Some Varieties Which Have Been Made Recently Have Had Less Effect on Business Than Was the Case When Reductions Were Made Earlier—Paper Stock Business Better.**

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, September 13, 1921.—The Fine and the Coarse Paper Divisions of the Philadelphia Paper Trade Association, meeting Thursday afternoon last, in the rooms of the Typothetae of Philadelphia for consideration of greater efficiency in the compilation of the statistics of paper movements in and out, were virtually of one opinion—that with Labor Day business had increased to a very noticeable degree and that unquestionably the valley of doubt had been crossed and the trail was now upward. Both branches of the trade were able to report increased sales despite still falling prices in some of the grades, although both kraft and railroad writing and No. 2 manilas have not only steadied but actually have advanced. It was felt that while present business reflected only the immediate requirements of the consumer, there would not, in the near future, be any greater reductions and that as soon as buyers generally became convinced of this fact their larger orders, plus the increased consumption resulting from greater commercial and industrial activity generally would result, perhaps before the month closed, in a much larger increase of business than has been experienced since the month began. While perhaps only the enthusiasts prophesied an approaching boom, certainly all agreed that there would be good times before the year closed. At least near boom activity was forecast for next year.

### Reductions Have Little Effect on Business

The rather large reduction in sulphite and rag content of fine papers which was announced September 1 had less effect in checking business than any of the other price recessions which periodically have taken place from the very beginning of the year. There developed on the part of the consumer apparently the belief that prices were at least approaching the point at which he believed they should be and therefore there was evidenced greater confidence in buying than heretofore was shown after a recession. No one, it is true, is storing up paper in the belief that costs will mount. As a matter of fact, many of the larger printers and publishers still have on hand a considerable stock of paper in weight, size and style not used daily. Their stock of staple goods has been pretty well cleared out and therefore they are buying again quite actively, although in small amounts. Still the business bulks up rather satisfactorily. Howard Satherthwaite, of the Garrett-Buchanan Company, reported that despite the lower prices the firm's August business compared very favorably with even that of last year; a similar story was told by Sales Manager Peoples of the Whiting-Patterson Company. While the demands of the local printing trade continue to be smaller than a month ago, as was anticipated would be the case, there has been such an unlooked for betterment in the custom from the larger towns throughout Pennsylvania, eastern Ohio and lower New Jersey, where much Philadelphia printing is being diverted, that the out-of-town gain has offset the loss in town.

Coarse papers still rather quiet, although there is a steady improvement. There still exists an oversupply of many grades and the competition of the distributors to close these out has kept prices rather unstable. It is felt that just as soon as this surplus

has been absorbed there will be a steadying of prices and that, it is held, will have considerable influence in stimulating buying.

### Paper Stock Business Better

The paper stock distributors are all in rather a pleased frame of mind. The mills are making more inquiries than they are placing orders, but the very fact that they are in the market even with offerings too low to be attractive to any save those who are overstocked, is taken as a good augury. Prices of mixed and commons at the local mills advanced slightly but even at \$9 a ton the price is too low to induce collections from households. The commons which are being sold to the mills are either culls from the assortment of the better grades or are the output of very large industrial establishments. Stock dealers profess to foresee a shortage in mixed and commons just as soon as mill requirements increase. They say that the public has been taught to destroy old papers because at existing low prices there has not been for several months any attempt to collect them. The dealers believe that it will take considerable time and a decided increase in prices again to educate the general public to become provident in this respect.

### Big Plans to Collect Waste Paper

The Philadelphia Paper Manufacturing Company and the Universal Waste Product Company have begun a comprehensive effort to gather up all the mixed and waste paper available within a forty-mile radius of City Hall and embracing not only every part of Philadelphia but as well Chester and Wilmington, Camden, Trenton and smaller cities. It is proposed to develop at Snyder avenue wharf of the Delaware River and at Callowhill street wharf on the Schuylkill River, receiving stations where at a minimum of time and cost mixed and commons can be thrown or chuted from the trucks directly onto the decks of canal boats and thus be transported from the wharf to the plant of the Philadelphia company at Manayunk. There has just been opened at Pier 78, South Wharves, owned by the city, a receiving station which daily can handle many hundred tons of stock. Adolph Rose, formerly associated with A. Rose & Sons, stock dealers, is in charge of the station at Snyder avenue. A bulkhead pier, together with a large building formerly used by the United States Government, has been leased. The pier is wide enough to permit two of the narrow but long canal boats specially built for use on the Schuylkill Canal and leased from the operating company to tie up at the wharf. A wharf is contemplated at the plant of the Universal company, but there has been delay in its construction. An adjoining wharf, however, may be leased. Between the two plants there will be constantly in use five canal boats and thereby it is expected that there daily can be handled from 300 tons up, although even 300 tons will not be sufficient to meet the requirements of the big company at Manayunk when it is in full operation, particularly when the new 150-ton machine is started. In a general way it is proposed to handle stock gathered together in North Philadelphia and West Philadelphia at Callowhill street wharf and the remainder and especially that from the towns along the Delaware at Snyder avenue wharf. The plans of this comprehensive system of collection are being watched with intense interest by the packers generally, with concern that an attempt may be made to supplant their functions as collectors and packers. Officials of the Philadelphia and Universal companies, however, say that no such thought exists; that the plan is merely the expression of a determination to supplant the present costly program of truck shipments to Manayunk by the much cheaper water service and that the local packers will be given an opportunity to haul material either to the plant or to the two receiving stations as best may suit their convenience.

### Plans of Argo Paper Mills Corp.

Final plans for the financial flotation and the operation of the Argo Paper Mills Corporation, which, as told in these columns, has taken over the old Argo Mills at Gloucester, N. J., for the

manufacture of news print for the *North American* and *Record* newspapers, were completed during the week and shortly a definite statement covering every phase of the situation, particularly the financial phase, will be issued. During the week a slight obstacle regarding the transfer of the Argo property to the new corporation, was removed. It is understood that about \$750,000 represents the purchase price of the physical property at Gloucester and that an additional \$250,000 at once will be expanded for renovations, alterations and installation of machinery. It is probable that the second floor of the big factory will be removed in order to give headroom for the news print machine. The Argo company proposes to begin operations about January 1 and to produce at once 50 tons of news per day, all of which will be taken by the two newspapers, whose present requirements are estimated at over 75 tons per day. The remainder will be purchased in the open market. When the Argo capacity grows beyond the needs of the two newspapers—and it is intended to increase production annually to a maximum of at least 200 tons a day, the surplus will be sold on the open market. Organization of the working force of between 100 and 150 hands at once will be begun. In the near future an offering of preferred and common stock will be made through an established brokerage house.

#### Consider Statistical Service

The Fine and Coarse Paper Divisions of the Philadelphia Paper Trade Association at their meeting on Thursday confined themselves almost wholly to a consideration of the statistical services of Secretary A. N. Kimmey. It was felt that the service had so fully justified its existence that a still greater co-operation by the trade in reporting receipts and sales would be beneficial. Representatives of virtually all the firms now receiving the service expressed themselves as well satisfied with it and as convinced that it was a most profitable investment and one which could be made even more so by the greater co-operation of all the firms in the city. It was decided to hold another meeting of both branches singly, the Coarse Paper on Thursday next at 11 o'clock and the Fine Paper at 12.30 o'clock, for the purpose of working out more systematic reporting of essential facts to Secretary Kimmey, so that every phase of the situation will be covered.

#### Will of A. S. Datz

The will of the late Alois S. Datz, head of A. S. Datz & Son, was admitted to probate during the week. It disposed of an estate valued at \$210,000. Charitable bequests aggregating \$7,000 are made—\$3,000 to St. Vincent's Orphan Asylum, \$2,000 to the Little Sisters of the Poor and \$1,000 each to the House of the Good Shepherd and the Society of St. Vincent de Paul of St. Elizabeth Church. The residue is left to his widow and daughter, with direction, however, that the executors continue payment of the expenses of a young man, not named, who is studying for the priesthood and who has been supported by Mr. Datz. The payments are to be continued until he is ordained.

#### General News of the Trade

President George W. Ward, Vice-President William S. Wilcox, Secretary William A. Hentz, Service Manager Thomas J. Curry and Fine Paper Manager Thomas S. Furlong will represent the D. L. Ward Company at the S. D. Warren Company convention to be held at Poland Springs, Me., on September 22, 23 and 24.

Though a last minute delay prevented resumption of operations at the Dorland Mills, near Downingtown, of Shryock Brothers, the new steel water wheel began turning on Friday of last week. The mill is producing about 10 tons of binders' board daily.

The recently organized Whiting-Patterson Fellowship tendered a reception on Thursday night of last week to President Allen E. Whiting, who for several weeks had been in New England. Desks in the headquarters were removed and a well adapted dancing floor thus was provided, music being furnished by the Whiting-Patterson orchestra, recruited from employees of the store and

envelope factory. William H. George was chairman of the reception committee.

George W. Wheelwright, Jr., spoke to the Whiting-Patterson Company sales force on Friday morning last on the manufacture of the Wheelwright Best Plate Finish for which the company recently took the exclusive Philadelphia agency.

Shuttleworth Hogg & Mather have filed a petition in involuntary bankruptcy against the Southwark Bargain House and Louis Hyman and Samuel Orchow, its owners, on a claim for \$225.

Trade visitors of the week included Frank Macklin, of the Ajax Paper Mills Company; C. B. Bown, Kalamazoo Vegetable Parchment Company, and Leroy A. Rosenthal, of the United States Paper Mill, Inc., Chambersburg, Pa.

#### Finnish Wood Pulp Exports

According to statistics put out by the Finska Trasliperiforeningen (Finnish Wood Pulp Mill Union), its exports of wood pulp in 1920 constituted nearly 64 per cent of Finland's total exports of that commodity for the year, while its exports of pasteboard for the same year constituted 85 per cent.

The first chemical-pulp mills in Finland were founded in 1885. During the last few years no less than four large new mills have been started at Kemi, Raumo, Bjorneborg, and Enso. All are equipped with modern machinery, the Enso mill being especially noteworthy for its magnificent plant. The country's production of cellulose may now be estimated at about 300,000 metric tons per annum. This will be further increased during the latter part of 1921, when the Aug. Eklof A/B starts its new mill with an output of 15,000 tons of sulphite. Fifteen of the Finnish pulp mills make sulphite, six make sulphate, and one makes both.

The cellulose market during 1920 was in general the same as that for wood pulp. At the beginning of the year there was a growing demand from all quarters and a corresponding increase in prices. This continued in Europe until May and in the United States until June or July. The high price level then reached remained the same until September, after which it fell rapidly.

Most of the cellulose sold in 1920 was sulphite, sulphate cellulose having been very difficult to sell. The domestic market consumed in 1920 an important part of the cellulose produced in the country, the Finnish Cellulose Association having sold about 27 per cent at home.

England was the principal customer for Finland's cellulose in 1920, after which came the United States, taking about 30 per cent of the exports. The sales to Germany were mostly in fulfillment of old contracts. The trade restrictions and low value of German exchange have precluded further sales there, licenses being no longer granted for importation of cellulose. Moreover, Germany's own production of cellulose has now increased to such an extent that it can put considerable quantities on the market. France has also been weak as a buyer, owing to unfavorable financial conditions and the absence of a commercial agreement with Finland. Other countries have purchased only small quantities.

The chemical-pulp mills organized in 1918, at the same time as the paper mills, and formed the Finska Cellulosaforeningen (Finnish Cellulose Association), which comprises all the chemical-pulp mills in Finland.

The association states that in 1920 it exported 85,845 metric tons of cellulose, of which 52,120 tons were sulphite and 33,725 tons were sulphate, and that the total value of the products which it exported was 301,245,855 Finnish marks (\$10,041,528, at 30 marks to the dollar), compared with a total export of about 66,219 tons (42,706 tons of sulphite and 23,513 tons of sulphate) in 1919, valued at 95,235,173 marks (\$6,184,102, at 15.4 marks to the dollar).

It states that it exported about 28,780 tons of cellulose to the United States in 1920, of which sulphite comprised 16,028 tons, sulphate 11,685 tons, and screenings 1,067 tons. Its exports to the United States in 1919 amounted to about 15,000 tons, of which 6,550 tons were sulphite and 8,494 tons were sulphate.



## CHEMICAL EXPOSITION HAS INTERESTING PAPER DISPLAYS

**Matters of Interest to Paper Manufacturer Discussed and on Exhibition at National Exposition of Chemical Industries—Floor of Armory Looks Like a Miniature World's Fair—400 English and Canadian Chemists Present—Chief of Chemical Warfare Service of United States Speaks on Vital Importance of Chemistry to the Country—Discusses Disarmament—Some of the Most Interesting Displays.**

Many articles of interest to the paper manufacturer are on exhibition at the National Exposition of Chemical Industries at the Eighth Coast Artillery Armory, Jerome avenue and Kingsbridge road. Among these are beaters, fourdrinier wires, dyes for paper, and a particularly fine display of temperature and other recording instruments for the paper mill. For the first time since the inauguration of the exposition in 1915 it was necessary to open the doors last Monday, the first day of the show, half an hour in advance of the time set because of the large throng that gathered. The exposition is scheduled to last all through this week.

### Resembles Miniature World's Fair

With the 400 exhibits on one floor the Armory had the appearance of a Miniature World's Fair. Many of the exhibitors had decorated their booths and the long aisles had, in spots, a carnival aspect, that belied the seriousness of the displays. The remarkable feature of the early attendance, was that for the most part it was composed of persons not versed in Chemical technicalities. This was evident from the many questions the men in charge of various booths had to answer. A record first day's attendance of 10,000 saw the display yesterday.

### Foreign Visitors Attract Attention

Foreign visitors attracted a lot of attention. Nearly 400 English and Canadian Chemists registered at the Armory on Monday. The principal foreign visitor was Sir William Pope, one of the foremost chemists of Great Britain. Mexico and South American countries were also largely represented, more than 150 registrations from these countries being noted.

When the official opening of the exposition took place at 8:00 P. M., practically all of the exhibits were in place. Dr. Charles H. Herty, chairman of the Advisory Committee, made an address of welcome to the hundreds of visiting and local Chemists who crowded the spacious auditorium.

Charles F. Roth, who is co-manager of the exposition with Fred W. Payne, also thanked the chemists for their co-operation in making the exposition a success.

### General Fries Speaks on Disarmament

Among the many interesting speakers at the exhibition was General Amos A. Fries, Chief of the Chemical Warfare Service in the United States Army, who, in speaking on the vital importance of chemistry to the safety of any country, urged the development of the by-product and the intensive manufacture of those coal-tar derivatives that are an essential factor in modern industry, commerce and chemical warfare.

"The world today demands, and will have, dyes, photographic chemicals, perfumes, and medicines," said General Fries. "The greater part of those in common use today are products obtained by refining the coal tar from by-product coking. If we do not produce these substances other nations will. Every nation that possesses plants for these manufactures is, by that very fact, equipped to produce the most deadly agents of modern warfare,

trinitrotoluol (T-N-T), and toxic gases. It is a simple matter to convert dye plants into munition factories, and on the return of peace to re-convert them into works for the production of innocent dyes and perfumes."

### Only an Economic Measure

Explaining his statement that disarmament is only an economic measure, not an insurance against international conflagration, General Fries says: "No disarmament treaty could presume to forbid the manufacture of these necessities of civilized life. Therefore, disarmament cannot disarm. It may limit the size of navies, the size and number of guns, but it cannot prevent any nation advanced in the chemical arts from swiftly utilizing its dye plants for the manufacture of destructive gases and explosives which may be dropped from air-craft upon cities and armies in the country it desires to attack."

Already, according to the General, England, France and Italy and Japan have placed an embargo upon the importation of dyes. The British embargo is to endure for a period of ten years. Within that length of time any great nation would have developed the dye industry into formidable dimensions, and in doing that it also would have developed a great army of highly trained chemists, familiar with the multitudinous transformation of which coal-tar derivatives are capable. A highly specialized technical personnel is of greater importance even than the mere number of plants.

"Nearly one-third of all the American casualties," said he, "were the direct result of poison gases and this deadly advantage was due to the tremendous advances made by German chemists in the development of dyes and related coal-tar products."

### Interesting Displays

Among some of the most interesting of the displays was that of the National Aniline Company. A color scheme of yellow and red with Egyptian columns and tapestries with hieroglyphics combined to give a striking effect. The significance of the ancient Egyptian decoration was that these people were the first to discover the use of dyes.

Another booth containing a comprehensive display was that of Manning, Maxwell & More. Samples of the Ashcroft gauges, Hancock bronze valves, Hancock steel valves and the Ashcroft paper tester and thickness gauge were to be seen.

The Crane Company had on exhibition its emergency valves, together with all sorts of steam equipment and a model steam boiler to illustrate the use of its various pieces of equipment.

The Calco Chemical Company had a novel scheme of green and gold with a large photograph of its plant in the background. Dyes for the paper industry were included in the display.

The Foxboro Company showed a complete line of recording instruments, thermometers, and allied equipment in its handsome booth.

The Texas Gulf Sulphur Company booth was decorated in blue, gold and white with large pictures in the background showing the various steps in the mining and transportation of sulphur.

The Glens Falls Machine Works had a rotary sulphur burner on exhibition, together with knot and silver screens and many other articles of interest to the paper producer.

The Bristol Company showed a very complete line of pressure gauges, recording thermometers, pyrometers for sulphur burners, the new strip type pyrometer. All of these instruments were in actual operation.

The New England Tank and Tower Company had a good display of various kinds of agitators and turbine mixers, all of which were working at the time.

Wallace & Tiernan showed many examples of chlorine control apparatus and bleaching equipment. The Glenmorgan Pipe and Foundry Company had an interesting display of a lime kiln.

The General Electric Company had several control switchboards

(Continued on page 56)



**HIGH COLOR!**

**CLEAN!**

**STRONG!**

**MT. TOM**

**BLEACHED SULPHITE**

*May we quote?*

**A. J. PAGEL & CO., Inc.**

347 Madison Avenue

New York

## PAPER DEMAND IN CHICAGO SHOWS MORE IMPROVEMENT

Mill Representatives and Jobbers State That Business Has Been Fairly Good During the Past Week and That September Has Opened Encouragingly—Improvement Is Especially Noticeable in Book Papers, Board and Kraft—Jobbing Concerns Report a Better Demand From the Printing Trade—Despite the Advance in Prices Recently Announced the Market for Board Shows Improvement.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, September 10, 1921.—Business among the jobbing houses and mill representatives has continued fairly good during the past week. The month of September has opened encouragingly according to various members of the trade. This attitude is more noticeable among members of the trade handling book papers, board and kraft. Several of the jobbers report a better demand from printing firms.

### Central Illinois Paper Co. Organized

The Central Illinois Paper Company has recently been organized in Springfield, Ill., with offices and warehouse at 403-405 4th street.

The members of the new firm are Harry F. Boone, G. M. Jaquith and John P. Springer, all having had long experience in the wholesale paper industry.

Mr. Boone has been associated with the Springfield Paper Company, Springfield, for twenty-five years and was vice-president and sales manager. Mr. Jaquith has been associated with the same company for twenty years and was secretary and general manager. Mr. Springer has also been associated with the same company for eight years and was treasurer and financial manager.

The three resigned their positions about January 1 and opened the doors of the new enterprise July 1.

The new firm has entered the field with many friends and its business has been a success from the start.

It carries a complete line of wrapping paper, twine and cordage, paper boxes, roofing, school supplies and stationery and covers a territory consisting of nearly all of Illinois and part of Missouri.

### Board Business Improving

Paper board salesmen and mill representatives here report that despite the advance in price recently made effective, board is meeting a much better market. Board is said to be moving well. Some of the representatives here say that the past two weeks have shown better results than they have seen for several months. Incidentally the paper box business is picking up a little.

Harry Williams, identified with C. L. La Boiteaux Company, Chicago office, spent last week visiting box makers in Michigan.

E. Wilson, formerly of the Cincinnati office of C. L. La Boiteaux Company, is now identified with the Chicago office succeeding Theodore Adams, who on September 1 went with the Chicago office of the Fiqua Strawboard Company.

### General News of the Trade

The Globe Mills, one of Chicago's oldest wall paper firms, is erecting a five story and basement ware house at 4856-64 South Halsted street. It is estimated this building will cost approximately \$50,000. Completion of the structure is expected about October 15. At that time the Globe Mills will have about 30,000 square feet of surplus storage room in their new ware house.

Chicago's first news print plant is going up. The \$450,000 issue of first mortgage gold bonds have been fully subscribed to. The trust deeds for this amount have been handed over to the Fort Dearborn Trust and Savings Bank.

Members of the Western Paper Merchants' Association have been invited to sit in conference with members of the North Western Paper Merchants' Association, at Minneapolis, Thursday and Friday, October 6 and 7.

It was previously intended to hold this two-day meeting in the Minnesota City September 22 and 23 but due to important meetings in the east at about the same time the date has been changed.

W. N. Gillett, vice-president of the Chicago Paper Company and president of the Western Paper Merchants' Association, received a wire Friday, September 9, from the North Western association notifying him of the change in dates. It is expected that the Chicago delegation which will answer the invitation will consist of about 18 or 20 members of the Western association.

B. J. Ness, vice-president and general manager of the Inter-Ocean Bag and Paper Company, Inc., spent the past week on a trip to Des Moines, Ia., arriving here tonight.

### Quebec Government Cuts Stumpage Rates

The Department of Lands and Forests for the province of Quebec has issued the following notice, dated September 2: "Of all the industries affected by the world-wide crisis, none suffered to a longer extent than the timber industry. Since several months, not only have prices gone down, but demands for timber have been practically nil. Pulp and paper, which less than a year ago, commanded exceedingly high prices, have suffered the same fate, so much so that factories were either obliged to close down completely and considerably reduce their production.

"It is a well known fact that more than 25,000 persons usually find employment during the lumbering season cutting timber on leased crown lands. Owing to the gloomy prospects of sales, the majority of license holders had almost decided to suspend all lumbering operations. That spelled disaster and the government felt alarmed at the state of affairs, and after having consulted with a deputation of important lumber men of the province, decided to study the best methods to be adopted to relieve the situation. It being admitted that the rate of stumpage dues exacted by the government is an important factor in the cost of production, the question suggested itself whether or not it would be advisable to reduce the rate of stumpage dues. After careful study and inquiry, the government came to the conclusion that under the circumstance it would be wise policy to suspend, for the time being, the provisions of the Order-in-Council of the 6th October, 1920, which established the tariff of stumpage dues, and to substitute therefor the tariff established by Order-in-Council of 1918, which was lower than that of 1920 and to supply same to all operators who will cut at least 25 per cent of their last year's operations. The effect of this change will, of course, mean a reduction in the revenue of the Department of Lands and Forests, but the government deems it preferable to suffer this loss of revenue than to deprive of employment thousands of persons who are awaiting this decision. As the crops, in several sections of the province, will be rather below the average, it is of the utmost importance that the lumbering concerns do not close down. The government is therefore entitled to and deserving of congratulations for thus enabling license holders to continue their lumbering operations, thereby affording thousands of persons the means of providing for their families during the coming winter and to tide over the crisis which is felt the world over."

### \$500,000 Fire in Paper Mill Yards

WISCONSIN RAPIDS, Wis., September 13, 1921.—Fanned by a high wind, fire swept through the wood yards of the Ineekoosa-Edwards Paper Company last week at Port Edwards, south of here, causing damage estimated at more than \$500,000. Sparks from a locomotive owned by the company started the blaze, officials said. More than \$120,000 worth of logs ready for the mill were destroyed.



## *Uniformity, for one thing*

Dyers, whose output must be invariably the same, specify Calco. And not only because the entire range of Calco products is of a high quality, but because every shipment is absolutely uniform.

This fact exists by reason of the manufacturing policy of Calco. It was early decided not to place any Calco product on the market until it was being produced in sufficient volume to meet all demands; hence "Calco" and "Uniformity" have come to be practically interchangeable, in the dye field.

Calco quantity production reduces manufacturing costs and makes the price to Calco consumers extremely reasonable.

*Samples and details for the use of  
any Calco colors sent at your request.*

**THE CALCO CHEMICAL COMPANY**  
**Bound Brook N. J.**

*New York Boston Philadelphia Chicago*

## PAPER INDUSTRY OF CANADA SOUNDER THAN BEFORE WAR

**A. G. McIntyre of Clarke Bros., Ltd., Gives Out Interview In Which He Takes Very Hopeful View of the Situation—Touch of Irony in the Situation in Regard to the Prospective Loss of the Australian Markets by the Canadian Manufacturers—Outlook For the Kraft Branch of the Industry Appears Considerably Brighter—University of New Brunswick Establishes New Chair in Forestry.**

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., September 12, 1921.—A. G. McIntyre, of Clarke Brothers, Limited, of Bear River, N. S., has given out an interview in which he holds that the pulp and paper industry of Canada is in a much sounder position today than it was before the war. "We have got our production costs down to pre-war figures," he said. "We can buy chemicals and pulpwood on the same basis and our labor costs are away down. And yet we are able to market our products at considerably over the figures we received before the war. Before the war, kraft pulp sold at \$38; at the peak it was \$140, and now it is \$60. Groundwood pulp sold at around \$12 before the war. It rose as high as \$100, and today it is from \$20 to \$25. Sulphite pulps sold as high as \$180, and before the war \$32. Today's prices are about \$55.

