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PAPER TRADE JOURNAL

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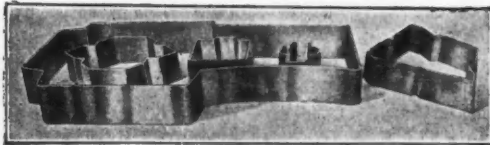
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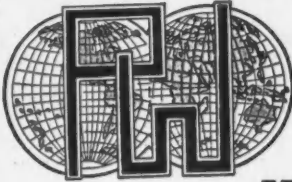
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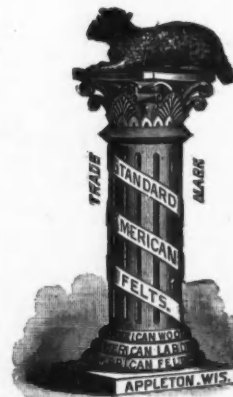
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THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

FORTY-SEVENTH YEAR

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CONSERVATION PLEDGE ASKED OF JOBBERS AND CONSUMERS

Priorities Division of the War Industries Board Orders All Middlemen Handling Paper to File Pledge With Their Mills and to Obtain a Pledge From All Customers Whose Annual Requirements Amount to More Than One Ton That They Will Co-operate With the Pulp and Paper Section in Economizing in the Use of Paper and All Products Made Therefrom—Other Plans to Save Paper.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., September 3, 1918.—The Pulp & Paper Section of the War Industries Board is to-day sending out the following notice to paper merchants, jobbers and sales agents:

By order of the Priorities Division of the War Industries Board, all middlemen handling paper must file a pledge with their mills and obtain a pledge from each customer whose annual requirements exceed one ton. Your mills will send you the pledge, which you are to file with them and you are to send to your customers the following pledge which they are to file with you:

The undersigned hereby pledges itself (1) To co-operate with the Conservation Division and the Pulp and Paper Section of the War Industries Board to economize in the use of pulp, paper, printing ink, and printers' rollers and all products manufactured therefrom, and in the use of transportation facilities; (2) To cause and procure others, so far as lies within its power, to exercise all possible economy and conservation in the use of such products; (3) Not to furnish such products to any dealer for resale or to any consumer for use until such dealer or consumer shall first pledge in writing its co-operation with the undersigned in carrying out the letter and spirit of this pledge, or thereafter should such dealer or consumer fail so to co-operate.

These pledges must all be in by October 1, 1918, after which date no customer will be supplied with paper who has failed to sign a pledge.

As soon after October 1, 1918, as possible you are requested to furnish this office with a statement showing names and addresses of all customers signing the pledges with you, so that we may have a complete record of them.

In addition to filing the pledge with the mill or mills and obtaining the pledge from each customer, every paper merchant or middleman is directed to make the following condition a part of each sale of paper and to thoroughly inform each customer of this condition by printing it on bills of sale, invoices, letter heads, etc.:

"All sales of paper by us are made with the express understanding that the purchaser will observe the government's rulings with respect to the use of paper, one of which is that it must not be wasted."

In order to comply fully with the spirit of the pledge which each middleman must file with his mill or mills, he should impress upon his customers at every opportunity the necessity for economy in the use of paper.

Spread the message that the government expects every consumer of paper to make a substantial reduction in his annual requirements, for only by doing this can the supply for essential purposes be maintained.

Because of the advantageous position which paper dealers and other middlemen occupy, they can be of great service to the government, not only in urging the conservation of paper, but also in advising their customers regarding the most serviceable and, at the same time, the most economical grades of paper to purchase for particular purposes.

It will not be necessary for printers to take pledges from their customers, but they should urge the necessity for economy and

advise their customers regarding the most serviceable and economical grades, weights, sizes, etc.

The co-operation and assistance of the National Paper Trade Association in this programme has already been pledged and similar action by all non-member dealers and middlemen is confidently relied upon.

Request Cooperation of Associations

The Pulp & Paper section of the War Industries Board is sending the following letter to hundreds of trade associations throughout the country urging their co-operation in paper conservation:

"The War Industries Board invites the co-operation of X X X association in its efforts to bring about economy in the use of paper. Pulp and paper mills have been placed upon the preference list with the express understanding that all wastes be eliminated and every possible economy be practised. (Grocers or what not) are important users of paper and are expected to make a substantial curtailment in their annual requirements. Unless they do this their supply for essential purposes cannot be maintained.

"Will you kindly convey this message to each of your members and also designate a committee which shall formulate and recommend to all grocers (or what not) of your association specific methods of economizing in the use of paper. It is important that immediate action be taken in this matter.

"Kindly acknowledge receipt and keep this office informed of the result of your effort."

Revised Wrapping Paper Recommendations

The Pulp & Paper Section of the War Industries Board has announced the following revised wrapping paper recommendations:

1. The following are established as the Trade Customs stock sizes for Commercial Wrapping Papers, except as hereinafter provided for:

6 x 9	18 x 24	36 x 48
9 x 12	20 x 30	40 x 48
12 x 18	24 x 36	48 x 60
15 x 20	27 x 27	48 x 64
	30 x 40	

Rolls may be manufactured in a size of either dimension expressing a stock sheet size or a multiple thereof.

Sizes smaller than 24 x 36 shall be packed Flat; larger sizes may be packed quire fold, but it is recommended that soft Fold or Flat be ordered and that in sizes smaller than 24 x 36 rolls, instead of sheets, be adopted as a matter of economy and as an aid in conservation of labor and waste at the mills.

2. The following are established as substance weights for all grades of Wrapping Papers:

24 x 36—20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 112, 125, 150 lbs. to 480 sheets, subject to the following regulations:

3. In manufacturing the following maximum substance weights are established for the grades specified:

A. 100 per cent. sulphate kraft. All size sheets up to and including 36 x 48, and all size rolls in a size of either dimension expressing a stock sheet size or a multiple thereof 24 x 36—50 lb. to 480 sheets.

All size sheets larger than 36 x 48, and all size rolls in a size of either dimension expressing a stock size sheet larger than 36 x 48, or a multiple thereof 24 x 36—80 lb. to 480 sheets.

B. Miscellaneous grades (containing part sulphate, sulphite, ground-wood, or a combination of these pulps).

All size sheets up to and including 36 x 48, and all size rolls in a size of either dimension expressing a stock sheet size, or a multiple thereof 24 x 36—70 lb. to 480 sheets.

All size sheets larger than 36 x 48, and all size rolls in a size of either dimension expressing a stock size sheet larger

than 36 x 48, or a multiple thereof 24 x 36—112 lb. to 480 sheets.

C. Butchers' grades—

- Dry finished 24 x 36—40 lb. to 480 sheets
- Water finished 24 x 36—50 lb. to 480 sheets
- Manila 24 x 36—60 lb. to 480 sheets

4. Bogus and screenings, mill wraps, pattern, straw and rag may be manufactured in the usual sizes and weights, sheets or rolls, in any substance weight not exceeding 24 x 36—175 lb. to 480 sheets.

5. Any order for other than a stock size, i. e., a size not specified above must be for not less than five tons of a size, must be made in a substance weight, must be for one delivery, and must not exceed the maximum substance weight basis established for the grade.

6. Any order for any weight other than a substance weight may be manufactured in quantities not less than 25 tons of one size, one weight, for one delivery, provided such special weight does not exceed the maximum substance weight established for the grade and the size be acceptable to mill.

7. Paper required for converting purposes exclusively are exempt from these regulations, i. e., for envelopes, tablets, drinking cups, bags, etc.

8. The manufacture of colors in any one mill shall be limited to six colors exclusive of white or natural; two shades of any one color shall be considered as two colors.

Amended Recommendations for Book Paper

The Pulp and Paper Section of the War Industries Board has issued the following amended recommendations for book paper:

1. The following are established as the trade customs stock sizes for book papers:

24 x 36	28 x 42	33 x 46	41 x 61
25 x 38	28 x 44	34 x 44	42 x 56
26 x 29	29 x 52	35 x 45	44 x 56
26 x 40	30½ x 41	36 x 48	44 x 64
	32 x 44	38 x 50	

Rolls may be manufactured in a size of either dimension expressing a stock size, or a multiple thereof.

2. The following are established as substance weights for all grades of book papers containing less than 75 per cent of ground-wood:

25 x 38-30, 35, 40, 45, 50, 60, 70, 80, 85, 90, 100, 120, 150, lbs. to 500 sheets, subject to the following regulations:

3. In manufacturing, the following maximum substance weights are established for all work not specifically provided for below.

- M. F. 25 x 38—50 lb. to 500 sheets
- S. and S. C. 25 x 38—60 lb. to 500 "
- English Finish 25 x 38—60 lb. to 500 "
- Egg Shell 25 x 38—60 lb. to 500 "
- Offset and Drawing 25 x 38—70 lb. to 500 "
- Coated, 1 S or 2 S. 25 x 38—80 lb. to 500 "

4. For special purposes, any substance weight up to the following maximum weights may be manufactured:

- For Lithographing, M. F. and S. and
 - S. C. four or more colors.... 25 x 38— 70 lb. to 500 sheets
 - End sheets, all grades..... 25 x 38— 90 lb. to 500 "
 - Maps, all grades 25 x 38— 80 lb. to 500 "
 - Sheet Music, all grades..... 25 x 38— 85 lb. to 500 "
 - Music Covers, all grades..... 25 x 38— 90 lb. to 500 "
 - Music Books, all grades..... 25 x 38— 70 lb. to 500 "
 - Toy Books, all grades..... 25 x 38—100 lb. to 500 "
 - Envelopes or Bags for Seed, all grades 25 x 38— 80 lb. to 500 "
 - Hangers or Calendar Backs, all grades 25 x 38—100 lb. to 500 "
- Offset for Covers and Mailing Fold-ers not to be inclosed, and Post Cards 25 x 38—120 lb. to 500 "

Coated for Covers and Post Cards... 25 x 38—150 lb. to 500 "

5. Any order for other than a stock size, i. e., a size not specified above, must be for not less than five tons of a size, must be made in a substance weight, must be for one delivery, and must exceed the maximum substance weight basis established for the grade and use specified.

6. Orders for any weight in other than a substance weight may be manufactured in quantities of not less than 25 tons of one size, one weight, and for one delivery, provided such special order does not exceed the maximum substance weight basis established for the grade and use specified.

7. All colored book except white, natural, or India tint and all laid and watermarked book paper shall be eliminated, when order is for less than 25 tons, but 25 tons or more may be manufactured, provided it is for one color, one size, one weight, and for one delivery, and provided such special order does not exceed the maximum substance weight basis established for the grade and use specified.

8. Coating mills may order the odd sizes, and weights necessary for their finished product, but such finished product must conform to the regulations established for same.

Eliminate Some Heavier Weight Papers

In compliance with the paper economy resolutions adopted by the Congressional Joint Committee on Printing on July 3, and published in full in the PAPER TRADE JOURNAL, the Public Printer has issued regulations eliminating a number of heavier weights of paper from the Government Printing Office stock, and has standardized the sizes and forms of a large number of Government publications.

The Public Printer transmitted the following letter to the chairman of the Joint Committee on Printing, Senator Marcus A. Smith, of Arizona, advising that committee as to the new regulations adopted by the Government Printing Office regarding weights and sizes of paper:

"Owing to the scarcity of paper-making materials, the shortage of coal, labor, and many other features entering into the manufacture of paper, a number of the heavier weights of paper are to be eliminated and the Government Printing Office will confine the purchase of suitable paper stock as far as possible to the following substance numbers:

- "Bond paper.—Nos. 9, 13, 16, and 20.
- "Writings.—Nos. 9, 13, 16, 20, and 24.
- "Ledgers.—Nos. 24, 28, 32, 36, and 44.
- "Bristols.—Nos. 52, 68, and 84.

"In keeping with the substance numbers above and in order to secure a better standardization of Government publications, the departments in ordering for the above substance numbers will be requested as far as possible to limit themselves to the sizes hereinafter prescribed, or to sizes which may be conveniently cut from the sizes so prescribed:

"Bonds, ledgers, and writings.—8 by 10½, 16 by 21, 21 by 32, 32 by 42, 8½ by 14, 14 by 17, 17 by 28, 28 by 34, 34 by 56.

"Book papers.—6 by 9½, 9½ by 12, 12 by 19, 19 by 24, 24 by 38, 32 by 48, 38 by 48; 29 by 41, 32 by 48, 38 by 48, 50 per cent. rag; 36 by 52, S & S C, Navy Register.

"Departments will be requested to eliminate the use of all 8½ by 11 and 22 by 34 papers.

"It will be noted that the following substance numbers are eliminated:

- "Writings.—8-11-28-32-36-40.
- "Bonds.—8-11-24-28.
- "Ledgers.—40-48-60.

"Bristols formerly purchased by weight to hereafter be bought by substance number.

"With the exception of ledger paper, substance No. 44 the
(Continued on page 38.)

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Great International Questions Raised

Questions of great international importance are growing out of the application of the St. Lawrence River Power Company, for permission to dam the South branch of the Long Sault Rapids, on the St. Lawrence River near Massena, N. Y. This application is being heard at a special meeting of the International Joint Waterways Commission, held in this city, and the application is supported by the United States Government, on the ground that construction of the weir would do away with ice troubles and enable the Aluminum Company of America to produce aluminum for the Allies uninterruptedly during the months of January, February and March. It is recognized, however, that much greater importance attaches to the application than a temporary stimulus to the production of war commodities. This is really the first move in an effort to harness for the benefit of the people of this continent the immense water powers which are running to waste on the great river which drains half the continent. While the attitude of the people is favorable to the project in a general way, there is an immense distrust of any private company seeking powers for development, the feeling being that nothing should be done to alienate public rights in the great unused powers. Navigation interests also view such proposals with alarm, it being held that nothing should be done which would in any way interfere with navigation. Many objections on this ground have already been registered before the Commission and learned arguments have been put forward to show that

any dam would interfere seriously with the river levels, would increase rather than diminish the ice troubles and would cause great destruction through floods when the ice broke up in the spring. But another and even more serious objection has now been put forward. Hon. Hugh Guthrie, Solicitor General, on behalf of the Canadian Government, appeared before the Commission and denied its power to deal with the matter at all. The whole thing, he said, was a matter of treaty right, to be arranged by conference direct between the two Governments. The best way would be for the Government of the United States to communicate at once with the Government at Ottawa, so that not only this particular application but the whole question of power development at the Long Sault might be discussed with a view to settling the difficulties in the shortest possible time. He went on to argue that if this dam was built and became private property, it would never be taken out. There was talk of taking it out after the war. No danger of that. The company was too strong. Canada did not wish to be placed in that position. It wished to be placed in the position of dealing fair and square with the United States Government. "We claim a treaty right," he concluded. "If the Commission has power to close this channel it has power also to close the Detroit River or the St. Lawrence. Where is it going to stop? Treaties must be respected. The whole world is at war today because a nation in madness undertook to deny treaty rights." The application is still under consideration.

Duncan & Spencer, Manufacturers' Agents

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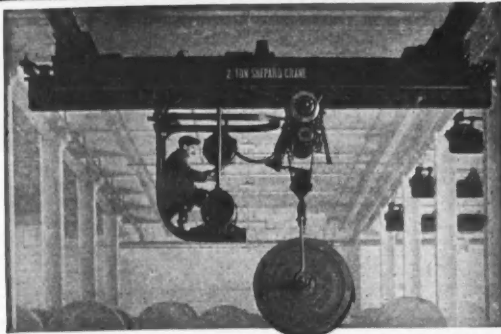
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Underhung Transfer Crane Bridge with Form 25-2 Hoist



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Ask us to send our expert on handling to confer with you.
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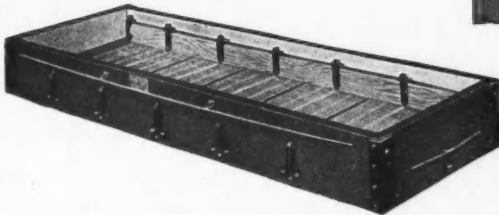
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UNION BRONZE SCREEN PLATES ROLLED BRASS
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Old Plates RECLOSED and RECUT to accurate gauge.

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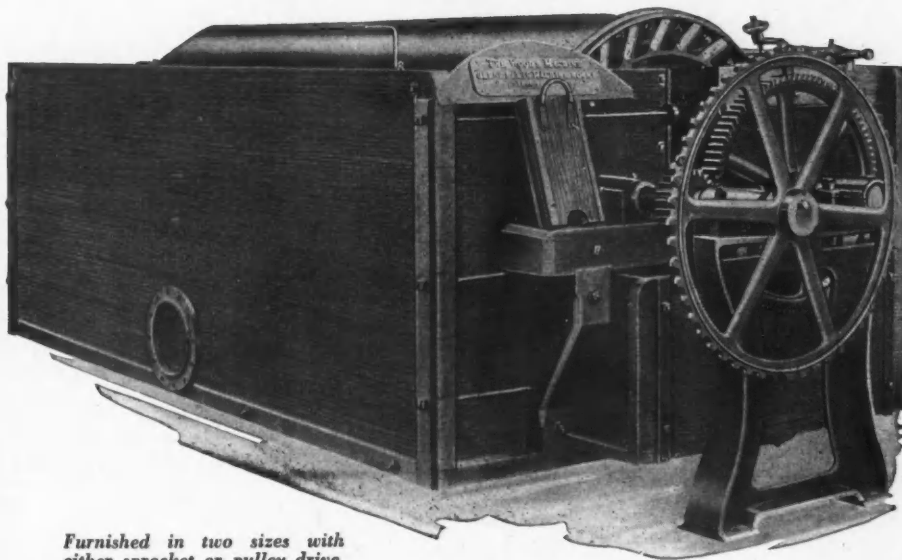
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No couch roll
No Doctor

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**Pulp Thickeners
Save-Alls
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*Guaranteed High Grade
Construction—Built for
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We will demonstrate our
Wood's Machine, Sulphur
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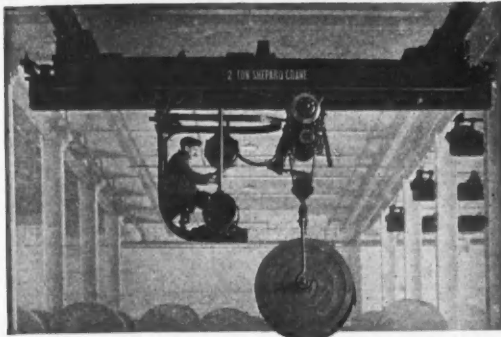
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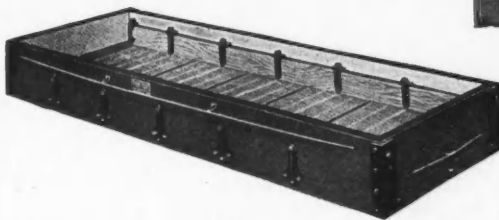


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Old Plates RECLOSED and RECUT to accurate gauge.

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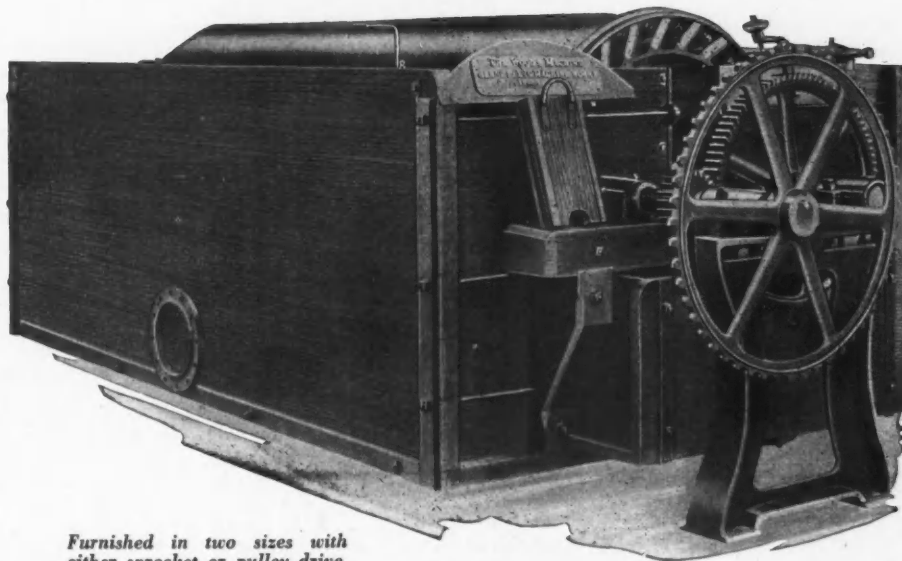
Immediate Delivery of the Largest Orders. Satisfaction Guaranteed.

The WITHAM SCREEN PLATE FASTENER, Patented
THE ORIGINAL THE BEST

Over One Thousand in Successful Operation

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THE WOOD'S MACHINE



Furnished in two sizes with
either sprocket or pulley drive.

Reduces wire cost
Works
automatically
No couch roll
No Doctor

Used as

Pulp Thickeners
Save-Alls
Pulp Washers
Water Filters

Guaranteed High Grade
Construction—Built for
Service.

We will demonstrate our
Wood's Machine, Sulphur
Burner and Consistency
Regulator at the Fourth
National Exposition of
Chemical Industries at
Grand Central Palace,
N. Y. Week of Sept. 23.

MADE BY GLENS FALLS MACHINE WORKS : GLENS FALLS, N. Y.