"Those who think that the pulp and paper industry has been hit an irreparable blow by the decline in prices, are looking in the wrong direction. They are looking down from the peak of inflated prices to today's prices and see a tremendous drop. But they should look from the pre-war prices up to today's prices and note the increase.

"A mill that was not erected at the inflated unreasonable costs of the past two or three years, that is close to its supplies of raw materials and that can get its labor and other costs down, should be very successful and prosperous from now on."

Mr. McIntyre referred to the recent Underwood resolution introduced into the United States Senate which calls for a conference with Canada, having as its end the free export of pulpwood from Canada to the United States, and stated that he was opposed to any such move. "Not only should the present restrictions on the export of pulpwood be retained, but export of pulp from freehold lands should be prohibited," he declared. "Pulpwood exported from Canada would bring from \$4 to \$6 a chord to the country."

The new kraft mill and plant of Clarke Brothers, Limited, at Bear River, N. S., commenced operations during the past week. Clarke Brothers are well known lumbermen and woodworkers, and their new kraft plant will have a capacity of 30 tons a day.

### The Australian Market

There is a touch of irony in the situation in regard to the prospective loss of the Australian market by Canadian paper manufacturers. As has been stated, Australia has passed a bill giving paper makers in Great Britain a preference of £3 per ton, or roughly \$15, on news print and 10 per cent ad valorem on other grades of paper, such as kraft, book and bond paper. The Montreal paper interests, who have been inquiring into the reason for granting this exclusive preference to Great Britain, have been told that the passage of the bill in the Australian Parliament was urged on the ground that it would "preserve the solidarity of the Empire" and help to give employment to returned soldiers. Seeing that the effect of the bill is calculated to shut Canada out of the market, the paper makers here are wondering how the promoters of the bill in Australia consider that it would preserve the solidarity of the Empire. There is also some criticism of the Trade and Commerce Department in Ottawa. Some years ago, Sir George Foster, Minister of Trade and Commerce, paid a visit to Australia, ostensibly with the object

of bringing about a preferential trade agreement between Australia and Canada. But his visit did not result in the improved relations that had been hoped for. Mark Sheldon, Australian Trade Commissioner, came up from New York about nine months ago, and at a meeting in Toronto, gave an outline of the bill, which was then in embryo, and suggested that Canada should get into communication with the Australian Government with a view to modifying its terms in favor of Canada. Apparently, nothing was done by the Canadian Government. Ultimately, H. G. Ross, Canadian Trade Commissioner at Melbourne, Australia, made a belated effort to have the bill so modified as to permit Canada of competing in the Australian market. But he was unsuccessful. The provisions of the bill come into effect early next year, and meanwhile it is likely that there will be a further endeavor to modify its provisions. The details of the bill are not known here, but it is presumed, as in the case of all tariff bills, there are clauses which will permit of modifications on a reciprocal basis. Meanwhile, it is stated, Sir George Foster is likely to retire from the position of Minister of Trade and Commerce, and it is hoped that a younger minister with practical knowledge of trade problems will take his place, and give the close attention to trade matters which is held to be absolutely necessary. At present, Canada exports about \$4,000,000 worth of news print to Australia, and over \$1,000,000 worth of other paper. The mills affected are chiefly those in British Columbia, who must naturally look across the Pacific for markets.

### The Riordon Company

The only development of the week in regard to the Riordon Company, so far as is publicly known, is the entering of an action against the company by the Robert A. Fuller Company for a sum of close upon \$1,000,000. It is stated that this action is being taken not with any idea of embarrassing the company, but to protect the Fuller interests. Meanwhile, it is known that important negotiations are proceeding and the hope is expressed that at an early date a definite scheme for the reorganization of the company will be announced.

### Better Outlook for Kraft Paper

Reports which have been appearing frequently of late to the effect that an increase was developing in the demand for "kraft" paper seem to have taken definite shape in a decidedly brighter outlook for that branch of the paper industry. Representatives of mills manufacturing that grade of paper have been reluctant heretofore to make any prophecy as to future business on the strength of the more brisk demand which has recently been noted, but a canvass of the situation now reveals the fact that there is a strongly founded feeling that the improvement is permanent and that the near future will see still further betterment.

The movement is supposedly based upon the gradual improvement of business in the United States. Many firms had large quantities of kraft paper on hand when the slump came early in 1920. It is reported on good authority that these supplies are about exhausted and that orders are coming in, in increasing volume for new stock. While there has as yet been no change in prices, it was stated that they would undoubtedly be higher in October if the present improvement is maintained.

### Care of Forestry in N. B.

Announcement has been made that the University of New Brunswick has established a new chair in Forestry. Since the department was established some thirteen years ago there has been but one technical forester in the employ of the University. The demand for foresters has been so heavy in recent years that a second instructor has been appointed, and it is hoped that still further development will come in the near future.

### Abitibi's New Contract

According to the *Canada Lumberman*, the Abitibi Power and Paper Company recently signed a contract with the Hearst organization, New York, for what is said to be in the neighborhood of 120 tons a day of news print, or about 36,000 tons a year.



# "Coming Clean" On Contracts As Well As With Coal —



**N**OTWITHSTANDING interruptions due to strikes of miners, laborers, switchmen and longshoremen; car shortages and embargoes on transportation, we fulfilled our contract obligations during the high market period of 1920. This record is due to the fact that we maintain active control of mining, preparation and shipment of every ton of coal we sell.

Empire Bituminous Steam Coal is produced in Cambria and Indiana Counties, Pennsylvania, where we own and manage eight mines. Here in modern equipped tipples Empire Coal is thoroughly cleaned and prepared for market.

Before placing your contract get in touch with our nearest office, and let us talk good coal, right prices and guaranteed shipments.

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BOSTON

## PRICES ARE AGAIN REDUCED IN TORONTO PAPER MARKET

**In Spite of the Reductions There Is, However, a Gradual Improvement in the Demand—Orders That Are Placed Are Wanted Immediately, Showing That Stocks Have Reached a Very Low Point—Mills Are Running More Steadily Than They Have For Some Time Past and a Continued Improvement In Conditions Is Looked Forward To As the Fall Advances—Other News of the Trade.**

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, September 12, 1921.—These are days when it is never safe to make any prophecies in the paper trade, either regarding prices or orders. There is a gradual improvement in trade and the number of small orders are increasing in all lines of paper, with the result that mills are running much more fully than they have for some time past. All business placed is desired in a hurry, showing that stocks have been allowed to run low. There is also a better feeling prevailing among the wholesalers and consumers and further improvement in conditions is looked for as the fall advances.

The surprise has come, however, in the reduction in prices on several lines. This has been brought about quite unexpectedly due to several reasons, and among them are American competition, the gradual reduction in the price of pulp and other raw materials and the clamor of the publishers using book papers for cheaper rates. A meeting of the publishers of trade and class journals was held with representatives of several book mills during the past week, at which the publishers put up a strong plea in favor of a reduction of one to two cents in the quotations for paper. They contended that advertisers were in many cases presenting strong arguments for lower rates and that they had been offered paper much cheaper by American mills and, in view of the general commercial and industrial depression, should obtain their supply of paper cheaper. No direct decision was arrived at but there has since been a general reduction in the price of several lines of fine papers which went into effect this week. Up to ten cents the drop is one-half cent a pound, f. o. b. mill; on papers selling from ten to fifteen cents, the decrease is one cent, and above fifteen cents the figure has been cut a cent and a half a pound.

### Toilets, Tissues and Paper Bags Decline

The figures on toilets and tissues have undergone a change, the decrease being on the average ten per cent. This is the first downward revision since May 9 last. The new list is as follows on toilet papers. No. 1 white—24 x 36—\$1.75 per ream; 20 x 30—\$1.25; white cap or natural tissue—\$1.35 and 95 cents; No. 2 manila—\$1.15 and 85 cents; No. 1 manila, kraft or sulphite—\$1.55 and \$1.10. The mills are quite active and report having orders ahead for some time.

There has also been a reduction of ten per cent in the price of paper bags and, in car lots, the following now prevails off list prices: Standard bags, 55, 10, 10 and 5; light kraft bags, 55, 10, 10 and 5; heavy kraft bags, 65, 10 and 5; white bags, 45, 10, 10 and 5.

### Demand for Pulpwood Very Limited

The demand for pulpwood is very limited at the present time and contractors are not entering into heavy commitments for the coming year as the mills are all well stocked up. One large Toronto firm which last year handled thirty-five thousand cords is not planning to buy more than half this quantity for the coming twelve months. Many inquiries are being received in regard to prices but there will be no speculative buying on the part of contractors the same as there was a year ago. South of North Bay, which is 227 miles north of Toronto, \$12.50 to \$13 per cord is being paid,

f. o. b. cars, for peeled spruce pulpwood on contract, and from North Bay to Cochrane, the rate is \$9 per cord, owing to the heavier freight charges. Poplar and balsam peeled is selling south of North Bay at \$8 per cord and above North Bay as low as \$5 per cord, with a much larger supply in sight than will be bought up. Mills are very slow about making any definite arrangements with buyers.

### Mr. Backus Seeking More Concessions

E. W. Backus, of the Fort Frances Pulp and Paper Company, Fort Frances, Ont., who some time ago secured the English river pulpwood limits and White Dog Falls from the Ontario government, is making application to the provincial authorities to lease the power rights on the Seine river. It is said that control of the Seine river would give to Mr. Backus practically all the power resources in that portion of Ontario between Lake Superior and the Manitoba boundary and the water levels would be subject to his regulation.

### Price of Newspapers May Be Reduced

It is said that a number of the larger newspapers in Ontario may reduce the price of their papers owing to the decrease in the figure for news print. The new policy is expected to increase the consumption of print paper. A number of publishers are planning large circulation campaigns and a reduction in the price of the dailies will stimulate this. This will be good news to the mills and it is felt that the increase in consumption will far more than counteract the decrease that has resulted from a number of amalgamations of newspapers that have taken place within the last three or four years, or from the failures in a number of other cases.

### Gummed Paper Plant Wiped Out by Fire

The plant of Gummed Papers, Limited, which is located at Brampton, about twenty-five miles west of Toronto, was destroyed by fire on September 10. The blaze started in the laboratory of the building and its origin is unknown, and now nothing but the brick walls are left standing. The company manufactured gummed papers, tape and other similar lines and had just completed a large order for shipment to Japan. The firm had been in operation about ten years and had built up a big business. E. R. Colbert and W. J. Hood are the heads of the concern. The loss is about \$60,000, partly covered by insurance. Gummed Papers will rebuild at an early date.

### General Jottings and Personal Paragraphs

The Provincial Paper Mills, Toronto, have declared their regular quarterly dividend of one and three-quarter per cent on the preferred stock of the company and one and one-half per cent on the common stock.

A. M. Barkwell, president of the Barkwell Paper Company, Winnipeg, was in Toronto last week calling upon the trade.

T. J. Allen, vice-president of Paper Sales, Limited, Toronto, has returned from a successful fishing expedition in the North and reports having a very enjoyable holiday.

A provincial charter has been granted to Stinson-Beale, Limited, with head office in Hamilton and a capital stock of \$40,000, to carry on a general printing, bookbinding and stationery business and to acquire the assets of Stinson-Beale.

The printers' strike in Toronto has entered upon its fourth month with no signs of settlement. Both the bosses and the men are holding firm. The strikers are starting a co-operative job printing plant and considerable capital has already been subscribed by them toward the financing of the project.

Owing to the high cost of publication two more newspapers in Ontario have gone out of business. They are the *Chatsworth News*, established for thirty-six years, and the *Wellesley Maple Leaf*, established twenty-one years. During the last four years the cost of production has increased from 200 to 300 per cent while the income has not kept pace with the advance. This has caused the suspension or amalgamation of over 200 papers in Canada during the past few years.

# J. Andersen & Co.

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

## A-1 Bleached Sulphite

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

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## KRAFT PULP

*Uniform in Quality*  
*Essential for Strength Requirement*

**The Pulp and Paper Trading Company**  
21 East 40th St., New York, N. Y.

Sole Agents for United States for  
**CANADIAN KRAFT, Ltd.** Three Rivers, Canada



## New York Trade Jottings

Victory Box Company, Inc., manufacturer of cardboard boxes at 121 Greene street, Tuesday, effected a composition with creditors on a basis of 35 per cent.

\* \* \*

T. J. Burke, Secretary-Treasurer of the Cost Association of the Paper Industry, attended the National Cost Accountants' Convention at Cleveland this week.

\* \* \*

Dr. Hugh P. Baker, Executive Secretary of the American Paper and Pulp Association, attended a meeting of the Salesmen's Association at Boston last Wednesday.

\* \* \*

The Rockland Paper Mills Company, Inc., at 97 Prince street, has assigned to Harry N. Wessel. Santa A. Giacobbe is president of the company, which was incorporated in 1919.

\* \* \*

The European & Far Eastern Sales Company, Inc., has been appointed the sole sales agent in the United States of the Uebersee-Handel, G. M. B. H., of Berlin. The former is located at 6 Stone street with the telephone number Bowling Green 3593.

\* \* \*

The Executive Committee of the American Paper and Pulp Association were the guests of the National Industrial Conference Board at lunch last Thursday. The afternoon was given over to a regular meeting of the committee at the offices of the Association at 18 East 41st street.

\* \* \*

W. B. Duryea has accepted a position in the Pulp Selling Department of the Penobscot Chemical Fibre Company, 49 Federal street, Boston, after resigning his position as salesman for Wilkinson Brothers, of this city, where he served two years. He was employed by the Ticonderoga Pulp and Paper Company for many years in its offices in this city and was well known in the New York trade. He also served in the army during the war and was discharged in 1919.

\* \* \*

The Wall Street Division of the School of Commerce of New York University will reopen for the fall term on September 20th. This division of the University has developed rapidly and the registrations for the courses this year indicate that it will have a record number of students in the school. The Wall Street Division aims particularly to offer courses which will be of service to the employees of firms in the downtown district and its curriculum for this reason indicates courses in language, finance, insurance, foreign trade, and shipping which are intended to meet chiefly the practical needs of such men.

### Pulp from Alfa in Algiers

Alfa is the Algerian name of a grass called in American and English trade esparto and designated in botany as *Stipa tenacissima*, or tenacious feathergrass. Besides the Arabic term halfa, the natives of Algeria name it senaug, soenaghr, and sengha, writes Charles Bellaiche, clerk in the American Consulate, Algiers.

The alfa region in Algeria covers several million hectares, occupying particularly the highland zone. The plant grows at an altitude of 1,000 to 4,000 feet, but does not thrive where the average rainfall exceeds 23.62 inches.

Weight and size of leaf vary with altitude, the heaviest and largest growing on sandy-clayish alluvia, the medium on steppes and highlands, and the lightest and smallest in mountainous regions.

According to its commercial uses, alfa is classified as: (1) Spartum alfa, for manufacture of ropes, mats, etc.; (2) that used for paper making; (3) a variety for the basket trade.

### Alfa for Paper Making—Kaolin

Analysis of Spanish esparto and African alfa shows that each is susceptible of giving nearly 50 per cent of its weight in cellulose (48.25 per cent for the Spanish and 45.8 per cent for the African); whereas corn gives 45.9 per cent, oats 41.7 per cent, wheat 41 per cent, barley 37.9 per cent, maize 29 per cent, and wood shavings 30 to 40 per cent.

The yellow leaves of alfa or esparto are less rich in cellulose and the paper from them is less resistant; leaves that grow ripe are heavily charged with silica and oxide of iron which render whitening more difficult.

Kaolin, used as loading in news print and lower grades of writing paper, is also found in Algeria in large quantities.

### Manufacture of Alfa Pulp in Algeria

The two difficulties which made the manufacture of paper pulp in Algeria seem impractical until of late—excess of chalk and salt in local waters, and the high percentage of liquid required for preserving and transporting the finished and whitened pulp—have been overcome through the researches of a French engineer.

The result is a new type of pulp called "demi-demi," which can be pressed into minimum volume and transported dry. It can be kept indefinitely and used as required by diluting, washing, finishing, and whitening the dry product. Two cubic meters (2.615 cubic yards) of demi-demi pulp, weighing 1,000 kilos (2,204 pounds avoirdupois), represents the equivalent of from 10 to 12 cubic meters (13.07 to 15.69 cubic yards) of raw alfa weighing 2,000 kilos (4,408 pounds), thus effecting an economy in freight of 50 per cent in weight, or 500 to 600 per cent in volume.

French groups have organized for making pulp from alfa at a minimum cost of production; but as there is practically no coal in North Africa and hydroelectric resources undeveloped, and as water sufficient for complete treatment is unobtainable in certain important alfa zones, it is thought by many the Algerian annual output of alfa pulp will be less than the demand for several years and that prices will be fairly well maintained.

It is reported in the local press that a company in Algiers, with a capital of 2,000,000 francs, is going to build its first factory for paper pulp in the alfa region at Ain el Hadjar, near Saida, on the railroad from Oran to Colomb-Bechar.

### Exports of Algerian Alfa, 1910-1920

Algerian exports of alfa in 1920 amounted to 53,982 metric tons, valued at about 13,500,000 francs. This was but little more than half the quantity exported in 1910 and considerably less than half that of 1912—the year of greatest export, when the quantity reached 117,632 tons and the average price was 75 francs per ton, or a total value of over 8,800,000 francs. The year 1919 was the worst, exports falling off to 5,888 tons, chiefly through the lack of railroad facilities from centers of production to seaports.

In general, about 80 per cent of all alfa exports have been through the ports of Oran and Arzew, about 10 per cent through Bona, and the remainder from Algiers, Philippeville, and Bougie.

The principal customer for Algerian alfa has been England, which absorbs from 90 to 95 per cent of the exports.

### Paper Concerns Incorporate

BARRE, Vt., September 13, 1921.—The Babbitt-Kelley Paper Company of Bellows Falls, with a capital stock of \$100,000, has filed articles of association in the secretary of state's office to manufacture paper in that village. The company also certifies that its \$1,000,000 is paid up. The papers are signed by F. H. Babbitt, E. W. and H. T. Kelley of Bellows Falls.

The Robertson Paper Company, Inc., of the same village, has filed articles of incorporation in the same office to conduct a similar business. Their capital stock is \$200,000, divided into 2,000 shares at \$100 a share. These papers are signed by Joseph E. Babbitt, Marion B. Babbitt and F. H. Babbitt of Bellows Falls.



**With a Bird Continuous Beater  
Attachment You Can**

1. Greatly increase the output of each beater  
—in most cases double it.
2. Reduce the number of beaters in operation  
—usually by half.
3. Decrease the consumption of power used  
for beating by approximately half.
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## UTILIZATION OF CELLULOSE WASTE LIQUORS

By LOUIS EDGAR ANDES IN "KUNSTSTOFFE," TRANSLATED BY CLARENCE J. WEST

(Continued from the PAPER TRADE JOURNAL of September 8, 1921.)

The adhesive properties of the sulphite waste liquor, especially the concentrated liquor, suggested its use as a binding agent for finely divided fuel as well as in the manufacture of briquettes. In practice one uses not only the cellulose waste liquors but also the "cell pitch" resulting by the complete evaporation of the water from the liquors. The cell pitch, which will be discussed fully later, somewhat resembles rosin (colophony) in its composition, decomposes when heated without softening, burns without soot or smoke and has practically no odor. The solubility in water, which is a property of this material, is a serious disadvantage, since it influences the stability of the briquettes, but it can hardly be overcome. In the same way charcoal (Glühkohlen) may be prepared by the use of the waste liquor or cell pitch. A measured or weighed amount of the dust of charcoal in a mixing apparatus is treated with the binding agent (which flows in through a tube) while the dust is being stirred. The amount of binder to be added is that quantity which will completely moisten the powder and allow it to be pressed into a ball in the hands. The mass is then pressed into cylinders in proper presses and further dried in a drying chamber.

Of the different methods of preparing briquettes that of the firm of Max Elb, G. m. b. H., Dresden, may be mentioned. In this the adhesive properties of the waste liquor are increased by the addition of an aldehyde. One adds to the dilute waste liquor or during the process of evaporation an aldehyde, for example, from 3 to 5 per cent of 40 per cent formaldehyde or acetaldehyde; because of the increased adhesive properties, less of the liquor is needed for cementing the charcoal dust. This preliminary treatment also decreases the amount of residual ash. A higher evolution of heat from the prepared coal is obtained by the addition of oxygen fixing substances, such as potassium nitrate or chlorate, during the process of manufacture. An example follows: 100 parts carbon dust, 5 parts potassium chlorate, dissolved in water, and 8 parts sulphite waste liquor. Because the product prepared in this way burns too rapidly, it is advisable to add a milder agent, one which melts when heated and then has glass-like properties, which hinders the access of the air. Such an agent is borax. Salts of perboric acid also serve the same purpose (patent of Julius Wertheim, Frankfurt). Such a product burns from the very first with an intensive heat but with little flame or smoke.

### As a Lubricating Agent

Although the sulphite waste liquor is generally considered as an aqueous fluid and as not having fat-like properties, its use has been proposed as a lubricating agent, and many processes have been proposed for its preparation, though most of these are of little value. This matter has been discussed by Marcusson of the Materialprüfungsamt in Gr.-Lichterfelde (Mitteilungen, 1918, nos. 1-2). The war industries used substitutes in place of the boring liquids prepared from the so-called water-soluble mineral oils, which in general were of two classes, "oil-free" and "oil-containing." In the first class, the principal members were sulphite liquor, and extracts containing plant glues as well as glue solutions: The sulphite liquor was not used in its crude condition, but was first concentrated and treated with alkali for the purpose of preventing rust formation. It is, like the other boring agents as well as the substitutes, miscible with water without forming a milky suspension and it leaves brown flakes on the metal being worked only when it is very strongly alkaline. These also form because the tannin-like constituents separate upon great dilution. Oil-containing boring agents are also prepared from sulphite liquor; for example, 80 parts of a sulphite liquor, containing alkali and concentrated to at least

28° Bé. are mixed with 15 parts of animal or mineral oil. The oil addition simply gives a substitute that forms a milky emulsion with water and thus imitates a true boring oil, which also forms a milky suspension when poured into water. A differentiation of the two is very easily made, since the true boring oil (mineral oil) forms a true solution when treated with ether, while the substitute forms two layers, an aqueous lower layer and an ether-oil upper layer. The emulsion of the substitute oil with water is not as white as that of the true oil, being rather yellowish or brown, and the emulsion is not as stable.

According to another method 20 parts of waste liquor (28° Bé.) are treated with 3 parts of sodium hydroxide or carbonate and 3 parts of cheap vegetable or mineral oil emulsified with the mixture. In Swedish pulp mills lubricating oils were prepared from the waste liquor (Tallöl) by mixing the material with oils or turpentine; the kind and amount of the admixture is determined by the speed of the shaft and the load.

The Kirchbach works in Goslar-Harz (German patent 302,188) mixes with the sulphite liquor fats, oils, graphite, talc, or other slippery mineral substances, such as clay, also precipitated aluminium hydroxide or similar substances, in order to prepare a lubricant for machine parts; this gives a cheaper lubricant and at the same time increases the lubricating power of the material and also increases the capacity of the fats to adhere to the surface to be lubricated.

Another process consists in mixing material such as talc, graphite, etc., which, when finely ground, have marked lubricating properties, with molasses in order to obtain uniform distribution and better adherence to the surface to be lubricated. Sulphite waste liquors may be substituted for the molasses, which is more valuable as a food-stuff or for other purposes.

### Preparation of Emulsions

The firm of Albert & Berend (Austrian patent 72,451) uses the concentrated waste liquor for the preparation of emulsions of asphalt, tar, pitch, resins, oils, balsams, etc.; the product should be neutral or very slightly alkaline and should be used in relatively small amounts. The two products are intimately mixed with a little water; after evaporation of the water a difficultly soluble or insoluble mass is obtained. One may use, in place of water, acid or neutral salt solutions, solutions of tannins or formaldehyde. In order to obtain solid products which are water-resistant, metallic chlorides are used, for example, calcium chloride, magnesium chloride, or zinc chloride and the resulting emulsion treated with the oxide or carbonate of the metal used.

### Other Preparations

Hüttenes & Gerling in Duisburg uses the sulphite waste liquor for the preparation of substitutes for boring oils in the metal industries, machine works, laboratory, etc., in place of the real fat-containing oil. Saponifying agents, especially sodium hydroxide, are added to the solid, liquid, or pulverized form of the waste liquor.


A substitute for rosin oil is prepared by mixing the concentrated sulphite liquor (30° Bé.) with 20 to 30 parts of slaked lime, best while one passes the mixture through a sieve. Then one slowly adds, with stirring, a measured amount of paraffin oil. The required consistency is obtained by mixing with talc, which is mixed with chalk. The paraffin oil may be replaced in part, at least in the winter, by magnesium chloride solution of 30-35° Bé.

Wilson of Tammersford, Finland, has succeeded in preparing dyestuffs from sulphite waste liquor; while the first dyes were red

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## UTILIZATION OF CELLULOSE WASTE LIQUORS

(Continued from page 30)

and yellow only, there is no doubt that the process may be extended and other colors obtained. He obtains as the basis cymene, from which he is able to prepare by rather simple methods yellow and red cotton and woolen dyes. At Tammersford, which is the center of the Finnish textile industry, a factory is in operation, using this process. Wilonem calculates that the waste liquor from the Scandinavian and Finnish pulp mills will yield 300 tons of cymene yearly.

In Norway an industry is based upon a discovery by the Engineer Strehlenert of the preparation of coal from the waste liquor. According to the inventor, one obtains a product which has the same heating effect of the best coal, or about 3,900 calories. One factory is in operation in Norway and two are being built in Sweden. If all the waste liquor in Norway were used for this purpose, a million tons of sulphite coal could be prepared, which is about 30 per cent of the coal imported into Norway.

A further important use of the waste liquors is that patented by the Badische Anilin- und Sodafabrik in Ludwigshafen a. Rh. (German patents 222,191, 222,536, 225,636 and 274,979). In order to obtain a fine suspension of dyestuffs which are insoluble in water, the dyestuffs themselves or the solutions or suspensions of the components or the leuco compounds are treated with sulphite waste liquor (sulphite pitch, cell-pitch). It has been found that glycerol pitch may be used in the same manner.

### Insoluble Impregnating Agent

Emil Polaczek in Specia (German patent 274,084) prepared an insoluble impregnating agent (adhesive), which he describes as follows: Attempts have been made to prepare binding agents and adhesives from sulphite waste liquors by evaporation after the addition of lime. Up to the present this has not been entirely satisfactory because (1) the waste liquor contains free acid, which attacks the concentrating vessels and the concentrated liquor, when treated with the lime, foams at certain concentrations and the mass bakes on the walls of the vessel; (2) the solidified adhesive is very difficultly removed from the concentrating vessel; (3) the adhesive properties of the finished product is not conducive to packing and shipping; (4) the product, at first hard brittle, soon becomes sticky and viscous by absorption of water from the air; (5) the products prepared from the waste sulphite liquors are water soluble. According to Polaczek the waste liquors are treated with a slight excess of lime and evaporated until a scum begins to form. A certain quantity of heavy mineral oil is then added drop by drop, which enables the compounds of lime to be filtered off, together with much of the oil. The clear liquid is then further evaporated until a test shows that it is just liquid (the product flows from a glass rod without solidifying) and about 5 per cent of heavy mineral oil is worked into the hot mass. In order to render the product insoluble in water, a further quantity of heavy mineral oil is worked in so that 5 parts of oil are present for 4 parts of the product. The whole is then mixed with 1.5 parts of lime paste and again boiled. This forms a binding agent for pulverized and fine-grained substances, compounds insoluble in water, or an impregnating agent for wood, hemp rope and similar products. Fifty parts of the product, 50 parts heavy oil freed from benzine and 15 to 20 parts of calcium hydroxide are mixed, treated with sufficient water and heated in the air until the liquid has a density of from 20 to 25° Bé. In order to obtain a composition suitable for briquetting coal dust, 100 parts of the material require 4 to 5 parts of the adhesive, 5 parts of heavy oil and 2 parts of burnt lime. The water addition is so regulated that the binding agent has a density of 32 to 35° Bé. An insulating material is prepared from 5 to 10 parts of the adhesive, 1 to 5 parts of heavy oil and 8 to 15 parts of lime for 100 parts of the final product.

The waste liquor has also been considered as a purifying or washing agent. During the general lack of raw materials for the soap industry, various plants considered the possibility of preparing a satisfactory washing material from the waste liquor, but the experiments did not give the desired results. A certain purifying and washing action of the liquor due to the presence of salts of lignosulphonic acids cannot be made use of because the same liquor contains dyeing materials. It is therefore possible to obtain an approximately clear wash only if very thorough rinsing is employed, a process which as a rule cannot be carried out. The use of the waste liquor as a washing agent has therefore been discarded for the present, though there is no reason why the carrier of this cleansing property could not be isolated from the crude liquor and be so purified that it could be used. The precipitation of the calcium soap when using hard water in connection with soap may be avoided by the use of a water soluble colloid, such as glue, protein, or its decomposition products or sulphite liquor in which the calcium has been replaced by alkali. For example, one might add to a washing bath of ordinary hard water a glue solution in such form that from 0.02 to 0.1 gram of glue was present in each liter. Upon the addition of soap, one would obtain a soap bath in which the soap remains dissolved. Even when the wash is rinsed with hard water there is no precipitation of the soap.

Sames Hough, of Toledo, has proposed (German patent 234,222) the isolation of rosins from the soluble lignin-resin mixture obtained by heating wood with sodium hydroxide under pressure. Upon long standing and cooling of the reaction product a precipitate forms, from which the rosin is obtained in the usual manner. The cooking liquor and the wash waters are obtained as usual, and upon standing, the rosin salts precipitate in solid form. Upon separation of these alkali salts, they may be used as soaps, or may be worked up into free rosin after decolorizing and acidification. The alkali salts may also be distilled, giving rise to valuable oils. The method proposed by A. D. Fest for the utilization of the sulphite liquors is not clear as to purpose nor certain as to operation. The liquor is concentrated and treated by fermentation for the recovery of alcohol, while solid substances are precipitated from the residual solution.

The precipitate is calcined and the gases are brought in contact with an agent capable of extracting sulphur dioxide for the production of calcium bisulphite.

### Removing Poisons from Waste Liquor

A method for removing the poisons of the waste liquor after removal of the sulphurous acid and neutralization of the liquor is proposed by Ernst Jacoby (German patent 310,318); one removes certain harmful substances (micro-organisms) by the addition of small amounts of an absorbing substance, such as kaolin, humin and the like. The liquor, after treatment with lime, filtration, and addition of humus, may be treated with a small amount of a heavy metal in order to completely coagulate the humus. The process may be so changed that the liquor is first treated with the absorbing substances, then with the heavy metal, and finally neutralized and filtered.

### As Surfacing Agent for Roads

A discussion of the use of the waste liquors as a surfacing agent for roads (binder for road dust) is given by Rohland in *Z. öffentliche Chemie*, 30, No. 9 (1915); the composition of the liquor used for this purpose was:

Lignin and its decomposition products, 5 per cent; sulphurous acid, 0.2-0.3; protein, 0.15; carbohydrate, 3.25; rosins and waxes,

(Continued on page 34)





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## UTILIZATION OF CELLULOSE WASTE LIQUORS

(Continued from page 32)

0.03; lime, 0.9. The greater part of the substances contained in the waste liquor, such as lignin, carbohydrates, rosins, waxes, proteins, is colloidal in nature. The use as a dust-binding agent is simple, even though the assumption of Rohland's regarding the price—he held it to be worth practically nothing—is no longer true. It removes the dust and dirt layer from the street; the liquid is regenerated upon sprinkling the streets, and in dry weather it forms a resinous layer on the surface of the street which persists for some time. Therefore the waste liquor seems to be a very suitable dust binding agent; its advantage lies in the content of colloids, which gives a certain elasticity to the road bed, since colloidal properties and elasticity or plasticity, are rather closely related. The increased elasticity is especially favorable to motor vehicles of all kinds.

In moist weather there is mud or slime, since the colloidal substances possess the property of absorbing large quantities of water, accompanied by swelling, but drying of this mixture proceeds fairly rapidly. Another advantage which it possesses is the fact that shoes, iron (horseshoes) and rubber are not, as far as present observation go, attacked by the product. A certain disadvantage lies in the content of sulphurous acid—0.2 to 0.3 per cent—which has a harmful effect on the plants in the streets. However this happens only where the liquid flows down the surface of the road. In order to save cost of transportation over long distances, cell pitch may be used in place of the liquor. This contains only about 10 per cent water. When desired for use it may be dissolved in water to give a 5 to 20 per cent solution. It has been calculated that the yearly need per square meter (assuming an average amount of dust) is about  $\frac{3}{4}$  kilo; one application is effective for from two to six weeks; if  $\frac{3}{4}$  kilo is placed at one time on a square meter of the surface of a street, sprinkling with water is sufficient. The application of the material over one or two years appears to completely saturate the surface with the colloids, the maintenance cost is diminished and the length of life of the street increased.

### As Food for Man and Animals

All of the uses thus far mentioned for the waste sulphite liquor—all have been tried with more or less success—have been of purely technical importance. Of special interest however, are those applications dealing with its use as a food for man as well as for animals. It is particularly gratifying to note that efforts in this direction have met with some success. Three special lines deserve special mention: the preparation of yeast fat, fodder and alcohol or sugar.

In the preparation of yeast fat, which may serve as a food, and from which about 350,000 calories may be obtained as compared with about 75,000 calories if the liquor is transformed into alcohol, the liquor may be used as such. Assuming the correctness of this data, it is self-evident that the waste product should be used only for this purpose. The new process has been proved by laboratory experiments. A fat content of the fungus of from 25 to 30 per cent has been obtained.

The difficulty of the process consists principally in the fact that the fungi grow only on the surface of the liquid, so that the cost of production, based on the unit of weight, will be very high. This is in addition to the fact that the gathering of the fungi, as well as the necessary protection against infection and finally the preparation of fat from the fungi are not easy operations and will also add to the cost of the product and greatly influence the economics of the process. It is to be further observed that the time of development to the collec-

tion of the fungi is five days, while in the case of yeast preparation a harvest may be obtained in about eight hours. The production process therefore requires fifteen times as long which means that, for an equal production, the factory must be proportionally larger. It follows, therefore, that the fat which may be obtained from the fungi is rather expensive. Even if one could assume that the waste sulphite liquor could be obtained very cheaply, which is not possible today, the necessity of neutralization would raise the price considerably. An approximate balance sheet for the process would read about as follows:

The following are needed for the production of 100 kilos of dry fungi (10 per cent water):

About 10 cubic meters sulphite waste liquors, 3 kilos of superphosphate, 7 kilos of urea, 4.5 kilos of potassium chloride and 2.5 kilos of magnesium sulphate. Supposing that a cubic meter of sulphite liquors costs about 55 marks, that the cost of neutralization per 1 kilo of fat and the neutralization of the 10 cubic meters of liquor cost only 5 marks and further, that the cost of the other nutrient materials per kilo of fat was 2.80 marks, that would be true only if about 25 kilos of fat were obtained from the fungi. To this must be added of course, the factory cost of operation, depreciation, and all the other overhead expenses that enter into a factory operation. The final figure would approximate 5 marks per kilo of fat, with still a question as to the suitability of the product as a human food.

### Simple Treatment to Obtain Fodder

König *Z. angew. Chem.* 40, 155 (1919), has shown that a satisfactory fodder may be obtained from the waste liquors if the following simple treatment is carried out:

1. Complete neutralization of the warmed waste liquor with carbonate of lime to slightly alkaline reaction. If during the fermentation the liquor has a slightly acid reaction, the product should be made slightly alkaline after the fermentation.

2. Very vigorous treatment of the neutralized unfermented or fermented product, best by allowing the product to trickle over a galvanized wire net or a graduation apparatus. This not only oxidizes a part of the sulphurous acid which is present but also saturates the polybenzenes present with oxygen.

3. Concentration and mixing of the product after fermentation and treatment with air with dry foddors. The concentration must be carried out with steam, care being taken to avoid the formation of bitter substances through caramelization of the sugar. The dry foddors which may act as carriers for the waste liquor are specially dried brewers' grains and chopped hay; bran, malt sprouts, and other materials may also be used. The mixture of waste liquor and dry fodder is dried at a temperature not exceeding 100° until the moisture content is less than 12 per cent. This removes volatile substances which possess a disagreeable taste or are harmful, and at the same time the mass loses its sticky nature and may be preserved unchanged. Since the waste liquor contains a large percentage of sugars, dextrins and lignin (carbohydrates), it contains a large amount of foodstuffs.

The sulphurous acid content of the mixed food is a variable factor, as is also the organically-bound sulphur, probably present as sulphite compounds. Both acids are bound with calcium and have scarcely any detrimental effects as shown by the experiments carried out with the product. In the feeding experiments it was found that rabbits utilized only 4.42 per cent

(Continued on page 36)

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## UTILIZATION OF CELLULOSE WASTE LIQUORS

(Continued from page 34)

of the lignin of the feed, swine only 8.01 per cent, while the digestibility of cellulose was 26.66 and 19.3 per cent. The ruminants showed better utilization. Sheep digested from 23.2 to 43.3 per cent of the lignin in clover and meadow hay, and 56.7 and 83.4 per cent of the cellulose. The addition of the sulphite food caused an increase in the appetite.

The fermented waste liquor would appear to be of value as a foodstuff.

### Preparation of Alcohol

Of very great importance is the preparation of alcohol from this waste product; a number of investigators have occupied themselves with the question and a number of patents have been secured covering this process, the value of many of which is extremely doubtful. Among the non-cellulosic constituents of the wood are 14 per cent of carbohydrate, which serves as the starting point for the manufacture of alcohol. Lindsey and Tollens have shown that these carbohydrates are largely water-soluble and that they consist principally of pentosans and hexosans, which are known to yield sugars upon hydrolysis.

Since during the cooking of wood with calcium bisulphite, free sulphurous acid is always present and this acts upon the products of digestion, we have an explanation of the presence of sugars in the waste liquors.

The total sugar content of these liquors averages about 3 per cent; of this about 0.5 per cent is a pentose, xylose, while the greater part consists of hexoses, galactose and fructose. These sugars may be fermented and it is therefore easily seen that the sulphite alcohol process is a comparatively simple one. The sugars present in the waste liquor is changed by fermentation into alcohol, which is then obtained by distillation.

The practical application of this relatively simple process, however, is rather complicated. The raw material, the waste sulphite liquor, contains, in addition to the substances named, a whole series of decomposition products of lignin, organic acids (formic and acetic acids), sulphurous acid, partly free and partly bound with organic compounds. Even though the content of sulphurous acid is small, still it is sufficient to bring about a cessation of the fermentation action in a comparatively short time. Because of this, it is necessary to remove all of the sulphurous acid and a part of the organic acids, which is accomplished by neutralization. Two difficulties have been met in the use of lime. One is that a small excess of lime, even if it acts only for a short time, destroys a considerable amount of sugar—5 to 10 per cent. A second objection is that it is practically impossible to obtain a clear solution after neutralization; standing several days is necessary in order to obtain the perfectly clear solution which is necessary for the fermentation process.

One may use pulverized limestone, but the results technically are not satisfactory and practically, the neutralization is performed by using lime in the initial stages and completing the process by means of limestone (calcium carbonate); this method overcomes both difficulties mentioned above.

The neutralization is carried out, in practice, in towers of wood or concrete about 100 meters high, into which the warm liquor (70°C) is blown directly from the digester by means of compressed air. The operation requires from 3 to 4 hours, the settling process about the same time, at which time the clear liquor may be drawn off into stock tanks, where it is cooled to the temperature suitable for fermentation purposes. The fermentation tanks are constructed of wood and hold

100 cubic meters. The yeast which is used must be as resistant as possible and because of the fact that yeast has a great capacity of adjustment to its surroundings, it is possible not only to render the yeast cultures very sensitive to the most toxic substances but the use of this adapted yeast leads to an increase of 10 per cent in the yield of alcohol. The sulphite liquor is noticeably lacking in nutrients for yeast, such as phosphorus, nitrogen, magnesium and iron and it is necessary to add a suitable yeast nutrient. The so-called yeast extracts, substances which are prepared by the "self-digestion" of the waste yeast of breweries at certain definite temperatures, contain all the necessary material in a form easily assimilated by the yeast.

### Three Stages of Fermentation

The fermentation is carried out at 30° and requires from 3 to 4 days, usually taking place in three stages. The first stage is characterized by rapid growth of the yeast and a slight formation of carbon dioxide, which occupies about one day; this is followed by the "main fermentation," characterized by marked foaming, which lasts about two days; the third stage is the gradual decrease of the foaming and the completion of the fermentation.

The yield of alcohol is dependent upon a number of factors. First of all, of course, is the sugar content of the waste liquor which is influenced by the composition of the cooking fluid, used for the digestion of the wood or pulp. With increasing amounts of acid in the cooking liquid, larger amounts of sugar are formed. Since, on the other hand, a larger content of sulphurous acid also causes an increased destruction of the sugar which is formed by hydrolysis. There is an upper limit for the acid content as related to the production of sugar, and therefore the production of alcohol depends upon these two factors.

Further factors which enter into this question of yield are the neutralization, the fermentation, the kind of yeast and the yeast nutrient used.

(To be concluded)

### Bids and Awards for Government Paper

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., September 14, 1921.—The purchasing officer of the Government Printing Office has received the following bids:

15,000 pounds Box Board, 24½ x 34 inches, No. 35: Whitaker Paper Company, at \$0.307 per pound; Mathers-Lamm Paper Company, \$0.30085; Old Dominion Paper Company, \$0.324; Dobler & Mudge, \$0.375; Philip Rudolph & Co., Inc., \$0.30465, and Geo. W. Millar & Co., Inc., \$0.325.

18,000 pounds Binders Board: R. P. Andrews Paper Company, at \$0.027 per pound; Whitaker Paper Company, \$0.03375; Mathers-Lamm Paper Company, \$0.04325; Old Dominion Paper Company, \$0.0399; Wilkinson Bros. & Co., Inc., \$0.0444; Dobler & Mudge, \$0.0425; Philip Rudolph & Son, Inc., \$0.037825; Geo. W. Millar & Co., Inc., \$0.046; Muir Board Company, Inc., \$0.0375; Coy, Hunt & Co., \$0.03.

Bids will be opened at the printing office on September 16 for 50,000 pounds (20,000 sheets) of 25 x 30 inches, No. 20, binders board, and for 1,500 pounds of backlining paper.

The Graham Paper Company has been awarded the contract by the Bureau of Supplies and Accounts, Navy Department, for furnishing 8,000 reams of 8 x 13 inches mimeograph paper at \$3,200, bids for which were opened on August 30.



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# Editorial

Vol. LXXIII New York, September 15, 1921 No. 11  
FIFTIETH YEAR

## Paper Week in Chicago

The business conference of the American Paper and Pulp Association and meetings of affiliated organizations which was held in Chicago last fall and was such a pronounced success gives promise this year, in spite of the depression in the industry, of attracting an unusually large attendance. Many important matters naturally are likely to be discussed and the conference cannot fail to furnish helpful ideas and valuable suggestions to all who attend.

The condition of the paper industry as seen by the manufacturer, the merchant and the consumer will feature the program of the various meetings. One prominent representative of each group will be on the program.

"Paper Week" will be the week beginning October 31, with Thursday, November 3, as the date of the meetings of the American Paper and Pulp Association itself. The National Paper Trade Association has announced October 31 as the date of the meeting of the merchants and distributors, while the balance of the week will be devoted to meetings of the affiliated association, most of which, like that of the National Paper Trade Association, and the American Paper and Pulp Association, will be held at the Drake Hotel.

The program for Tuesday, November 1, includes the meeting of the Book Paper Manufacturers' Association at 10 A. M. at the Blackstone Hotel, the meeting of the Card Board Manufacturers' Association at 10 A. M. at the Drake Hotel, the meeting of the Pulp Manufacturers' Association at 10 o'clock, at the Drake Hotel, the meeting of the Cover Paper Manufacturers' Association at 2.30 P. M. at the Blackstone Hotel, and the High-Grade Paper Conference with Merchants at 7 P. M. at the Blackstone Hotel.

The program for Wednesday includes the meeting of the Gunned Paper Manufacturers' Association at 10 A. M. at the Drake Hotel, the meeting of the Board Section at 10 A. M. at the Drake Hotel, the meeting of the Writing Paper manufacturers at 10 A. M. at the Blackstone Hotel, the meeting of the Wrapping Paper Manufacturers' Association at 10 A. M., to be followed by luncheon and afternoon program at the Drake Hotel, the meeting of the Woodlands Section at 2 P. M. at the Drake Hotel, the meeting of the Sulphite Board Section at 2.30 P. M. at the Blackstone Hotel and the meeting of the Glassine and Greaseproof Manufacturers' Association at a time and place not yet determined.

The program for Friday, November 4, includes the meeting of the Tissue Paper Manufacturers' Association at 10 A. M. at the Blackstone Hotel and the meeting of the Toilet Paper Converters' Association at 2 P. M. at the Blackstone Hotel.

The luncheon of the American Paper and Pulp Association will, as usual, be held Thursday noon and there will also be meetings of other affiliated associations, the dates and places for holding which have not as yet been definitely determined.

As "Paper Week" will be certain to attract so many visitors to Chicago it will obviously be to the advantage of paper men who are planning to attend the conference to make their hotel reservations as early as possible in order to avoid inconvenience and to secure the most desirable accommodations.

## An Unusual Conclusion

It is a little surprising to discover as sound and conservative a paper as the *Journal of Commerce and Commercial Bulletin* laboring under a delusion, but it appears to be doing just that in its editorial entitled "Dumping and Inefficiency." It paws the air in an almost ludicrous effort to grasp facts that will help it to prove that the American paper manufacturers are agitating for the dumping investigation because they desire "a form of protection that will enable them to pay dividends on watered stock and obsolete machinery." The editorial further states that the American mills have been quoting news print paper at 5 to 6 cents a pound. This is entirely erroneous, for during the past two or three months the price of news print has been considerably below 5 cents a pound and the price is to be 4 cents per pound for the last quarter of the year.

It is also amusing to speculate upon the obscure cerebrations that caused the writer of this effusion to speak of American mills being equipped with obsolete machinery. A good example of this "out-of-date" machinery is to be found at the plant of the Consolidated Water Power and Paper Company where a new Fourdrinier for making news print was installed a short time ago which was built to run well in excess of 1000 feet a minute. Another sample of "obsolete" machinery is to be found at the mills of the Wasau Sulphate Fibre Company where there is a paper machine turning out kraft at the rate of 1000 feet a minute.

Both of these machines were built by American concerns, the first by the Beloit Iron Works and the second by the Bagley & Sewall Company, among the most important manufacturers of paper mill machinery in the world.

These two high speed paper machines are merely an example of the growing efficiency of the industry, and any publication that can dismiss the paper industry with the phrase "watered stock and obsolete machinery" certainly has been misinformed.

The impression that American paper mills are equipped with obsolete machinery is also interestingly disproved in a dispatch from Watertown, N. Y., printed elsewhere in this issue of the PAPER TRADE JOURNAL, quoting a well known French paper maker, who is visiting in this country, to the effect that judging from his observations the paper mills here are equipped in a much more up-to-date manner than in his country.

The American public need have no fear that the prevention of unfair competition on the part of the European industry is going to send the price of newspapers and books up. The time for all that is past. The paper manufacturers of the United States are working earnestly to get their prices down as low as possible.

A little patience on the part of the press and a square deal from the government is all that they ask.

## Import Paper Prices Decline

The monthly average import price per pound of news print for July, according to statistics just furnished by the Department of Commerce, was \$.0491, as compared with \$.0533 for June and \$.046 for July a year ago.

The monthly average import price per cord of pulpwood for July was \$13.68, as compared with \$14.67 for June and \$14.07 for July of last year.

The monthly average import price per ton of ground wood for July was \$19.43, as compared with \$30.60 for June and \$72.78 for July a year ago.

The monthly average import price per ton of unbleached chemical pulp for July was \$72.21, as compared with \$79.36 for June and \$134.42 for July of last year.

The monthly average import price per ton of bleached chemical pulp for July was \$107.18, as compared with \$124.70 for June and \$165.86 for July a year ago.

The monthly average export price per pound of news print for the month of July was \$.057, as compared with \$.061 for June and \$.068 for July a year ago.

## Program for Paper Section, Safety Congress

BOSTON, Mass., September 12, 1921.—The tenth annual congress of the National Safety Council will be held at the State House September 26 to September 30. The program for the Paper and Pulp Section is as follows:

### FIRST SESSION

Tuesday Morning, September 27, 10 O'clock  
Room 272, Second Floor

#### PROGRAM

- I. Report of Chairman.
- II. Report of Secretary.
- III. Reports of Committees.
- IV. Appointment of Nominating Committee.
- V. Addresses:
  1. The Foreman's and Manager's Responsibilities in Paper Mills. Roy J. Murbach, The Gardner & Harvey Company, Middletown, Ohio.

#### Discussion

2. Using a Camera to Promote Safety in Paper Mills. A. E. Frampton, Editor, *The Hammermill Bond*, Hammermill Paper Company, Erie, Pa.

#### Discussion

3. Beater Room Hazards. Charles Walker, Employment Manager, Eastern Manufacturing Company, Bangor, Me.

#### Discussion

### SECOND SESSION

Wednesday Morning, September 28, 9.30 O'clock  
Room 272, Second Floor

#### PROGRAM

- I. Report of Nominating Committee.
  - II. Addresses:
    1. Paper Mill Ventilation. H. S. Taylor, The Management Engineering and Development Company, Dayton, Ohio.
- Discussion
2. Handling Liquid Chlorine. D. K. Bartlett, Electro Bleaching Gas Company, New York City.
- Discussion
3. Social Phases of Safety Work. F. H. Rosebush, Department of Industrial Relations, Nekoosa-Edwards Paper Company, Port Edwards, Wis.

## Discussion

The officers of the Paper and Pulp Section are as follows: Chairman, G. E. Williamson, Executive Engineer, Strathmore Paper Company, Mittineague, Mass.; vice chairman, F. P. Young, Interlake Pulp and Paper Company, Appleton, Wis.; secretary, Miss Mary Baker, Kimberly-Clark Company, Neenah, Wis.

## Paper Board Business in Michigan Better

KALAMAZOO, Mich., September 13, 1921.—The business of the board mills is really looking up and prospects for the future are generally brighter than anytime within the past six months. September opened with every board manufacturer in the Kalamazoo Valley district operating his plant, while the reports from Monroe are also flattering.