KALAMAZOO PAPER MAKERS HEAD WAR FUND DRIVES

Frederick M. Hodge, President of the Kalamazoo Paper Co., Has Been Named County Chairman in Charge of the Fourth Liberty Loan Campaign—Frank H. Milham Heads Committee to Sell \$1,000,000 Worth of War Savings Stamps During the Next Four Months—Paper Mill Men Receive Order That Bituminous Coal from West Virginia, Ohio and Kentucky Will No Longer Be Available.

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., September 3, 1918.—The task of handling two big war drives in Kalamazoo county has been handed to two well known paper mill executives of this city. Work has just been started to organize properly for the Fourth Liberty Loan campaign and the initial step has been taken by the selection of Frederick M. Hodge, president of the Kalamazoo Paper Company, as county chairman.

Kalamazoo county is expected to buy at least \$2,500,000 worth of these securities and Mr. Hodge has been assured the united co-operation of all business interests.

War Savings Stamp Drive Planned

An unpleasant fact has been driven forcibly home and that is that of the original \$1,300,000 of War Savings Stamps allotted for sale in this city and county over \$1,000,000 remain to be disposed of at this time. An effort is to be made to go over the top during the next four months. With this in view fifty manufacturers assembled recently and named Frank H. Milham, president of the Bryant Paper Company, chairman of the executive committee. This organization consists of nine members and includes among others, F. H. Milham, J. H. Dewing, F. M. Hodge, Bertram Hopper, C. A. Peck, H. S. Humphrey and A. L. Pratt, all prominently identified with the paper-making industry.

Citizens of Kalamazoo are confident that Mr. Hodge and Mr. Milham will organize their forces and make a success of both drives.

Coaters of King Paper Co. Buy Service Flag

Workers in the coating division of the King Paper Company have purchased a service flag in honor of their fellow employees who have gone to the front. The flag is five by eight feet in dimensions and carries nineteen stars. The men who have gone into service are Ernest Michael, Russell Rayner, Edward Vroegindewij, Donald Guest, Wilbur Munnard, Bert Brant, S. Duma, Leonard Van Loo, John Roland, Phillip Finley, Paul Giddings, Roy Winchell, Merel DeCardd, George Bell, Howard Fypherf and Carroll White.

An Unwelcome Fuel Order

An order has just been received from the National Fuel Administrator's office that is a blow to the paper mill men of this district. It is to the effect that on and after September 1, West Virginia, Ohio and Kentucky bituminous coal will not be available for general industrial purposes throughout the lower peninsula of Michigan. With it comes the suggestion that factory heads immediately place orders for Indiana and Illinois coal for immediate use and save what eastern bituminous they have on hand for the winter campaign.

During the fuel shortage of 1917-18 the local paper concerns had plenty of chance to try out Indiana and Illinois coal and the results were none too gratifying to say the least. With the intent of not being caught short in fuel again, every mill has been putting in reserve supplies, from 3,000 to 5,000 tons

each. This means little to a plant that uses 100 tons of coal every 24 hours and that just about meets the requirements of each local mill.

B. C. Dickinson, president of the Standard Paper Company and chairman of the Kalamazoo County Fuel Commission, has nothing to say regarding the order, except to indicate that, of course, it will have to be enforced to the letter. He predicts that a fuel shortage will exist the coming winter unless the utmost care and economy is used by manufacturers and domestic consumers alike.

Goes with Castle, Gottheil and Overton

Peter King has just returned from an extended business trip and reports business good. While away he sold several of the Winstock de-inking and de-fibering machine to paper mills.

Mr. King was formerly general superintendent of the Monarch Paper Company, resigning that position July 1 to accept the general western agency for Castle, Gottheil & Overton, 200 Fifth Avenue, New York, also to sell the Wine-stock paper de-inking and de-fibering machines. He has his offices in the Kalamazoo National Bank building.

George H. Pountain, formerly superintendent of the Bryant division of the Bryant Paper Company, has been named as Mr. King's successor.

General Trade Notes

Mr. and Mrs. John F. King have gone on a visit to the aviation camp at Urbana, Ill., where their son, Merrill, is taking instruction. They will also go on to Minneapolis, where their daughter, Mrs. Harry Creamer resides.

Harry Sharp, employed at the Bryant Paper Company, on a calendar, had his right hand injured recently.

B. C. Dickinson, president of the Standard Paper Company, has returned from a business trip to Washington, D. C.

Frank Milham, president of the Bryant Paper Company, and James H. Wright, his assistant, are home from trips in the east.

Sidney Marble, employed by the MacSimBar Paper Company, Otsego, has suffered the loss of his right arm. It was caught in the machinery and so badly mangled that he was removed to Bronson hospital in this city and the member was amputated near the shoulder.

Mrs. Mary B. Westledge, mother of Col. Joseph B. Westledge, commander of the 126th Infantry, has been named president of the War Mothers of Kalamazoo.

Felt Makers Organize for War Work

[FROM OUR REGULAR CORRESPONDENT.]

NIAGARA FALLS, N. Y., September 3, 1918.—Following a conference at Washington, D. C., last week with the war industries board the papermakers' felt industry of America has organized an executive committee with William H. Lee of Lockport, treasurer of the Lockport Felt company, as secretary, to map out a policy of conservation in the use of felt and to co-operate with the war department.

Mr. Lee said last Saturday that the industry has been classified as very essential. It is now making blankets for the army. A portion of the output will be allowed to go to the papermakers, but it is possible that some forms of papermaking will be curtailed; outside of print paper. F. J. Harwood of Appleton, Wis., is chairman of the service committee.

The committee will meet in Boston, Mass., next Thursday to arrange a program on lines laid down by the war industries board. Conservation of the wool supply will be the principal subject. Mr. Lee states that the use of wool in civilian clothes will be dispensed with largely.

EASTERN MANUFACTURING COMPANY

Manufacturers of

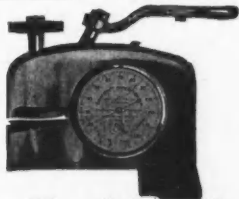
WRITINGS—BONDS—LEDGERS

Linen Finish Papers a Specialty

General Sales Office:
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The Ashcroft Paper Tester



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

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119 West 40th Street New York
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SPRINGFIELD, MASS.

MANUFACTURERS

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

HOLYOKE LABOR SITUATION AFFECTED BY THE DRAFTS

Hundreds of Young Men Who Have Already Gone to the War Have Made a Big Gap in the Employees of the Paper Mills and the Approaching Draft Will Naturally More Adversely Affect the Situation—American Writing Paper Co. Unfurls Service Flag with 340 Stars Which Is Probably the Largest Flag of the Kind in This Section of the State—Paper Men Prepare for Fourth Liberty Loan.

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., September 24, 1918.—The continued drafts for men for the United States Army is having serious effects on the local labor situation. The hundreds of young men already gone have made a big gap and with the departure of probably hundreds more until Gen. Marsh's 4,000,000 Democracy army is raised it is bound to create a situation that will contain many difficulties for the paper manufacturers. The drafts thus far have taken 340 men from the different mills of the American Writing Paper Company, a fact discovered last week, when the American Writing Paper unfurled a service flag over the entrance to the general office on Main Street. This is the largest service flag in the city and probably in this section of the state. The flag also contains three gold stars, for former employees who have died in service.

Executive Committee Visits American Mills

The executive committee of the American Writing Paper Company made a visit and trip of inspection of the plants of the company last Friday. The party consisting of Walter T. Rosen, chairman of the executive committee, Otto Marx, Henry Evans and Harry B. Lake motored from New York to South Lee, where they inspected the Hurlburt Paper Company division, and from there came to Holyoke. Mr. Evans also visited the Windsor Paper Company division at Windsor Locks, Conn.

Prior to the inspection of the Holyoke plants they were entertained by President George A. Galliver, who is also a member of the executive committee, and met several heads of the various operating departments.

The executive committee planned to make more frequent trips to Holyoke, but their time is mostly taken up in voluntary work for the Government.

Mr. Marx is Federal Director of 11 Southern States in the War Savings Stamp Campaign. Mr. Evans, President of the Continental Fire, American Eagle Fire and Fidelity-Phoenix Insurance Companies, is also chairman of the Advisory Committee, Fire Prevention section of the War Industries Board. Mr. Rosen and Mr. Lake are prominent in the internationally known banking firm, Ladenburg, Thalman & Co., of New York.

An Interesting Home Publication

The second number of the American Writing Paper Company's House organ, which under the personal editorship of Fred Webster and Edward B. Mullen is making excellent progress, was placed in circulation last week. It is chock full of bright gossip and interesting news of the employees of the company.

The name "Eagle A" Unity is to be retained for this publication, it being the unanimous decision of the judges in the contest that Unity is most fitting and appropriate.

Striking pictures of the company's sales department illustrates the magazine as well as photographs of many of the American Writing Paper Company's boys who are in the service.

One of the features of this issue is the announcement of the formation of the Old Guard and the Junior Guard, two employees' honor organizations made up of men and women who have been continuously in the service of the company for a decade or more.

Employees who have worked for the company for twenty years or more become members of the Old Guard while those with the company from ten to twenty years are members of the Junior Guard.

Low Water Causes Shut Downs

Low water in the Connecticut River forced a loss of much business to the paper manufacturers last week in the suspension of operations of two different 12 hour periods. The rain storms locally during the later part of the week helped matters some, but unless there is considerable rainfall in the north, there is every indication that the shut downs will come quite frequently in the days to come.

These are the first shut downs because of low water in two years, and while it is now too late in the season to cause the manufacturers a great deal of alarm, yet a sudden dry spell from now on until the fall rains will result in more shut downs and an interrupted period of production for the last half of the year. During the summer season of 1914-1915 the paper manufacturers suffered a tremendous loss in business when the mills were shut down almost half of the time because of the drought.

Form Auxiliary Red Cross Society

An auxiliary Red Cross Society has been formed at the offices of the American Writing Paper Company by forty of the office girl employees. These met last week in the General Office of the company and after making plans for the organization elected Miss Edith Osborne President. Other officers will be elected at the first regular meeting to be held this week. Two nights a week will be strictly devoted to Red Cross work by the girls, who plan to make sweaters, Sox, trench shirts, etc.

Good Sales of Thrift Stamps

It is the Holyoke division of the American Writing Paper Company that now has the honor of leading all other plants of the company in the sale of Thrift Stamps. During the past week the Holyoke division established a record total of \$517.59, with a percentage of 954, also a record. In one week this division jumped from ninth place to first place and leads for the first time. The total sales for the week reached \$2,639.91, another record for weekly totals surpassing the next best by \$167.58. The gross sales of Thrift Stamps at the American Writing Paper Company up to and including August 24, amounts to \$15,280.41, a record that has won praise from both the company officials and the United States Treasury Department. No other concern in this locality is carrying on such an extensive campaign.

Paper Man Made a Second Lieutenant

Daniel J. Hartigan, former salesman for the Hampshire Paper Company at South Hadley Falls, has been graduated from the officers' training school at Camp Lee, Va., and commissioned a second lieutenant. Before entering the service Mr. Hartigan was a well known paper salesman for the Hampshire Paper Company, having entered the employ of that concern as office boy.

Plans for Fourth Liberty Loan Drive

Elaborate plans are being made for Holyoke's Fourth Liberty Loan drive. Edward N. White, treasurer of the White & Wyckoff Manufacturing Company, has been made chairman of the Liberty Loan Committee, and he in turn has appointed

(Continued on page 52.)

KRAFT PULP

of

HIGH QUALITY!

NOW ON DOCK!

Value of Swedish Kronor during week ending
Sept. 3rd. Normal rate of exchange 1 krono
= 26.80 cents.

Aug. 27th—35.00	cents—increased value	30.60%
" 28th—35.00	" " "	30.60%
" 29th—35.20	" " "	31.34%
" 30th—35.20	" " "	31.34%
" 31st—35.20	" " "	31.34%
Sept. 3rd—35.20	" " "	31.34%

A. J. PAGEL & CO.

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347 Madison Ave. : New York

Direct Representation in Michigan

LABOR DAY VERY GENERALLY OBSERVED IN MIAMI VALLEY

All Paper and Pulp Mills Were Closed and the Workmen Numerously Took Part in the Parades and Other Patriotic Demonstrations—Manufacturers in the Dayton District Discuss the Methods of Applying for War Work and Learn How Government Contracts Are Distributed—Miami Paper Co. Makes Plans for Building Homes for Its Employees Near Its Paper Plant at West Carrollton.

[FROM OUR REGULAR CORRESPONDENT.]

DAYTON, Ohio, September 2, 1918.—Probably never before in the history of Dayton and the Miami Valley was Labor Day more generally observed. All paper mills, pulp plants and paper machinery and boiler manufactories were closed for the day in this and surrounding towns and patriotic parades were given. The local celebration was the most extensive ever held. All union organizations, and this included those employed in paper mills who, with the unorganized, recently obtained an increase in wages, were in line. They were headed by a military band, while a battalion of soldiers also added to the impressiveness of the affair. Nearly 50 bands from Valley towns participated in the parade. To the paper mill and pulp mill employees the day was fraught with great significance. Not only have they contributed liberally of their means to all of the Liberty bond issues and the war chest funds in this city and other mill centers, notably Hamilton and Middletown, but they have proved their patriotism in various ways. Then, the action of the War Labor Committee in granting increases in wages is alone just cause for celebration, they believe, and it was expected that the paper contingent would be represented more extensively than at any previous observance of Labor's national fete day.

One of the features was the display of service flags by the different mill organizations. Paper mills have furnished as many men for the trenches and the navy as any line of industry, and the representation was most creditable. In many ways the paper men have done their full duty in attempting to end the war by defeating the Hun, and the men in the machine rooms, boiler plants and other places are contributing their brain and brawn to their nation unstintedly.

E. A. Mead Surveys Labor Situation

E. A. Mead, former superintendent of the State-City Free Employment Bureau in this city, but now chief supervisor of the Federal-State-City Bureau, with headquarters in Columbus, has been a visitor in Dayton the past few days surveying the local situation. During the absence of F. C. Croxton, he served as acting chairman of the State Advisory Committee, and conferred with manufacturers and others to decide on the appointment of superintendents of the different branches of the Bureau. It was found necessary to enlarge the various branches in the principal cities as the result of the addition of national features to the employment organization, the Government directing the selection of certain kinds of labor to prevent one firm securing advantage over another by offering inducements which, it developed, did not always ultimate as expected, and which invariably reduced the efficiency of labor and restricted output by constant changing of working forces. Under the present arrangement, Mr. Mead reports conditions in mills and factories are far more satisfactory to employer and employee, while the nation is benefiting materially by the change.

While here, Supervisor Mead conferred with Superintendent Holbrook, of the Dayton branch, concerning the new quarters to be opened this week at Third and Perry streets, the Government

having leased the building vacated by the Studebaker Automobile Corporation. These quarters are much larger than those occupied heretofore and indicate the importance attached to the local field by the Labor Bureau.

Many War Stamps Sold in Ohio

It is a source of satisfaction to Dayton and her citizens and manufacturers that Ohio was among the three banner states in the Union in the sale of War Savings Stamps last month. Ohio led with a total of nearly \$16,000,000, being followed by New York with more than \$12,000,000, and by Illinois with a similar amount as New York. However, the New York state report did not include \$4,150,000 sales in New York City. Ohio had sold \$43,466,000 of War Savings Stamps up to August 1, more than any other state, which is gratifying to Governor James M. Cox, of this city, a publisher of considerable energy and activity. Just now the local political ward and precinct workers are collecting, through postmen, the various amounts contributed in Dayton, and the total promises to be large. Director Howard Marston, of the Mercantile Corporation, is posting the names of Daytonians who bought \$1,000 worth of stamps, the limit allowed by the Government, and this list of names is steadily increasing. It occupies space on a large bulletin board erected on the Third street side of the Government building and includes a number of paper men.

Methods of Applying for War Work

Manufacturers of the eight counties, comprising the Dayton district of the resources and conversion section of the War Industries Board, met the latter part of last week at the new club rooms of the Greater Dayton Association, to discuss methods of applying for war work and to learn how Government contracts are distributed. Inasmuch as this has been a subject of paramount interest to the paper trade, the same was largely represented, especially those who may be interested in future contract work. It is surprising in what manner paper products are entering into war needs. Every manufacturer, whether of cartons or boxes, has arranged his business to conform to that of the Government demands.

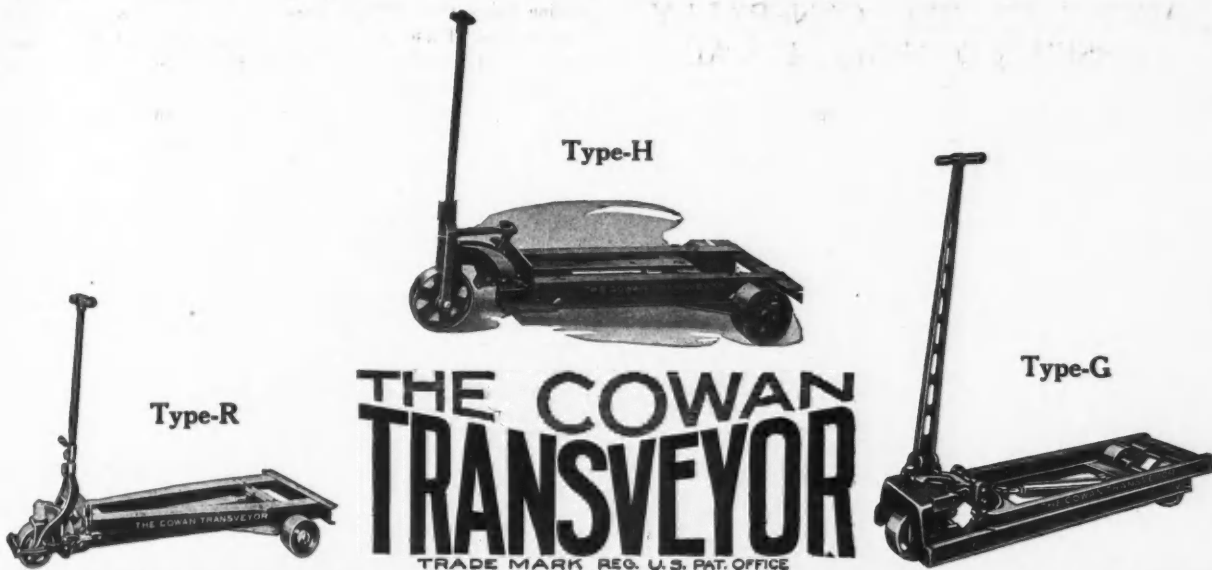
Local manufacturers arranged for the presence of several well-known men, and among the speakers were C. L. Harrison, chief of the ordnance department, of Cincinnati, and Edwin C. Gibbs, regional adviser, War Industries Board, Cincinnati.

Chairman John T. Neilson, of the Dayton district, and Secretary J. E. North, made a plea to all manufacturers of the district who have not done so, to file reports showing their mechanical equipment, floor space, capacity for war work and adaptation for special work. The district comprises this (Montgomery) county, as well as Clark (in which Springfield is located); Darke, Greene, Miami, Preble, Pickaway and Fayette counties.

Miami Paper Co. to Build for Employees

The Miami Paper Company, of West Carrollton, has sent plans to the Builders' Exchange here for the construction of a number of three-room cottages and double cottages, each of three rooms, which will be used by their employees. The critical housing situation in this vicinity has made this step necessary, the officials of the company figuring that the only way they could meet the needs of their workmen was to go into the building business. Bids for the homes must be submitted before 3 p. m. September 4, and it is probable that the bidding will be animated. A number of builders have examined the plans this week. The cottages will be modern in construction and an ornament to the mill town. Work on the improvements will be started within a week or ten days, as no time is to be lost. It is expected that they will be finished in three weeks. In fact, speed in the matter of building is one of the specifications the contractors will include in their figures.

All of the building sites on which the homes will be erected are 40 by 145 feet, with the exception of those to be used for double cottages, which will be 45 feet wide and 145 feet in depth.



From the Raw Stock to the Packed Product All Paper Should Be Moved and Stored the Cowan Way

You can reduce labor cost, increase storage space and cut insurance rates by keeping paper piled on Cowan Platforms. Needless handling from repeated piling and unpling is eliminated. You also save the loss from broken packages and soiled goods. By using the Cowan Transveyor, boys and women can do the work of men, and do it in half the time.

Throw your old 4-wheel fixed platform trucks into the junk pile, and buy a Cowan Transveyor. Keep your plant up-to-date or you will drop behind the procession. There is a Cowan Transveyor to meet every condition and requirement in your business. **WRITE FOR A CATALOG AND SPECIAL PAPER TRADE BULLETIN. DO YOU WISH TO HAVE A REPRESENTATIVE CALL?**

TYPE-R. This Cowan Transveyor is the pioneer elevating truck. It is recommended for general inside work where the floors are fairly smooth, and where not over 1 3/4 inches clearance is required. TYPE-R is made in four sizes, with guaranteed carrying capacities of 2,000, 2,500, 3,000, and 3,500 pounds. Although the pioneer, the R Type is still the selection of a large number of discriminating buyers.

TYPE-G. This type is one of the latest and most successful accomplishments in the elevating truck line, for light trucking. It is built in 12 different sizes to carry loads varying from 1,000 to 3,000 pounds.

The G proper elevates its load 1 13/16" from the floor, and the GH model, being a high lift, elevates its load 2 3/4" from the floor. These Transveyors were built to meet the demand for popular-priced elevating trucks, and they are without a doubt the best that can be built for the money.