Winship Hodge, manager of the Western Board and Paper Company, has started up his plant and has a nice little flock of orders ahead to run on. The Standard Paper Company also has business in sight and has been able to keep one to two machines going most of the time. The Sutherland Paper Company is running full capacity and has heavy orders ahead.

S. B. Monroe, secretary of the MacSimBar Paper Company, Otsego, reports that mill running full capacity, with a month's orders ahead and more business coming in daily. Repairs to the second machine have recently been completed and production is heavy. The mills of the Eddy Paper Company, Three Rivers and White Pigeon, are grinding away and conditions are satisfactory there.

From Monroe come the reports that both the River Basin Paper Company and the Consolidated Paper Company have plenty of orders booked and are moving along steadily. The new mill of the Monroe Paper Products Company is about completed and the wheels will be turning this fall. A fine lot of first orders are filed for filling.

Right now the news from the board mills is the best of the present year and while there is no indication of an immediate rush of orders, executives generally are hoping to get enough business to keep their organizations busy during the winter months.

## Paper Industry in Czechoslovakia

In the years immediately preceding the war the paper industry of Bohemia had been highly developed and was forming a large part of the total output of Austria-Hungary, writes Trade Commissioner Donald L. Breed, Prague. Thus, in 1908, the lands which are now in the Czecho-Slovak State produced 164,740 metric tons of paper, having a value of about 329,000,000 crowns. At the same time the total production of Austria-Hungary was 361,910 metric tons, with a value of about 724,000,000 crowns [about \$146,972,000 at par. value of the crown \$0.203].

At present there are 58 paper mills in the country, with a total annual capacity of 226,000 metric tons. The present value of that amount of paper is about 1,582,490,000 crowns [about \$36,400,000 at current exchange rates]. The tremendous rise in these figures, as expressed in crowns, is, of course, to be accounted for by the fall in the value of the crown. The total annual consumption of domestic industries and trade is 154,420 metric tons. The remainder, 71,580 metric tons, is available for export. German Austria now has 40 paper mills, producing 153,000 metric tons yearly, and Hungary one mill, with an annual capacity of 3,460 metric tons.

Most of the paper made in Czechoslovakia is print paper, but other grades are manufactured. Last year 3,000 tons of parchment paper were made, all of which was exported. There was also an output of 4,000 tons of cigarette paper, 90 per cent of which was exported.

## BOSTON PAPER MERCHANTS REPORT BETTER BUSINESS

After Months of Dullness Market Is Beginning to Show Signs of Life—Big Houses Are Doing More Advertising and This Is Causing an Actual Demand for Paper—Still Some Timid Buyers Who Keep Holding Off With the Expectations that Prices May Go Still Lower—Improvement Is Expected to Continue but No Great Change Is Expected Until Mill Conditions Are More Nearly Normal.

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., September 12, 1921.—Paper merchants, after months of dull trading, now report life in the trade. This condition is general. True, some are more enthusiastic than others. No individual, however, will predict any radical change. Conditions are changing gradually—not rapidly.

Actual orders are being placed. This fact alone accounts for the optimism. Other lines of business which affect the paper business also are reported as recovering, thus making healthier conditions all along the line.

For instance—the shoe business, according to undisputed authority, is "perkin' up" quite a bit. This, of course, means orders for the board men in the paper business—even though they're the last to get orders from the shoe dealer.

Again—big houses appear to be doing more advertising on the better grades of paper—such as catalogs and the like. This is excellent for the fellow in the "high grade" paper line. And there are other instances—all of them having a tendency to "polish up" the paper business quite noticeably.

### Readjustment at the Mills

One well known buyer, after reading a newspaper account of a Maine paper mill whose officials announced a longer working day with a reduction in the wage scale, said, "On the surface that appears to be unjust. But to one who analyzes the situation in the paper mill and to one who goes beneath the surface of present day economics, this very act will tend to straighten out matters, to a great degree, not only in the paper industry, but all others. Labor is the big factor. Conditions at the mills must change before we may expect any great change in the trading market. The cost of production must be reduced. Confidence in the market then will follow."

It developed this week that Boston has quite a number of so-called timid buyers—the fellow who keeps holding off with the expectation that the bottom of the price basket will fall out. This, according to one in the know, is unwise. His advice is "Go get your orders and place them now—don't lose any contracts by waiting for a cent or a two cent drop which may never materialize." So much for the "timid buyer."

Significant also is the statement of another leader in Boston. He says, "Strange as it may seem our tonnage for August was 8 per cent over August of last year."

### General Improvement

W. B. Stevenson, hustling Secretary of the New England Paper Merchant's Association affiliated with the A. Storrs & Bement Company, says, "I'm glad to announce a general improvement. There isn't any doubt that conditions are on the mend. Orders are coming in from all sections. Salesmen report bright prospects. The catalog end of the business here has picked up remarkably. That, of course is an excellent sign. This vital branch of the business is the best it has been in many months.

"As for price, there may be a slight decline but not enough

to warrant anyone from holding off orders any longer. To do so might mean the loss of good contracts and good business. Taking everything into consideration I find that most everyone in this section feels that a break for an improved season has arrived."

### Orders Coming In

Max Frank of the John Carter house said, "I see some change. Orders are coming in to be sure, the men are talking good times, but you won't see anything like normal conditions until there are changes at the mill, and of course I include the question of labor and wages when I say that. No one is going to buy until he can see a steady price and the price can't be settled until the production cost is settled. However, I'm as optimistic as the fellow next door and there's every reason to be so."

Mr. Davenport of Spalding & Tewksbury said, "The best thing I can say is 'orders are coming in.' The board business is showing signs of life. No, the orders are not normal—perhaps 50 per cent—but the point is this—an order is an order."

### Holyoke Paper Co. Sends Out Sample Cabinets

Paper jobbers through the country are this week receiving new sample cabinets put out by the Holyoke Card and Paper Company, of Springfield, Mass., showing samples and giving specifications on each line of cardboard and coated paper sold under the "Brightwood Brand" name.

The contents include separate folders for each line, each folder showing samples of full range thicknesses and colors, the top piece states briefly the standard specifications for the line, such as size, finish, thicknesses made, and colors. On the inside cover of the folder appears description of the stock, its uses and characteristics. The stock specifications are stated in full. Samples are pivoted from eyelet at top to permit easy examination. When folded the samples are protected from dust and handling.

The feature piece is a display book showing samples of standard types of cardboards in representative uses. Each piece of stock is printed with used plates of a character that tends to show the limits to which each stock may be employed. There are some surprisingly fine examples of printing on cardboard, yet all subjects and plates have been selected with a view to showing just what can be done on cardboards in the everyday run of printshop work. A useful catalog on cardboards is a part of the display book, making this one piece a complete catalog and sample book of cardboards.

Other features of the cabinet are a book outlining trade customs on cardboards and box papers, and a telegraph code book; both of these are calculated to prove time and money savers for both the Holyoke Card and Paper Company and its trade.

The plan of the cabinet itself is unique. There are six sections for line folders, each one providing accommodations for three folders. Each section from front to back has an elevated bottom raising the level successively just the height of the tab. By this arrangement the entire contents of the cabinet are displayed at first glance, making it quick and easy to locate the sample folder of whatever line is wanted. The whole plan of this cabinet embraces three cardinal principles—(1) to provide samples and specifications for quick reference by the man who is familiar with the lines; (2) to give a birdseye picture of the characteristics and chief uses of each grade of stock for the instruction of new salesmen and others who are not thoroughly familiar with cardboards; (3) to supply authoritative information and printed samples with which the jobbers' salesmen may assist customers in selecting "The Right Stock for the Right Job."

Distribution of these cabinets has so far been restricted to the paper jobbers handling cardboards who have made request for them.



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## DECLINE OF THE SICILIAN SULPHUR INDUSTRY

Until recent years Sicily was the most important factor in the world's supply of sulphur, but it has now been displaced by the American sulphur industry, says Consul Louis G. Dreyfus, Jr., Palermo, Italy, which has developed a very large production owing to the easy extraction of this mineral from the Louisiana and Texas mines.

The production of sulphur in Sicily rose from 120,000 tons in 1860 to 538,534 tons in 1905. In 1919 production decreased to 181,374 tons, but rose to 219,844 tons in 1920. On the other hand, the production of American sulphur increased from 893 long tons in 1883 to 25,000 tons in 1903 and 491,080 tons in 1913, and reached 1,255,249 long tons [preliminary figures of the United States Geological Survey] in 1920. Besides these two countries, Japan, with an output of about 50,000 tons, is the only other important source of sulphur. Small quantities are produced in Spain and Austria.

### Production, Stocks, and Exports

The gradual decline of the Sicilian sulphur industry in recent years is clearly shown by the statistics of production, stocks on hand, and export of sulphur from 1897 to 1920:

Years	Production, Metric Tons	Stocks on Hand, Metric Tons	Exports, Metric Tons
1897	443,418	224,869	422,910
1898	465,021	235,022	460,800
1899	521,982	262,087	493,460
1900	516,789	242,438	574,460
1901	537,679	306,903	472,840
1902	501,021	329,836	481,280
1903	536,044	383,524	489,380
1904	499,322	370,606	490,090
1905	538,534	462,865	469,730
1906	475,553	537,588	399,100
1907	403,538	598,709	343,950
1908	404,297	616,419	377,610
1909	402,353	647,880	364,953
1910	397,808	641,249	395,944
1911	376,161	551,422	456,227
1912	356,555	450,917	447,590
1913	345,548	376,365	414,716
1914	334,974	369,001	338,308
1915	319,260	323,860	359,806
1916	233,835	155,372	396,035
1917	177,453	156,800	162,971
1918	194,585	112,050	230,769
1919	181,374	136,859	147,755
1920	219,844	147,886	190,175

From 1860 to 1876 the price of sulphur averaged 140 lire (\$27) per metric ton. This was so remunerative that it encouraged exploration and production, with the consequent result that the price diminished gradually after 1876 until 1895, when it reached the low price of 55 lire (\$10.62) per ton.

### Formation of Consortium

With a view to relieving the situation brought about by an attempted cornering of the market in 1896, a company was organized at London, with a paid-up capital of 20,000,000 lire (\$3,860,000), called the Anglo-Sicilian Sulphur Company (Ltd.), for the purpose of controlling the production of sulphur in Sicily, purchasing this product at a uniform price satisfactory to the producers, and reselling it at a reasonable profit. This arrangement lasted until 1906, when the company was dissolved. Its operation had not met with the desired success, because only about 60 per cent of the mine owners joined the syndicate, which was therefore unable to control the sales; and in view of the American competition, which began to make itself felt, a large reserve stock had accumulated, the disposal of which was a problem.

This prompted the government to take a hand. A compulsory consortium, or syndicate, was formed on August 1, 1906, in which all producers had to combine for a period of 12 years. The consortium was to fix the price of sulphur periodically, and when necessary to limit the production. It was to be operated by a director general with an administrative council. Upon its expiration the life of the consortium was extended for another 18 years. [During the existence of the Anglo-Sicilian arrangement this

company came to a private agreement with a company in the United States as to the division of foreign fields for the marketing of sulphur. This arrangement was continued in the early years of the consortium, after which it was abruptly terminated and American sulphur began to enter the European market. Rotterdam, Hamburg, and Antwerp became centers of distribution for the American product in northern Europe and Marseilles in the Mediterranean. In the latter place a large plant was established for the preparation of refined, ground, and other varieties to compete with similar Sicilian products.

During the war sulphur, which was required for the production of ammunition, was in great demand, but, owing to the lack of tonnage, the shipment of American sulphur to Europe was interrupted. The Italian government commandeered the sulphur trade, authorizing exportation only with special permits. Now that freights are again normal American sulphur exporters are everywhere underbidding the Sicilian product. In fact, the American quotation c. i. f. Hamburg, delivery weight, was at the beginning of June, 1921, 1,320 marks, while Sicily was quoted about 3,000 marks. The Sicilian product has been completely displaced in the important Scandinavian markets, and is facing keen competition in Belgium, England, the Netherlands, France, Germany, and Africa.

### American Sulphur Superior

It is said that American sulphur is superior to the Sicilian for the chemical industries. However, the latter is preferred locally for the vineyards, where it is used to protect the foliage against parasites, because it is said that the flour milled product from the United States does not adhere to the leaf to the same extent as does the Sicilian. Partly for this reason and partly because of their geographic location France, Spain, Portugal, Algeria, and Greece still look to Sicily for sulphur to be used in their vineyards.

### Michigan Paper Co. Dividends

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., September 10, 1921.—Western Board and Paper Company declared and paid a dividend of 3 per cent September 1. This was the first dividend declaration for the ensuing year and has caused activity in the stock.

It is also stated that Northern Michigan Pulp has passed its last dividend. This concern has been paying regularly on a 1 per cent a month basis, though able to operate but part time.

Another reduction in dividends by a Kalamazoo valley concern is that of the Michigan Paper Company, Plainwell. The September dividend was announced as 1 per cent, which is a 50 per cent cut from the lowest monthly payment the past year. Michigan has been very successful for a long period of years. During 1921 this concern paid 4 per cent each for January, April and July with 2 per cent for February, March, May, June and August, a total of 23 per cent for the first ten months of the year. Despite this showing in earnings, Michigan has sold below \$16 a share within the past 30 days.

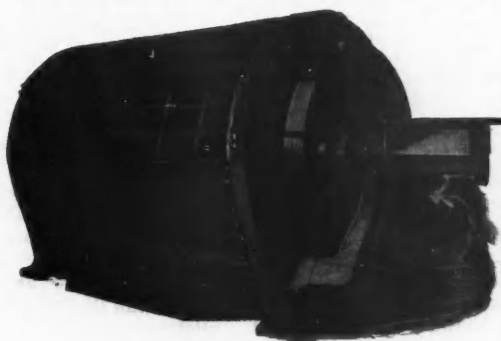
King Paper Company's stock also hit a low mark during the latter part of August when a block of over 600 shares sold at \$15.88 a share. This is considered an exceptionally fine purchase, King being one of the best managed concerns in the valley.

There have been sales of Eddy common as low as \$2 a share during the past ten days. Close to 2,000 shares changed hands at that price and \$2.13.

There is a steady demand for Bryant, Kalamazoo Vegetable Parchment, MacSimBar, Monarch and Sutherland, but little is offered for sale. The market on Bardeen, Kalamazoo, Rex, Watervliet and Standard is practically pegged, that is the stock is so closely held that offers of purchase bring few responses.

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## 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

**Determining Moisture Content of Wood.**—*Chem. Met. Eng.*, xxiv, 964 (June 1, 1921); *Pulp and Paper*, xix, 616 (June 9, 1921).

—A specified weight of wood chips, usually 100 Gm., is immersed in kerosene in a flask or retort, and the mixture is heated until all the moisture has been driven off. The latter is cooled in a condenser and collected in a graduated cylinder, along with the small amount of oil which is vaporized. The amount of moisture in the chips is read directly from the graduate. This method has been checked for accuracy with the method of weighing samples before and after oven drying, and the variation found to be less than 1 per cent.—A. P.—C.

**Chemical Reaction Affects Casein Glue.**—*Chem. Met. Eng.*, xxiv, 964 (June 1, 1921); *Pulp and Paper*, xix, 613 (June 9, 1921).

—The decomposition of ordinary alkaline casein glues is not due to the action of bacteria or molds. It appears to be due entirely to chemical action of the alkali in the glue. This conclusion is based on the following observations. Increasing the amount of alkali in the glue increases the rate of decomposition when the glue is kept wet; glues containing no sodium hydroxide, although deficient in some important respects, do not decompose as rapidly as similar glues containing sodium hydroxide. Cultures of molds and bacteria could not be obtained from decomposed alkaline glues. Some chemicals which have antiseptic properties are found to improve casein glues, but this improvement is due to their chemical action rather than to their toxic properties. Glues can be completely decomposed in a short time at temperatures above that at which bacteria can live.—A. P.—C.

**Molecular Structure of Fibrous Materials.**—R. O. Herzog and W. Jancke. *Umschau*, xxv (1921); *Chem. Zentr.*, xcii, II, 573 (1921); *J. Soc. Chem. Ind.*, xl, 342A (May 31, 1921).—From experiments with Röntgen rays it is concluded that in plant fibres cellulose is present in a crystalline form disposed symmetrically with respect to the axis of the fibre. Artificial silk consists of an irregular felted mass of crystalline fragments of unchanged cellulose; artificial silk made from cellulose acetate is amorphous and consists of a mixture in which the cellulose acetate has undergone considerable degradation. Natural silk shows a crystalline character and a similar symmetrical structure to that of cellulose. Animal hair is amorphous and probably consists of two or more substances. Starch and pure fats are crystalline.—A. P.—C.

**War's Effect on the Paper Industry.**—Ralph B. Payne, *Paper*, xxviii, 7 (April 20, 1921).—An analysis of conditions in the pulp and paper industry prior to the war (period 1909-1914), considering its size, the consumption of the various kinds of paper and the raw materials involved, as well as the development of the use of by-products; and of conditions up to January, 1917, showing the relation between the changed conditions and the European war.—A. P.—C.

**Polysaccharides. III. Cellulose.**—P. Karrer and F. Widmer. *Helv. Chim. Acta*, iv (1921); *J. Soc. Chem. Ind.*, xl, 342A (May 31, 1921).—Comparison of the yields of cellobiose octoacetate obtained by treating cellulose, cellobiose, methylcelloside, cellulose triacetate, and methylcelloside acetate with acetic anhydride and sulphuric acid under similar conditions, leads to the conclusion that cellulose must contain at least about 50 per cent, and possibly more, of ready formed cellobiose complex. Hess and Wittelsbach's formula for cellulose [see *J. Soc. Chem. Ind.*, xxxix, 512A (July 31, 1920); also *Paper*, xxvii, 13 (Dec. 1, 1920), 14 (Dec. 8, 1920), 15 (Dec. 15, 1920)] cannot, therefore be accurate, as it indicates only 33 per cent of preformed cellobiose. Methylation of cellobiose by means of alkali and methyl sulphate gives unsatisfactory

results, but methylation of methyl-celloside in this way gives an almost quantitative yield of hexamethyl-methylcelloside. The latter may be further methylated by means of dry methyl iodide and silver oxide, to heptamethyl-beta (?) methylcelloside, and hydrolysis of this by boiling 5 per cent hydrochloric acid solution yields products from which beta-tetramethylglucose may be isolated.—A. P.—C.

**Structure and Optical Activity of Cellulose.**—K. Hess and E. Messmer, *Berichte*, liv, 834-41 (1921); *J. Soc. Chem. Ind.*, xl, 342A (May 31, 1921).—Levallois' observation that solutions of cellulose in ammoniacal copper are optically active is confirmed and the activity is proved to be due to the cellulose content. Under slightly varying conditions the values  $[d] = \text{about } -950^\circ \text{ Fahr. and } -1,000^\circ$  are found, but accurate work is particularly difficult with the blue light. On the other hand, the "regenerated" cellulose is optically inactive in concentrated hydrochloric acid solution, as are also ethereal solutions of ethyl cellulose, aqueous alkaline solutions of xanthate (viscose) cellulose, and jellies of cellulose in neutral salt solutions. Cellulose presents, therefore, a marked example of "latent asymmetry," thus resembling mannitol, and it appears that ammoniacal copper hydroxide behaves toward it in the same manner as boric acid or borax toward the simpler carbohydrates.—A. P.—C.

**Chemical Constitution of Cellulose.**—K. Freudenberg. *Berichte*, liv, 767-72 (1921); *J. Soc. Chem. Ind.*, xl, 342A (May 16, 1921).—Cellobiose octoacetate can be isolated in yield corresponding with the presence of 35 to 36 per cent of cellobiose in the original material in a single operation when cellulose is treated with a mixture of acetic anhydride and concentrated sulphuric acid at a low temperature, the operation requiring about fourteen days. An indirect estimation of the loss of octoacetate which occurs during the change makes it probable that cellulose is composed of cellobiose to the extent of more than 60 per cent. This result is not in harmony with Hess's conception of cellulose (see *J. Soc. Chem. Ind.*, xxxix, 512A, July 31, 1920; *Paper*, xxvii, 13, 14, 15, Dec. 1, 8, 15, 1920), as composed of pentaglucoosidylglucose residues, but is in agreement with the hypothesis that it is built up of cellobiose residues arranged in a uniform polysaccharide chain of ten or more members.—A. P.—C.

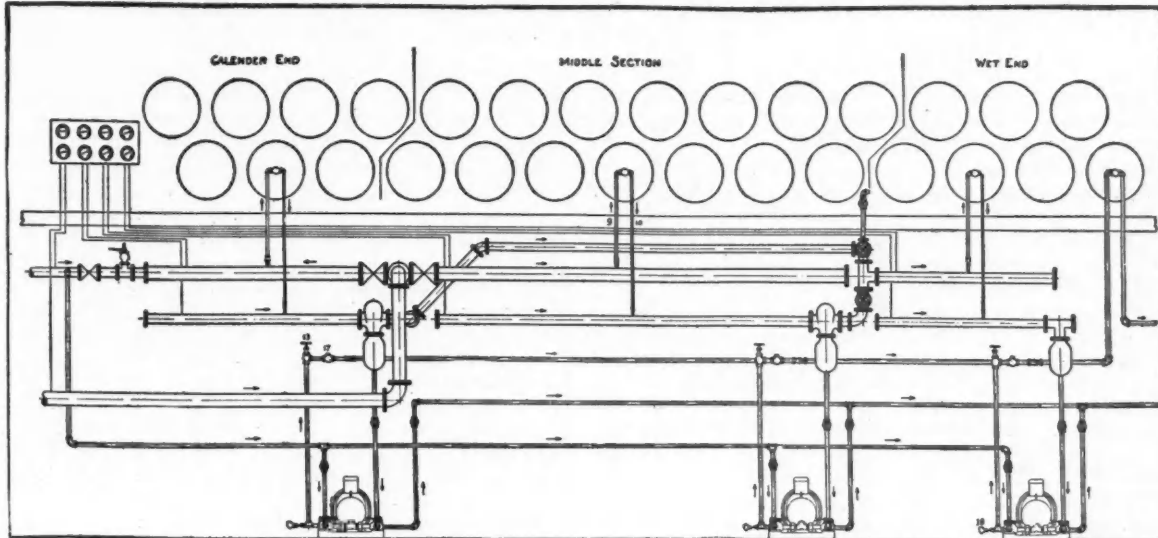
**Action of Sodium Hydroxide on Wood Pulp.**—W. G. Harding. *J. Phys. Chem.*, xxv, 201-3 (1921); *J. Soc. Chem. Ind.*, xl, 342A (May 31, 1921).—The product remaining after heating wrapping paper with 1 per cent sodium hydroxide solution at 100° Cent., amounted to about 60 per cent of the original material, though absolute equilibrium was not reached even after thirty hours' treatment. With 6 per cent sodium hydroxide the same result was obtained in about six hours. Lignocellulose could be detected in the material after treatment.—A. P.—C.

**Soluble Carbohydrates in Pine Wood.**—S. Schmidt-Nielsen. *Tekn. Ukeblad*, lxxvii, 353-5 (1920); *Chem. Ztg.*, xlv, Rep., 32, (1921); *J. Soc. Chem. Ind.*, xl, 342A (May 31, 1921).—Pine wood felled in the spring was finely rasped, and after extraction with ether was repeatedly extracted by alternate boiling with water or 0.3 per cent acetic acid and treatment with alcohol. By more than twenty successive extractions a yield of soluble matter was obtained equal to 12.04 per cent of the original wood or 13.9 per cent of the dry substance. In the determination of reducing sugars by Kjeldahl's method 1 Gm. of the dried extract, before inversion, reduced 0.1898 Gm. of copper, and after inversion with 2 per cent hydrochloric acid it reduced 0.6155 Gm. of copper. A sub-

(Continued on page 46)



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## CURRENT PAPER TRADE LITERATURE

(Continued from page 44)

stantially similar extract was obtained from pinewood felled in the winter, but the yield in this case was only one-seventh of that mentioned above. Pentosan determinations on the extract indicated about 23 per cent of xylose.—A. P.—C.

**Gas from Strawboard Waste Waters.**—A. Hermann. *Het Gas*, xl, 131-5 (1920); *Chem. Ztg.*, xlv, *Rep.*, 32 (1921); *J. Soc. Chem. Ind.*, xl, 343A (May 31, 1921).—A commission appointed by the Dutch Government recommends storage in settling tanks followed by irrigation treatment or filtration as the best and cheapest means of purifying the effluent from strawboard mills. In a pulp mill employing this process it has been found that in the absence of air the effluent undergoes a fermentation caused by rodlet bacteria which, at an optimum temperature of 35° Cent., produce a gas containing 23 to 30 per cent of carbon dioxide and 70 to 77 per cent of methane. One volume of effluent evolves two volumes of gas, which is collected in bell covers, conducted to a gas holder and employed for the production of electric current for power and lighting in the mill; the surplus is taken by the local gas works and mixed with coal gas in the proportion of 25 per cent. An analysis of the gas showed carbon dioxide 24.7 per cent, methane 64.3 per cent, other hydrocarbons 0.6 per cent, hydrogen 4.9 per cent, oxygen 0.4 per cent, nitrogen 5.1 per cent; it contained traces of carbon disulphide but no hydrogen sulphide or carbon monoxide.—A. P.—C.

**New Test for Lignin.**—P. Casparis. *Pharm. Monats.*, i, 121-9, 137-46, 153-60 (1920); *Chem. Zentr.*, lxxxix, II, 584 (1921); *J. Soc. Chem. Ind.*, xl, 343A (May 31, 1921).—Lignified cell walls may be distinguished from those consisting of unaltered cellulose by means of a 15 to 40 per cent solution of cobalt thiocyanate which colors lignified membranes blue. The reaction probably results from adsorption; it is more sensitive and trustworthy than Maïle's permanganate reaction or the phloroglucinol-Hydrochloric acid test.—A. P.—C.

**Acetaldehyde in Sulphite Alcohol.**—R. Sieber. *Chem. Ztg.*, xlv (1921); *J. Soc. Chem. Ind.*, xl, 363A (May 31, 1921).—The quantity of aldehyde present in sulphite alcohol is proportional to the amount of sulphurous acid in the wort before fermentation; with an SO<sub>2</sub> content rising from 0.132 to 0.330 Gm. per 100 Cc., the aldehyde increases from 0.044 to 0.220 Gm. per liter of alcohol. The SO<sub>2</sub> content does not alter appreciably during fermentation, and the portion which is presumably combined with the aldehyde is resistant to oxidation by aeration.—A. P.—C.

**Determination of Starch in Presence of Cellulose.**—F. Kaulfersch. *Z. Nahr. Genussm.*, xxix (June 15, 1920); *Chimie et Industrie*, v (May, 1921).—Ammoniacal copper oxide is used to dissolve the cellulose which prevents the diastase from acting on the starch grains. The copper is then precipitated by means of hydrogen sulphide, and the diastase is allowed to act in the presence of the precipitated copper sulphide for about six hours at 65° Cent. The liquid is filtered and the sugar inverted by heating with hydrochloric acid under a reflux condenser. The glucose thus formed is determined by means of Fehling's solution. Two determinations were run simultaneously on two portions of 0.2 Gm. of flour, to one of which was added a solution of 0.02 Gm. of filter paper in ammoniacal copper oxide, and exactly the same result was obtained in both cases.—A. P.—C.

**Continuous Distillation of Sulphite Alcohol.**—Can. patent No. 208,356, Samuel E. Oliver, Vancouver, B. C., Feb. 8, 1921.—The desulphurized liquor, after concentration and fermentation, is delivered through fine apertures in a pipe extending over the bottom of a still. The contents of the still are maintained at a uniform evaporative temperature by electrical heating elements which are placed in the bottom of the still close to the liquor delivery pipe, and the depth of liquor is kept constant by means of an

overflow pipe. The still cover is cooled by means of a spray, and the distillate is continuously removed from the still under conditions preventing re-evaporation. Claims allowed 3.—A. P.—C.

**Machine for Making Window Envelopes.**—Can. patent No. 208,362, Charles Frederick Pflanze, St. Louis, Missouri, U. S. A., Feb. 8, 1921. Claims allowed 13.—A. P.—C.

**Method of Sizing Paper.**—Can. patent No. 208,404, The Felculose Company of America, Boston, assignee of Henry May Wheelwright, Newton, both in Mass., and John Traquair, Chillicothe, Ohio, all in the U. S. A., Feb. 8, 1921.—The method of sizing paper which consists in treating the paper pulp in the beater with a mixture of rosin size and not over 20 per cent of previously boiled modified starch and additional silicate of sodium and subsequently adding alum. The method of engine sizing paper which consists in mixing a solution of an animal colloid with rosin size, diluting it, and mixing it with the pulp in the beater to assist in the precipitation of the rosin in a colloidal condition in the beater and reduce the amount of rosin and alum necessary. Claims allowed 8.—A. P.—C.

**Method of Breaking the Dried Coating on Sheet Materials.**—Can. patent No. 208,416, The Nashua Gunned and Coated Paper Company, assignee of Adolph Charles Van Sluys, both of Nashua, New Hampshire, U. S. A., Feb. 8, 1921. Claims allowed 24.—A. P.—C.

**Plaster Board Composition.**—Can. patent No. 210,289, Eusèbe Foisy, Montreal, P. Q., Canada, April 12, 1921.—A composition consisting of pure water, a cubic foot; unslaked lime, 9 lb., and wood shavings (from planer), 2 lb. Claim allowed 1.—A. P.—C.

**Fiber Board from Wood Bark.**—Can. patent No. 210,345, Carl Gebhard Muench, St. Paul, Minnesota, U. S. A., April 12, 1921.—Waste bark material is mixed with 9 parts of water, is reduced to pieces of a substantially uniform size, which are then shredded and disintegrated into a mixture of outer bark scale material and several classes of fibers. The pulp is then screened and formed into a sheet, along with woodpulp tailings if desired. Claims allowed 9.—A. P.—C.

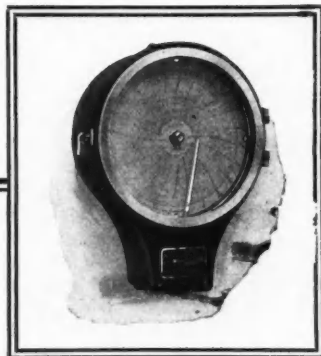
**Fiber Board.**—Can. patent No. 210,369, John K. Shaw, Minneapolis, Minnesota, U. S. A., April 12, 1921. Claims allowed 17. Also Can. patent No. 210,370, a fiber board composed of different layers of different kinds of fibers interlaced with each other, one of the layers being composed of waterproofed fibers, while another of the layers is composed of fireproofed fibers. Claims allowed 7. Also Can. patent No. 210,371. Claims allowed 8.—A. P.—C.

**Composition Roofing.**—Can. patent No. 210,448, The Roofing Patents Company, Buffalo, New York, assignee of Alexander S. Speer, Chicago, Illinois, both in the U. S. A., April 12, 1921. Claims allowed 8. Also Can. patent No. 210,449. Claims allowed 2. Also Can. patent No. 210,450. Claim allowed 1. Also Can. patent No. 210,452. Claims allowed 10. Also Can. patent No. 210,453. Claims allowed. 8.—A. P.—C.

**Method of Stone Surfacing Fibrous Materials.**—Can. patent No. 210,457, The Universal Metal Lath and Patent Company, Jersey City, New Jersey, assignee of William C. Coryell, Youngstown, Ohio, both in the U. S. A., April 12, 1921.—A method of waterproofing and fireproofing relatively porous sheet materials having an oily combustible base which consists in first rubbing a dust of waterproofing substance into the interstices of the relatively porous base, and subsequently applying a coating of liquid artificial stone compound to the dust impregnated base. Claims allowed 6.—A. P.—C.

**Apparatus for Indicating the Level of Liquids.**—Can. patent

(Continued on page 48)



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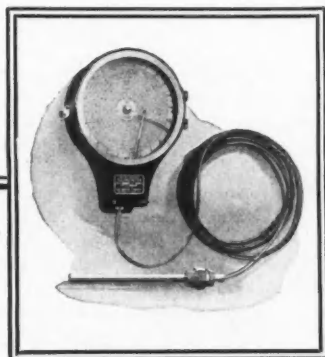
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## Obituary

Thomas J. Gamble, Sr.

PHILADELPHIA, Pa., September 12, 1921.—Thomas J. Gamble, Sr., known to all the Philadelphia paper trade for which he has been engaged in hauling for the last thirty years, died last week at the Methodist Episcopal Hospital, Philadelphia, of strangulated hernia. Funeral services were held on Thursday from his late residence. Mr. Gamble upon arriving in this country entered the employ of John Simmons, paper stock dealer, working there for ten years. Then he engaged in the trucking business with the Simmons firm and virtually all the Philadelphia trade as his customer. For the last thirty years he has been a daily figure in the South Marshall street headquarters of the Philadelphia trade. The business is being continued by his son, Thomas J. Gamble, Jr.

### CURRENT PAPER TRADE LITERATURE

(Continued from page 46)

No. 210,476, Guiseppa Ratti and Pietro Gervasoni, both of Turin, Italy, April 12, 1921. Claims allowed 3.—A. P.—C.

**Saw Filing Gage.**—Can. patent No. 210,527, Samuel B. Brown, Cairo, Illinois, U. S. A., April 19, 1921. Claims allowed 7.—A. P.—C.

**Pulp Grinder.**—Can. patent No. 210,635, George James Mason, Toronto, Ontario, Canada, April 19, 1921.—In a pulp grinder, a grinding element formed of cement, sharp sand, and saw dust. Claims allowed 2.—A. P.—C.

**Straw Pulp.**—Can. patent No. 210,770, John Bache-Wiig, assignee of a half interest, and Carl Bache-Wiig, assignee of 70 per cent of the half interest, both of Portland, Maine, U. S. A., April 19, 1921.—The process of preparing paper pulp material from strawlike substances containing ligneous matter which consists in heating the substances in the presence of a bleaching and softening agent of a strength too weak to injure the fiber, and to a temperature not exceeding 100° Cent. for a predetermined period of time not exceeding twenty-four hours, withdrawing the softening agent and washing the mass, digesting the mass in sulphite liquor at a temperature not exceeding 160° Cent. for a period of time not exceeding ten hours, injecting into the mass a solution of sodium chloride at from two to five hours after the beginning of the digestion, draining off the liquor, washing the mass and grinding it in a koller gang to form a pulp. Claims allowed 11.—A. P.—C.

**Apparatus for Analyzing Flue Gases.**—Can. patent No. 211,201, Herbert Medill Sharp, Buffalo, New York, U. S. A., May 3, 1921. Claims allowed 7.—A. P.—C.

**Sizing Composition.**—Can. patent No. 211,234, The Cornell Wood Products Company, Chicago, Ill., assignee of Freeland John Morrison, Cornell, Wis., both in the U. S. A., May 3, 1921.—A sizing composition comprising 3 to 15 per cent of sodium silicate, 1 to 7 per cent of an organic adhesive, 1 to 8 per cent of a filler, and water. Claims allowed 2.—A. P.—C.

**Rotary Suction Filter.**—Can. patent No. 211,270, The United Filter Corporation, New York, assignee of Orange James Salisbury, Salt Lake City, Utah, both in the U. S. A., May 31, 1921. Claims allowed 17.—A. P.—C.

**Paper Spool.**—Can. patent No. 211,325, Robert S. Bolger, Richmond Hill, N. Y., U. S. A., May 10, 1921. Claims allowed 31.—A. P.—C.

**Non-absorbent Fibrous Material.**—Can. patent No. 211,427, The Cornell Wood Products Company, Chicago, Illinois, assignee of Freeland John Morrison, Cornell, Wisconsin, both in the U. S. A., May 10, 1921.—The process of impregnating fibrous or absorbent material consisting in coating the same with a solution containing 3 to 15 per cent by weight of noncrystalline inorganic material, 1 to 7 per cent of an organic adhesive, and 1 to 8 per cent of a filler, and subsequently compressing the material. Claims allowed 3.—A. P.—C.

**Machine for Forming Shells of Paper.**—Can. patent No. 211,441, The National Paper Can Company, assignee of Edwin Francis Hulbert, both in Milwaukee, Wis., U. S. A., May 10, 1921. Claims allowed 28.—A. P.—C.

**Barking Machine.**—Can. patent No. 211,529, Per Albert Fresk, Robertsfors, Sweden, May 17, 1921.—A toothed roller rests on the log to be barked and not only turns the log but also feeds it in the longitudinal direction. The roller can also be positioned obliquely with respect to the log. The shaft that transmits motion to the roller is flexible and can yield to the turning movement of the roller spindle, so that the axis of the roller may be turned from a position substantially parallel to the axis of the log to a position substantially at right angles to it. One end of the flexible shaft is in a bushing journalled in a bearing which is rigid relatively to the rotating roller spindle, while the opposite end of the shaft is attached to a bushing journalled in a bearing carried by the rotating roller spindle. Claims allowed 5.—A. P.—C.

**Electrolytic Cell.**—Can. patent No. 211,543, John Harris, Lakewood, Ohio, U. S. A., May 17, 1921. Claims allowed 10.—A. P.—C.

**Reciprocating Saw.**—Can. patent No. 211,547, Elias Samuel Homstad, Redfield, South Dakota, U. S. A., May 17, 1921. Claims allowed 1.—A. P.—C.

**Electrolytic Apparatus.**—Can. patent No. 211,564, Isaac Harris Levin, New York, N. Y., U. S. A., May 17, 1921. Claims allowed 10. Also Can. patent No. 211,565, Claims allowed 5. Also Can. patent No. 211,566, claims allowed 6. Also Can. patent No. 211,567, claims allowed 7. Also Can. patent No. 211,568, claims allowed 7. Also Can. patent No. 211,569, claims allowed 5. Also Can. patent No. 211,570, claims allowed 14.—A. P.—C.

**Saw.**—Can. patent No. 211,578, Louis Phillippe Munger, Shawinigan Falls, P. Q., Canada, May 17, 1921. Claims allowed 6.—A. P.—C.

**Manufacture of Wallboard.**—Can. patent No. 211,608, Joseph Venier, Belmont, Man., Canada, May 17, 1921. A plaster board comprising layers of intimately mixed and moistened hard wall plaster and sawdust united while plastic with an intermediate layer of burlap and external finishing layers of plaster. Claims allowed 2.—A. P.—C.

**Method of Making Shingles.**—Can. patent No. 211,667, The Roofing Patents Company, Buffalo, N. Y., assignee of A. S. Speer, Chicago, Ill., both in the U. S. A., May 17, 1921. Claim allowed 1. Also Can. patent No. 211,668, claims allowed 3. Also Can. patent No. 211,669, claim allowed 1.—A. P.—C.

**Apparatus for Spinning Artificial Silk.**—Can. patent No. 211,678, The Viscose Company, Marcus Hook, Pa., U. S. A., assignee of James Clayton, Coventry, Warwick, England, May 17, 1921. Claims allowed 4. Also Can. patent No. 211,679, claims allowed 4.—A. P.—C.

**Machine for Spinning Strips of Paper.**—Can. patent No. 211,716, Thomas Alexander Boyd and Harold Arthur Boyd, co-inventors, both of Glasgow, Scotland, May 24, 1921. Claims allowed 4.—A. P.—C.

### To Make Names Available for Trade Mark Searchers

The Commissioner of Patents has recently entered an order, as stated by Clarence J. Loftus, Counsellor in Patent and Trade Mark Causes, Chicago, which provides in substance that for "the present the Patent Office is recording the articles of incorporation of companies, so that their names may be available for trade mark searchers."

This should be of interest to and taken advantage of, particularly by mercantile and manufacturing corporations, so that their name will be a matter of record in the Patent Office and thus eliminate largely the probability of unauthorized persons registering in the Patent Office trade marks which are the principal part of a corporate name.



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## PAPER AND PAPER STOCK IMPORTS AND EXPORTS OF THE UNITED STATES

For the Month Ending July 31, 1921, and for the Seven Months Ended July 31, 1921, as Compared with Corresponding Months of Two Previous Years.

## IMPORTS—PAPER.

PAPER AND MANUFACTURES OF.	July 1920.		July 1921.		July 1919.		Seven Months Ended July 31, 1920.		Seven Months Ended July 31, 1921.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Books, Music, Maps, Engravings, Etchings, Photographs, and other Printed Matter . . . . .		\$421,678		\$314,735		\$1,762,447		\$3,040,086		\$2,066,065
Decalcomania paper, not printed . . . . .		251,620		224,282		506,060		75,311		1,258,317
Lithographic Labels and Prints (except Post Cards) . . . . .	82,301	61,511	142,307	79,552	87,135	90,300	310,664	226,069	670,063	471,209
Paper Hangings . . . . .		19,627		42,749		39,845		208,344		245,301
Photographic . . . . .	122,432	53,887	188,185	45,154	205,372	95,239	658,785	196,084	960,830	204,574
Printing Paper—										
News print . . . . .	93,609,003	4,313,596	132,235,265	6,406,094	729,871,915	24,521,016	779,084,233	32,746,694	332,974,364	48,120,254
All other . . . . .	33,794	5,535	33,136	6,900	87,918	32,003	1,334,234	120,373	1,213,136	176,019
Post Cards, Souvenir . . . . .		8,984		7,322		16,276		32,056		67,550
Pulp board, in rolls, not laminated . . . . .	4,184,410	128,663	1,787,387	48,630	47,574,475	1,185,439	41,163,065	1,156,924	25,481,537	765,970
Surface-coated . . . . .	31,050	18,796	65,404	16,439	47,055	26,263	310,048	113,252	588,097	148,801
Wrapping . . . . .	316,117	34,969	872,553	36,515	2,563,035	225,872	2,561,244	215,525	5,630,467	236,583
All other . . . . .		281,687		239,951		902,672		1,370,840		2,010,109
<b>Total Paper, and Manufactures of . . . . .</b>		<b>\$5,615,951</b>		<b>\$7,579,730</b>		<b>\$29,574,635</b>		<b>\$40,600,507</b>		<b>\$56,685,060</b>

## CRUDE PAPER STOCK.

Rags (except woolen) . . . . .	34,180,829	\$1,340,295	10,020,307	\$109,450	16,447,414	\$557,051	191,887,308	\$6,487,425	52,996,311	\$1,005,100
All other kinds of paper stock . . . . .	17,551,196	794,450	7,043,579	162,454	44,054,143	1,378,301	150,751,056	5,522,141	55,828,203	1,290,551

## WOOD PULP.

Mechanically ground . . . . .	24,104	\$1,754,284	13,687	\$265,939	80,058	\$2,185,286	101,483	\$5,237,370	49,991	\$2,014,135
Chemical—										
Unbleached—										
Sulphate . . . . .	9,003	\$1,073,685	8,961	\$659,962	55,832	\$3,832,763	81,304	\$6,456,869	44,762	\$4,239,064
Sulphite . . . . .	22,436	3,152,332	14,664	1,043,987	78,008	6,789,111	158,470	15,685,611	65,208	6,346,224
Total . . . . .	31,439	\$4,226,017	23,625	\$1,703,949	133,840	\$10,612,874	239,774	\$22,142,480	109,970	\$10,585,288
Imported from—										
Norway . . . . .			402	\$24,509	1,840	\$245,165	417	\$42,132	1,502	\$141,782
Sweden . . . . .	464	43,766	2,575	168,281	10,581	1,068,533	58,711	4,665,294	19,613	2,121,715
Canada . . . . .	29,038	3,847,686	15,415	1,142,245	219,485	9,079,521	175,112	16,247,717	73,227	6,619,945
Other countries . . . . .	1,937	334,565	5,203	368,894	1,984	219,655	10,534	1,167,337	15,628	1,701,792
Bleached—										
Sulphate . . . . .	1,071	\$185,776	2	\$183	2,510	\$188,306	8,424	\$993,214	3,565	\$435,382
Sulphite . . . . .	6,811	1,121,551	5,077	608,511	11,363	1,329,420	54,757	7,320,142	35,421	4,702,339
Total . . . . .	7,882	\$1,307,327	5,079	\$608,697	13,873	\$1,517,726	63,181	\$8,313,356	38,986	\$5,137,721
Imported from—										
Norway . . . . .	50	\$6,706	207	\$28,887	425	\$90,686	6,600	\$965,026	4,368	\$761,485
Sweden . . . . .	1,981	336,312	230	27,665	888	126,916	4,642	605,739	1,656	212,689
Canada . . . . .	5,380	873,513	4,520	454,258	11,582	1,200,120	46,953	6,140,633	24,225	2,995,907
Other countries . . . . .	521	90,796	722	97,887	978	100,004	4,986	601,898	8,727	1,167,637

## CHEMICALS AND OTHER PAPER MAKERS' MATERIALS.

Colors or dyes, n.e.s. . . . .	453,315	\$688,224	508,000	\$746,495	1,037,324	\$1,617,925	1,900,493	\$2,679,311	1,962,518	\$2,580,750
Imported from—										
Germany . . . . .	213,015	\$263,747	272,142	\$404,369	18,518	\$15,644	518,699	\$530,785	625,000	\$822,702
Switzerland . . . . .	150,814	323,949	165,822	250,971	744,487	1,273,862	952,079	1,735,993	962,966	1,269,450
United Kingdom . . . . .	20,063	20,016	7,376	9,073	253,507	305,185	185,797	186,615	125,300	184,776
Other countries . . . . .	99,423	80,512	62,660	82,052	20,792	23,734	229,918	225,920	209,252	283,822
Indigo—										
Natural . . . . .			3,059	\$7,900	149,549	\$156,755	46,878	\$69,149	45,568	\$73,569
Synthetic . . . . .	164,676	113,898	2,122	726	321,020	201,998	667,207	394,260	15,080	8,432
Alizarin and alizarin dyes . . . . .	87,534	56,745	90,662	91,253	10,200	12,114	308,346	144,704	242,091	261,309
Lactarene or Cascin . . . . .	2,638,214	328,451	309,565	18,639	6,737,583	784,915	15,918,060	1,832,785	6,530,373	661,370
Lime, Chlor. of, or bleaching powder . . . . .	140,562	1,592	618,487	12,561	176,978	5,953	628,957	8,496	3,329,038	73,818
Magnesite, not purified . . . . .	844	29,792	1,099	22,614	4,224	123,270	17,656	258,154	25,109	358,309
Potash, Hydrate of . . . . .	537,320	134,003	815,442	42,735	480,360	132,205	1,302,127	344,563	4,805,627	275,500
Sulphur or Brimstone . . . . .				1	74	1,805		1,704	2	107
China clay or kaolin . . . . .	27,728	280,650	5,697	60,394	93,456	1,050,054	162,303	1,721,428	64,581	731,113

(Continued on page 52)



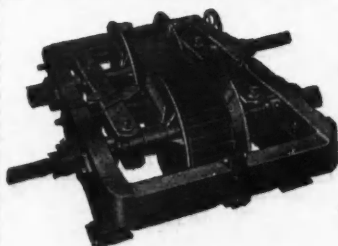
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**VARIABLE  
SPEED  
TRANSMISSION**

If it's a question of getting the exact speed on your Paper Machine to suit the condition of the paper being manufactured, then "THE REEVES" Variable Speed Transmission is exactly what you want.

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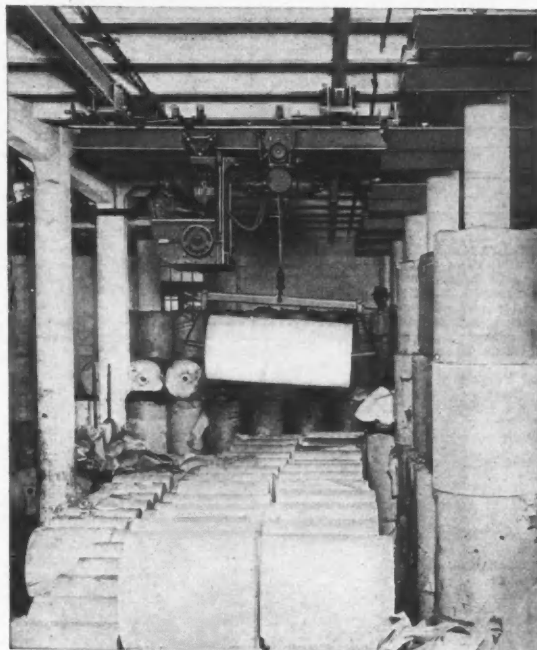
**TWO KEYS**, full length of the shaft between boxes, allowing the discs 100% bearing on the keys regardless of the position of the discs.

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**LARGER ROLLER THRUST BEARINGS**, designed to fit over the long hub of the discs are used, permitting larger wearing surfaces, greater carrying capacity and longer life. Special High Duty Ball Bearings are furnished for main boxes if desired.

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London

Member Electric Hoist Manufacturers' Assn.