TYPE-H. Where loads range up to 5,000 pounds, and the floors are rough and uneven, this is the type of Cowan Transveyor that best meets the conditions. It is equipped with an hydraulic ram that raises the platform three inches above the floor. This permits trucking up abrupt inclines, or in and out of box cars.

PLATFORMS. We furnish a sample platform with the first Transveyor of each type purchased. Full instructions are supplied for building additional platforms in your own factory. The more platforms you have, the greater will be the saving. One Transveyor can serve 50 platforms under average conditions. Many factories ship their finished stock to their jobbers on these platforms, and the jobbers, having Cowan Transveyors, unload the goods and place them in their warehouses without rehandling.

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COWAN TRUCK COMPANY

800 Water St., Holyoke, Mass.

You may send me a catalog and data regarding how much the Cowan System can save in paper mills. This will not obligate me in any way.

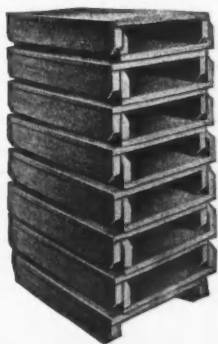
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Cowan Transveyors are fully protected by U. S. patents.

Every Platform a Truck
When Used With a
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OVER
12,000 SATISFIED
USERS

COWAN TRUCK CO.
800 WATER STREET HOLYOKE, MASS.

ASK FOR NAMES
OF NEAREST
USERS

BIDS AND SPECIFICATIONS FOR GOVERNMENT PAPERS

Purchasing Officer of the Government Printing Office Opens Bids for Bond Paper—Bids to Be Opened By the Purchasing Officer of the Government Printing Office on September 6 for Blue News Print Paper—Bureau of Supplies and Accounts of the Navy Department Opens Bids for Blotting Paper—Purchasing Officer of the Post Office Department Lets Contracts for Furnishing Various Lots.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., September 2, 1918.—The following paper bids were opened at the Government Printing Office last week: 8,000 pounds (500 reams) of 19 x 24 No. 13 white glazed bond paper; Berkshire Paper Mills, at \$.36 per pound; Whiting-Patterson Company, at \$.30; Strathmore Paper Company, at \$.26; B. F. Bond Paper Company, at \$.34125; Maurice O'Meara Company, at \$.3125; Old Dominion Paper Company, at \$.319; Whitaker Paper Company, at \$.306875; George W. Millar & Co., at \$.321875 (f. o. b. mill); Import Paper Company, at \$.265, and American Writing Paper Company, at \$.345 less 3 per cent.

Government Printing Office to Open Bids

Bids will be opened at the Government Printing Office on September 6, for 1,250 pounds (50 reams) of 24 x 38—25, blue news print paper.

Navy Department Receives Bids

The Bureau of Supplies and Accounts, Navy Department, has received the following bids for furnishing 500 reams of various colors of blotting paper for delivery at different navy yards: District of Columbia Paper Manufacturing Company, at \$4,275.00; Mathers-Lamm Paper Company, at \$8,765.00; Joseph Parker & Son Company, at \$7,275.00; Standard Paper Manufacturing Company, at (a) \$6,745.00, (b) at \$7,145.03; Old Dominion Paper Company, at (a) \$6,740.80, (b) at \$6,090.80; and Rockwell-Barnes Company, at \$5,225.00.

Post Office Department Makes Awards

The Osburn Paper Company has been awarded the contract by the Purchasing Officer of the Post Office Department for furnishing 3,744 reams (73,000 pounds) of flat manila paper, 20 x 29, at \$.051 per pound, bids for which were opened on August 21.

The same firm will also furnish 1,200,000 pounds of manila paper in rolls for facing slips at \$.0495 per pound and fifteen carloads of plain facing slips; 5 cars at \$2,437.00 per car and 10 cars at \$2,310.00. Bids for these items were also opened on August 21.

Panama Canal to Open Bids

Bids will be opened by the Purchasing Officer of the Panama Canal, on September 12, for 6,000 pounds of white unglazed onionskin paper in 17 inch rolls, basis of 17 x 22—7¼.

Continental Paper Co.'s Home in St. Louis

[FROM OUR REGULAR CORRESPONDENT.]

ST. LOUIS, Mo., August 31, 1918.—An illustration is presented herewith of the new warehouse of the Continental Paper Bag Company of 810-818 Clark avenue.

The Continental Paper Bag Company opened up a small house at 315 Second street about fifteen years ago. About five years later the concern moved to larger quarters located at 817 Spruce street, occupying this building practically ten years. Because of expanding business it became necessary for the firm to occupy its



CONTINENTAL PAPER BAG CO.'S ST. LOUIS BRANCH

present building, which consists of seven floors and includes about 50,000 square feet.

In the new quarters the office is located on the second floor, the shipping room on the first floor, and the balance of the building is used for stock. All inbound and outbound freight is handled through a tunnel, which is connected with the railway station, thus eliminating team haulage of any kind. This is a great improvement over anything the concern has ever had before.

George W. Reed, who is the sales agent at St. Louis, took charge of the office June 1, 1914, slightly more than four years ago, and since that time he has more than doubled the business. The district consists of fourteen states, and eighteen people are required to take care of the Continental's business in the district.

Charles Boldt Paper Mills Encourage Athletics

[FROM OUR REGULAR CORRESPONDENT.]

CINCINNATI, Ohio, August 31, 1918.—An exciting game of baseball was played last week on the grounds of the Charles Boldt Paper Mills between a picked nine from the paper mill and one composed of girls from the corrugated paper box department.

Max Zimmerman, general manager of the plant, acted as umpire, and through several close decisions the bloomer girls won by a score of 9 to 8. Time, 2 hours 20 minutes.

The company is encouraging athletics and has arranged part of their vacant ground for field sports. A football game will be played Thanksgiving Day, the bloomer girls having challenged the paper mill department.

"IMPROVED" KNOTTER

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

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



Knotter Design No. 2

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

WE ASK A THOROUGH INVESTIGATION

IMPROVED PAPER MACHINERY CO.

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

FOREIGN BRANCHES:

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 BARRANQUILLA,
 COLOMBIA
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 GUATEMALA
 HABANA, CUBA
 SANTO DO-
 MINGO, R. D.
 MATAGUE,
 PTO. RICO
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TISSUES

Interleaving
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**SPECIAL-
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in Embossing
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 Stocks for
 Wall Paper
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**MILL
 SUPPLIES**

Foreign and
 Domestic
 New Cuttings
 Old Rags
 Wood Pulp
 Jute Waste
 Flax Waste
 Old Rope
 Ragging
 Cotton Waste
 Paper Stock
 Animal Sizing
 Gunny
 Raveling

KNIT GOODS MEN AGAINST GIVING UP PAPER BOXES

National Association of Hosiery and Underwear Manufacturers Hold That It Is Impossible to Provide Any Form of Paper Wrapping for Certain Lines of Knit Goods That Will Keep Them in Good Condition as Will Paper Boxes—Government Representative Says That It Is Not a Question of Attractiveness, But a Matter of Getting What Is Available—Many Economies to Be Practiced.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, September 3, 1918.—Announcement has been made here by the National Association of Hosiery and Underwear Manufacturers through its official publication, the *Knit Goods Bulletin*, that new and drastic regulations substituting paper for straw board in the packing of knit goods are to be made public some time this month and to become effective probably on January 1, by order of the War Industries Board.

Strong Sentiment Against Paper Wrapping

According to the report of the association, by far the majority of knit goods men who were heard on the subject of packing in Washington recently were strongly against the change decided upon. It was held that it is impossible to provide any form of paper wrapping for high priced articles like silk stockings that would keep them as well as strawboard boxes. Representatives of virtually every branch of the industry contended that the bulk of their goods will depreciate in value if they are mused or soiled, as they insist will be inevitable under the new regulations.

"The purpose of the conference," says the association, "was to obtain the widest possible range of opinion on the feasibility of substituting paper packing for strawboard boxes for conserving space in transportation. By way of preparing the minds of the various interests for what was expected, Mr. Ware, of the conservation division, stated that eight times the number of cars used in May for transporting shipbuilding material from interior points to the several yards would be required in September.

"The first spokesman for the jobbers was John H. Schofield, president of the Jobbers' Association of Knit Goods Jobbers. Mr. Schofield was prepared, with a variety of strawboard boxes, to show the desirability that their continued use be permitted. He showed also that there could be a material saving in the construction of the boxes and the manner of packing in boxes. Mr. Schofield made a strong plea for the strawboard, as did most of those who followed. He thought there would be a tremendous waste in sweaters packed in paper only, and serious damage to underwear if not in boxes."

Other speakers from other branches of the industry made similar arguments. It was pointed out that with goods wrapped in paper there would be a tremendous waste of time by clerks untying bundles. It was suggested that the matter of more economic packing be left to a committee to be chosen from the Knit Goods War Service Committee. This received the approval of Lincoln Cromwell, chief of the Knit Goods Section of the War Industries Board, and was sanctioned by the members of the board at the table, according to the association, with this warning: "In two weeks we shall call on you for a detailed specific statement as to what contribution the knitting industry can make to the war program in the saving of space in transportation."

Attitude of Government Explained

The attitude of the Government was summed up by John W. Scott, director of the textile division of the War Industries Board, in the following statement:

"It is not a question of attractiveness. It will be a matter of buying what you will have to buy and as you can get it. We have yet to rise to an appreciation of the economies that all of us will have to practice to win this war."

In conclusion the association says: "The opposition to the universal use of paper was almost unanimous. There was a unanimity of opinion also that boxes could and should be made to fit the contents, and that there ought to be a minimum of packing in less than half dozens and none in less than dozens, except when absolutely unavoidable. Judging from the sentiment of the War Industries Board members at the conference, as voiced at times, packing will be largely in paper and bulk, for low priced goods, strawboard protection for top and bottom of some classes of goods wrapped in paper, and a material reduction in the sizes of boxes that the board may permit for better grades. It developed that there is a greater shortage of strawboard, relatively, than of paper, the explanation for this being the fact that the Government requires on munition work much of the machinery designed for making board."

Paper Box Factories Destroyed

Two paper box manufacturing plants both working on important Government orders were completely wiped out by a fire of undetermined origin late last Tuesday afternoon, the total loss to these firms being roughly estimated at about \$50,000 each. The companies are Wegman & Mesirov, makers of folding paper boxes, and the Progress Paper Box Company.

Both firms were located in the Byrd Building at the northwest corner of Sixth and Vine streets. This was a five story structure formerly occupied as a German club house. For some years it has been used for light manufacturing purposes. The Wegman & Mesirov company occupied the basement and the Progress company the first floor. Other floors were occupied by cloak and suit firms.

The fire started about 4 o'clock Tuesday afternoon and within five minutes was burning so fiercely that firemen from twenty engine companies did not get it under control until the building was gutted. About one thousand employees, most of them girls, were at work in the building at the time. The only thing that prevented wholesale loss of life was the fact that all the firms in the building had been paying strict attention to fire regulations and had thoroughly drilled their employees to drop everything upon the sounding of an alarm and march out of the building. Put to the test, the girls, many of them in working bloomers, marched out without a trace of disorder, although some were partly overcome by smoke.

Reports of just where the fire started vary greatly, but from its remarkably rapid spread the police are inclined to suspect incendiarism. As a result a rigid investigation is being made by the fire marshal. Plans are being made by the two paper box companies to resume manufacturing in new localities as soon as the necessary machinery can be obtained. Every bit of raw material, finished product and machinery owned by both firms was destroyed, the floors collapsing during the fire and making it impossible to save anything from the wreck.

Merion Mills Damaged by Fire

ABRAMS, Pa., August 31, 1918.—The Merion Paper Company's mills at Upper Merion Township were threatened with destruction by fire last week. Fifty tons of baled waste paper went up in smoke and a two-story stone tenement house nearly was ruined, while the large frame platform near the railroad siding was consumed. It is thought sparks from a passing locomotive were responsible.

The loss of the paper, the platform and the dwelling, all of which were owned by the Merion Paper Company, will amount to fully \$5,000, it is stated.

Data of Value to Papermakers

All of the important papers read by mill engineers, paper chemists and others, at the annual meeting of the Technical Association of the Pulp and Paper Industry, are now available for reference purposes in a volume of 64 pages, which is published by the Association at \$1 a copy, or \$5 for six copies.

The book includes verbatim reports of discussions, and forms a collection of data of great value to Pulp and Paper Manufacturers.

For copies address the Secretary, Thomas J. Keenan, 117 East 24th Street, New York.

SIGNIFICANT

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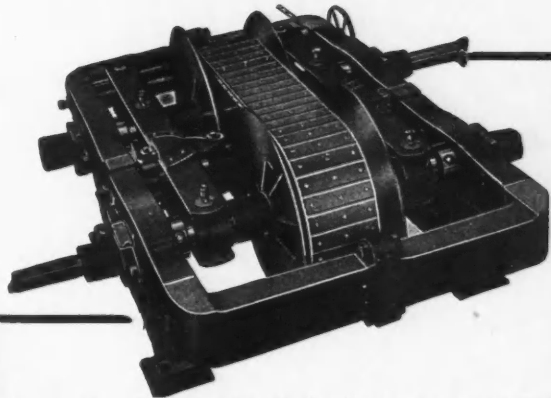
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Week of Sept. 23d, 1918



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Obituary

J. Howard Friend

[FROM OUR REGULAR CORRESPONDENT.]

DAYTON, Ohio, September 2, 1918.—Members of the Miami Valley trade were shocked to receive the intelligence of the death of J. Howard Friend, president of the West Carrollton Parchment Company and the Sterling Paper Company, at his summer home, Rye, N. Y., last week. His death occurred Wednesday afternoon, following a paralytic stroke. Though at times he had been in failing health, he seemed to improve recently, and news of his death came as a distinct shock to manufacturers in this city and vicinity, where he was known as one of the most prominent industrial leaders.

Mr. Friend probably was considered the leading paper manufacturer of Dayton. He had been engaged in the business since 1878, and while he had other interests he never allowed them to interfere with his personal direction of affairs in his paper mill offices, which in recent years had been located in the Reibold building, this city.

Some time ago the Miami Conservancy Directors purchased his mill property in Hamilton, where the Sterling Paper Company's plant is located, as it was necessary to take over the buildings to effect certain improvements along the river in connection with the \$25,000,000 flood prevention project. Mr. Friend had intended to re-establish the plant at West Carrollton, but exactly what plans will be followed now cannot be stated.

All of Mr. Friend's life, practically, had been devoted to the manufacture of paper, first in association with his father, the late George H. Friend, of Lockland, a down-the-valley town, and later when he established the George H. Friend Paper Company's mills at West Carrollton. These were among the best in the country and were conducted by Mr. Friend and associates until financial misfortunes overtook them, and the company was reorganized by experts who had been identified with the firm in managerial or other capacities, and the company became known as the Miami Paper Company. New energy and additional capital were put into the enterprise, improvements made, and business pushed with vigor.

It was while active in business at West Carrollton that Mr. Friend founded the American Envelope Company, an important industry, and the West Carrollton Parchment Company, located at the same place. By careful management he succeeded in recovering his financial losses, almost in the sunset of life. About two years ago, after Mr. Friend had suffered a siege of illness, he was struck by an Oakwood street car in front of his office on Main street and dragged for quite a distance. That he was not instantly killed was considered remarkable. Yet he recovered quickly, from all appearances, but it is believed the shock to his nerves affected his health.

For many years Mr. Friend was at the head of the Hinckley Fibre Company, Hinckley, N. Y., and he is generally supposed to have been largely interested in this enterprise at the time of his death. Some time ago he recovered a large amount of money from the state of New York in connection with water power which had been taken over without proper compensation being made many years previously. He always had visited the east during the summer season and his summer home was his favorite resting place. Not only was Mr. Friend a paper manufacturer, but he was known as the inventor of a process for boiling and adjusting wood pulp, and, when in his prime, his West Carrollton mills was the show-place of the Valley.

James Howard Friend was born September 4, 1851, and had he lived a few days longer would have been 67 years of age. He leaves three children, Mrs. George Durban, Mrs. W. B. Earnshaw, Jr., of this city, and Howard W. Friend, stationed at Camp Upton. There are two sisters, Mrs. Elizabeth Johnston and Mrs. Monroe Izor. His wife died in 1912. A brother, Edward Friend,

who was interested in the West Carrollton plants, passed away a number of years ago. Mr. Friend was a Scottish Rite Mason and a member of the Dayton City and Country clubs.

The funeral was held Friday afternoon from his late home, 39 North Perry street, and was attended by many business associates, mill employees and friends. Services were conducted at Woodland avenue chapel by Rev. Reinheimer, of Christ Episcopal Church. Six old employees of the deceased acted as pall bearers, and interment was made in Woodland in the presence of a large number of mill men, despite the inclemency of the weather. The body had been accompanied to Dayton from Rye by his son and daughters.

Rushed with Envelope Orders

WORCESTER, Mass., August 31, 1918.—New registration in connection with the man-power bill has already brought much additional work to Worcester. One of the immediate needs of the Government is envelopes. Sixteen of the largest envelope manufacturing plants in the country are working overtime, some night and day, to meet the Government demands for 35,000,000 envelopes. By far the greater share of these Government orders are being filled by the United States Envelope Company, of this city. In this connection officials of the company have issued the following statement concerning its activities:

"The United States Envelope Company is doing a large amount of war work and has a large quantity of Government orders from all departments, besides the millions of goods they are now furnishing for the British and American Y. M. C. A., Knights of Columbus and American Red Cross. They have also during the past ten days been called upon to furnish the larger portion of envelopes needed for mailing questionnaires to the new registrants next month.

"In a message to the company, Provost Marshal General Crowder says:

"These envelopes are absolutely necessary for the local boards to enable them to mail questionnaires to registrants. The questionnaire must be mailed promptly after registration day. And delay will cause delay in building up class 1 from which our fighting men are to be drawn. Any failure to furnish fighting men promptly means delay in bringing the war to a successful termination, and by that much gives aid and comfort to our enemy.

"Please see to it that your share is delivered promptly. Read this letter to your employes and try to impress upon them the importance of the task upon which they are engaged, its relation to the successful carrying on of military operations, and the necessity for their prompt, diligent and careful attention to the performance of a patriotic duty.

"The company is being called on to meet the increasing needs of the Government as never before, and therefore, commencing this week, the company, which had previously operated on a basic 48-hour week, have gone on a 54-hour week. They have made an increase in the hourly and piece work rates and in addition will pay time and one-half for all overtime over the standard 48-hour week. In doing this the company has made a special appeal to the patriotism of its employes, by impressing them with the fact that they are assisting in the great undertaking overseas in working the additional time to supply the Government with what it needs."

To Enroll Women at Men's Wages

PITTSFIELD, Mass., September 3, 1918.—The Smith Paper Company of Lee has sent letters to all women in its employ asking for voluntary enrollments to do men's work at men's wages.

The company also offers to furnish workers' suits for the women enrolling under these conditions.

Many enrollments for this service have already been recorded in the company's offices. This is the first big concern in this section to make this move to meet a possible war emergency.

GRATON & KNIGHT

Standardized Series

LEATHER BELTING

Tanned by us for belting use

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Holding the Line

YOU honor the Turbine as a Field Marshal, the Engine and the Generator as Generals. But, how about Private Belt, without shoulder straps or collar emblems, grimly holding the line? Too often you give him consideration only when, under cruel strain, he breaks.

The great need is to fill the line with those Privates that stand the strain better than others. A guiding rule, easy to remember, is that the demand for Graton & Knight Standardized Series Leather Belting is greater than that for any other belting in the world. It started from nothing and has grown steadily and naturally.

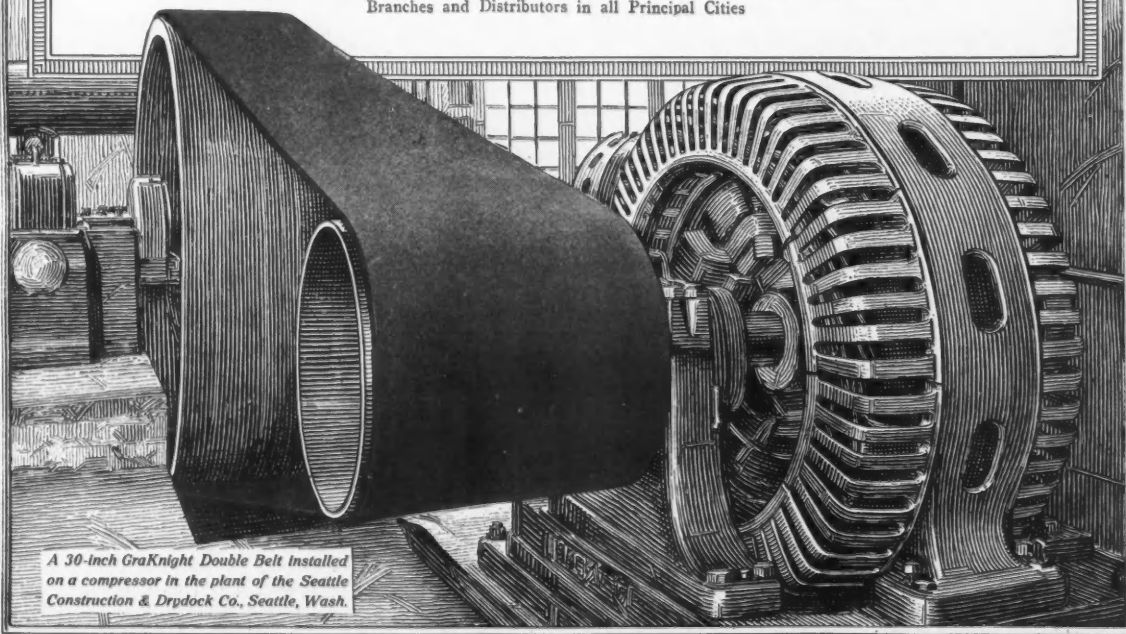
There are many technical reasons for this preference, but the big reason is **not** technical. It is simply repeated experi-

ence: Mr. A buys a Graton & Knight Belt and observes that it gives all-round service and long wear. He doesn't always know whether to credit these qualities to the materials or the construction. What he does know is that the belt **works right**—and that is enough.

In our book, "Standardized Leather Belting," we explain scientifically why Graton & Knight Standardized Leather Belts are enlisted to hold the power line in so preponderant a number of American factories. Write for a copy.

THE GRATON & KNIGHT MFG. COMPANY, Worcester, Mass., U. S. A.

Oak Leather Tanners, Makers of Leather Belting, Lace Leather, Packings, and Specialties
Branches and Distributors in all Principal Cities



A 30-inch GraKnight Double Belt installed on a compressor in the plant of the Seattle Construction & Drydock Co., Seattle, Wash.

New York Trade Jottings

Albert T. Hicks, resigned from the firm of A. Salomon, Inc., dealers in paper stock, on September 1, and has now become secretary of Daniel M. Hicks, Inc.

Walter Hicks, of Daniel M. Hicks, Inc., dealers in paper mill supplies, is taking a belated vacation this week. He is accompanied by George Burns of the same office.

S. Hansen, of Storm & Bull, paper exporters, located at 2 Rector street, New York, will start on a tour of South America about September 15. The trip will be made for the purpose of calling on the South American branches of Storm & Bull, and Mr. Hansen is expected to be away a year or more.

The Waste Material Dealers Association will hold its regular meetings at the Hotel Astor the latter part of this month. The waste paper division meets Tuesday, September 24, at 11 o'clock A. M.; the paper stock division meets Wednesday, September 25, at 10 o'clock A. M., and the regular meeting of the association takes place at 2 o'clock P. M. on the 25th.

The Hon. Henry A. Wise, who so ably represented the news-print manufacturers in their recent legal proceedings, has been commissioned a major in the United States Infantry. Major Wise is now stationed at Camp Lee in Virginia. He served as a major in the Spanish-American War, and his colleagues believe that this previous experience will soon win him a colonel's commission.

A recent order of Commissioner Enright of the New York Police Department, will close Lafayette street, from Duane street to Astor place, to commercial vehicles, after September 15, 1918. This is of particular interest to the paper trade, as Lafayette street is the main throughfare on which paper dealers do business. To quote the words of one of the men prominent in the industry, "Lafayette street is the main artery of circulation in the New York paper industry."

Fire again broke out in the warehouse of George W. Millar & Co., at 284 Lafayette street, at four o'clock of the morning of August 29. This is the third time within a month that the building has been on fire, and although the building has been soaking with water for four weeks, the fire was serious enough to necessitate sending in three alarms. There was no further damage done to the plant, however, as fire previously had completely destroyed everything in the building.

Paper house trucks are carrying a new poster to advertise the thrift meetings, which the Paper Trade Committee on War Savings has arranged for the month of September. Paul E. Vernon, chairman of the committee, reports that arrangements have been made to secure the best entertainers that they can get for these meetings. They have also arranged to call the different days after different firms in the trade, and the firm which sells the most stamps on its day will be rewarded with a cup. Mr. Vernon requests every one to come down and buy stamps. Colin K. Urquhart, Jr., has agreed to cover the purchase of the largest buyer each day.

The financial editor of the *Evening Sun* in Tuesday's issue had the following to say about the earning of the American Writing Paper Company: "Paper profits are not always looked upon with favor by investors and speculators, but there's one kind of 'paper profits' that is attracting a great deal of attention lately—the earnings of the American Writing Paper Company.

During the seven months ended July 31 this company earned approximately \$1,000,000 net before taxes, about seven times the total profits for the entire year of 1917, when earnings totalled only \$150,287. Estimates of the probable earnings for the balance of the year, based on present business, which is expected to be maintained, place the aggregate for the whole year at approximately \$2,000,000, or \$16 a share, from which taxes are expected to mark off \$2, leaving net profits for the year at or about \$14 a share. Recent activity in the paper stocks, particularly in American Writing Paper, has heralded a report of earnings to date which would be of a most encouraging character, and Wall Street, which has confidently awaited this report, has not been disappointed in the announcement of the company's operations for the first seven months of the year."

Knowlton Bros.' Employees Have Outing

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., September 2, 1918.—The entire office and working force of Knowlton Brothers in this city, together with company officers and many leading citizens of this city, went to Campbells Point Saturday on the annual outing. The affair was canceled by the Knowlton Brothers Cooperative Association that has always held it, but the company decided to pay all the expense itself, thereby continuing the affair and at the same time permitting the Association to conserve its funds for war purposes.

The day was threatening but not sufficiently wet to dampen the enthusiasm of the men and women assembled at the resort. They were able to enjoy an excellent program of sports and a generous dinner at the Campbells Point Inn.

About 200 members of the Kamargo Mills family made the trip. They gave a big parade in Public Square at 8:30 in the morning headed by a band. Several large motor trucks headed the parade of automobiles, and on the side of the truck in which the band played were displayed the Kamargo Mills pennant and official "K" in a circle. The latter emblem appeared on each automobile in line. Huckleberry Charlie, a well known character and entertainer, was kidnapped from the sidewalk and taken on the outing.

These annual affairs have been largely responsible for the close cooperation among the entire force of this mill, and have been credited for the family spirit that exists.

New Vice President of Marden, Orth & Hastings

At a meeting of the board of directors of Marden, Orth & Hastings Corporation, held on August 28, Arthur C. Trask was elected vice-president of the corporation with headquarters in Chicago. Mr. Trask's resignation as secretary of the corporation was accepted, and Walter O. Hastings elected to this office.

Mr. Trask has been seventeen years with the concern, while Mr. Hastings is one of the three members of the partnership which, in 1906, took over the business founded by James A. Murdock in 1837. M. S. Orth, president of the corporation, is a direct descendant of Mr. Murdock.

Mr. Trask leaves this week to take up his new duties at Chicago which is daily becoming a more important centre in the activities of this company. Within the last few weeks Marden, Orth & Hastings have opened new branches at 1303 Shelby street, Louisville, Ky., and Union Trust Building, Cincinnati, Ohio.

Waldorf Paper Products Company to Expand

ST. PAUL, Minn., August 31, 1918.—Additions to the storage warehouse and shipping rooms of the Waldorf Paper Products Company, involving an outlay of more than \$32,000 are to be made this fall. Permits for the improvement were taken last week by the company, and Paul N. Myers, manager, said that the buildings would be erected at once.

Two additional stories will be added to one of the standing warehouses and the shipping rooms will be enlarged. The plant is located at Hampden and Myrtle avenues.



G-E Motors
Driving Beaters,
Union Bag and
Paper Co.,
Hudson Falls, N. Y.

Beater Operating Flexibility Gives More Product at Less Cost

Paper mills using G-E individual motor and small group drives on beaters are obtaining a wonderful flexibility of operation.

Shutting down one or two beaters for cleaning or repairs stops their power bill, and does not affect the production of all the other machines.

All beaters while running, are kept up to maximum productive speed, with this drive, and the friction loss of line shafting and loose pulleys is eliminated. More production at less power cost necessarily follows.

Where clear space in beater room basement—free from belting and shafting—can be utilized G-E motor drives are appreciated.

Our engineers will be glad to show you why hundreds of thousand horsepower of motors are being used to advantage in paper mills.

General Electric Company

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Birmingham, Ala.
Boston, Mass.
Buffalo, N. Y.
Butte, Mont.
Charleston, W. Va.
Charlotte, N. C.
Chattanooga, Tenn.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio

Columbus, Ohio
*Dallas, Tex.
Dayton, Ohio
Denver, Colo.
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Nashville, Tenn.

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New York, N. Y.
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Philadelphia, Pa.
Pittsburgh, Pa.
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Providence, R. I.
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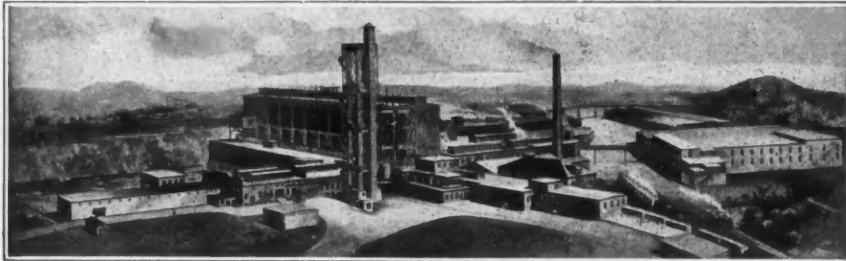
St. Louis, Mo.
Salt Lake City, Utah
San Francisco, Cal.
Schenectady, N. Y.
Seattle, Wash.
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Washington, D. C.
Youngstown, Ohio

*Southwest General Electric Company. For CANADIAN BUSINESS refer to Canadian General Electric Company, Ltd., Toronto, Ont.
GENERAL FOREIGN SALES OFFICES: Schenectady, N. Y.; 120 Broadway, New York City; 83 Cannon St., London, E. C., England.

BROWN COMPANY

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Berlin Mills Company
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OFFICE
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233 B'WAY.
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**Daily Capacity 600 Air Dry Tons Highest
Grade Bleached Sulphite**

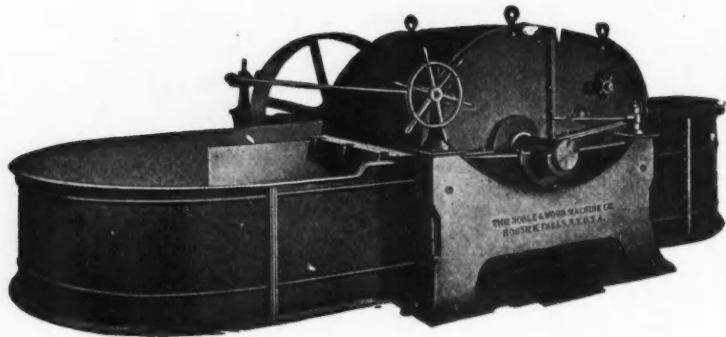
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Washing Engines
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Wood or Iron Tubs; adapted
to every paper mill condition

Jordan Engines
(5 Sizes)

Board Machines

Stuff Chests, Dusters, Pumps, Etc., Etc.



The Noble & Wood Machine Co., Hoosick Falls, N. Y.



The Feeney Automatic Stuff Box

The Feeney Automatic Stuff Box as here illustrated, is becoming more and more popular daily as is manifest by the repeat orders we are receiving. We are the sole manufacturers. Write us for particulars.

BAKER MANUFACTURING CORPORATION
Formerly
BAKER & SHEVLIN CO. Saratoga Springs, N. Y.

Two Reasons why we guarantee "Test Special" Rubber Belting

NEW YORK BELTING & PACKING CO.
 91 Chambers Street,
 New York, N. Y.

Gentlemen:-

We have your recent letter asking our opinion of the "Test Special" friction surface rubber belting which you have furnished us.

We are glad to tell you that this belting has proven very satisfactory and we consider that we are getting very efficient results by its use. As you know we used the "Test Special" to belt up our new mill at Thorold, Ontario, in the Fall of 1914. The mill has operated at full capacity from the start and we have not been required to make any changes in this belting since the fact that we had very good success with another lot of your belting prior to our building the "Thorold" mill led us to believe that we would receive equal satisfaction with your product at Thorold. We are pleased to tell you that our anticipations in this direction have been fully realized.

We have been greatly surprised by the fact that we have had no such trouble as is usually caused by the stretching of belting on new equipment. All the belts are in first class condition and (from their present appearance) are good for a long time of service.

We are glad to recommend "Test Special" belting and appreciate the whole "efficient" belt service.

Yours very truly,
 THE MANAGER
J. J. [Signature]
 New York Belting & Packing Co.

250/2

Petaluma Box Company, Inc.
 1000 Market Street,
 San Francisco, Calif.

Gentlemen:-

Your last shipment of "Test Special" belting came duly to hand. Please accept our thanks for promptness in filling this order.

We are now using this brand of belting on a great part of our plant and have found it so satisfactory that we are replacing all worn out belts with "Test Special". We have placed this belt on high speed machines and in places where severe strains and overloads are carried and our experience is that it carries the loads and lasts longer than the best grades of leather or Balata belting.

We find that it is not affected by heat or moisture, will not tear out at the lacing and will last for six months on a run that wears out the best grade of leather belt in three months. We do not hesitate to recommend "Test Special" belting for use for any purpose for which a belt is used.

Very truly yours,
 Petaluma Box Co.
 Per *V. L. [Signature]*

17:15

Have You a Belting Problem?



NEW YORK BELTING & PACKING COMPANY

- | | | | |
|-----------------------|--------------------------|-------------------------|-----------------------|
| NEW YORK, N. Y..... | 91-93 Chambers Street | SAN FRANCISCO, CAL..... | 519 Mission Street |
| CHICAGO, ILL..... | 124-126 West Lake Street | BOSTON, MASS..... | 65 Pearl Street |
| ST. LOUIS, MO..... | 218-220 Chestnut Street | PITTSBURGH, PA..... | 420 First Avenue |
| PHILADELPHIA, PA..... | 821-823 Arch Street | SPOKANE, WASH..... | 157 So. Monroe Street |

EFFECT OF CERTAIN COOKING CONDITIONS IN THE PRODUCTION OF SULPHITE PULP FROM SPRUCE*

By S. E. LUNAK, CHEMIST IN FOREST PRODUCTS

Forest products investigations of the Forest Service include the study of problems connected with the manufacture of pulp and paper from wood, so as to utilize waste material from the lumber and other industries wherever possible, to increase the efficiency of present methods of making pulp, and to determine the practicability of making pulp from woods hitherto little used or considered unfit. Bulletins have been issued on the soda, sulphate, and ground-wood processes showing the effect which the different fundamental variables have on the resultant pulp. This bulletin supplies similar information for the sulphite process, and shows what effect the amount of combined sulphur dioxide (SO₂), the total sulphur dioxide, and the temperature have upon the color of the paper, the duration of the cooking period, the yield of pulp and screenings, and the consumption of bleach.

The original patent for the making of sulphite pulp states that it can be produced with or without the addition of a base to the cooking liquor, but that a lighter product can be obtained when a base is present. Lime is the base in most common use. For a long time it was not known how much of this was necessary to make good pulp, most mills simply taking the acid that their systems gave them. Many are still following that practice. Most mills have a good idea of how the different factors affect their cooking, but there is no published report on the subject. It was to furnish detailed information on just how much each of the various factors influences the cooking and to supply a basis for future experimental work that this investigation was undertaken.

The Sulphite Process

The inventor of the sulphite process, Benjamin C. Tilghman, of Philadelphia, took out a patent in the year of 1867, in which he describes a method of boiling under pressure wood or other vegetable material in a solution containing sulphurous acid, with or without the addition of sulphites, until a fibrous product is obtained suitable for the manufacture of paper. The foundation of the sulphite pulp industry rests upon these patents; yet Tilghman had to abandon his process because his financial backers withdrew their support upon finding out that sulphurous acid corrodes iron and that the inventor was having difficulty in obtaining a suitable lining for his digester when he tried to work his process on a large scale.

For some time this difficulty hindered the development of the process. In 1886 cement and special brick linings were introduced in some mills and gave such good satisfaction from the start that it was not long before they were universally adopted. The solution of this problem insured the commercial success of the sulphite industry, and from this time on it has had a rapid growth, until now it is the most important pulp making process in the United States, as is shown by the figures in Table 1 taken from the census reports.

TABLE 1.—QUANTITY OF WOOD PULP PRODUCED IN THE UNITED STATES.

Process.	1890,		1899,		1909,		Value		1916,		Value	
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	1909.	Tons.	1916.	Tons.	1916.	
Sulphite	59,686	417,646	1,027,012	\$44,600,000	1,306,217	\$60,702,459						
Soda	87,853	172,142	287,945	12,770,000	183,106	8,251,219						
Ground wood	290,158	568,284	1,201,832	25,200,000	1,505,547	32,547,704						

Kinds of Wood Used

In the early days spruce was almost the only wood used in making sulphite pulp, but it was not long before hemlock and

balsam began to be used extensively. At the present time some mills are cooking tamarack and poplar, and on the west coast white, red, amabilis, and grand fir, sitka and Engelmann spruce, western hemlock, and other woods are finding favor. No doubt it will not be long before many other woods will be used, as spruce is becoming too expensive. The sulphite process can not be used on woods that contain much pitch, because a large part of the pitch remains in the pulp and later causes much trouble on the wires of the paper machine. This problem has been the subject of much study and investigation but no successful method has yet been found for cooking such wood by this process and eliminating the resin.

The curves in figure 1 show the per cent of the principal woods used in the sulphite process from the year 1900 to 1911. The consumption of spruce is decreasing, and other woods are being used

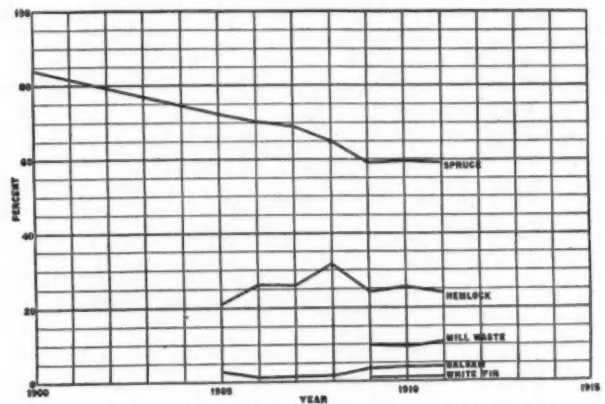


FIG. 1.—Consumption of wood by the sulphite process in the United States, 1900-1911.

more extensively than before. Table 2 gives in detail the kind and amount of each wood used.

TABLE 2.—CONSUMPTION OF WOOD BY THE SULPHITE PROCESS IN THE UNITED STATES.

Kind of Wood.	1900.		1905.		1906.		1907.	
	Cords.	Per Cent.	Cords.	Per Cent.	Cords.	Per Cent.	Cords.	Per Cent.
Spruce	790,153	83.9	1,176,930	72.2	1,374,212	70.2	1,422,400	69.1
Hemlock	.....	.....	344,579	21.1	516,512	26.4	541,113	26.2
Poplar	.....	.....	.....	.....	.....	.....	1,536	.1
Balsam	.....	.....	45,943	2.8	22,314	1.1	28,356	1.4
Fine	.....	.....	18,606	1.1	3,600	.2	3,200	.2
White fir	.....	.....	.....	.....	.....	.....	.....	.....
Slab wood and other mill waste	.....	.....	.....	.....	.....	.....	.....	.....
All other species	152,364	16.1	44,341	2.8	41,981	2.1	62,890	3.0
Total	942,517	.....	1,630,393	.....	1,958,619	.....	2,059,495	.....

Kind of Wood.	1908.		1910.		1911.		1916.	
	Cords.	Per Cent.	Cords.	Per Cent.	Cords.	Per Cent.	Cords.	Per Cent.
Spruce	1,131,377	65.2	1,332,153	59.5	1,391,047	59.2	1,803,217	63.1
Hemlock	544,131	31.4	574,109	25.6	563,535	24.0	647,738	22.7
Poplar	3,734	.2	625	.....	4,101	.2	2,991	.1
Balsam	24,761	1.4	81,932	3.7	100,339	4.2	213,569	7.5
Pine	3,484	.2	4,720	.2	4,286	.2	8,209	.3
White fir	.....	.....	27,797	1.2	32,498	1.4	35,865	1.3
Slab wood and other mill waste	.....	.....	.....	.....	.....	.....	.....	.....
All other species	28,772	1.6	219,519	9.7	254,914	10.8	140,758	4.9
Total	1,736,259	.....	2,242,140	.....	2,351,550	.....	2,856,122	.....

At the present time there are used in this country two general methods of cooking sulphite pulp, the short and the long, or so-called Mitcherlich, depending on the product it is desired to obtain.

(Continued on page 30.)

*Published by the United States Department of Agriculture. Contribution from the Forest Service.

New York

Boston

St. Louis

San Francisco

AUER & TWITCHELL

Glassine

Kraft



Greaseproof

A. E. B. F. Parchment

PAPER

We Manufacture

SWARTHMORE MANIFOLD

17 x 22—5 lb. and heavier

Bleached

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The Sandy Hill Iron & Brass Works

Hudson Falls, N. Y.



Manufacturers of

Paper and Pulp Mill Machinery

PRODUCTION OF SULPHITE PULP FROM SPRUCE

(Continued from page 28.)

The preliminary preparation of the wood is the same for both of these processes. The wood reaches the mill in the log and is then sawed up, usually into 2-foot bolts. These are barked by machine or drum barkers, care being taken that all portions of the bark are removed, because it discolors the pulp. The wood is next reduced to chips, which are put through screens to remove all above and below a certain size. It is very desirable to have them uniform. They are then conveyed to storage bins above the digesters and used as needed.