PAPER AND PAPER STOCK IMPORTS AND EXPORTS OF THE UNITED STATES

(Continued from page 50)

PAPER AND MANUFACTURES OF.	PULP WOOD.				Seven Months Ended July 31					
	July 1920.		July 1921.		1919.		1920.		1921.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
<b>PULP WOOD—</b>										
Rough .....	27,270	359,198	41,620	544,200	126,045	1,182,913	94,153	1,078,877	185,832	2,330,095
Peeled .....	69,907	923,056	34,428	437,422	529,702	5,148,232	346,843	3,996,107	579,879	8,844,604
Rosined .....	14,911	294,945	10,750	205,615	50,822	658,359	45,572	777,373	53,208	1,048,877
<b>Total .....</b>	<b>112,088</b>	<b>1,577,199</b>	<b>86,798</b>	<b>1,187,237</b>	<b>706,569</b>	<b>6,980,504</b>	<b>486,568</b>	<b>5,852,357</b>	<b>818,919</b>	<b>12,208,576</b>

EXPORTS—PAPER.										
	1920.	1921.	1919.	1920.	1921.					
	Quantity.	Value.	Quantity.	Value.	Value.					
<b>Bags</b> .....		180,882		36,384		900,766		1,376,607		572,740
<b>Books, Music, Maps, Engravings, Etchings, Photographs, and Other Printed Matter</b> .....		1,927,001		1,279,205		9,797,947		13,821,887		12,910,114
<b>Boxes and Cartons</b> .....		88,899		26,247		792,482		1,162,799		775,738
<b>Carbon Paper</b> .....		9,240		9,172		618,997		605,256		330,242
<b>Cash-register and adding-machine paper</b> .....		516,993		99,500		101,462		79,572		116,100
<b>Paper Board and Strawboard</b> .....		128,538		12,171		3,136,414		2,811,643		1,732,973
<b>Paper Hangings</b> .....		53,220		57,856		528,173		765,789		448,121
<b>Playing Cards</b> .....						1,057,835		565,291		464,700
<b>PRINTING PAPER—</b>										
<b>News Print</b> .....	6,996,759	474,174	2,131,173	121,304	158,087,171	7,092,713	54,279,096	3,278,244	21,792,966	1,570,296
<b>Exported to—</b>										
Canada .....	210,541	19,100	12,631	2,018	361,496	15,942	975,546	81,192	400,897	37,975
Cuba .....	438,021	27,050	756,442	41,023	10,422,383	469,828	7,071,340	404,008	9,970,468	672,163
Argentina .....	3,164,166	167,350			35,521,651	1,448,496	25,574,080	1,245,912	4,262,098	310,300
Brazil .....	132,954	11,099	10,702	724	26,859,943	1,185,669	3,004,857	177,404	166,404	14,985
Uruguay .....	73,111	6,352			4,995,504	218,518	1,680,920	87,250	766,097	55,210
Other South America .....	261,003	25,935	51,150	3,562	7,063,248	336,008	1,911,858	149,872	784,238	74,924
China .....	373,098	41,044	30,199	1,820	4,997,324	338,972	4,361,412	374,173	242,160	18,058
Australia .....					10,555,935	474,844	930,422	91,676	329,584	58,692
Philippine Islands .....					325,293	19,602	369,685	20,273	2,275,454	166,373
Other countries .....	2,018,572	156,642	906,354	51,884	55,384,345	2,519,051	7,153,296	555,759	2,607,966	192,616
<b>All other</b> .....	<b>7,580,919</b>	<b>1,029,646</b>	<b>1,671,916</b>	<b>208,843</b>	<b>117,890,922</b>	<b>12,367,152</b>	<b>54,876,115</b>	<b>7,003,198</b>	<b>32,488,547</b>	<b>5,031,169</b>
<b>Exported to—</b>										
Greece .....	6,351	1,397					727,239	82,614	103,302	14,361
United Kingdom .....	254,713	41,111	9,788	1,757	1,002,730	154,117	1,590,415	279,889	215,512	54,499
Canada .....	727,386	98,619	104,431	15,109	3,442,229	401,314	3,402,270	522,298	1,326,031	237,256
Mexico .....	141,076	18,649	337,056	44,427	3,530,251	322,446	1,116,028	143,602	2,297,231	951,518
Cuba .....	1,406,933	220,412	159,597	17,041	5,301,324	586,760	8,120,869	1,043,103	3,562,436	587,558
Argentina .....	1,862,063	189,492	81,106	13,762	20,504,567	2,144,805	10,612,907	1,267,206	5,505,063	783,686
Brazil .....	644,976	100,901	53,565	5,883	11,044,599	1,162,939	4,805,579	592,213	1,075,790	206,215
Chile .....	106,400	17,125	24,396	3,437	3,970,456	496,895	847,613	105,501	206,094	38,233
Colombia .....			33,095	2,876					543,902	96,806
Peru .....	70,691	10,589	42,068	4,474	967,857	119,823	505,561	62,590	800,306	150,127
Uruguay .....	120,181	16,007			2,157,157	231,381	960,509	129,313	639,220	67,250
Venezuela .....			17,178	3,343					275,888	51,961
China .....	632,952	68,431	100,132	12,307	7,302,678	707,106	3,684,280	425,457	2,830,237	491,839
British India .....	515,485	75,106	144,437	12,713	3,623,745	323,100	2,632,548	319,632	895,015	132,740
Dutch East India .....									332,052	59,324
Japan .....	316,874	31,422	225,953	23,089	18,834,570	2,129,121	5,978,854	705,143	1,530,574	100,234
Australia .....	91,557	18,559	27,169	3,576	20,422,598	1,943,288	2,263,473	267,006	4,437,465	591,202
Philippine Islands .....	175,648	26,623	133,917	14,174	4,559,240	514,476	1,615,151	206,898	2,594,237	461,976
Other countries .....	603,683	102,197	178,018	26,945	11,217,901	1,122,581	6,512,783	850,728	2,797,892	484,356
<b>Tissue and Toilet Paper</b> .....		330,865		44,629		1,176,318		1,676,120		552,922
<b>Towels and Napkins</b> .....		31,822		11,198		103,312		135,005		108,301
<b>Wax Paper</b> .....		33,419		6,573		465,785		181,554		96,254
<b>Wrapping Paper</b> .....	4,769,647	558,482	2,056,412	133,788	47,586,835	4,432,094	37,940,696	3,893,107	16,417,720	1,650,495
<b>Writing Paper and Envelopes</b> .....		790,084		163,696		10,335,252		4,757,744		3,485,444
<b>All other paper</b> .....		1,125,859		287,493		5,826,673		5,811,251		4,078,801
<b>Total Paper and Manufactures of</b> .....		<b>7,331,432</b>		<b>2,577,445</b>		<b>58,733,227</b>		<b>48,005,042</b>		<b>33,927,416</b>

WOOD PULP AND PAPER STOCK.										
	1920.	1921.	1919.	1920.	1921.					
	Quantity.	Value.	Quantity.	Value.	Value.					
<b>Paper stock</b> .....	10,768,448	347,917	1,573,522	23,510	24,965,088	613,136	53,890,116	1,684,894	16,216,388	370,193
<b>Wood Pulp</b> .....	1,785	136,614	1,333	54,902	19,387	1,639,567	16,849	1,493,675	15,024	1,136,443

MISCELLANEOUS ITEMS.										
	1920.	1921.	1919.	1920.	1921.					
	Quantity.	Value.	Quantity.	Value.	Value.					
<b>Rosin</b> .....	99,816	1,761,682	78,760	373,879	545,449	7,812,437	680,139	12,750,494	371,915	2,258,790
<b>Exported to—</b>										
Belgium .....			930	3,397					6,530	38,406
Germany .....			267	1,741					48,979	281,520
Italy .....	9,830	189,738			15,450	268,677	28,726	537,912	3,255	23,444
Netherlands .....	748	11,375	1,535	6,259	14,243	210,260	3,442	61,633	4,300	25,314
Norway .....					6,531	100,555	8,547	158,000	168	1,074
Sweden .....	3,446	52,410			12,220	198,012	30,876	548,015	3,720	18,940
United Kingdom .....	16,804	286,506	12,335	48,731	259,306	3,672,010	82,669	1,514,717	55,236	353,759
Canada .....	16,712	285,189	5,512	32,872	27,517	366,580	67,364	1,250,170	33,366	230,596
Cuba .....	2,398	42,261	2,250	10,208	13,117	180,547	14,780	279,482	11,282	66,038
Argentina .....	1,751	27,500	27,182	127,921	57,188	871,976	74,255	1,306,415	77,429	366,322
Brazil .....	24,075	439,665	7,118	40,169	61,424	871,728	90,711	1,878,642	42,099	291,438
Uruguay .....			1,693	9,493					11,346	64,147
Dutch East Indies .....	1,325	21,900	3,314	14,965	8,351	147,223	33,805	686,215	13,942	85,908
Japan .....			12,015	52,850	5,228	91,461	91,400	1,747,035	29,278	147,876
Australia .....	12,848	227,112	2,327	13,107	7,555	88,051	43,691	866,093	9,114	76,858
Other countries .....	9,879	179,637	2,282	12,176	53,617	750,357	100,783	1,916,145	21,883	152,709
<b>Sulphur or Brimstone</b> .....	71,110	1,352,375	14,917	229,563	73,887	2,559,290	305,530	5,990,263	147,713	2,416,230
<b>Paper and Pulp Machinery</b> .....		167,267		228,923		2,495,143		1,364,962		1,840,500



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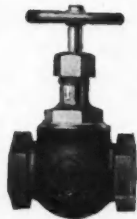
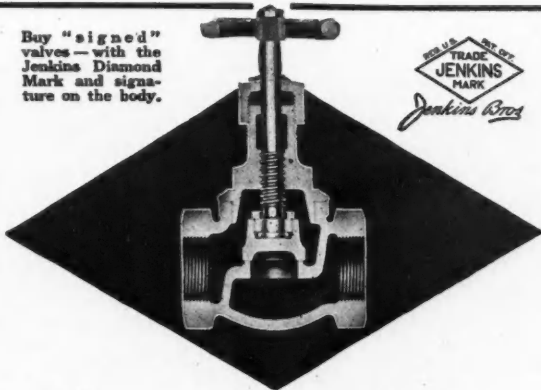


Fig. 75  
Globe Screwed

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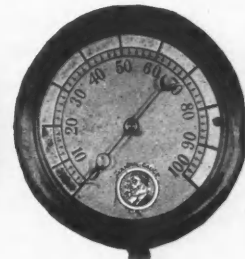
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## New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,  
WEDNESDAY, September 14, 1921.

News comes from all over the East that there has been an increase in production in many of the leading industries. The same is true of most of the West, although the South still seems to be in the doldrums. The unemployment problem is much less acute and some of the daily newspapers are so sanguine as to say that there will be work for all by the time cold weather sets in.

The paper industry is no exception to this. The high-grade paper mills, which have been either shut down or running on part time for so long, are now increasing operations and resuming manufacturing on a larger scale. This movement is confined, in the main, to the New England mills, but Western mills report that things are moving along in a satisfactory manner. Reports are coming in to the PAPER TRADE JOURNAL from all over the United States and Canada that the industry is picking up and that the prophecy of "better business in the autumn" is well on the way to fulfillment.

All of this has a direct bearing upon the market in this city where prices for the past two weeks have shown a greater inclination toward firmness than at any time during the past six months. Some of the dealers, particularly in pulp, say that they believe this is only a flurry, due, in part, to the scare which many of the mills have gotten from the activities of the government in connection with the dumping of pulp and paper here. Jobbers have turned this incident to good account and the result is that they have done a pretty good business lately.

The demand for news has been a little better owing, probably, to the announcement of the prices for the last quarter. Some time ago the Babson Statistical Bureau said that the readjustment was about complete in the paper industry with the exception of news print, which it remarked was due for another reduction before liquidation was complete. This reduction has come now and there is no reason why news print should not forge ahead until the demand is once more on the same plane with that which existed just prior to the war.

With the announcement of new prices on book paper for the last quarter, there has been an increase in demand. It is assumed that buyers have been holding off waiting for the new schedule and now they are coming in more positively than before. The new prices probably mark the end of price slashing in book, and this product, like news print, will probably not be long in getting back to normal once more. The same condition exists in fine paper which has also gone down in price during the past ten days.

Stocks of tissue have been running pretty low during the past week in this city owing to the large demand for the wrapping grades. This is attributable to the fact that the public is once more buying from the retail stores, particularly the clothiers, and almost all of these seem to be making concessions to draw the buyers to them. Prices remained just about the same except for an increasing firmness.

Wrapping and manila are also beginning to wake up from the Rip Van Winkle sleep they began about a year ago. In the wrapping line this is due, just as in tissue, to the increase of interest in the goods the retail merchants have to offer.

Board has been considerably better for the past two weeks owing in part to the increased demand for paper boxes, particularly shoe and foodstuff boxes, and also to the scarcity of waste paper which has forced the price of that commodity up.

### Mechanical Pulp

The dry summer has affected the water power in the Middle West and Northern New York to such an extent that some of the groundwood mills are only able to run on part time and a few

not at all. This has tended to lessen the amount of this grade offered on the open market, and this, in turn, has had a steadying effect on prices.

### Chemical Pulp

There have been practically no changes in the price of chemical pulp, either imported or domestic, during the past week. Dealers report that the buying has been considerably better than usual and the spotty quality of the demand has about disappeared.

### Old Rope and Bagging

There is a better demand for old rope and bagging this week and dealers are much more cheerful over the prospects of a good business by the middle of the fall.

### Rags

While foreign rags are still largely nominal domestic grades are showing a decided improvement. This should tend to cause an increase in the demand for the imported in a short time.

### Waste Paper

Large quantities of waste paper have been destroyed during the dull period and now that the mills are cautiously beginning to buy once more they are finding that the price is going up. This is to be expected since there is so little of this material available.

### Twine

Twine is in better demand and prices are firm. Dealers report the number of inquiries on the increase and the number of orders also growing bigger.

### Newsprint Outlook in Canada

The Canadian Pulp and Paper Association has sent out the following regarding the outlook for Canadian news print:

"Canada exported 58,182 tons of news print paper to the United States in July, an increase of 11,962 tons over the month of June preceding. American imports of news print from Europe during the month totaled 7,882 tons, Germany sending 4,535 tons, Sweden 2,344, and Belgium, Denmark, Finland and the Netherlands making up the remainder. In June the European imports amounted to 4,558 tons. Taking the July imports from Europe as a monthly average for the year it would mean that the United States imports of news print from other countries than Canada this year, in spite of all that has been said about them, will fall below 100,000 tons, or less than 5 per cent of the normal American consumption of news print. Meanwhile, United States exports of news print, normally over 5,000 tons a month, have fallen to almost 500 tons.

"In normal times American news print exports would just about offset their present rate of European imports, leaving the domestic requirements to be filled by Canadian and American mills. Canadian news print authorities deduct from this statement that the situation as to their American market is very favorable and likely to improve from now on. There are indications, such as a resumption of advertising to move fall goods, an increase in newspaper circulation due to a reduction in the selling price, and the starting up of new newspapers, which encourages the belief that from now on the demand for news print will gradually increase. Recent reductions in the contract price for paper will also contribute to this end. In Canada the federal election campaign is also expected to have a stimulating effect upon the news print market."

### Nashwaak Mill Closed Again

The Nashwaak Pulp and Paper Company's mill at St. John, N. B., which reopened recently, after some months of idleness, has been closed down once more for an indefinite period. The reason is that the present condition of the market does not permit of profitable operation.

# Market Quotations

## Paper Company Securities

New York Stock Exchange closing quotations September 13, 1921:

Stocks.	BID.	ASKED.
American Writing Paper Company, pref.	25	25 1/4
International Paper Company, com.	49 3/4	50
International Paper Company, pref., stamped.	68 3/4	69
Union Bag & Paper Corporation	58	60

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

### Paper

F. o. b. Mill.	
Ledgers	12 @ 30
Bonds	9.00 @ 55.00
Writings—	
Extra Superfine	13 @ 25
Superfine	13 @ 20
Tab Sized	13 @ 16
Engine Sized	9.00 @ 15.00
News—f. o. b. Mill—	
Rolls, contract	4.00 @ 5.15
Rolls, transit	4.75 @ 5.75
Sheets	6.00 @ 6.50
Side Runs	3.90 @ 4.80
Book, Cased—f. o. b. N. Y.—	
S. & S. C.	6.70 @ 8.50
M. F.	6.50 @ 8.25
Coated and	
Enamel	8.25 @ 11.00
Lithograph	9.00 @ 11.25
Tissues—f. o. b. N. Y.—	
White, No. 1	.75 @ 1.00
Colored	1.10 @ 2.15
Anti-Tarnish	1.50 @ 2.70
Manila	.70 @ 90.00
Kraft—f. o. b. Mill—	
No. 1 Domestic	6.00 @ 6.50
No. 2 Domestic	5.00 @ 5.50
Imported	6.00 @ 6.50
Sulphite Screenings	2.00 @ 3.00
Manila—	
No. 1 Jute	8.00 @ 9.00
No. 2 Jute	7.75 @ 8.50
No. 1 Wood	5.00 @ 6.00
No. 2 Wood	4.50 @ 5.00
Butchers	4.90 @ 5.70
Fibre Papers—	
No. 1 Fibre	6.00 @ 7.00
No. 2 Fibre	5.00 @ 6.00
Common Bogus	1.80 @ 2.10
Card Middies	5.00 @ 5.75
Boards—per ton—	
News	35.00 @ 40.00
Straw	35.00 @ 40.00
Chip	30.00 @ 32.50
Binders Board	65.00 @ 75.00
Spl. M.L. Ld. Chip	55.00 @ 60.00
Wood Pulp	80.00 @ 90.00
Container	55.00 @ 60.00

### Mechanical Pulp

(F. o. b. Pulp Mills.)	
No. 1 Imported	28.00 @ 32.00
No. 1 Imported (Ex-Dock)	28.00 @ 32.00

### Chemical Pulp

(Ex-Dock, Atlantic Ports.)	
Sulphite (Imported)—	
Bleached	4.00 @ 4.25
Easy Bleaching	3.25 @ 3.50
No. 1 Strong unbleached	
bleached	3.00 @ nom.
No. 1 Kraft	2.50 @ 2.75
Sulphate—	
Bleached	nominal @ 4.00
(F. o. b. Pulp Mill.)	
Sulphite (Domestic)—	
Bleached	4.00 @ 4.25
Strong unbleached	3.00 @ nom.
Easy Bleaching	
Sulphite	3.25 @ 3.50
News Sulphite	3.00 @ 3.25
Mitscherlich	3.25 @ 3.75
Kraft (Domestic)	2.50 @ 2.75
Soda bleached	nominal @ 4.00

### Domestic Rags

New	
Prices to Mill, f. o. b. N. Y.	
Shirt Cuttings—	
New White, No. 1	8.50 @ 8.75
New White, No. 2	5.50 @ 6.00
Silesias	5.50 @ 5.75
New Unbleached	8.00 @ 8.25
Washables	3.25 @ 3.75
Fancy	5.25 @ 5.50
Cottons—according to grades—	
Blue Overall	5.50 @ 6.00

New Blue	4.75 @ 5.00
New Black Soft	2.75 @ 3.00
New Light Sec-	
onda	2.25 @ 2.50
Khaki Cuttings	3.00 @ 3.25
Corduroy	3.00 @ 3.25
New Canvas	6.25 @ 6.75
New Black Mixed	2.50 @ 2.75

### Old

White, No. 1—	
Repacked	5.50 @ 5.75
Miscellaneous	4.00 @ 4.25
White, No. 2—	
Repacked	3.00 @ 3.25
Miscellaneous	2.25 @ 2.50
St. Soiled White	1.15 @ 1.35
Thirds and Blues—	
Repacked	1.75 @ 2.00
Miscellaneous	1.00 @ 1.25
Black stockings	1.50 @ 1.75
Cloth Strippings	1.00 @ 1.10
No. 1	1.00 @ 1.10
No. 2	.85 @ .90
No. 3	.70 @ .80
No. 4	.60 @ .70
No. 5A	.70 @ .80

### Foreign Rags

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

### Bagging

Prices to Mill F. o. b. N. Y.	
Gunny No. 1—	
Foreign	1.00 @ 1.10
Domestic	1.10 @ 1.20
Wool, Tares, light	1.25 @ nominal
Wool, Tares, heavy	1.25 @ nominal
Bright Bagging	1.00 @ 1.25
No. 1 Scrap	1.00 @ 1.25
Sound Bagging	.75 @ .85
Manila Rope—	
Foreign	4.25 @ 4.50
Domestic	4.50 @ nominal
New Bu Cut	2.00 @ 2.25
Hessian Jute Threads—	
Foreign	4.25 @ 4.50
Domestic	4.00 @ 4.25
Mixed Strings	.85 @ 1.00

### Twines

Cotton—(F. o. b. Mill)	
No. 1	22 @ 23
No. 2	19 @ 20
No. 3	18 @ 19
India, No. 6 basis—	
Light	18 @ 19
Dark	17 @ 18
B. C., 18 Basis	39 @ 40
A. B. Italian, 18 Basis	50 @ 60
Finished Jute—	
Light, 18 basis	26 @ 27
Dark, 18 basis	24 @ 25

### Jute Wrapping, 2-6 Ply—

No. 1	25 @ 26
No. 2	23 @ 24
Tube Rope—	
5-ply and larger	17 @ 18
Fine Tube Yarn—	
5-ply and larger	30 @ 32
4-ply	31 @ 33
3-ply	32 @ 34
Unfinished India—	
3-ply and larger	16 @ 17
Paper Makers Twine	
Balls	10 1/4 @ 12 1/4
Box Twine, 2-4 ply	14 @ 16
Jute Rope	20 @ 24
Amer. Hemp, 6-ply	32 @ 34
Sisal Hay Rope—	
No. 1 Basis	19 @ 22
No. 2 Basis	18 @ 20
Sisal Lath Yarn—	
No. 1	18 @ 19
No. 2	17 @ 19
Manila Rope	26 @ 28

### Old Waste Papers

(F. o. b. New York)	
Shavings—	
Hard White, No. 1	3.75 @ 3.50

Hard White No. 2	2.50 @ 2.75
Soft White No. 1	2.40 @ 2.50
Flat Stock—	
Stitchless	1.25 @ nominal
Over Issue Mag.	1.25 @ nominal
Solid Flat Book	1.10 @ 1.25
Crumpled No. 1	.90 @ 1.00
Solid Book Ledger	1.60 @ 1.75
Ledger Stock	1.50 @ 1.60
No. 1 White, News	1.60 @ 1.75
New B. B. Chips	.45 @ .50

Manilas	
New Env. Cut	2.95 @ 3.15
New Cut, No. 1	1.75 @ 2.00
Extra No. 1, Old	1.05 @ 1.15
Print	.80 @ .90
Container Board	.65 @ .75
Bogus Wrappers	.50 @ .60
Old Krafts, machine compressed	
Bales	1.75 @ 1.85

News—	
Strictly Overissue	.70 @ nominal
Strictly Folded	.50 @ .60
No. 1 Mixed Paper	.40 @ .45
Common Paper	.25 @ .30

## CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

### Paper

F. o. b. Mill.	
All Rag Bond	40 @ —
No. 1 Rag Bond	30 @ 40
No. 2 Rag Bond	18 @ 20
Water Marked Sulphite	
White	11 @ 15
Sulphite Bond	9 @ 12
Sulphite Ledger	14 @ 15
Superfine Writing	23 @ 30
No. 1 Fine Writing	20 @ 27
No. 2 Fine Writing	18 @ 25
No. 3 Fine Writing	11 @ 14
No. 1 M. F. Book	5 1/4 @ 7
No. 1 S. & S. C. Book	6 1/4 @ 7 1/2
Coated Book	8 1/4 @ 10 1/4
Coated Label	8 1/4 @ 10 1/4
News—Rolls, mill	4 1/4 @ 5 1/4
News—Sheets, mill	5 1/4 @ 5 1/4
No. 1 Manila	5 1/4 @ —
No. 1 Fibre	5 1/4 @ —
No. 2 Manila	5 @ —
Butchers' Manila	4 1/4 @ —
No. 1 Kraft	6 @ —
No. 2 Kraft	5 1/4 @ —
Wood Tag Boards	3 @ —
Screenings	3 @ —
Boards, per ton—	
Plain Chip	35.00 @ 40.00
Solid News	40.00 @ 45.00
Manila Lined Chip	60.00 @ 65.00
Container line	
85 Test	55.00 @ 60.00
100 Test	65.00 @ 70.00

Solid Wood Pulp	.80.00 @ 90.00
Straw Board	35.00 @ 40.00
Filled Pulp Board	— @ —

### Old Papers

Shavings—	
No. 1 Hard White	3.00 @ 3.50
No. 1 Soft Shav.	2.25 @ 2.50
No. 1 Mixed	.90 @ 1.00
No. 2 Mixed	.90 @ 1.00
White Envel. Cuttings	3.00 @ 3.50
Ledgers and Writings	
.....	1.25 @ 1.40
Solid Books	1.20 @ 1.30
No. 1 Books, light	.90 @ 1.00
Blanks	1.75 @ 2.00
Ex. No. 1 Manila	2.50 @ 3.00
Manila Envelope	
Cuttings	2.50 @ 3.00
No. 1 Manilas	.90 @ 1.00
Folders News (over issue)	
.....	.85 @ 1.00
Old Newspaper	.75 @ .85
Mixed Papers	.60 @ .65
Straw Chippings	.60 @ .65
Binders' Chippings	.60 @ .65
Kraft	2.00 @ 2.50
New Craft Cuts	2.10 @ 2.60
Roofing Stock, f.o.b. Chicago, Net Cash—	
No. 1	18.00 @ —
No. 2	16.00 @ —
No. 3	14.00 @ —
No. 4	14.00 @ —

## PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

### Paper

Bonds	.10 @ .60
Ledgers	.15 @ .40
Writings—	
Superfine	.15 @ .20
Extra fine	.12 @ .22
Fine	.20 @ .30
Fine, No. 2	.20 @ .25
Fine, No. 3	.15 @ .20
Book, M. F.	.06 @ .09
Book, S. S. & C.	.08 @ .15
Book, Coated	.08 @ .15
Coated Lithograph	.10 @ .15
Label	.08 @ .15
News	.05 @ .07
No. 1 Jute Manila	.18 @ .18 1/2
Manila Sul., No. 1	.09 1/4 @ .10
Manila No. 2	.08 1/2 @ .09
No. 2 Kraft	— @ .07
No. 1 Kraft	— @ .08
Common Bogus	.02 @ .03 1/4
Straw Board	35.00 @ 45.00
News Board	30.00 @ 35.00
Chip Board	28.00 @ 30.00
Wood Pulp Board	85.00 @ 95.00
Binder Boards—(Carload Lots)	
Per ton	65.00 @ 75.00
Carload lots	60.00 @ 65.00
Tarred Felts—	
Regular	62.00 @ 65.00
Slaters	65.00 @ 68.00

Best Tarred, 1-ply (per roll)	1.65 @ 1.75
Best Tarred, 2-ply (per roll)	1.15 @ 1.25
Best Tarred, 3-ply	1.65 @ 1.75

### Bagging

F. o. b. Phila.	
Gunny No. 1—	
Foreign	2.25 @ 2.50
Domestic	1.75 @ 2.00
Manila Rope	4.50 @ 4.75
Sisal Rope	2.00 @ 2.25
Mixed Rope	2.00 @ 2.25
Scrap Burlaps	1.00 @ 1.25
Wool Tares, heavy	2.50 @ 2.75
Mixed Strings	2.00 @ 2.25
No. 1, New Lt. Burlap	7.50 @ 8.00
New Burlap Cuttings	5.00 @ 5.25

### Old Papers

F. o. b. Phila.	
Shavings	
No. 1, Hard White	3.00 @ 3.50
No. 2, Hard White	2.75 @ 3.00
No. 1 Soft White	2.00 @ 2.50
No. 2 Soft White	1.50 @ 1.75
No. 1 Mixed	1.00 @ 1.25
No. 2 Mixed	.60 @ .75

(Continued on page 58)



# Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

## NEW YORK IMPORTS

WEEK ENDING SEPTEMBER 10, 1921

### SUMMARY

News print.....4,534 rolls, 971 reels, 469 bls.  
 Printing paper.....110 cs., 1,599 rolls  
 Surface coated paper.....61 cs.  
 Hangings.....6 bls., 1 cs.  
 Wall paper.....5 cs., 435 rolls  
 Cigarette paper.....201 cs.  
 Filter Paper.....54 cs., 105 bls.  
 Tracing paper.....12 cs.  
 Packing paper.....68 pkgs., 626 bls., 91 reels  
 Copy paper.....56 cs.  
 Tissue paper.....12 cs., 12 bls.  
 Photo paper.....1 cs.  
 Drafting paper.....1 cs.  
 Writing paper.....11 cs.  
 Miscellaneous paper.....68 cs., 1,191 rolls, 72 bls.