In the short cook the digester is filled with chips and cooking liquor, and by means of live steam which enters at the bottom the pressure in it is brought up to 75 or 80 pounds as quickly as possible. The pressure is then kept at this point and the temperature is gradually raised, so that a temperature of 154° C. is reached at the end of about 7 to 9 hours. While the temperature is being raised, the SO₂ gas which is being driven from the liquor in the digester is constantly relieved and reclaimed by absorption directly in tanks or in towers filled with stone. The pressure in the digester is due partly to the steam present and partly to the gas liberated. As the cook progresses the steam pressure increases, but the gas pressure decreases until at the end of the cook there are only a few pounds of pressure due to the SO₂ gas present. The pressure in the digester is kept the same by means of an automatic arrangement, which lets in more steam when the digester is being relieved and shuts it off again when the relief valve is closed. At the end of 3 or 4 hours the condensation in the digester causes it to fill with liquor, which is relieved usually through an opening about 3 feet from the top. Toward the end of the cook the liquor in the digester gets darker and darker until it reaches a light coffee color. The end point is determined by the color and smell of the liquor, and how accurately it is attained depends in most mills wholly on the experience and judgment of the man in charge of the cook. When the cook is finished, a large valve is opened at the bottom of the digester and the contents blown through a pipe into a blow pit, where they are thoroughly washed.

In the slow cook process the digester is heated by lead coils placed in the bottom. Because of the caking of calcium monosulphite on them, however, these are rapidly going out of use and the heating is being done by direct steam. A somewhat weaker acid is used than for the short cook, and the pressure is held at from 60 to 65 pounds. A cook lasts from 20 to 30 hours, but the digesters are much larger than in the quick-cook process and the pulp is much stronger and the fibers longer. Otherwise the process of cooking is the same.

Plan of Tests

In the experiments recorded in this bulletin, the following factors were studied for the effect of variations in them on duration of cooking, yield of pulp, yield of screenings, bleach consumed, color of pulp produced, and strength:

1. Ratio of free to combined sulphur dioxide, or the amount of lime in the cooking liquor.
2. Total sulphur dioxide.
3. Temperature of cooking.

While one factor was studied the other two were kept as constant as possible. For instance, when the effect of temperature was being studied, cooks were made with definite variations in temperatures, but the consumption of the cooking liquor remained the same. Of course, the following factors were constant for all the cooks: Amount of chips, 74.2 pounds bone dry; moisture condition of chips, air dry; amount of acid, 63 gallons; time to reach 100° C., 2 hours; time to reach maximum temperature, 3 hours.

Apparatus

A plan of the apparatus used in cooking is shown in Fig. 2. The digester was lined with a half and half mixture of special cement and quartz sand. This lining was about 1½ inches thick, and on top of it was put a layer of pure cement 1 inch thick.

The equipment used for making the pulp into paper consisted of a pulp shredder, 15-pound Emerson beater, 6-plate diaphragm screen with 0.009-inch slots, and a 15-inch Fourdrinier paper machine. A 50-pound Marx beater was used on the last six cooks.

The wood used in these experiments was white spruce (*Picea canadensis*) cut in the State of Wisconsin. This wood was cut into five-eighths-inch chips in a small chipper of the usual design and

(Continued on page 32.)

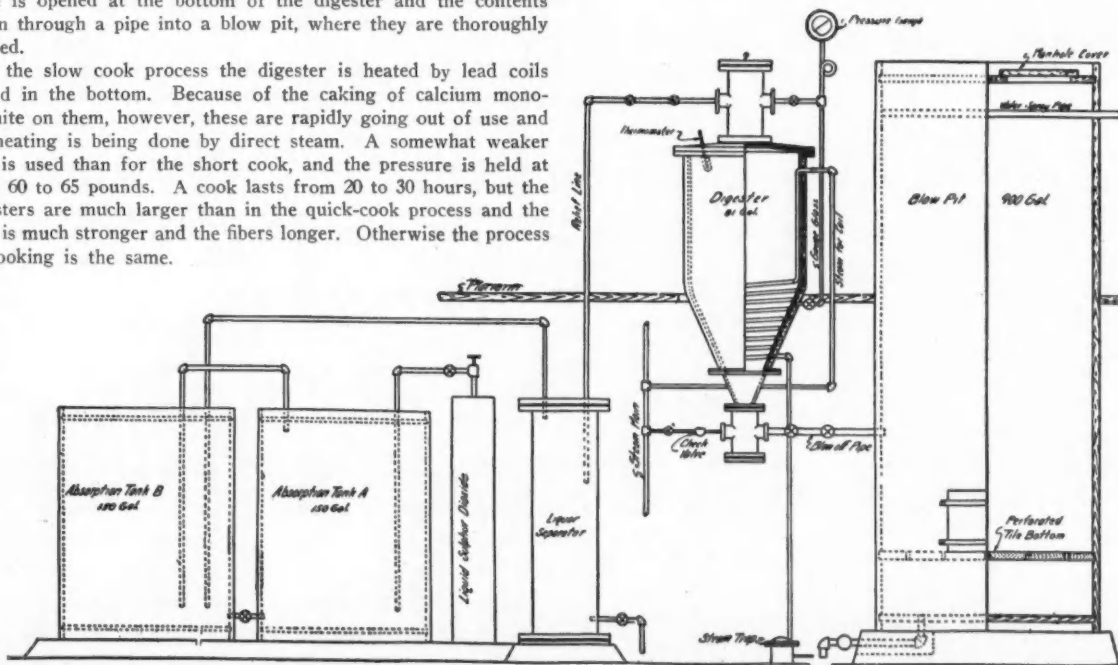


FIG. 2.—Plan of apparatus used in cooking.

Bleached and Unbleached
WOOD PULP
 of every description

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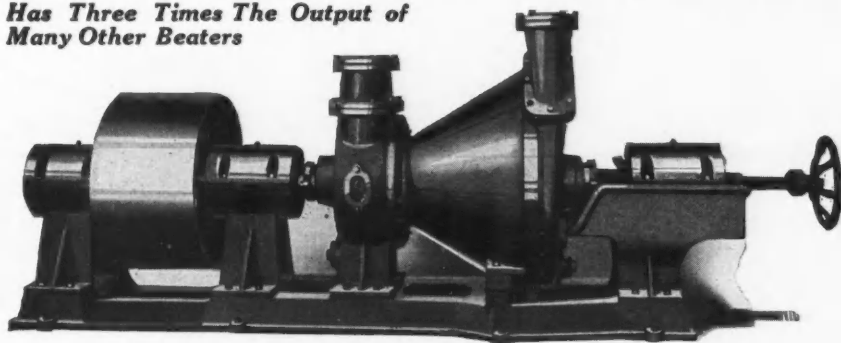
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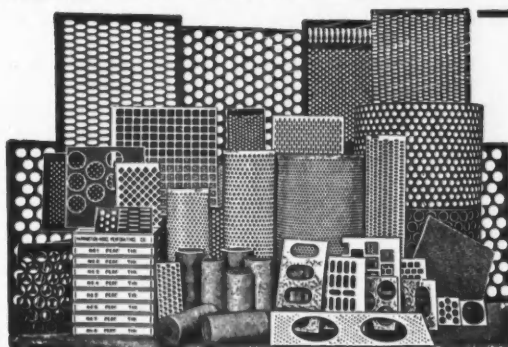
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*Has No Superior
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STEEL, IRON, COPPER, BRASS, BRONZE

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PRODUCTION OF SULPHITE PULP FROM SPRUCE

(Continued from page 30.)

the chips screened, after which they were ready for the digester.

The sulphur dioxide used in making the liquor in these experiments was obtained in liquid form under pressure in iron cylinders 5 feet 5 inches in height and 11 inches in diameter, each cylinder holding about 200 pounds. By obtaining the sulphur dioxide in this way the cooking liquor can be made to any desired strength in a couple of hours by simply turning a valve, which is an ideal way of handling the gas for experimental work.

In making the cooking liquor for the first cook the gas from one of these cylinders was passed to the bottom of an absorption tank, containing the desired amount of milk of lime, by means of a lead pipe which contained a number of small openings in the end. The procedure in making the subsequent liquors was as follows: When a cook was finished, the pressure in the digester was blown down to about 65 or 70 pounds, and the gas thus liberated was passed through a separator, which removed the liquor, to the bottom of the absorption tank B (Fig. 2) which contained a dilute solution of milk of lime. The liquor from tank B (Fig. 2) was then pumped to the make-up tank A (Fig. 2) and, if necessary, water was added so that it contained at least 80 gallons. Sulphur dioxide gas was then passed into this tank from the cylinder and the liquor in the tank analyzed every half hour.

The rate at which the gas was being absorbed could then be calculated and the time in which the desired strength would be obtained could be determined very closely. The cylinder could also be put on a scale and the desired amount of gas calculated and the weight obtained by difference. After the tank B (Fig. 2) was emptied it was again filled with a dilute solution of milk or lime¹ and any gas that was not absorbed in the make-up tank passed through a lead pipe back into this tank. Very little gas would be given off, however, it being absorbed almost up to the full pressure of the cylinder. While the gas is being absorbed in the make-up tank, milk of lime can be added as desired or cooking liquor can be made containing no lime at all. When the liquor is of the desired strength it is ready to be pumped to the digester to start the next cook.

While these experiments were in progress it became impossible to secure a supply of liquid sulphur dioxide, and in order to continue it became necessary to make the gas. A description of some of the methods tried may be of assistance to anyone contemplating doing experimental work along this line.

The first method tried was the ordinary one of burning sulphur and passing the gas through a milk of lime solution. A small sulphur stove, with a flat bottom and a burning area of about 3 square stove, was designed. The gas, after leaving the stove, passed through a cooling system and through three absorption tanks of about 150 gallons capacity, so arranged that it entered the bottom of the first tank, the unabsorbed portion then passed to the bottom of the next tank, and so on to the third one, the gas being moved by suction. The two tanks nearest the stove contained water alone and the last one milk of lime. After the system had been going for about three hours, samples were taken from each tank and analyzed. The liquor in each of the first two tanks contained about 1.20 per cent of SO₂ and in the last tank 3.10 per cent, all of it calcium bisulphite; nor could the solutions be made any stronger by continuing the operation, the gas simply passing through without being absorbed. The reason that the solutions would not become stronger is that the solubility of SO₂ gas depends on its dilution. Pure SO₂ gas is very soluble in water, it being possible to make solutions containing as high as 10 per cent; but just as

soon as it is diluted with some other gas that is not soluble in water, such as nitrogen, the strength of the solutions becomes much less. Thus, the gas produced here contained about 17 per cent SO₂ and would produce only a certain strength of solution no matter how long the gas was passed through; the solutions became even weaker if the fire in the burner got low. As solutions had to be made to meet a wide range of concentrations, this method was abandoned.

It was then decided to absorb the gas in two towers, 15 feet in height and 15 inches in diameter, made of sewer crock, and filled with broken tile, to see how strong a solution could be obtained by absorbing the gas in pure water alone. The gas from the burner entered the first tower at the bottom and met water trickling down through the broken tile, left it at the top, and passed into the bottom of the next tower. The strongest acid in the first tower contained 2.20 per cent SO₂ and the second 1.10 per cent. As this acid was not strong enough, it was decided to pump the acid from the towers into the digesters, then drive off the gas by heat and reabsorb it in one of the tanks. While acid by this method could be brought to any desired strength, it took so much time and attention that it was not practical.

The next method tried was to secure the action of sulphuric acid upon sodium bisulphite according to the equation $2\text{NaHSO}_3 + \text{H}_2\text{SO}_4 = \text{Na}_2\text{SO}_4 + 2\text{SO}_2 + 2\text{H}_2\text{O}$. For this purpose, a 16-inch pipe, 4 feet long, was flanged at both ends and lead-lined. The desired amount of sodium bisulphite mixed with water was fed in through an opening in the upper flange, which was then closed. The sulphuric acid was fed in through a U-tube, the receiving end (which was about 5 feet higher than the top of the cylinder) having a large lead dish attached, into which the sulphuric acid was poured. As the sulphuric acid mixed with the sodium bisulphite, pure sulphur dioxide was liberated. This was passed through a Woulf bottle, containing a little water as a trap to catch any sulphuric acid which might boil over. From here the gas entered the absorption tank. As the gas produced was pure, sulphur dioxide solutions of any strength desired could be produced.

Making the cooking liquor was not so quick or easy, nor was it so simple and convenient with the gas as with the sulphur dioxide in liquid form, so that the liquid was again used as soon as a supply was once more available.

(To be continued.)

Pulp and Paper Mill Workers to Meet

ALBANY, N. Y., September 3, 1918.—The annual convention of the Pulp, Sulphite and Paper mill workers union will take place in Knights of Columbus Hall, beginning October 1 and continuing three days. One hundred and fifty delegates will be present from the different locals throughout the United States and Canada, but whether any matters of special importance are to be acted upon could not be learned.

Coty Bag Machine Installed at Rumford

RUMFORD, Me., August 31, 1918.—The Continental Paper Bag Company has recently installed a Coty bag machine, the latest invention in that line, only two others being in operation, one at Watertown, N. Y., and the other at Middletown, Ohio. This machine has double the output of any machine on the market, producing 132 completed bags a minute. Taking the roll bag paper in at one end, the machine turns out finished bags, with the label printed in two colors, at the other end, counted in neat groups of twenty-five each.

¹The lime used in the experiments had the following analysis:

SiO ₂	0.56	MgO	32.31
Fe ₂ O ₃ & Al ₂ O ₃	1.20	CO ₂ & H ₂ O	1.90
CaO	64.19		

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All Services in Four Grades.
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Jersey City,
N. J.

Editorial

Vol. LXVII. New York, Thursday, September 5, 1918 No. 10
FORTY-SEVENTH YEAR

Shortage of Sulphur

The shortage of paper makers' chemicals and other materials is causing increasing apprehension. Most concern has undoubtedly been felt regarding the supplies of sulphur, and the reports regarding the effects of the cyclone at the mines of the Union Sulphur Company at Lake Charles, La., have naturally not tended to make the trade less apprehensive of being able to obtain this material in quantities sufficiently large to meet all its needs. It is encouraging, however, to note that the damage to the mines was considerably exaggerated and that judging from reports now being sent out the damage was after all only slight.

In spite of this good news, however, the fact remains that the situation as regards sulphur is extremely serious. Especially under present conditions, the Louisiana and Texas mines are the sources on which American manufacturers must depend for their supplies of sulphur. By those who have investigated the matter most thoroughly it is asserted that with the practical certainty of the demands of the Government increasing rapidly from now on, supplies for commercial uses must be correspondingly restricted. Supplies of sulphur coming from foreign sources are more or less negligible just now and give no promise of being expanded in the very near future. Possible sources of supplies in this country, other than those already well known, have because of the present conditions aroused considerable attention, but after investigation have usually been regarded as not likely to help the situation very much.

Considered from all its angles, and with no thought of expressing any biased view, it would seem that much relief to the situation would be afforded by having the Government put into operation at the earliest possible moment the process for reclaiming sulphur from waste smelter fumes that has been recommended by some of its experts. And it may be added that this work cannot be hastened too rapidly, because unless the present supplies of sulphur are increased soon all commercial enterprises that use this commodity, like the paper industry, are likely to suffer because of the lack of this extremely important material.

U. S. Salvation in Foreign Trade

The salvation of the United States is seen in its foreign trade after the war by Mr. Charles H. Taylor, prominently connected with the well-known exporting firm of Gaston, Williams & Wigmore. Commenting on the international situation recently this authority asserted that "Our export business after the war will become one of the vital factors of our commerce. It is an accepted fact that the wealth and prosperity of a country is dependent to a large extent upon its ability to secure profitable foreign markets for its agricultural, mining and manufactured products. The United States is in a particularly fortunate position in foodstuffs, mineral wealth and raw material, and our

manufacturers are today enjoying a super-abundance of business and industrial prosperity.

"While we are enjoying this era of prosperity, have we considered the conditions which will confront us after the war? Many economic writers hold the belief that prosperity will be universal for years after the war." Mr. Taylor maintains that the duration of our prosperity is largely dependent upon ourselves and the provisions we make now for the continuation of our industrial and commercial activities.

He asserts that most of our industries are in the acme of condition and the remainder rapidly approaching a point which will insure maximum capacity. The requirements of our Government, coupled with those of our Allies, afford employment at the present time to 2,000,000 workers. Before the end of 1919, we will probably have 3,000,000 men in our army and navy service overseas and 2,000,000 more in the service here at various camps. To this total can be added the 1,000,000 men and women engaged in the various branches of war work other than military or naval service, such as the Red Cross, Y. M. C. A., K. of C. workers and other civilian branches of the services.

"When the war is over, these 8,000,000 will need employment. Our large shipbuilding plants, aircraft production plants and munitions plants will no longer require the services of the larger part of the vast army of 2,000,000 now engaged in war work. This will bring us face to face with a serious problem: What shall we give them to do? What will be the result when we find our industries confronted with excess labor and decreased demand? Will it not result in lower wages and social and political unrest? By making a correct diagnosis of 'after the war conditions' now, we can make our arrangements and formulate the necessary plans to avoid a period of discontent.

"Our export trade will prove our salvation, and it is the duty of our manufacturers and captains of industry to now build the foundation for an after the war business, which will keep the wheels of American industries turning at 100 per cent. capacity to insure employment and prosperity. At the conclusion of the war we shall find ourselves possessed of a splendid fleet of ships and occupying the position of the leading maritime nation of the world; but of what value will these ships be if we are unable to supply adequate tonnage? Freight rates will undoubtedly decline to the rates of the pre-war period; there will then be no restrictions or embargoes to prevent our securing and handling the largest export business of the world.

"Our great export houses have made their arrangements and are fully prepared to efficiently handle an enormously increased volume of overseas business. They have their representatives in foreign fields preparing for what must surely come; but, unfortunately, many of our manufacturers, satisfied with present prosperity, remain indifferent to the possibilities, as well as the necessities of the future. After the war the short-sighted producer will find himself in a declining market with a surplus of labor, a heavy overhead, and no developed export business or satisfactory connection with an export house enabling him to secure a share of the large foreign trade which will surely come to our American market.

"Foreign merchants now find themselves unable to secure their requirements from their former sources of supply and they are

ready to lend an ear to the story brought by the representatives of the American manufacturer. This is our opportunity to promote and develop export trade and we should grasp it. If we wait until after the war we will be too late. European competition will then be in the field and vigorously striving to win back the old patronage. The foreign manufacturer will need all the business he can secure and he may be relied upon to do his utmost to accomplish that end. Therefore, while we are today free from material competition—and export markets need and will welcome our products—let us grasp our present opportunity and develop now for America a trade which will insure our commercial supremacy for all time."

This summary of the situation as presented by one of the leading authorities in the export field should certainly appeal to numerous manufacturers of paper, and should be a weighty influence in helping to direct their attention to the importance that foreign trade is likely to assume after the war.

The Banks and the Liberty Bonds

The campaign for the Fourth Liberty Loan begins September 28 and closes October 19. While the amount has not yet been announced, it is generally conceded it will be for a larger amount than any of the preceding loans. The American people, therefore, are called upon to raise a larger sum of money in a shorter length of time than ever before. There is need, therefore, for prompt action—prompt and efficient work and prompt and liberal subscriptions.

The Comptroller of the Currency has made an interesting statement of the part the national banks played in the three Liberty Loans.

He reports that \$6,000,000,000, a little more than half of the aggregate of the loans, passed through national bank channels. By far the greater part of this was absorbed by individual subscribers. On June 29 only about \$400,000,000 of Liberty bonds, constituting less than 3 per cent. of their assets, were held by national banks. At the same time the national bank loans on Liberty bonds were only \$457,000,000, or 2½ per cent. of their assets.

These figures are taken by the Treasury Department to indicate that Liberty bonds have been taken largely by individual investors and are being held by them.

The Comptroller of the Currency has no jurisdiction over and makes no reference to the banks of the country other than the national banks, but it is believed that an investigation would show that most of the other banks were equally active in the loans.

Secretary McAdoo, in speaking of the work of the banks for the various loans, made no distinction between national and other banks in praising their efficient assistance and co-operation, and he has expressed the hope and belief that in the coming loan they will continue the policy which has been of such tremendous service to the Treasury and the country.

It is well here, however, to quote further from Secretary McAdoo's statement regarding the banks.

"The loan must have the support of the people of America. The support of the banks, great as their support is, and welcome as it is, and splendid as it has been, is not enough alone to carry the

burden. * * * The only true way to finance this war is to sell the Liberty bonds to the people of the United States. The more people who buy \$50 bonds, \$100 bonds, \$500 bonds, the better it is for America and the more discouraging it is for our enemies."

We have a great inspiration for a great effort. The news from the battle front inspires every American heart, not only with pride and patriotism but with a great incentive to do his or her part. There is no shirking, no shifting of the individual burden, no selfishness by American soldiers in France; there should be none here. We are both supporting the same country and the same cause—our Army in one way, ourselves in another. Theirs is the harder part, but at least we can do our part as promptly and loyally and efficiently as they do theirs.

Sulphur Situation in Japan

According to an investigation by the Japanese Department of Agriculture and Commerce, the production of sulphur in April was 5,878 tons, says the Weekly Bulletin, Canadian Department of Trade and Commerce, Ottawa. Compared with the corresponding period of last year there was a decrease of 35 per cent.

The grand total from the beginning of 1918 to April was 22,035 tons, a decrease of 27 per cent from the figures for the first four months of 1917.