### CIGARETTE PAPER

American Tobacco Company, St. Jean, Bordeaux, 200 cs.  
 Wilkinson Brothers & Co., Paris, Havre, 1 cs.

### PAPER HANGINGS

W. H. S. Lloyd & Co., Maine, London, 6 bls., 1 cs.

### WALL PAPER

A. C. Dodman, Jr. & Co., Zealand, Antwerp, 4 cs.  
 The Prager Company, by same, 228 rolls.  
 A. C. Dodman, Jr. & Co., Empress of India, London, 2 cs.  
 The Prager Company, Mystic, Hamburg, 207 rolls.

### SURFACE COATED PAPER

P. C. Zuhlke, Zealand, Antwerp, 51 cs.  
 L. de Jonge & Co., by same, 10 cs.

### PRINTING PAPER

H. Lips, Zealand, Antwerp, 75 cs.  
 B. F. Drakenfeld & Co., Carmania, Liverpool, 5 cs.  
 B. F. Drakenfeld & Co., Celtic, Liverpool, 10 cs.  
 Japan Paper Company, La Bourdonnais, Havre, 20 cs.  
 National City Bank, E. F. Luckenbach, Hamburg, 192 rolls.  
 Agar Bernson Corporation, by same, 800 rolls.  
 Equitable Trust Company, by same, 657 rolls.  
 Equitable Trust Company, V. Emanuele III, Hamburg, 109 rolls.  
 Chemical National Bank, by same, 41 rolls.

### NEWS PRINT

Hudson Trading Company, Cavalla, Norrkoping, 1,207 rolls.  
 National City Bank, Cavalla, Hallstavik, 2,184 rolls.  
 National City Bank, Oscar II, Copenhagen, 52 reels, 194 bls.  
 Denison Pratt Paper Company, by same, 238 reels.  
 Sun-Herald Corporation, by same, 109 rolls.  
 Sun-Herald Corporation, Uppland, Gothenburg, 123 rolls.  
 Sun Printing & Publishing Association, by same, 921 rolls.  
 Stone, Larsen & Co., Harriet, Christiansand, 275 bls.  
 Street & Smith Corporation, by same, 41 reels.  
 New York Tribune, by same, 601 reels.  
 I. J. Nolan, by same, 10 reels.

### FILTER PAPER

Van Oppen & Co., Maine, London, 1 cs.  
 International Forwarding Company, Mt. Clay, Hamburg, 10 cs.  
 E. Fougere & Co., St. Jean, Bordeaux, 43 cs.  
 J. Manheimer, by same, 105 bls.

### TRACING PAPER

Keuffel & Esser, Mt. Clay, Hamburg, 12 cs.

### PACKING PAPER

J. L. N. Smythe & Co., Mt. Clay, Hamburg, 66 pkgs.  
 Eastman Kodak Company, V. Emanuele III, Hamburg, 6 bls.  
 Republic Bag & Paper Company, by same, 620 bls.  
 National City Bank, N. Amsterdam, Rotterdam, 91 reels.

### COPY PAPER

Japan Paper Company, Toy Maru, Shanghai, 27 cs.  
 Japan Paper Company, Hague Maru, Yokohama, 29 cs.

### TISSUE PAPER

R. Hoe & Co., Michigan, London, 3 cs., 1 bl.  
 Wilkinson Brothers & Co., Celtic, Liverpool, 11 bls.  
 Meadows Wye & Co., by same, 9 cs.

### PHOTO PAPER

McLaughlin, Freeman & Co., Celtic, Liverpool, 1 cs.

### DRAFTING PAPER

R. F. Lang, Celtic, Liverpool, 1 cs.

### WRITING PAPER

F. B. Vandegrift & Co., Saxonia, London, 6 cs.  
 Goodman & Levy, Paris, Havre, 5 cs.

### PAPER

C. R. Spence, Zealand, Antwerp, 21 cs.  
 D. S. Walton & Co., Cavalla, Norrkoping, 1,191 rolls, 65 bls.  
 Gallagher & Ascher, Mt. Clay, Hamburg, 22 cs.  
 Japan Paper Company, Moncalieri, Genoa, 14 cs.  
 Poland Paper Company, Uppland, Gothenburg, 7 bls.  
 Coenca, Morrison & Co., Paris, Havre, 4 cs.  
 Chanson & Montgolfier, by same, 7 cs.

### RAGS, BAGGINGS, ETC.

A. Katzenstein, Croxteth Hall, Antwerp, 140 bls. rags.  
 Atlantic National Bank, Fr. Matoika, Bremen, 48 bls. rags.  
 Mechanics & Metals National Bank, by same, 47 bls.  
 Albion Trading Company, Londonier, Havre, 75 bls.  
 Chemical National Bank, E. F. Luckenbach, Rotterdam, 126 bls. rags.  
 National City Bank, Tulsa, Antwerp, 159 bls. paper stock.  
 E. J. Keller Company, Tulsa, Antwerp, 259 bls. bagging.  
 E. J. Keller Company, Algic, Rotterdam, 406 bls. rags.

### OLD ROPE

Brown Brothers & Co., Croxteth Hall, Hull, 1,429 coils.  
 Brown Brothers & Co., Bristol City, Bristol, 76 coils.  
 Chemical National Bank, E. F. Luckenbach, Rotterdam, 76 coils.

### To BOSTON

First National Bank of Boston, Tulsa, Rotterdam, 740 bls. rags.  
 American Express Company, Celtic, Liverpool, 40 bls. thread waste.

### CHINA CLAY

J. B. Moors & Co., Bristol City, Bristol, 254 tons in bulk.  
 Moore & Munger, by same, 281 tons in bulk.

### WOOD PULP, ETC.

Scandinavian-American Trading Company, Oscar II, Copenhagen, 127 bls. sulphite.  
 National Bank of Commerce, Certo, Kristiania, 3,000 tons wood pulp.  
 American Wood Pulp Corporation, E. F. Luckenbach, Hamburg, 1,300 bls., 266 tons wood pulp.  
 Brown Brothers & Co., V. Emanuele III, Hamburg, 168 bls., 25 tons wood pulp.  
 A. I. Pagel & Co., Inc., Uppland, Gothenburg, 1,800 bls., 304 tons kraft sulphate.  
 National Bank of Commerce, Harriet, Christiansand, 6,871 bls., 687 tons moist mechanical pulp.  
 Lagerloef Trading Company, Panola, Mantyluoto, 3,955 bls., 660 tons sulphite.  
 E. J. Keller Company, L. P. Holmblad, Gothenburg, 550 bls. wood pulp.

## PHILADELPHIA IMPORTS

WEEK ENDING SEPTEMBER 10, 1921

Lagerloef Trading Company, Panola, Mantyluoto, 2,267 bls., 300 tons easy bleaching sulphite; 1,932 bls., 311 tons sulphite.  
 Lagerloef Trading Company, Panola, Hango, 4,005 bls., 545 tons sulphite; 1,420 bls., 288 tons sulphate.  
 Lagerloef Trading Company, Panola, Helsingfors, 2,435 bls., 407 tons easy bleaching sulphite.  
 Hudson Trading Company, Algeric, 872 rolls news print.

## NORFOLK, VA., IMPORTS

WEEK ENDING SEPTEMBER 10, 1921

Hudson Trading Company, Algeric, 477 rolls news print.

## NEW ORLEANS IMPORTS

WEEK ENDING SEPTEMBER 10, 1921

Hudson Trading Company, Tripp, 612 rolls news print.

## BALTIMORE IMPORTS

WEEK ENDING SEPTEMBER 10, 1921

Equitable Trust Company, V. Emanuele III, Hamburg, 192 rolls print paper.

## CHICAGO IMPORTS

WEEK ENDING SEPTEMBER 10, 1921

Import Paper Company, Ryndam, Rotterdam, 70 cs. paper.

## CHEMICAL SHOW HAS PAPER DISPLAYS

(Continued from page 20)

on exhibition, but the thing that attracted most interest was the electric rivet heater they were introducing.

The Nash Engineering Company had all kinds of pumps, the Schaeffer and Budeberg Company had recording instruments, Joseph H. Wallace showed what could be done with Southern pine, the Potdevin Machine Company had a display of gummed paper machinery, Mathieson Alkali Works had various samples of heavy chemicals on display, and the Diamond State Fibre

showed a full line of noiseless gears. Other companies that had especially noteworthy exhibits were: A. Klipstein, The Pennsylvania Salt Company, the Newport Chemical Works, M. W. Kellogg, W. S. Tyler, C. J. Tagliabue, Arnold Hoffman, F. C. Huyck, De Laval Separator Company, The Union Sulphur Company and the Morse Chain Company.

Book paper leads the industry in value of output, with a product worth \$220,000,000 in 1920, and the board and wrapping had a close race for second place.



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*Manufacturers of*  
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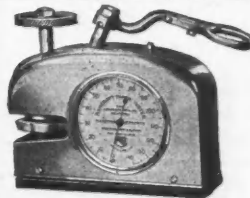
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FOREIGN AND DOMESTIC  
PAPER MAKERS' SUPPLIES  
CHEMICAL AND MECHANICAL PULPS  
COTTON, JUTE AND FLAX WASTES  
EAST INDIA MERCHANDISE

## BLEACHED SULPHITE

FOR  
Writing, Book and Tissue Papers

**PARSONS**  
Pulp and Lumber Co.

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Mills at  
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Super Calenders  
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Embossing Calenders  
Hydraulic Presses and Pumps



Successors to the Granger Foundry & Machine Co.

**The Textile-Finishing Machinery Company**  
Providence, R. I.

# Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,  
SEPTEMBER 14, 1921.

A marked increase in the demand for chemicals and stiffer prices marked the week in this market. Paper mills seem to be buying once more and chemical dealers appear to be well satisfied with the prospects of the winter trading. Although there have been no radical price changes, still the market has a much firmer undertone and the unsteadiness of quotations is less noticeable than it was a couple of weeks ago.

**ALUM.**—Ammonia alum is in a little better demand and the product has shown a tendency toward more stable prices, as well as a growing interest on the part of the buyers. The price of the lump grade is nominally at 3.50 to 3.75 cents a pound, for the powdered 3.75 to 4.00 cents, and for the ground 4.00 to 4.25 cents a pound.

**BLEACHING POWDER.**—Bleach is also continuing to improve, with the paper men showing more interest and a greater number of inquiries and actual orders. The price is firm at 2.25 to 3.00 cents a pound.

**BRIMSTONE.**—Brimstone is not greatly improved, although it is a little better than it was at the beginning of the summer. The price is the same at \$15 to \$16 a ton at the mines.

**BLANC FIXE.**—Although there was a slight falling off in the price of blanc fixe about ten days ago, there has been no sign of any further weakening. Buyers are beginning to place larger sized orders and the price is quite firm at \$40 to \$50 a ton for the pulp and 4.25 cents a pound for the powdered in less than carload lots. Carload lots of the latter may be bought around 4.00 cents a pound.

**CAUSTIC SODA.**—Now that all of the distressed lots of caustic soda have disappeared from the market and the demand has improved to a considerable extent, dealers are looking forward to a vastly improved business by the middle of the fall. The price is firm at 3.25 cents a pound on a basis of 60 per cent.

**CASEIN.**—Casein is considerably stronger this week and there has been a slight increase in the current quotations of the domestic and imported stock. This is attributable to the generally better tone of industry all over the country. The price is reported at present as 6.75 to 8.00 cents a pound.

**CHINA CLAY.**—Imports of china clay still continue large considering the amount of business there is. China clay has not picked up quite as much as some of the other commodities, but dealers report that things are improving right along. Prices remain about the same, with the domestic unwashed nominally at about \$7 to \$8, the domestic washed \$9 to \$10, and the imported \$16 to \$24.

**ROSIN.**—Naval stores are about the same this week as they were last, with not much change either for better or for worse. The price on grades E and F is \$5.30 and on G, \$5.35.

**SALTCAKE.**—The same price obtains in saltcake this week as did last. The demand is reported as a little bit improved, although it could be a whole lot better. It is quoted at from \$17 to \$25 a ton depending upon whether the manufactured or the natural grade is desired.

**SODA ASH.**—There is less soda ash on the open market and business in this product is reported to have improved a little. The price is just about the same, 2.10 to 2.15 cents a pound.

**SULPHATE OF ALUMINA.**—More inquiries, a greater number of orders and firmer prices marked the sulphate of alumina market this week. Although the quotations are the same, things are much steadier. The present price on the commercial grade is 1.60 to 2 cents a pound and on the Iron Free 2.50 to 3 cents a pound.

**TALC.**—Talc is also in greater demand as far as the American grade is concerned, although the call for the imported grades does not appear to be much greater. The price is firm at \$18 to \$20 a ton.

# Market Quotations

(Continued from page 55)

Solid Ledger Stock	1.75 @ 2.00	New Black Soft	.04 1/2 @ .04 1/2
Writing Paper	1.50 @ 1.75	New Light Sec-	
No. 1 Books, heavy	1.25 @ 1.50	onds	.03 @ .03 1/2
No. 2 Books, light	.90 @ 1.00	Khaki Cuttings	.04 @ .04 1/2
No. 1 New Manila	2.75 @ 3.00	Corduroy	.02 3/4 @ .03
No. 1 Old Manila	1.25 @ 1.50	New Canvas	.08 @ .08 1/2
Container Manila	.75 @ .80	New Black Mixed	4.15 @ 4.25
Old Kraft	2.00 @ 2.25	Old	
Overissue News	.90 @ 1.00	White, No. 1—	
Old Newspaper	.40 @ .50	Repacked	.06 @ .07 1/2
No. 1 Mixed Paper	.40 @ .50	Miscellaneous	.06 3/4 @ .07 1/2
Common Paper	.25 @ .30	White, No. 2—	
Straw Board, Chip.	.25 @ .30	Repacked	.04 1/2 @ .04 3/4
Binders' Bd, Chip.	.25 @ .30	Miscellaneous	.03 1/2 @ .04
Domestic Rags—New		Thirds and Blues—	
Price to Mill, f. o. b. Phila.		Repacked	.02 1/2 @ .02 3/4
Shirt Cuttings—		Miscellaneous	.01 1/2 @ .01 3/4
New White, No. 1	.10 @ .11	Black stockings	2.50 @ 2.75
New White, No. 2	.08 @ .08 1/2	Roofing Stock—	
Silesias, No. 1	.07 1/4 @ .07 3/4	No. 1	.90 @ 1.00
New unbleached	.08 1/2 @ .09 1/2	No. 2	.80 @ .90
Washables	.04 1/2 @ .05	No. 3	.70 @ .80
Fancy	.07 1/4 @ .07 3/4	No. 4	.75 @ .85
Cottons—according to grades—		No. 5A	Nominal
Blue Overall	.06 1/2 @ .07	B.	Nominal
New Blue	.03 1/2 @ .03 3/4	C.	Nominal

## BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

<b>Paper</b>		Wood, vat lined	40.00 @ 45.00
Bonds	.08 1/2 @	Filled News Board	35.35 @ 37.50
Ledgers	.08 1/4 @	Solid News Board	35.00 @ 40.00
Writings	.11 @	S. Manila Chip.	47.50 @ 52.50
Superfine	.15 @	Pat. Coated	65.00 @ 70.00
Fine	.12 @	<b>Old Papers</b>	
Books, S. & S. C.	.07 @	Shavings—	
Books, M. F.	.07 1/2 @	No. 1 Hard White	2.50 @ 2.75
Books, coated	.09 1/4 @	No. 1 Soft White	2.10 @ 2.25
Label	.10 @	No. 1 mixed	.85 @ \$1.00
News, sheets	\$.50 @	Ledgers & Writings	.01 1/2 @
News, rolls	.04 1/2 @	Solid Books	1.05 @
Manila—		Blanks	.01 1/4 @
No. 1 Manila	\$.70 @	No. 2 Books Light	.80 @
No. 1 Fibre	8.00 @	No. 1 Manila	.01 @
No. 1 Jute	8.00 @	Folded News, over	
Kraft Wrapping	6.50 @	issues	\$.12 @
Common Bogus	3.00 @	Mixed paper	7.00 @
<b>Boards</b>		Gunny Bagging	.50 @ .50
(Per ton destination)		Manila Rope	.03 1/2 @ .04
Chip	\$.32.50 @ 35.00	Common Paper	5.00 @
News, vat lined	33.50 @ 37.50	Old News	7.00 @
		Old Kraft	.02 1/4 @

## TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

<b>Paper</b>		Sulphite bleached	80.00 @ 90.00
(Mill Prices to Jobbers f. o. b. Mill)		Sulphate	60.00 @ 65.00
<b>Board</b>		<b>Old Waste Papers</b>	
Sulphite	13 @	(In carload lots, f. o. b. Toronto)	
Light tinted	14 @	Shavings—	
Dark tinted	15 1/2 @	White Env. Cut.	2.25 @ 2.50
Ledgers	14 @	Soft White Book	
Writing	11 @ 15	Shavings	2.35 @ 2.50
News, f. o. b. Mills—		White Bl'k News	1.60 @
Rolls (carloads)	4.75 @	Book and Ledger—	
Sheets (2 tons or over)	5.60 @	Flat Magazine and Book Stock	1.15 @
<b>Book</b>		(old)	
No. 1 M. F. (carloads)	10.00 @	Light and Crumpled Book Stock	.90 @
No. 2 M. F. (carloads)	9.00 @	Ledgers and Writings	1.60 @
No. 3 M. F. (carloads)	8.50 @	Solid Ledgers	1.60 @
No. 1 S. C. (carloads)	10.50 @	Manila—	
No. 2 S. C. (carloads)	9.50 @	New Manila Cut.	1.85 @
No. 1 Coated and litho.	15.00 @	Printed Manilas	.70 @
No. 2 Coated and litho.	14.00 @	Kraft	2.25 @
No. 3 Coated and litho.	13.25 @	<b>News and Scrap</b>	
Coated and litho., colored	15.25 @	Strictly Overissue	.85 @
Wrapping—		Folded News	.75 @
Grey	4.75 @	No. 1 Mixed Papers	.50 @
White Wrap	5.25 @	<b>Domestic Rags—</b>	
"B" Manila	5.75 @	Price to mills, f. o. b. Toronto.	
No. 1 Manila	7.50 @	Per lb.	
Fibre	7.25 @	No. 1 White shirt cuttings	.08 1/2 @ .08 3/4
Kraft, M. F. or M. G.	8.75 @	No. 2 White shirt cuttings	.05 1/4 @ .05 3/4
<b>Pulp</b>		Fancy shirt cuttings	.05 1/4 @ .05 3/4
(F. o. b. Mill)		No. 1 Old whites	.03 1/4 @ .04
Ground Wood	\$.25.00 @ 35.00	Thirds and blues	.02 @ .02 3/4
Sulphite, easy bleaching	65.00 @ 70.00	Per cwt.	
Sulphite, news grade	55.00 @ 60.00	Black stockings	2.00 @
		Roofing stock	
		No. 1	1.10 @
		No. 2	1.00 @
		Roofing stock	
		Manila rope	.04 @
		No. 2	.01 1/2 @
		Gunny bagging	.02 1/4 @

*The Home of Quality*



FACTORY  
132<sup>ND</sup> TO 133<sup>RD</sup> ST. & BROOK AVE

# PAPER BAGS

Sacks and Specialties

ESTABLISHED 1901

## SCHORSCH & CO.

*Manufacturers*

500 East 133d Street : New York

This Registered Trade  
Mark Octagon



on a Paper  
Bag Vouches for  
Its Good Quality

# Buchanan & Bolt Wire Company

ESTABLISHED 1878 AT HOLYOKE, MASS.

Makers of Highest Grade Fourdrinier Wires, Dandy Rolls, Cylinder Covers, Brass Wire Cloth  
of all Meshes for Paper, Pulp and Coating Mills—Quality Guaranteed

We make a specialty of Fine Wires for Magazine and Book Papers

## Felt Test—Lowest Cost per Ton

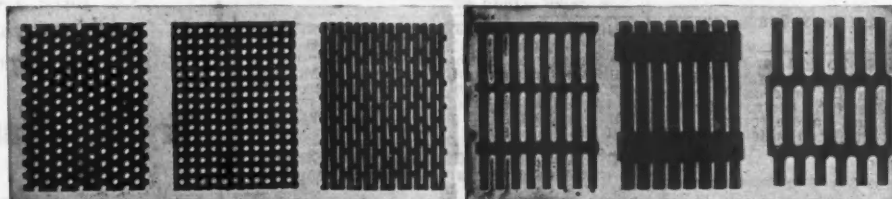
If you judge felt values, not by what you put into the equipment, but what you get out of it—then you will specify ORR 3 stripe Endless Felts, for ORR felts will produce the lowest cost per ton. They “stand up” under severe usage. Orr durability is acknowledged everywhere. Their strength and long life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

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

**THE ORR FELT & BLANKET COMPANY, Piqua, Ohio**

## PERFORATED METALS

All sizes  
and  
shapes  
of Holes



All kinds  
and  
thicknesses  
of Metal

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

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# WANT AND FOR SALE ADVERTISEMENTS

## CLASSIFIED RATES

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

**SITUATION WANTED**, 4 cents a word for first insertion and 2 cents a word for each subsequent insertion of same ad. No ad of less than 25 words accepted.

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

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

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

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

## HELP WANTED

**MAX KRAUSE, BERLIN, GERMANY**, Papeterie Manufacturers and wholesale paper dealers desire to place their entire output in hands of experienced representative or responsible jobbing house covering U. S. A. and Canada. Please send detailed offers with German references to Berlin S. 42, Alexandrinen str. 93/94. S-15

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

**WANTED—Four capable Super Calendar Runners**. Very little lost time. Two tours. Address, Box 4421, care Paper Trade Journal. S-29

**WANTED—A-1 Asbestos and Felt Machine Tender, One Back Tender, and One High Grade Beater Engineer**, well up on Asbestos and Felt. Furnishes. Give age, experience and references with first letter. Married or single. Address, Box 4422, care Paper Trade Journal. S-29

**WANTED—Experienced Coarse Paper and Specialty Salesman**, New York and New Jersey territory. Salary and Commission. Apply, Ringel Brothers, Newark, N. J. S-15

**WANTED—Two Cylinder Machine Tenders; two Beatermen**. Men capable of making High Grade Rope and Sand Papers. Address, Box 4438, care Paper Trade Journal. S-22.

**WANTED—A Machine Tender and also a Back Tender in a One Machine Box Board Mill**. Address, Box 4439, care Paper Trade Journal. S-22

**WANTED—Machine Tenders for Mill in Middle West on Cylinder Tissue and Harper Machines**. Write for particulars. Address, Box 4451, care Paper Trade Journal. S-15.