The cause of this falling off is the tremendous advance in freight rates to Australia, the best customer for Japanese sulphur, purchasing about half of the quantity sold. The steamship companies have raised their freight rate to 95 yen (about \$48) per ton, while they were charging 35 yen last year. Therefore the price, c. i. f. Australian port, of sulphur selling at 55 yen per ton net in Japan would be more than 160 yen (including freight, marine insurance, war risk, and other charges), which is prohibitive. The merchants of Australia will not give any orders to Japan until the freight rates show some decrease. On the other hand, the customers of India, South Africa, and the South Sea Islands, having placed too many orders during last season, are not active at all now, and the market looks very quiet. About 35,000 tons of previous orders are ready for shipment, lying at the manufacturers' warehouses on account of the scarcity of bottoms. Under such circumstances some of the manufacturers are in a serious condition and some have even become bankrupt.

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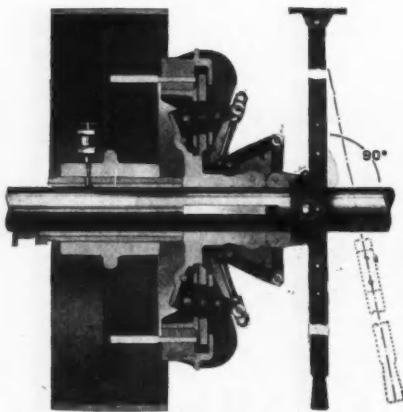
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"In all respects we have found whatsoever we have bought from the Hill Clutch Company to be of the highest grade of material and workmanship, and that their methods of handling their business from an engineering standpoint puts them in a class above most of their competitors."

Name of customer who wrote the above letter to an inquirer will be furnished upon request.

COLLAR OILING BEARINGS **HILL** FRICTION CLUTCHES

Complete Power Transmission Machinery equipments for Paper Mills.

The Hill Clutch Company : Cleveland, Ohio

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Manufacturers
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Rolls for
Paper
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Rubber
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and Ink
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FITTED WITH PATENT **ELECTRIC MOTOR LIFT**

Grinding Machines for Rolls of All Sizes

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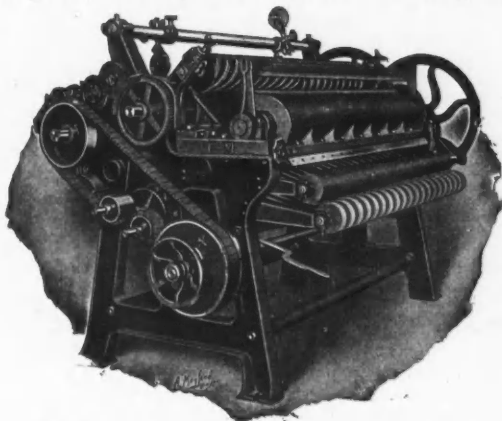
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ARE GUARANTEED

To Give Entire Satisfaction

MANUFACTURED BY

DRAPER BROS. CO., CANTON, MASS.

CONSERVATION PLEDGE ASKED OF JOBBERS AND CONSUMERS

(Continued from page 9.)

above will comply with established weights, which the Paper Department of the Government recently requested the purchasers of paper to follow.

"In order to confine the various sizes of books to suit the different sizes of paper to be carried in stock I have standardized books into eight different sizes and same will be submitted to departments for their information:

Inches.		
Paper Sizes.	Trim Sizes.	
24 x 38	2½ x 5¼	Vest pocket directory.
24 x 38	4¼ x 5¾	Drill manuals, etc.
32 x 42	5¾ x 9½	Regular octavo size.
29 x 41	7 x 10	Royal octavo size.
21 x 32	8 x 10½	Demy publications.
24 x 38	9¼ x 11½	Census bulletins and other publications.
17 x 28	8½ x 14	
21 x 32	5¼ x 7¾	

"With the foregoing changes in paper, sizes of paper and books, and the substitution of imitation leather for leather and other changes that will be made as necessity arises, I am of the opinion that a great saving to the Government in money and time will result and a greater output will result with a materially decreased cost."

The Joint Committee on Printing at its meeting on Monday expressed its approval of the new regulations adopted by the Public Printer and assured him that if further steps are necessary or advisable to bring about additional economies in the public printing and binding the committee will co-operate with him in every way possible.

On Paper Maker's Felt Committee

Following a conference here today with officials of the felt section of the War Industries Board the following members were appointed of the War Service Committee of the Paper Makers' Felt Manufacturers: F. C. Huyck, F. C. Huyck & Sons, Albany, N. Y.; F. J. Harwood, chairman, Appleton Woolen Mills, Appleton, Wis.; Parker Corning, vice-chairman, Albany Felt Company, Albany, N. Y.; W. F. Waterbury, H. Waterbury & Sons Company, Oriskany, N. Y.; P. Benninghofen, Shuler & Benninghofen, Hamilton, Ohio; M. C. Burrell, Orr Felt & Blanket Company, Piqua, Ohio; M. M. DeWitt, Waterbury Felt Company, Skaneateles, N. Y.; Roger Williams, Draper Brothers, Canton, Mass.; C. A. Babb, Knox Woolen Company, Camden, Mass.; R. M. Guie, Philadelphia Felt Company, Philadelphia, Pa.; and William H. Lee, secretary, Lockport Felt Company, Newfane, N. Y.

Physical Tests for Workers

Chairman Felix Frankfurter authorizes the following statement of the War Labor Board resolution concerning physical tests for workers:

The War Labor Policies Board is of the opinion that an adequate and impartial system of professional physical examinations and industrial clinics in connection with the United States Employment Service, as recommended by the sub-committee on welfare work, committee on labor, National Council of Defense, would make possible placement on the basis of physical fitness and would conserve the health of the workers.

Because, however, the demands of the war have greatly reduced the available supply of physicians, it is the opinion of the War Labor Policies Board that the nation wide adoption of the plan recommended is impracticable at the present time.

Accordingly the Board recommends that the plan be tested in a few industrial centers by the U. S. Employment Service in co-operation with the Working Conditions Service, Department of Labor, with a view to extending the work as the experiments made and the development of the Employment Service warrant.

Such a plan of centralizing physical examination of workers will not tend to prevent either private employers or government departments from maintaining their own system of physical examinations and follow-up methods for the purpose of conserving the health of their employees.

Work of the Paper Laboratory

The Paper Laboratory of the Bureau of Standards made 542 tests during July, according to the report just out. Of these tests 323 were for the Public Printer, 87 for executive departments, 39 for private parties, and 93 for investigative work.

During the month, as usual, a considerable portion of the time of the laboratory was devoted to the study of special problems for the War and Navy departments. The investigation of paper containers to replace tin was continued, as well as the investigation of wall board.

In July a representative of the laboratory visited several mills regarding a special paper being made at the request of the War Department. There were visitors to the laboratory during the month from several military departments desiring information on paper and paper products along technical lines. There were also a number of representatives from companies manufacturing paper containers, interested in discussing the merits of their product.

News Print Hearing Postponed to Sept. 11

The National War Labor Board has postponed until September 11 the hearing scheduled for today in the case of the news print paper industry. This action was taken because of the absence from Washington of C. A. Crocker and T. M. Guerin, comprising the section of the Board which has had the case in charge.

The desire for further hearing in the case, which was decided some time ago, is due to the failure of employers and workers to agree completely upon an interpretation of the decision.

Pleased with Cooperation of Mills and Jobbers

Officials of the Pulp & Paper Section of the War Industries Board are much pleased at the way the paper mills and paper jobbers of the country are co-operating to eliminate waste of paper.

Reports and pamphlets are reaching the officials from all over the country of the special booklets and advertising matter that are being gotten out on this subject. The trade has certainly entered into this campaign to reduce the wasting of paper in a whole-hearted spirit, and this is fully appreciated by members of the Pulp & Paper Section who are doing all that they can to help the paper men of the country keep their business at as nearly a normal capacity as possible in these times.

Convertors Ask to Get in Priorities List

Convertors of paper have made a request to officials of the Pulp & Paper Section of the War Industries Board to arrange a conference for them with the Priorities Division of the Board. It is understood that these convertors, including envelope manufacturers, will ask the Priorities Division to put them on the Preference List, believing that inasmuch as paper is on the Preference List the convertors should also be, and putting forward the thought that their industry is essential to the Government in its war work.

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Uniformity and High Retention
Low in moisture, Mica and Grit

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Exclusive Sales Agency of Edgar Bros. Co. MINES



Eagle Knife and Bar Works

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HIGH GRADE

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OF EVERY DESCRIPTION

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for Use in Paper Mills

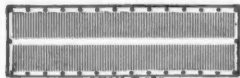
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WILLIAM A. HARDY & SONS COMPANY

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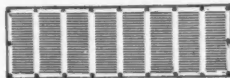
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For Flat and Rotary Centrifugal Screens.
Made of HARDY BRONZE, Rolled Brass
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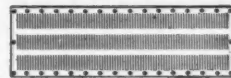


STYLE "B"

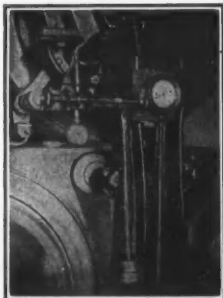
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Plates, Babbitt Metal, Hardy Bronze
Screws.

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We Will Prove To Your Satisfaction That PICKLES DRYING REGULATOR

will give you higher finished papers—remove the irregularities of
your present drying system—maintain a uniform moisture at all
times. It will cost you nothing if it fails to prove our claims.
Write for list of users and complete information.

W. F. PICKLES, Buckland, Conn.

Plans Federation of Manufacturers

Warren C. King, president of the Manufacturers' Council of the State of New Jersey, which is now affiliated with the Manufacturers' Council of the State of New York, announces plans for the formation of a National Federation of Manufacturers' Councils to embrace the entire United States.

The plan and scope of this National Federation will be entirely different from that of the National Association of Manufacturers, and will be patterned on the plan of organization of the American Federation of Labor, embracing the principle of local organizations in all manufacturing communities, these to form part of the State Councils and the State Councils to be merged into the National Federation.

Announcement is expected to be made within a few weeks of the calling of a national convention of manufacturers from every State in the Union having large manufacturing interests, for the purpose of creating in each State a Manufacturers' Council and from these councils to elect representatives who shall form the National Federation.

Mr. King, in his formal statement outlining the programme, says:

"The need for a new plan of organization among the manufacturers of the country, necessitated both by the emergency of war and the situation to be confronted at the end of the war, has been clearly demonstrated in recent months by the manner in which the manufacturers of the State of New Jersey have organized through their State Council. That this plan of organization is superior to any other has been further shown by the fact that New York State has seen fit to organize along similar lines and that steps are now on foot to form like State organizations in Connecticut, Massachusetts and in a number of other manufacturing States of the country.

"We desire to form the National Federation on the lines of the

Federation of Labor, not with the idea of combating labor, but with the idea of co-operating with labor, and we have adopted the Federation of Labor plan of local, State and national organization, because this plan is unquestionably the strongest.

"We expect to have enrolled in the National Federation of State Manufacturers' Councils virtually the entire manufacturing strength of the country. There have come to me since the recent War Convention of Manufacturers of six States, held in Atlantic City, hundreds of communications from all parts of the country urging that the plan outlined at the convention be carried into effect. This we are now prepared to do.

"The State Councils will seek to incorporate in their organizations strong local bodies of manufacturers in every manufacturing city and town. In this way the State organizations will represent 100 per cent, or nearly so, of the manufacturers of the respective States so that when the Federation is effected it likewise will speak for 100 per cent of the manufacturers of the United States in all lines. We seek, therefore, the co-operation of every individual manufacturer and shall welcome communications at the president's office, 72 Front street, New York City."

New Delivery System in Chicago

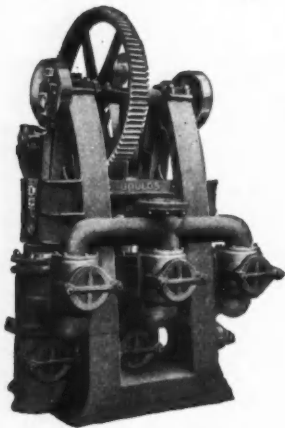
[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, September 3, 1918.—The jobbers have started a new delivery system to save labor. There will be two deliveries a day in the radius of one mile in loop and one delivery a day outside. All orders received before noon will be delivered the same day so far as possible.

Fred. L. McCullon of McCullon Paper Company, Minneapolis, Minn., was in town for a few days last week.

Rogers Little of Dwight Bros. Paper Company is spending a short vacation in Kansas City.

Goulds Pumps Need Little Attention



This is an outstanding feature of all Goulds Pumps and an important one for you to remember.

Goulds Pumps are made to work satisfactorily and wherever we sell a pump it is guaranteed to satisfactorily perform the specific work for which it is sold.

For **Paper Mill Service** it is especially important that you have pumps with both of these features, i. e., work without attention and always work satisfactorily.

Our Power and Centrifugal Pump Bulletins will show you a complete line of such pumps.

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Let us tell you what other successful mills are doing with WYCKOFF.

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We guarantee that PLIBRICO will make a solid one-piece (Jointless) furnace lining—that it will not crack, split, bulge or shell off—that it will make your furnace gas- and air-tight. That if installed according to our instructions and specifications, it will last longer and give more satisfactory service than any other fire brick lining.

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We Will Send You Customers

OUR nation wide advertising campaign will start in October issues of Saturday Evening Post, The Literary Digest and System. A full page advertisement in the Post will be the opening gun and consistently large space in these magazines will hammer home the economy and other advantages of regularly using

The LIBERTY JUNIOR Moistener and TIEDY TAPE

for many purposes in home, office and store.

We'll send you customers. Put in your stock now and send them away smiling.

Order two dozen moisteners and a gross of tape from your jobber today and get our attractive window display.

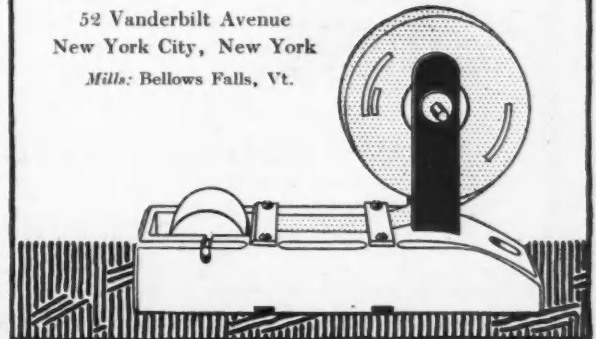
The Liberty Junior Moistener retails at \$1.50—Tiedy Tape as low as 10c a roll. Liberal profits on every machine and roll.

Literature and tape samples sent on request.

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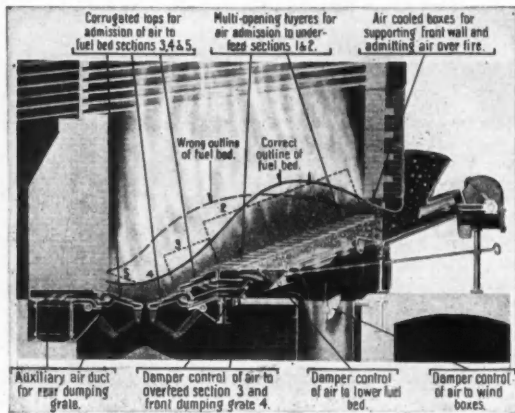


SMOKE PREVENTION—COAL SAVING SUGGESTIONS

Just at this time when the conservation of coal is an absolute necessity and every practical suggestion for such conservation is a shot at our enemy, everyone realizes that smoke issuing from boiler stacks represents unused heat units, but everyone does not realize that certain simple rules, if observed in the fire room, will materially decrease this loss.

Suggestions Based on Years of Experience

The suggestions herein are based on many years' experience of the Westinghouse Electric & Manufacturing Company's combustion engineers and are briefly outlined below:



TYPICAL FIRE BED, STOKER FED

1. Give your fireman an opportunity to acquire the fundamental principles of fuel burning.
2. If you have a difficult fuel problem, consult a combustion engineer.
3. Prevent smoke by proper firing methods.
4. Use gauges to indicate exactly the condition of fire bed at all times. As a minimum these gauges should consist of draft gauge indicating draft in furnace above fuel bed, draft gauge indicating draft at boiler side of flue damper and a steam flow meter for individual boilers.
5. CO₂ is the principle product of complete combustion of coal. Ten to twelve per cent. CO₂ should be obtained in flue gases to insure minimum fuel loss.
6. Avoid loss due to unburned coal in the ash.
7. If you are wasting exhaust steam, you are wasting coal.
8. Do not permit grates to clog. A systematic method of keeping the air spaces clean must be followed.
9. Inspect the baffles in boilers, as broken or leaky baffles raise the flue gas temperature and waste coal.
10. Avoid leaking in of cold air around boiler setting.
11. Install stokers. Hand firing is rapidly being recognized as an obsolete and wasteful method of firing.
12. Clean scale from tubes, as every particle of scale represents wasted coal.
13. Avoid soot formation. All boiler tubes should be blown externally once every eight hours when in continuous service.
14. All smoke flues should be as short and straight as possible. Flues should also be made air tight and all joints and connections should be well fitted, caulked and riveted. Use asbestos gaskets on clean-out doors.
15. Locate flue dampers in front of boiler so that fireman will adjust them as required. Dampers located in rear of boilers are seldom disturbed regardless of conditions.

16. The size of coal has much to do with capacity and efficiency of boilers. In general, the air pressure penetrates the fuel bed formed by coarse coal easier than that formed by finer coal, resulting in disturbance of best furnace conditions.

A Don't Fail to Do List

In addition to the above suggestions, the following "Don't fail to do" list should be followed:

- Don't fail to—
- Keep the heating surfaces of the boilers free from soot, scale or oil.
 - Keep the fires level and free from holes.
 - Do not carry the fires so thin as to draw a lot of excess air through.
 - Do not carry the fires so thick as to have incomplete combustion of the coal.
 - Do not soak the coal with water before firing.
 - Be sure the blow-off valves do not leak.
 - Do not have the safety valve popping off continually.
 - Cover steam pipes.
 - Do not waste steam through leaky valves or traps.
 - Never use live steam if exhaust steam is available and can be used as well.
- An observance of the foregoing simple rules and suggestions should materially reduce the coal consumption of the average plant.

Hubbs & Howe in New Quarters in Cleveland

CLEVELAND, Ohio, August 31, 1918.—The Cleveland branch of the Hubbs & Howe Company, dealer in paper and twine, has moved into larger and more desirable quarters and is now located at 1301-1303 W. 9th street. The concern occupies a five-story building with basement in the heart of the wholesale manufacturing district.

The Cleveland branch was started in 1909 by the present manager, H. G. Ihsen, with desk room in one of the office buildings, and this business has grown and developed to the point where five salesmen and a good stock are necessary to take care of the increased business.

The firm at the Cleveland branch carries a general line of wrapping papers and twines. Its increased business in the city of Cleveland has made this branch a very important one, and the company looks forward to seeing this branch develop into one of the best of the Hubbs' outfit.

In addition to the establishment at 495-497 Seneca street, Buffalo, N. Y., the firm is located as follows: Toronto office, 439-441 Wellington street, West; New York office, 383-389 Lafayette street; Baltimore office, 404 South Eutaw street; Rochester office, 319-325 Main street; Cleveland office, 1301-1303 West 9th street; Pittsburgh office, 14-16 Fourth avenue; Montreal office, 352 Notre Dame, West; Richmond office, 10 South 14th street; Philadelphia office, Lafayette building.

The officers of the firm are as follows: Charles F. Hubb, president; H. J. Severance, vice-president; R. W. Gallagher, vice-president; William H. Howe, secretary and treasurer.

T. H. Hubbard Leaves Poland Paper Co.

BOSTON, Mass., September 3, 1918.—It will be surprising news to his many friends in the paper trade to learn that, T. H. Hubbard has severed his connections with the Poland Paper Company of Mechanic Falls, Me. Mr. Hubbard has for over twelve years been the selling agent for the company making his headquarters in Boston. On Saturday he closed his business relations with the firm. He has not made any definite plans for the future.



Have You Any Big, Hard, Tough Drives?

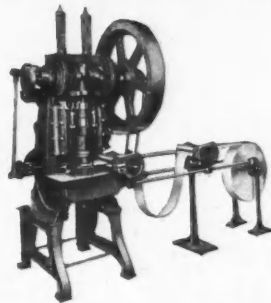
Put a "COMMANDER" on the job.
 Are you bothered with slippage? Use a "COMMANDER."
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If you want extreme gripping power, flexibility and greater resistance to moisture, heat and cold than any other belt made today possesses, get "COMMANDER," marketed for nearly fifty years and never found wanting. Goodrich stands solidly behind its virtues. Industry has used millions of feet and is ordering other millions—rush.

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A simple change in the manufacturing process often makes a pronounced decrease in cost of production.

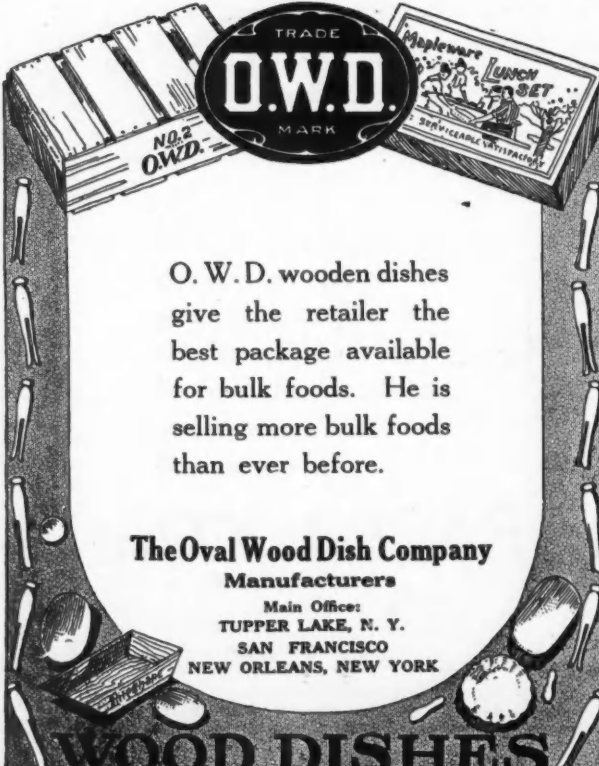
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Our **FOX HEAD** brand for top-sizing is more economical than an all glue-size — gives perfect satisfaction.