**PAPER SALESMAN—To call for an established Wholesale House**, Metropolitan City, Atlantic Seaboard. Successful experience necessary. Must have desire and ability to get business and handle tonnage orders. Only highest grade capable man will be considered. Address, Box 4452, care Paper Trade Journal. S-22

**Classified Advertising  
BRINGS  
RESULTS**

## SITUATIONS WANTED

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

**MASTER MECHANIC** with a splendid experience desires to make a change. Now has full control of construction and maintenance in a large plant. Address, Box 4339, care Paper Trade Journal. tf

**PAPER BAG MANUFACTURERS—Superintendent, Mechanical, Engineer**, open for engagement, envelopes, specialties and printing, grocery and self-opening bags and sacks. Taking full charge of building new plants. Designing of machines and labor-saving devices, up to date, energetic, resourceful and good organizer. Address, Box 4383, care Paper Trade Journal. S-29

**SIXTEEN YEARS PAPER SALESMAN AND EXECUTIVE** seeks connection in New York as mill representative, or with reliable paper firm as salesman or executive. Now employed; 35 years of age, married, good record. Best references. Address, Box 4400, care Paper Trade Journal. S-16

**PAPER SALESMAN—New York City**, with office, wishes to represent paper mill. Can produce large amount of business, with the right kind of co-operation. Drawing account on commission basis. Replies treated confidentially. Address, Box 4401, care Paper Trade Journal. tf

**PAPER MILL SUPERINTENDENT**, with wide experience on fine grade and colored specialties, wishes new connection. Address, Box 4402, care Paper Trade Journal. S-22

**MASTER MECHANIC** desires position. Expert Construction, Reconstruction, Installing Equipment and Economical Maintenance. Ground Wood and Sulphite from the log to finished product. Fourdrinier machines making Book, Bond, News and Specialties. Cylinder Machines making Board, Bristols and Tissue Specialties, using water, steam and electric power. Address, Box 4425, care Paper Trade Journal. O-27

**WANTED—Situation as superintendent of mill making Binders, Friction and other Boards**. Have been successful in building and repair work. Address, Box 4426, care Paper Trade Journal. O-13

**GENERAL SUPERINTENDENT**, experienced making Boxboards, Coarse Paper and Chemical Pulp, is open for engagement with established or new concern. Organizer and Executive. Address, Box 4428, care Paper Trade Journal. O-6

**SITUATION WANTED—Technical graduate, Civil and Mechanical Engineering**, desires position, having over twelve years' practical experience on the design and maintenance of pulp and paper mills. Thoroughly familiar with all processes pertaining to the pulp and paper field. At present employed as Supervising engineer in connection with large pulp mill. Address, Box 4429, care Paper Trade Journal. S-15

**SUPERINTENDENT**, experienced on Container, Combination Boards and the better grades of Boxboard. Experienced in Mill Construction and installation of Machinery, and can give the best of references as to my ability to handle help and get production. Address, Box 4430, care Paper Trade Journal. S-22

**POSITION WANTED—As Chief Engineer and Master Mechanic**. Have 20 years' experience on Power Stations from 5,000 to 75,000 H.P. Steam Engines, Turbines and Boilers. Address, Box 4453, care Paper Trade Journal. S-22

**POSITION WANTED as Machine Tender**. Fifteen years' experience on Kraft, Manila, etc. Reliable and Steady. Address, Box 4454, care Paper Trade Journal. S-15

## SITUATIONS WANTED

**THOROUGH SUPERINTENDENT** desires position, experienced on tissues, all grades Crepe, Semi-Crepe, Toilet, Towels, Napkins, Fourdrinier and Cylinder Machines. High grade man on Kraft and Kraft Specialties, Waxing Tissues, plain and colored, Twisting Fibres, A-1 on Colors. Thoroughly understand the conversion of Waxing Tissues and Colored Crepe Papers. Good organizer. References furnished. Address, Box 4431, care Paper Trade Journal. S-22

**SITUATION WANTED—Experienced both Mill and Jobbing in Wrappings, Tissues, Wax, Parchments, Glassine, Crepe Papers and all converted items therefrom, together with the actual sales**. Wide acquaintance paper jobbing trade. Open for position with mill or large converter or both as sales representative or sales manager or assistant to, Age 34, single, tall, clean cut appearance, aggressive, hardworking. Go anywhere. Address, Box 4432, care Paper Trade Journal. S-22

**YOUNG MAN** looking for position in Paper Mill. Have worked from cutter boy to Night Boss, on all grades of Paper made on two to seven cylinders. Can furnish references. Am married, steady and sober. Address, Box 4434, care Paper Trade Journal. S-22

**SALESMAN—In New York City**, experienced, desires to make connections with Paper House catering to the printing and publishing trade. Preferably one handling Book Super Coated Papers and various Special lots. Salary or Commission basis. Address, Box 4440, care Paper Trade Journal. S-29.

**SITUATION WANTED—By First Class Cylinder Machine Tender with 30 years' experience on all grades of Tissues, Roofing and Wrapping Papers by steady married man with best of references**. Address, Box 4441, care Paper Trade Journal. S-22.

**POSITION WANTED—By a Coarse Calendar and Cutter man**. Twenty years' experience in a Coated Paper Mill. Would like a position as assistant to Superintendent or Boss Calendar and Cutter Man. Thoroughly understands the Finishing End. Address, Box 4442, care Paper Trade Journal. S-15.

**SUPERINTENDENT—Desires position**. 30 years' experience on most all grades of Rag and Wood Papers. Good on Colors. Can get results. Address, Box 4443, care Paper Trade Journal. S-29

**SUPERINTENDENT WISHES TO make a change from his present position**. Have had fifteen years' experience on all grades of Boxboards, Containers, Tests, etc. Familiar with repairs, maintenance, and know how to handle men. Middle aged, married, and can give best of references. Address Box 4435, care Paper Trade Journal.

## Do You Want Help?

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

## Try the Want Pages

of the

## Paper Trade Journal



## SITUATIONS WANTED

**POSITION WANTED**—As Superintendent, have had 20 years' experience on Book, Writing, Bond and Specialties. Am well posted in the use of old Paper Stock and Rags. Have had a great deal of experience in overhauling machinery and handling help. Can give best references. Address, Box 4444, care Paper Trade Journal. S-22.

**BUYING OR SELLING POSITION**—Wanted by young man having three years' experience with prominent Paper Export Firm; excellent knowledge of sources of supply for Paper and boards. Prefer domestic selling, or purchasing proposition. Straight salary arrangement desired. Will consider mill position. Address, Box 4445, care Paper Trade Journal. S-22.

**WANTED**—Position as Machine Tender by reliable married man. Experienced on all grades of Boxboards. Can furnish references. Address, Box 4446, care Paper Trade Journal. O-13.

**WANTED**—To make connection with Western Mill on W. F. and D. F. Butchers' Papers. Unquestionable standing, seven salesmen calling on jobbing trade alone. Address, Box 4447, care Paper Trade Journal. S-29.

**WANTED**—Position as Superintendent in Mill making News, Manilas or Kraft. Where production and quality counts. All questions answered in first letter. Can furnish reference. Address, Box 4448, care Paper Trade Journal. S-15.

**PAPER MILL REPRESENTATIVES** established in New York City desire additional connections with Book and Wrapping Mills. All particulars on request. Strictly confidential. Address, Box 4449, care Paper Trade Journal. S-29.

**CYLINDER MACHINE TENDER**—Wishes position, 18 years' experience on Chips and other grades. Married, sober, steady, can give references. Address, Box 4450, care Paper Trade Journal. S-15.

## FOR SALE

- FOURDRINIER PART**—One 90" P & J Fourdrinier part with Millspagh suction couch roll and pump, 40 ft. wire.
- JORDANS**—Several Horne and Emerson on way to our works. One Noble & Wood; two No. 1 Claffins.
- KOLLERGANGS**—One kollergang; size of stone 56" x 15" face.
- PULLEYS**—One 97" dia. x 34", double arm, modern pulley. Large cone pulleys. Large stock of iron pulleys, including some cone pulleys for Marshall drives. New wood pulleys with friction clutches. Also steel pulleys.
- PUMPS**—One dry suction, single vacuum, 12 x 22 x 18 Knowles; one 1,000 gallon Blake Tank Pump; several 7" and 8" Lawrence Machine Company, Class A, High Duty Pumps; Fan Pumps; new stock pumps, single and double.
- PRESS ROLLS**—Large number of different sizes on hand. Some suitable for rubber covering. Six rolls about 15" x 98" just received. Some brass and some rubber covered.
- ROTARIES**—Two 84" x 22" horizontal.
- REELS**—One two-bowl 58" face. Several new ones going through works. State which you desire.
- RAG CUTTERS**—One Daniels No. 2; one Taylor & Stiles.
- SLITTERS**—Two Dietz Slitters.
- SCREENS**—One 10-plate open side Packer with plates; one 12-plate open side Packer with practically new plates. Three Ruth centrifugal.
- WINDERS**—One 80" single drum P & J make; one 100" double drum, P & J make.

Advise us of your wants.

**MILLS MACHINE COMPANY**  
LAWRENCE, MASS.

175 Richdale Ave., Cambridge, 40, Mass.

## FOR SALE

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

## For Sale

### Wax Paper Plant

#### Fully Equipped

Includes Slitter and Rewinder, Cutter and Trimmer and Wax Machine. Is equipped for waxing paper from the roll. Will wax a 9 lb. tissue to 10 lb. and up to 12½ lb. Also waxes bread wrapper stock and heavier weights. Address Box 4331, care Paper Trade Journal. T.F.

**FOR SALE**—9 Dryers, 23" x 52", complete with frames, felt and rolls, gears, two cone pulleys and steam connections. Address, Box 4386, care Paper Trade Journal. tf

**FOR SALE**—Five dryers, 120" faced, 48" diameter, complete with frames and gears. These are as good as new and can be purchased reasonably. Marley Paper Mfg. Co., Childs, Md. S-15

The Want Columns  
of the  
Paper Trade Journal  
are  
Result Getters  
—  
TRY THEM

## FOR SALE

**FOR SALE**—100 tons Ledgers, grade 1 A. 200 tons Heavy Letters, best quality. 100 tons Pamphlets. 100 tons Cream Shavings. 50 tons Jute light Bagging. 50 tons Colored Shavings. 200 tons Crushed News. Offered by Josef Schimek, Muhlenstr. 11, Berlin O. 17, Germany. S-15

**FOR SALE**—2 White Oscillating Screens with auxiliary in good working condition. Also, two 72" diameter boilers, 18 ft. Tubes rates 150 H.P.—100 lbs. pressure, in good condition. Address, Box 4436, care Paper Trade Journal. S-15

## MISCELLANEOUS

**CASH PAID** for old United States, Confederate and foreign postage stamps, used on letters prior to 1870. Send samples. James Hardy, 4522 Forrestville Ave., Chicago, Ill. oam-1-yr.

**KRAFT PAPER MILL LOCATION**—Abundant supply of tributary raw material available by both rail and water, cheap electric power, pure Lake Superior water, good labor conditions. The very best unoccupied Kraft Paper Mill location in America. Address, Commercial Association, Sault Ste. Marie, Michigan. S-15

**PULP OR PAPER MILL OPPORTUNITY.** 1,500,000,000 ft. best pulp timber in single valley on British Columbia Coast within 200 miles of Vancouver. 10,000 H.P. on tide-water, in high head water power. This, together with good tidewater plant site, makes this best proposition available on Pacific Coast. Will sell timber reasonable and on long terms. Address, Box 4437, care Paper Trade Journal. S-15

**WE NEED:** 1 Hydraulic Wet machine about 84", 1-12 x 18 two-lobe cycloidal pulp for suction roll. We have the following jackets for sale: 2-17 5/8" x 84", 6-18" x 8", 2-18 3/16" x 83", Howard Smith Paper Mills, Limited, 138 McGill Street, Montreal, P.Q. S-15

## Paper Mill Machinery

### For Sale

**FOURDRINIER PAPER MACHINE:** one 112"; one 96"; one 80"; one 72".

**CYLINDER PAPER MACHINES:** One 68" two cylinder; one 54" two cylinder.

**FOURDRINIER PARTS:** Takes a wire 110" x 48"; one taking a wire 75" x 50".

**PRESS PARTS FOR PAPER MACHINE:** Pusey & Jones bell crank housings, two sets 18" x 114"; three sets 18" x 110"; two sets 18" x 96".

**DRYERS:** Four 48" x 111"; sixteen 48" x 106"; one 36" x 80"; ten 48" x 68"; one 84" x 67".

**MACHINE CALENDER STACKS:** one 124" seven roll; one 120" eight roll; two 96" nine rolls; one 84" five rolls; one 66" five rolls; one 41" five rolls.

**REAM CUTTERS:** One 68" Oswego, new; one 64" Holyoke Seybold; one 56" Acme.

**REVOLVING SHEET CUTTERS:** One 122" Moore & White Duplex; one 104" Horne; one 100" Dillon; one 84" Clark; one 74" Hamblet; one 62" Horne; one 50" Hamblet Diagonal; two 42" Finlay.

**SLITTERS AND WINDERS:** One 124" Moore & White four drum heavy type; one 120" Warren patent; one 110" Moore & White four drum; one 96" Kidder; one 44" Kidder; one 36" Kidder.

**BEATERS:** Six 72" x 42" Noble & Wood; five 66" x 42" Noble & Wood; equipped with three cylinder washers; two 65" x 61" Dayton iron tub; four 61" x 60" Dayton iron tub; one Dilts 62" x 50"; one Jones 62" x 52"; eight Horne 36" x 36"; four Claffins.

**JORDANS:** One Wagg Majestic; two Dillon No. 2 Improved; one large Horne; five Monarchs; two Pony Monarchs; two Pope Brushing Engines.

**VARIABLE SPEED STEAM ENGINES:** One Chandler & Taylor Twin 12" x 12"; one Brownell Twin 14" x 16".

**FRANK H. DAVIS COMPANY**



# BLEACHED SULPHITE

## WOOD FLOUR

Various degrees of fineness and either fibrous or granular. Made from first growth Spruce and Pine, by approved processes.

**UNION WOOD FLOUR CO., INC.**  
Hudson Falls, N. Y.

## SHERMAN PAPER COMPANY

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

*Entire Product for 1921 Contracted*

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

## F. L. Smithe Machine Co. Inc.

MANUFACTURERS OF

### ENVELOPE MACHINERY

for making any style envelope, regular or special. Printed, stamp embossed and tissue lined envelopes.

Also die presses, tension machines, and metal clasp machines, and all other machinery used in manufacturing envelopes.

Designing, pattern making and machine work.

150 Eleventh Avenue, New York City, New York,  
U. S. A.

## Missisquoi Pulp and Paper Company

SHELDON SPRINGS VERMONT

White and Tinted Bristols—White Blanks—Index Bristol and Specialties in Card Boards.

ESTABLISHED 1842

## FOURDRINIER WIRES

DANDY ROLLS  
CYLINDER  
MOLDS

**CHENEY BIGELOW WIRE WORKS**  
SPRINGFIELD, MASS.

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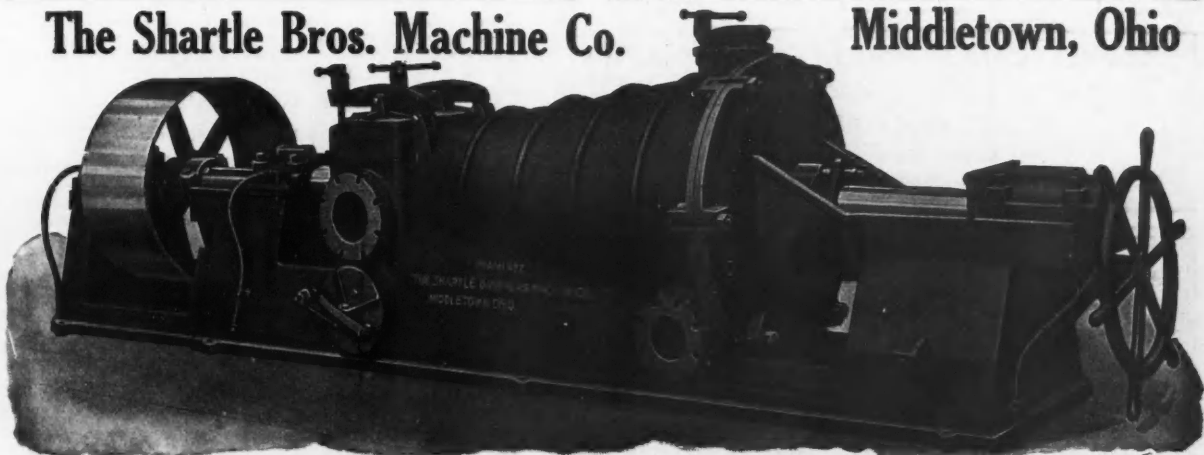
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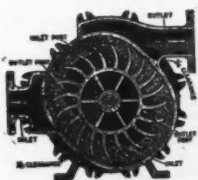
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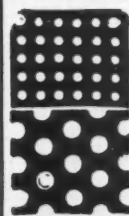
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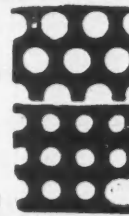
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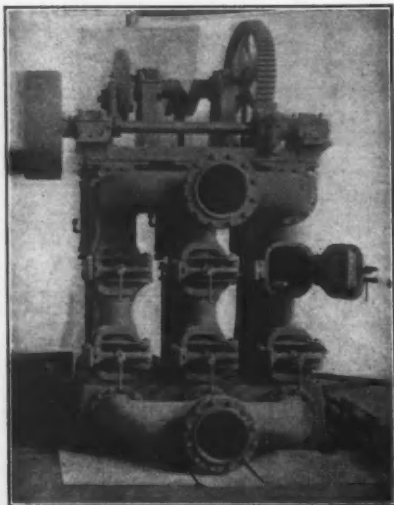
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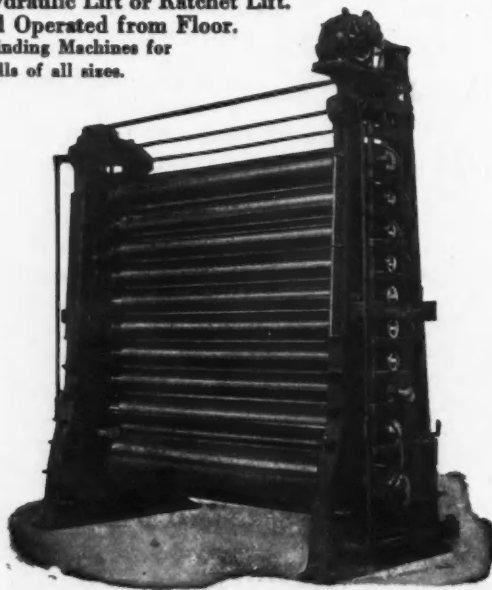


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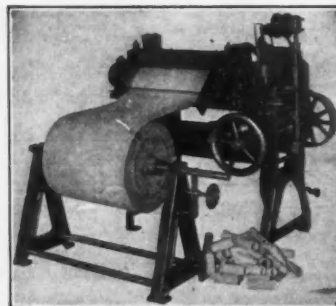
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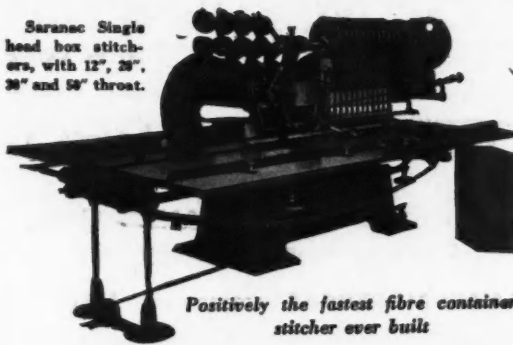
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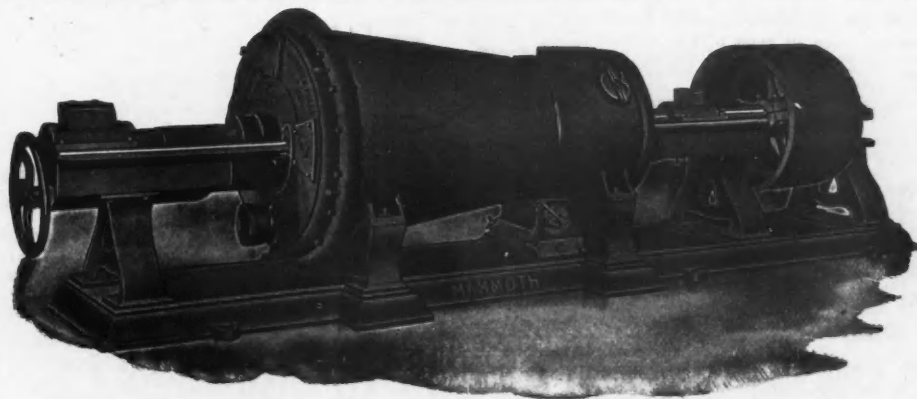
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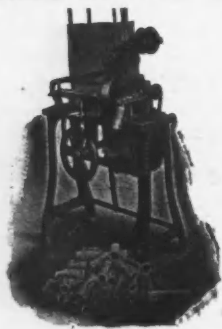
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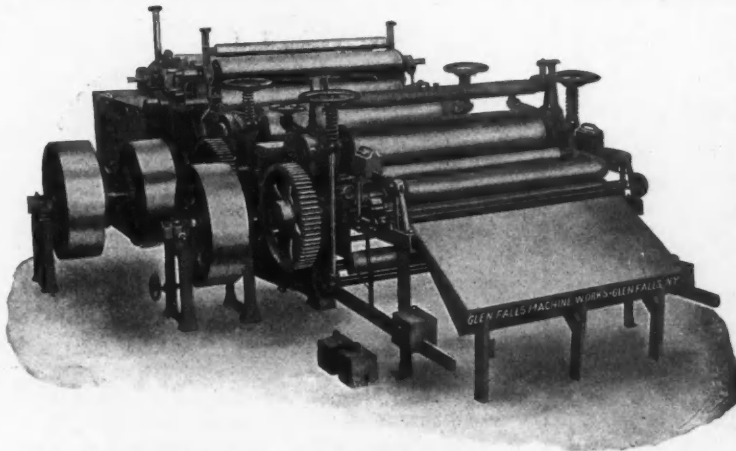


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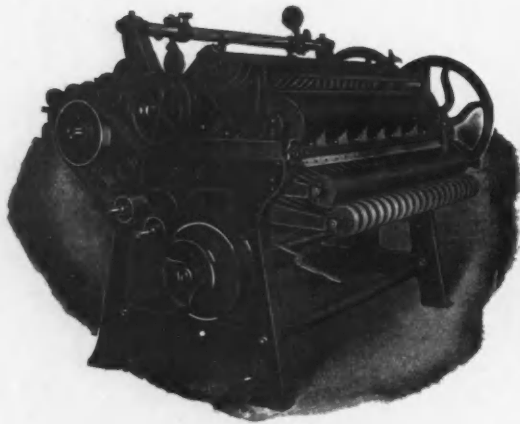
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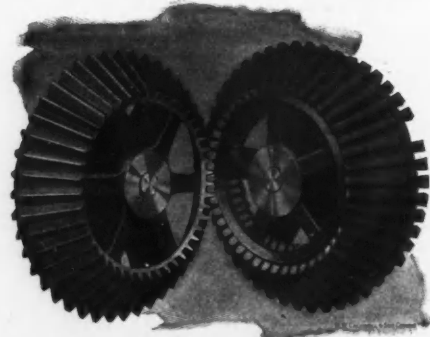


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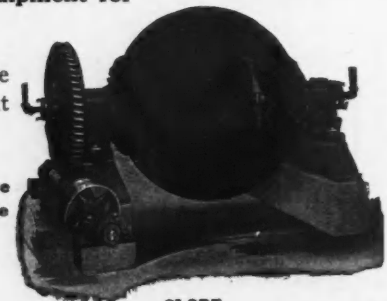


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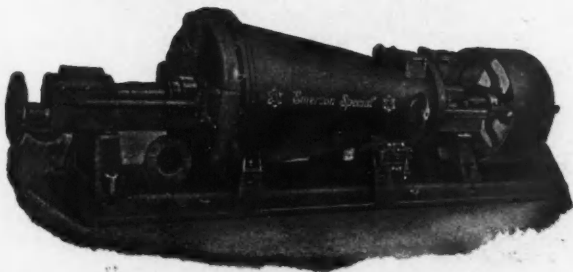
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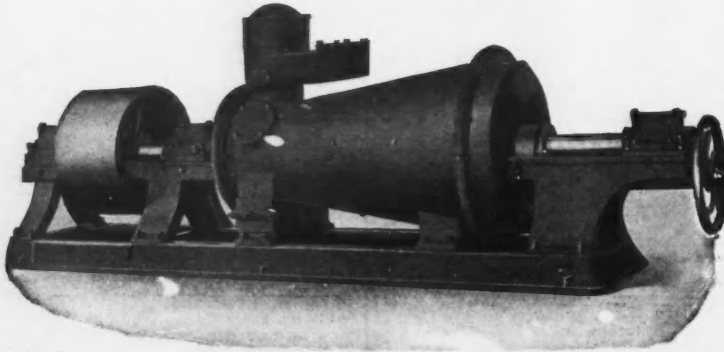
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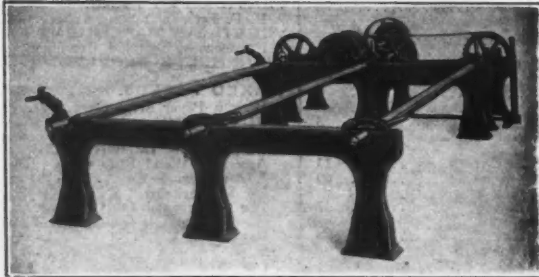
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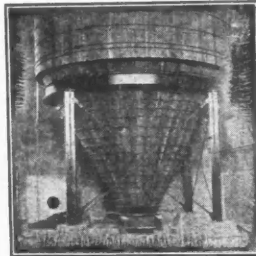
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