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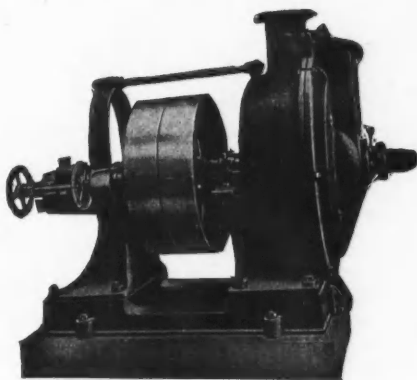
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**PULP SAVER
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This refiner enables you to refine your tailings into No. 1 Pulp instead of wasting them or making them into a cheaper No. 2 grade Pulp.

Can be used to equally as good advantage for refining tailings and knots in sulphite mills.
 Two sizes—stones 39½" and 59".

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EASTERN OFFICE 291 BROADWAY NEW YORK CITY

IMPROVEMENT IN PAPER PULP MACHINE

New and useful improvements to pulp making machines have just been patented by Frank H. Hoberg of Green Bay, Wis., which are described as follows by the inventor:

The invention relates to pulp machines, and especially to that class of machines which are used in the manufacture of tissue paper. It is an object of the invention to prolong the life of the conveying belt which carries the sheet of pulp through pressure rollers.

A further object constitutes the increase of the thickness of the conveyer belt at the point where suction is generated so that the pulp fibers are not influenced due to the negative pressure.

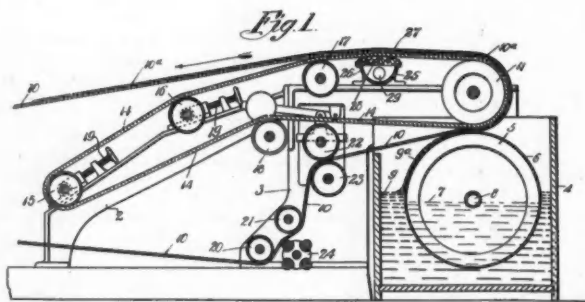
A further object is to prevent impressions on the sheet of pulp while being pressed from the cylinder onto the conveying belt.

Other objects will become more apparent by reference to the specification and the claims. In the drawings,

Figure 1 is a central longitudinal section of the operative end of a cylinder mold machine, to which the invention has been applied.

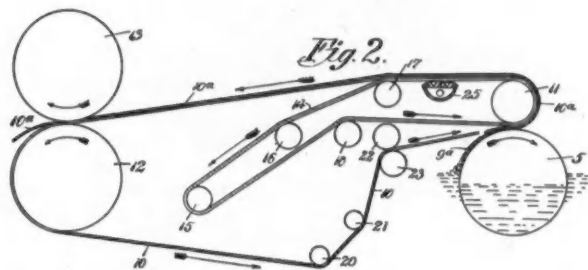
Fig. 2 is a diagrammatic view disclosing the arrangement of the belt and of the rollers.

Referring to the drawings, 1 designates the bed plate of the machine upon which the supporting frames 2 and 3, comprising a pair of oppositely disposed standards, are arranged. At the rear end of the machine a vat 4 containing the pulp is arranged, in which a cylinder 5 is rotatably secured so as to immerse with approximately one-half of its periphery into the pulp mass. The cylinder is hollow and its periphery is formed by a screen 6 of fine mesh so as to permit passage of the liquid which is separated from the pulp while it is pressed onto the conveyer belt 10 of felt, or other suitable material. In order to drain off the water, the cylinder or mold 5 is provided at one end with an outlet 8, which is arranged so as to keep the level of the pulp containing liquid in the receptacle 4 slightly above the level of the water 7 in the cylinder. From the foregoing it is obvious that a constant suction is acting on the screen of the cylinder, which causes the



pulp fibers 9^a contained in the liquid 9 to adhere to the cylinder mold 5. In the rotation of the cylinder the layer of pulp adhering thereto enters into engagement with, and is pressed to, the conveyer belt 10, which is trained around a couch roll 11, suitably journaled above the mold cylinder. The conveyer belt 10 together with the pressed sheet 10^a of pulp travels in the direction indicated by arrows in Fig. 2, to bring the pulp layer between pressure rollers 12 and 13, the latter of which is yieldingly forced into engagement with the roller 12 which is stationary and is driven from a suitable source of motive power. The sheet of pulp 10^a, passing between these pressure rollers, loses its moisture and leaves the rollers in a comparatively dry state.

Between the upper and the lower run of the conveyer belt a second belt 14, preferably, but not necessarily, of felt, is arranged which is trained around the couch roll 11, and a roller 15 suitably mounted in journals provided on the frame standards 3. This belt, which is thicker than the conveyer belt, is suitably guided by idlers 16, 17 and 18, which engage the lower sides of the upper and lower run, respectively, to maintain a predetermined tension of the belt. As will be readily seen from the drawings, the rear part of the secondary belt 14 is in engagement with the inner side of the conveyer belt 10 and travels with the same in unison, the movement of the secondary belt being effected



merely by friction. A plurality of tension devices 19, arranged in suitable bearings on the frame standards 3 serve for adjustment of the secondary belt to take up slack, whereby slippage between the secondary belt and the conveyer belt is avoided. As will be seen from the drawings, the conveyer belt is trained around a plurality of idlers 20 and 21, and passes between pressure rollers 22 and 23, so as to remove moisture contained in the conveyer belt prior to its passing around the couch roll 11. Between the idlers 20 and 21, a whipper 24 is provided. A suction box 25 is supported between the couch roll and the idler 16 in a suitable manner by the frame standards 2 to draw the moisture from the pulp sheet. The suction box 25 comprises a casting 26 and is closed at its top by a board 27. The casting extends the full width of the belt and the board 27 is provided with a longitudinal slot 28. The suction box 25 is in communication with suitable suction means (not shown), by an aperture 29 at one end, and this suction is communicated by the longitudinal slot 28 to the secondary belt 14, which at that point is arranged between the suction box and the conveyer belt proper. From the foregoing it is obvious that at portions of the conveyer belt a double thickness is provided by virtue of the secondary belt which travels in unison therewith. The resiliency of the conveyer belt is therefore greatly enhanced at the portions where it is in engagement with the secondary belt, with the result that the pulp pressed thereonto does not receive any felt marks when applied to the belt by the drum 5. In addition, the suction device acts through a double layer and its destructive effect upon the pressed fibers of sheet of pulp is greatly reduced, if not entirely eliminated.

I am aware that various changes or modifications may be made without departing from the spirit of the invention, and I want to avail myself of such departures which fairly fall within the scope of my invention, as pointed out in the following claims.

What Is Claimed

I claim:

1. In a machine of the character described, a receptacle containing pulp, a drum journaled in said receptacle, a felt belt

(Continued on page 54.)

EFFICIENCY ENGINEERING BY EFFICIENT ENGINEERS

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PULP AND PAPER MILL ENGINEER

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The most frequent troubles that we meet with in paper mills are due to lack of standardizing processes. Things are not done just the right way to get just the right product. The thing desired is obtained—and then again it is not—and nobody knows why. Then is the proper time to write to us and find out what it will cost to get us to study the matter. That information is free.

Want and For Sale Advertisements

HELP WANTED

WANTED—Assistant foreman for small paper mill near Philadelphia; one who understands colored bristol board; must have some push; reference required. Address Box 611, care Paper Trade Journal.

WANTED—Good, sober, steady machine tender for one machine board mill. Good wages to right party. Two tours. Address Box 612, care Paper Trade Journal.

WANTED—Finisher for tissue mill capable of taking charge of finishing room, \$5 per day of ten hours. Address Kenyon Paper Corporation, Pittston, Pa.

WANTED—First class machine-runner for fourdrinier machine making manila and bond papers. Steady job with first class company located in a good live town with cheap rents. Please state experience, with application. Address Box 613, care Paper Trade Journal.

VIRGINIA—Chief engineer wanted for paper and pulp mill located in Virginia. Modern steam Curtiss Turbine, six 300 h. p. Wickes boilers, two steam engines. Boilers equipped with stokers. Good opportunity and salary for thoroughly competent man. Useless for others to apply. Applications considered confidential. Apply Box 601, care Paper Trade Journal.

WANTED—2 capable, sober machine tenders on one cylinder machine, two tours on wrapping paper. Give references and state wages wanted, also when you can come. Address Box 602, care Paper Trade Journal.

WANTED—Quick back tender and third hand. Address Mutual Box Board Co., Utica, N. Y.

WANTED—Two sulphite cooks; one acid makers (barker system); one grinder man, experienced in sharpening stones; and one experienced wet room man. New mill in west; three tours; good wages. Address Box 603, care Paper Trade Journal.

SALESMAN WANTED to cover Brooklyn, Jersey and New York State. An excellent opportunity for a live wire. An extensive line carried in paper, twine, tissue, bags, toilet, boxes, etc. Address Box 604, care Paper Trade Journal.

WANTED—2 finishers on book paper. State age and experience. Piece work. Can make from \$5 to \$6 per day. Steady work. Good location. Address Box 605, care Paper Trade Journal.

WANTED—Man familiar with rag stock for roofing mill near New York—as checker in—good position for competent man. State experience, age, salary expected. Address Box 581, care Paper Trade Journal.

WANTED—For large southern sulphate mill first class men for wet machine, wood yard, wood room, and soda or sulphate pulp mill. Good climate with warm winters and good wages. In reply give full particulars as to experience, salary expected, etc. Address Box 582, care Paper Trade Journal.

DRAFTSMAN WANTED—Must be familiar with piping layouts and general mechanical work. Pulp and paper mill or chemical plant experience preferred. State age, experience and salary expected, also, when can report to work. Address Box 584, care Paper Trade Journal.

FOR SALE

A pair of Hamilton, Corliss engines—size 16 x 36, arranged to drive on to one crank shaft; and One Thousand other items for the Paper maker.

Address

The Shurtle Brothers Machine Company
Middletown, Ohio

HELP WANTED

WANTED—Assistant in laboratory of a large pulp and paper company. Well located in large city. Address Box 585, care Paper Trade Journal.

SUPERINTENDENT WANTED for small binders board mill in New York. Steady position to the right man. State experience and salary expected. Address Box 587, care Paper Trade Journal.

WET MACHINE TENDER WANTED for binders board machine. State experience and salary expected. Address Box 588, care Paper Trade Journal.

WANTED—First class piper in paper mill. Also three back tenders and three finishers. Must be strictly sober. Apply Box 589, care Paper Trade Journal.

WANTED—Laboratory assistant to take charge of routine work. Excellent opportunity for an aggressive young man. Address reply to Box 590, care Paper Trade Journal.

WANTED—Board machine and back tender, 8 hours per day, 70c. and 50c. per hour, good eastern location. Inquire Box 592, care Paper Trade Journal.

HELP WANTED—On account of the recent draft, we have after September 15, an opening for 2 first-class white paper salesmen, on either straight salary or commission. Apply in person or make appointment by telephone to Clement & Stockwell, 30 Beekman street, New York City.

WANTED AT ONCE—Two beatmen experienced on straw and chip board. Good wages. No labor trouble. Good healthy place to live. Married men preferred. State age and experience. Address American Straw Board Co., Chestertown, Md.

WANTED—Two back tenders for 114" machine on water finish; two back tenders for 66" machine water finish. Address Box 481, care Paper Trade Journal.

COATING MACHINE HELP WANTED—on government work. Steady employment. State wage and experience. Address Box 483, care Paper Trade Journal.

WANTED—Machine tenders, back tenders, and beatmen, for three cylinder machine. Three tours. Steady employment and good pay. None but sober, reliable men need apply. No labor trouble. Address Box 285, care Paper Trade Journal.

WANTED—Back tenders for fourdrinier and cylinder machines. Fourdrinier, 43c. per hour—cylinder, 45c. per hour. Eight hour shifts. Time and one-half for overtime. Steady work. Address Box 607, care Paper Trade Journal.

WANTED—Experienced man on Cameron slitter and rewinder. Good pay. Apply Ringel Brothers, Front and Rector Sts., Newark, N. J.

WANTED—Paper machine help including machine tenders, back tenders, third hands, etc.; two tours; good chance for advancement. Address Box 458, care Paper Trade Journal.

WANTED QUICK—Machine tender for 66" fourdrinier; two tours; good chance for advancement. Address Box 459, care Paper Trade Journal.

WANTED—Paper mill chemist. State experience, age, and wages expected. Address Box 559, care Paper Trade Journal.

PAPER MILL CHEMIST—Thoroughly experienced man required for pulp and paper mill, running on sulphate pulp. Must be well up in recovering by-products at digesters. Apply, giving full particulars, to Box 525, care Paper Trade Journal.

SITUATIONS WANTED

HIGH GRADE SUPERINTENDENT with long experience on all grades of box board is now open for position where ability is recognized. Obtains best results from help and upkeep of mill. Best references. Address Box 610, care Paper Trade Journal.

(Continued on page 49.)

FOR SALE

PAPER MACHINE—One 60" Fourdrinier, first and second presses, 18 dryers, 3 stacks of calenders, reel, slitter, Marshall drive.

WET MACHINES—Two 48" Wet Machines for Board, one 72" Sandy Hill, one 84" Bagley & Sewall.

PAPER CUTTERS—One 112" Horne; 44", 41" Finlay; 76" Hamblet.

REAM CUTTERS—One 48" Acme; 76" Cranston; 55" Seybold; 42" Sheridan.

RAG CUTTERS—One Taylor Heavy Type Rag Cutter, triplex bed knife, No. 11-C.

BOARD CALENDERS—One 45" Farrel, 54" Downingtown.

SUPER CALENDERS—Two 63"; one 54"; four 45" stacks super calenders.

CALENDERS—One 90" 7-roll Farrel; one 87" 7-roll Horne Stack.

PRESSES—Six hydraulic presses, one Boomer & Boschert Screw Press, one Filter Press.

JORDAN—One Jordan Refining Engine; 1 Wagg Majestic; 1 Pope Brushing Engine.

BEATERS—2 48" face, 60" diameter, Jones; 4 42" face, 48" diameter, Horne.

PUMPS—Two Hydraulic triplex pumps; two 8" x 8" triplex Deane Stock Pumps.

SCREEN—One 10 plate Packer; one 14 plate Packer.

SLITTERS—One 50" Black & Clawson, 118" Kidder, 40" Kidder.

Two Shredders, 1 84" Carthage Chipper.

One 7' x 25' Rotary Boiler, complete with drive.

Two Kollergangs with stones.

One Lombard Governor, 1 Stevens digester.

Two Centrifugal, Two Wandel Screens.

Twelve three pocket grinders.

One 96" x 14 9/16" Millspaugh Suction Roll.

One Trombley & Paul Sulphur Burner.

Four Barkers.

FRANK H. DAVIS

175 Richdale Ave., Cambridge B Branch, Mass.

FOR SALE

BEATERS—40x36" with iron tub, 17' long, two 65x54, one 42x42, one 48x48, 4 Claflins. New Humphreys.

CALENDERS—Five roll 48", 9 roll 63", 7 and 9 roll 72", 3 roll 80", 9 roll 80", 9 roll 84", 7 roll 86". Four roll friction.

COATER—One 43" double Waldron coater.

CUTTER—100" Finlay, 72" Dillon, 68" Black & Clawson, 84" Moore & White, 48" Helyoke, One T & S rag cutter. Several ream cutters.

CYLINDER MOULDS—Two moulds 30" dia., 78" face.

DRIVES—One Moore & White No. 9 A.

DRYERS—26 new shells 36" dia., 124" face; 1 new shells 36" x 76"; also three 36 x 36 with frames, etc.; four 26 x 52" all ready to set up. Lot of odd dryers.

DUSTERS—One 6 bowl Helyoke revolving, also two railroad dusters.

JORDANS—Emerson & Horne type Jordans.

MACHINES—One 72", 2 cylinder machine.

PUMPS—One triplex self-contained suction pump, one 1,000 gal. Worthington, tank pump 10 x 16 x 18 Knowles, fifteen fan pumps. New stock pumps, single and duplex.

ROTARIES—About ten horizontal rotaries; three Globe rotaries.

SCREEN—One Wandel screen.

Also a lot of other machines which have not yet been listed. Write us for anything you want.

Lot of new split pulleys, sprocket chains, cone pulleys. Some new wooden pulleys with friction clutches.

Mills Machine Company
LAWRENCE, MASS.

(Continued from page 48.)

SITUATIONS WANTED

SALESMAN—Married man, young, energetic with both mill and jobbing experience in printers' papers, desires live connection where prospects for future are good. Address Box 606, care Paper Trade Journal.

POSITION WANTED as cylinder machine tender, several years experience on all grades of box boards. Address Box 607, care Paper Trade Journal.

ENGINEER, civil, mechanical, technical graduate. Experienced in design and construction of pulp and paper mills, boiler houses, general repairs, etc. Physically unfit for any military work. Only permanent responsible position considered. Address Box 608, care Paper Trade Journal.

YOUNG MAN, married, seeks new connection, preferably with mill or reputable jobbing house in managerial capacity. Ten years experience all grades. Excellent character and ability. References. Will go anywhere, providing good opportunity and future. Address Box 609, care Paper Trade Journal.

WANTED—Position about Jan. 1, either in sales, purchasing or manufacturing. Twelve years' experience as treasurer and assistant manager in small mill. References exchanged. Address Box 583, care Paper Trade Journal.

POSITION WANTED AS CYLINDER MACHINE TENDER. All grades boards, combination and container. Know how to get production. Sober and steady. Good references. Address Box 593, care Paper Trade Journal.

WANTED POSITION by a thoroughly efficient superintendent or foreman with 20 years experience as such, on all kinds of box boards, mill wrappers and building papers. Practical in all departments, temperate and good manager of help. Address Box 594, care Paper Trade Journal.

POSITION WANTED BY UP TO DATE SUPERINTENDENT. Used to fibers, cop tube papers, manilas, waxing, wood bonds, manifolds, tissue and hanging. First class on repairs. Can furnish first class references from last employer. Address Box 595, care Paper Trade Journal.

ENGINEER—Massachusetts license. Fifteen years' paper mill experience. Curtis-Parsons turbines—Reciprocating engines. Electrical apparatus. Now in power station of 20,000 K.W. Address Box 596, care Paper Trade Journal.

EXPERIENCED PULP AND PAPER MANUFACTURER WANTS POSITION AS MANAGER OF SUPERINTENDENT. Has extensive experience making paper and board from old papers, also white and colors from various stocks. He is prepared to take complete charge of the plant. Experienced in making soda and sulphate pulps. Familiar with every detail of mill management. References. Address Box 597, care Paper Trade Journal.

OFFICE MANAGER FOR PAPER MILL OFFICE—open for engagement. Familiar with buying and handling paper stock. Address Box 568, care Paper Trade Journal.

WANTED POSITION—Have been actively connected with paper manufacturing industry for a quarter of a century. Was manager of mills for many years. Now handling sales for a large plant. Familiar with manufacture and sale of book, boards, tissue, all kinds of wrapping, coated book and box board, tags, bristols, blanks, grease proof and waxed papers. Have thorough knowledge of producing good paper from old papers. Will be glad to correspond with jobbers or manufacturers desiring the services of a man of extended experience and marked ability. Address Box 569, care Paper Trade Journal.

WANTED A POSITION AS ASSISTANT OR TOUR BOSS in mill making bond, writing and all fine papers. Well up, and a hustler. Address Box 572, care Paper Trade Journal.

SALESMAN—Manager now employed by jobber open for similar position with mill having opportunity for advancement, experience includes all grades. Address Box 573, care Paper Trade Journal.

SITUATIONS WANTED

MECHANICAL ENGINEER—17 years' experience in pulp and paper mills, pulp and paper machinery concerns, general machinery work, well familiar in power plants and construction work in paper mills. Best of references. Reply to Box 550, care Paper Trade Journal.

SUPERINTENDENT would like to communicate with manufacturers making cylinder or fourdrinier specialties. Understands most all grades of stock. Address Box 535, care Paper Trade Journal.

WANTED—Position as general superintendent. Thorough knowledge of the manufacture of paper, ground wood and sulphite. Mechanical and executive ability. Experienced in construction and repairs. Technical knowledge with broad practical experience. Address Box 446, care Paper Trade Journal.

SITUATION WANTED—With an independent paper bag manufacturing company, to supervise the construction and installation of a new line of high speed, automatic, rotary action machines for the manufacture of grocery bags. Specifications and plans furnished by the inventor, F. L. Bartholomew, who has had years of practical experience in this line of work. Address P. L. Bartholomew, R. D. No. 1, Box 168, Aurora, Ill.

MISCELLANEOUS

WANTED ONE 48 TO 62 INCH CAMERON REWINDER. Address Middletown, Ohio, P. O. Box 30.

FOR SALE—Slitters and rewinders. If you are in the market for a 2nd hand or thoroughly overhauled slitter and rewinder, of any description, do not fail to call upon us, as we always have a selection of such Kidder machines available. Address Gibbs-Brower Co., 261 Broadway, New York City.

FOR SALE—One 96" Kidder rewinder, in first-class condition. Only slightly used. Address Box 599, care Paper Trade Journal.

FOR SALE—Two cylinders, 94" x 36" in diameter. These cylinders are in good condition. Have been used five years and with the exception of new outer faces are ready to run. Immediate shipment can be made of same. Address Box 576, care Paper Trade Journal.

FOR SALE—One new dryer, 36" diameter by 76" face; one new dryer, 36" diameter by 86" face, with journals and distance between the bearings to suit. One second-hand cooling roll, 14" diameter by 72" face, 1/2" bronze jacket. Complete with heads and water joint. Address Box 577, care Paper Trade Journal.

FOR SALE—One new Improved Paper Machinery Company sulphite screen. Address Box 554, care Paper Trade Journal.

SELLING ORGANIZATION DESIRES TO REPRESENT on commission basis manufacturers of paper specialties in New York, Pennsylvania and New England. Envelopes, tags, pads, papeterie, toilet, twines, drinking cups, bread wrappers and adding machine rolls. We sell large consumers and dealers. Address Box 363, care Paper Trade Journal.

FOR SALE—One new Fuller Save All, built by Moore & White Company. Can deliver immediately. Address The W. B. Oglesby Paper Co., Middletown, Ohio.

FOR RENT

The use of

A Complete Set of Patterns for a Fourdrinier Paper Machine

suitable for book, wrapping or news of 100 to 150" width.

Address P. O. Box 3514, Boston, Mass.

MISCELLANEOUS**WANTED**

Machine tender with experience on light tissue. Write, giving age, nationality, education, experience and when available.

Write to P. O. Box 278 Holyoke, Mass.

WANTED

Two or three good machine tenders and also back tenders in mill making bonds and writings. Mill located in very desirable city in the middle west. Transportation advanced reliable applicants.

Address Box 433, care Paper Trade Journal.

PICKQUICK

This is IT



The Best

5c
ROLL
in the
U. S.

Write us for samples and prices. Salesman Wanted.

THE H. NORWOOD EWING CO.
Woolworth Bldg. New York

WANTED

Machine tenders and back tenders for fourdrinier machine on manillas and fibres. Eight hours, good wages.

Address Box 600, care Paper Trade Journal.

Directory

Cards under this heading will be charged for at the rate of \$30 per annum for each card of three lines or less, payable in advance. Each additional line \$10.

Architects and Engineers.

CAREY, JAMES L., Paper Mill Architect and Engineer, 298 North Laramie Ave., Chicago, Ill.

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

FERGUSON, HARDY S., M. Am. Soc. C. E., Consulting Engineer, 200 Fifth Ave., New York.

HARDY, GEO. F., M. Am. Soc. M. E., Consulting Engineer, 309 Broadway, New York.

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

JOSEPH H. WALLACE & CO., Industrial Engineers,

Temple Court Building, New York. Manufacturing Plants and Power Developments. Reports of Industrial Properties, Appraisals, etc.

Bale Ties.

WILSON, H. P. & H. F., Manufacturers of Steel Wire Bale Ties, for baling all compressible material. 54 West 22nd Street, New York City.

Boards.

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

Metal Skylights and Ventilators.

WE manufacture metal skylights and ventilators for paper and pulp mills. **E. VAN NOORDEN CO.**, 944-52 Mass Ave., Boston, Mass.

Patent Attorneys.

BALDWIN & WIGHT, 25 Grant Place, Washington, D. C. Experienced in securing patents on paper machinery.

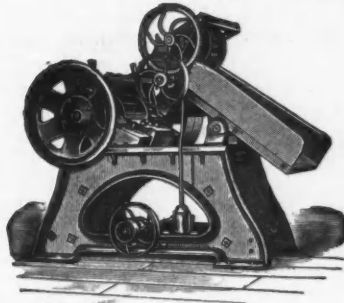
Rags, Paper Stock, etc.

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

H. C. CLARK & SON MACHINE CO.

Manufacturers of Paper Mill Machinery,

LEE, MASS.



*Revolving Paper Cutters,
Rag Cutters,
Cylinder Paper Machines,
Washing and Beating Engines,
Chilled Iron and Paper Calenders,
Fan and Stuff Pumps,
Engine Roll Bars and Bed Plates,
Cylinder Molds, Marshall Drives,
Slitters and Rewinders, Reels,
Dryers with Improved Packing Boxes,
Wet Machines,
Gun Metal and Rubber Rolls,
Rolls Reground.*

BOYLE, LUKE, 390 West Broadway, New York.

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

FLYNN, MICHAEL, 54 Columbia Street, Brooklyn, New York.

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

GRUNDY & SONS, LTD., JAMES, Chorley, England, supply new and old rags of highest quality for paper makers. Enquiries solicited.

HILLS, GEO. F. '08-112 Cliff Street, New York.

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

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

McGUIRE, MICHAEL, 100 and 102 Tenth Avenue, New York.

ROSENBAUM, INC., L., 316 Lafayette St., New York City. Packers exclusively of new cuttings.

SIMMONS, JOHN, SONS, Paper and Paper Stock. 28 and 30 South Marshall Street (formerly Decatur Street), Philadelphia, Pa.

Special Machinery.

DIETZ MACHINE WORKS, experienced builders of special machinery with well equipped modern shop, can quote low prices in machine building. Send drawings, 126-128 West Fontaine Street, Philadelphia, Pa.

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

Straw Pulp.

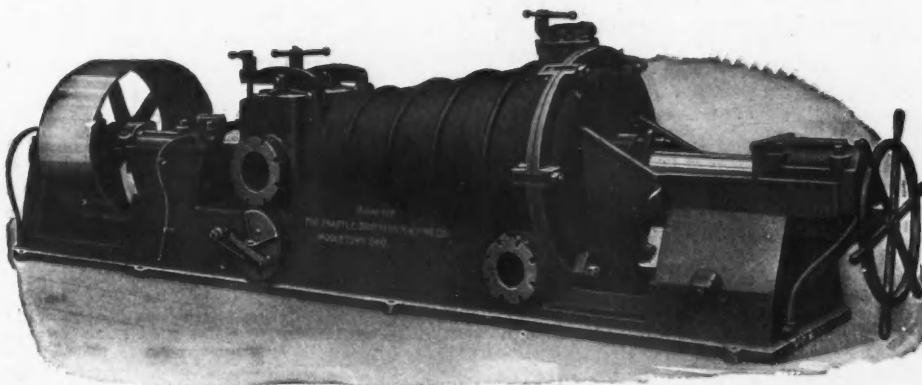
SCANDINAVIAN-AMERICAN TRADING CO., Produce Exchange, New York. All other kinds of Pulp.

THE WANT AND FOR SALE
COLUMNS OF THE
PAPER TRADE JOURNAL
ARE MESSENGERS OF PROFITS TO
YOU.
WHY NOT TRY THEM?

Job Lots, Rejections, Side Rolls Wanted

SPOT CASH paid for jobs in bond paper, white or colors, any grade that will cut down to 11 x 17, any weight. Send samples, with lowest spot cash prices. No lot too small, and none too large.

MIDWEST PAPER CO., 732 Federal St., Chicago, Ill.



The
**Shartle Bros.
Machine Co.**
Middletown
Ohio

New York Market Review

Office of the PAPER TRADE JOURNAL,
WEDNESDAY, September 4, 1918.

The Labor Day holiday this week has tended to make the New York market a trifle duller than it has been in past weeks. Many people took advantage of the holiday and left town for several days, consequently the volume of business transacted was not quite up to normal.

News print manufacturers are looking for a considerable drop in the consumption of news print in the near future. On last Sunday the new order of the pulp and paper section of the War Industries Board went into effect, and nearly all papers cut down their feature sections. A continuance of this cut will save a considerable amount of news print. The demand continues strong for this grade of paper, but the prices have not changed this week.

Fine papers have been a little firmer this week. The quotations have remained steady since their general advance of last week, but there is a continued scarcity of all grades, nevertheless. Bleached papers grow scarcer daily, and the time when there will be no more bleached papers in the market is not very far off. Sulphite papers have, of course, been very active because of the lack of bleached papers.

There is still a very strong demand for all grades of wrapping paper. The Government is a large user of kraft paper at the present time, so mills must now produce enough to supply Government wants, and also ordinary civilian demands. Manilas and screenings are also in good demand, and there is a scarcity of these two grades. The quotations have not changed this week, however, and all grades of wrapping paper are being quoted the same as last week.

The board market continues to strengthen. Manufacturers report that there is a good demand and that they are able to dispose of all the board that they produce. The tendency of the market is, at present, toward higher prices, but up until the time that this is written, no changes in the quotations have been reported.

The market for tissues continues firm. While there have been no changes as far as quotations go, the market is, nevertheless, very strong. It is very difficult to obtain tissues.

A Correction

The statement in the Market Review in the PAPER TRADE JOURNAL last week that tissues had been classed as nonessential was misleading. Tissues have been placed with all other papers in class C for priorities in production and class 4 for priorities for coal.

Chemical Pulp

The pulp market is very strong just now. The activity in foreign pulps has not decreased to any notable extent during the week, and all foreign pulps continue to move rapidly. There is no bleach sulphite being manufactured now, and the chances are that there will not be any great quantities of it in the market until after the first of next year. Pulp men are inclined to believe that England will receive the main benefit of the recent treaty between the Allies and Sweden, and that when Swedish pulp is exported the bulk of it will go to Great Britain. They admit, however, that when the United States starts shipping goods to Sweden again that pulp may be carried back in the ships which took the commodities across. Nearly all chemical pulps are being quoted higher this week than last.

Mechanical Pulp

The ground wood market is still poor. The market continues in bad shape, and the long expected strengthening has not yet arrived. Grinders are not selling large quantities of mechanical pulp, and they continue to store up surplus stocks. With the dry season at hand, it would be supposed that surplus stocks would be rapidly consumed, but mechanical pulp dealers assert this is not so. The high price of news sulphite has created a bigger

demand for ground wood, but in spite of this the price continues at \$27@30, f. o. b. mill.

Rags

The rag market continues dull. Several grades of new and old rags are quoted lower this week than they were last, and this shows that the market is in poor shape. Dealers and packers are confident, however, that mills will soon be buying rags again, and at that time the market will strengthen considerably. Roofing stock, which was very active last week, has fallen off this week, and there are practically no other grades which have fared better.

Bagging

All grades of bagging, with the exception of bright bagging, continue quiet. Bright bagging seems to be the only grade which the mills are buying in great quantities, and there is no other grade in active demand. The quotations have been steady during the week and there have been no changes. However, as is the case with rags, the market will show up much better when mills start buying bagging again.

Paper Stock

The paper stock market continues to strengthen. Flat stock, manilas and news continue in the best demand. Strictly folded news has again advanced and is now being quoted at 1.05@1.10. Old krafts, which have been in poor demand during the past few weeks, are now showing up stronger, and while the price has not been affected, dealers report that the market is much stronger. Colored shavings are the only item on the paper stock list that is being quoted lower this week, and these have fallen to 1.55@2.00.

Twines

The twine market continues firm. There have been no changes in the quotations since last week, but their recent advance explains why they are not higher. All grades are in good demand, but there is some difficulty in obtaining stock from the mills. Paper makers' twine balls continue to be the most active grade.

HOLYOKE LABOR SITUATION

(Continued from page 14.)

Harry W. Alexander, assistant to President, George A. Galliver of the American Writing Paper Company, Chairman of the Publicity Committee. Mr. Alexander has appointed the following members on his committee: George E. Squier, Fred Webster, Advertising Manager American Writing Paper Company; George A. Savoy, National Blank Book Company; Fred T. Burkhardt, Parsons Paper Company; Edward B. Mullen, Publicity Department, American Writing Paper Company.

Lieut. Hayward Returns to Camp Dix

Lieut. Francis C. Hayward, former treasurer of the Whitmore Manufacturing Company, has gone to Camp Dix, Wrightstown, N. J., after a week's stay in this city. He returned from the trenches a week ago and won official recognition for bravery during one of the fierce engagements with the Huns. Lieut. Hayward was returned to this country to become instructor.

Alden Paper Co. to Erect Warehouse

P. J. Kennedy & Co., paper mill contractors, will erect a stockhouse at 241 Maple Street for the Alden Paper Company. The structure will be one-story high, 61 feet by 69 feet and will cost \$10,000. The Alden Paper Company will specialize in union water marked papers.

Consolidated Pulp Products Co. Incorporates

SAN FRANCISCO, Cal., August 29, 1918.—The Consolidated Pulp Products Company.—To manufacture articles from wood or fiber pulp. Principal place of business, San Francisco. Capital stock, \$100,000, 1,000 shares at \$100 each; amount subscribed, \$400. Subscribers: Sidney S. Smith, Peter Grant, J. P. Raymond, A. T. O'Connell, 1 share each.

IMPORTANT

The paper quotations presented herewith are more or less nominal, as most of the mills have withdrawn quotations, due to unusual conditions.

Market Quotations

NEW YORK
Trade Securities

Bids and asked quotation of securities listed on the Stock Exchange companies engaged in the manufacture of paper as reported on September 4, 1918, are as follows:

	Bid.	Asked.
American Writing Paper Company, pref.....	37	37 1/2
American Writing Paper Company, 5s.....	59	—
International Paper Company, pref., stamped.....	61	—
International Paper Company, old pref.....	80	100
International Paper Company, Com.....	35 1/4	36
Union Bag and Paper Corporation, new.....	74	78

Paper

Bond	15	@	40
Ledgers	14	@	36
Writing—			
Extra Superfine..	21	●	—
Superfine	19	●	—
Tub Sized	14	●	—
Engine Sized.....	12	●	—

News—f. o. b. Mill—			
Rolls, contract ..	3.50	@	4.00
Rolls, transient..	3.75	@	4.25
Sheets, f. o. b.			
N. Y.	4.50	@	5.00
Side runs	4.75	@	5.00

Book—f. o. b. N. Y.—			
S. & S. C.....	9.50	@	10.00
M. F.	9.00	@	9.50
Coated and			
Enamel	11.00	@	11.50
Lithograph	10.50	@	11.00

Tissues—f. o. b. N. Y.—			
White, No. 1.....	1.15	@	1.35
White, No. 2.....	1.10	@	1.20
Manila, No. 1.....	1.10	@	1.20
Kraft	—	●	—
Colored	1.50	@	3.00
Anti-Tarnish	1.35	@	1.50

Kraft—f. o. b. N. Y.—			
No. 1 Domestic..	10.50	@	11.50
No. 2 Domestic..	9.00	@	10.00
Imported	—	●	—
Screenings	4 1/2	@	—

Manila—			
No. 1 Jute.....	—	●	—
No. 2 Jute.....	—	●	—
No. 1 Wood.....	6.50	@	7.00
No. 2 Wood.....	5.50	@	—
Butchers'	5.00	●	—

Fibre Papers—			
No. 1 Fibre.....	6.50	@	6.75
No. 2 Fibre.....	5.50	@	—
Card Middles	4.00	●	—
Common Bogus	3.25	@	—

Boards, per ton, f. o. b. N. Y.—			
News	75.00	@	80.00
Straw	70.00	@	75.00
Chip	70.00	@	75.00
Binders Board..	70.00	@	75.00
Manila Lined C/p.	85.00	@	90.00
Wood Pulp	85.00	@	—
Tag Board	140.00	@	220.00

Mechanical Pulp

(F. O. B. Pulp Mills.)

No. 1 f. o. b. Mill..	27.00	@	30.00
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Chemical Pulp

(Ex-Dock, New York.)

Sulphite (Foreign)—			
Bleached	10 1/2	@	11
Easy Bleaching..	6.25	@	6.50
No. 1 Unbleached	6.00	@	6.25
No. 2 Unbleached	5.75	@	6.00
Kraft (Foreign) ..	6.00	@	6.25
(Domestic F. O. B. Mills.)			
Sulphate—			
Bleached	6.50	@	7.00
Sulphite (Domestic)—			
Bleached	7.50	@	8.00

Domestic Rags

Prices to Mill f. o. b. N. Y.	
Shirt Cuttings—	
New White, No. 1	14 1/4 @ 15 1/4
New White, No. 2	9 1/2 @ 10
Silesias, No. 1...	10 @ 10 1/2
Washables	9 1/4 @ 10
Fancy	9 1/4 @ 10

Cottons—according to grades—		
New Blue	8 1/4 @ 9 1/4	
New Black Soft..	5 @ 5 1/2	
New Light Sec'ds	6 @ 6 1/2	
New Unbleached..	12 @ 12 1/2	
Khaki Cuttings..	8 1/4 @ 9	
Blue Overall	9 1/2 @ 10	
Corduroy	5 @ 5 1/2	
New Canvas	10 @ 11	
New Black Mixed	4 1/4 @ 4 1/2	

Whites, No. 1—		
Repacked	7 1/4 @ 8 1/4	
Miscellaneous ..	6 1/4 @ 6 1/2	
Whites, No. 2—		
Repacked	5.25 @ 5.50	
Miscellaneous ..	4.50 @ 4.75	
St. Soiled Whites..	3.50 @ 3.75	
Thirds and Blues—		
Repacked	4.37 1/2 @ 4.75	
Miscellaneous ..	3.75 @ 4.00	
Black Stockings ..	3.75 @ 4.00	
Cloth Strippings..	3.25 @ 3.35	

Roofing Stock—		
No. 1.....	3.20 @ 3.30	
No. 2.....	3.10 @ 3.15	
No. 3.....	3.00 @ 3.10	
No. 4.....	2.25 @ 2.75	
No. 5A.....	2.55 @ 2.65	
B.....	2.50 @ 2.60	
C.....	.90 @ —	

Foreign Rags

New White Cuttings..	nominal
Unbleached Cottons..	nominal
Light Flannelettes..	nominal
New Light Silesias..	nominal
New Light Oxford..	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 Ex. Light Prints	nominal
Ord. Light Prints..	nominal
Medium Light Prints	nominal
Dutch Blue Cottons..	nominal
Ger. Blue Cottons..	nominal
German Blue Linens.	nominal
Checks and Blues..	nominal
Dark Cottons	nominal
Shoppery	nominal

Bagging

Prices to Mill f. o. b. N. Y.	
Gunny No. 1—	
Domestic	4 1/4 @ 4 1/2
Foreign	4 1/4 @ 4 1/2
Bright Bagging ...	4.25 @ 4.50
No. 1 Scrap.....	3.75 @ 4.00
Sound Bagging	3 1/4 @ 3 1/2
Mixed Bagging ...	3 @ 3 1/4
Wool Tares, light..	4 1/2 @ 4 1/4
Wool Tares, heavy..	4 1/4 @ 4 1/2
Manila Ropes—	
Foreign	7 1/2 @ 8
Domestic	7 1/2 @ 7 1/4
New Bur. Cut.....	5.00 @ 5.25
Hessian Jute Threads	6.00 @ 6.25

Twines

India, No. 6 basis—		
Dark	20 @ 22	
Light	21 @ 23	
B. C., 18 basis.....	32 @ 36	
A. B., Italian, 18 basis	70 @ —	
Finished Jute—		
Dark, 18 basis...	28 @ 30	
Light, 18 basis...	31 @ 32	
Jute Wrapping, 2-6 ply—		
Extra No. 1.....	33 @ 35	
No. 1	30 @ 33	
No. 2	27 @ 29	
Paper Makers' Twine		
Balls	21 @ 23	
Box-Twine, 2-4 ply.	23 @ 25	
Jute Rope	25 @ 45	
Amer. Hemp, 6....	nominal	

Sisal Hay—		
No. 1 Basis.....	22 1/2 @ 24	
No. 2 Basis.....	19 1/2 @ 23	
Sisal Lath Yarn—		
No. 1	21 1/4 @ 21 1/2	
No. 2	19 1/2 @ 20 1/2	
Manila Rope	33 @ 36	

Old Waste Papers

(f. o. b. New York.)

Shavings—			
Hard White, No. 1	5.50	@	5.87 1/2
Hard White, No. 2	4.50	@	4.60
Soft White, No. 1	4.50	@	4.75
Colored, No. 1...	1.55	@	2.00
Flat Stock—			
Stitchless	1.95	@	2.05
Over Issue Mag.	1.90	@	2.00
Solid Flat Book.	1.80	@	1.85
Crumpled, No. 1.	1.00	@	1.20
Solid Book Ledger.	3.00	@	3.25
Ledger Stock	2.00	@	2.25
No. 1 White News	1.35	@	1.43
New B. B. Chips...	.80	@	.85
Manilas—			
New Env. Cut..	3.00	@	3.25
New Cut, No. 1.	2.50	@	2.60
Extra No. 1 Old.	1.40	@	1.50
No. 1 Old.....	1.30	@	1.35
No. 2 Old.....	1.20	@	1.25
Bogus Wrappers...	.80	@	.85
Old Krafts	3.85	@	4.00
News—			
Strictly Overissue	1.05	@	1.15
Strictly, Folded..	1.05	@	1.10
No. 1 Mixed Paper	.90	@	.95
Common Paper .....	.65	@	.70

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Mill Price to Jobbers.		
No. 1 Rag Bond...	20 @ 21	
No. 2 Rag Bond...	18 @ 19	
Sulphite Bond	12 @ 12 1/2	
Cheap Ledger	16 @ 12	
Superfine Writing..	22 @ 23	
No. 1 Fine Writing	15 @ 16	
No. 2 Fine Writing	13 1/2 @ 14	
No. 3 Fine Writing	12 1/2 @ 13	
No. 1 M. F. Book..	8 @ 9 1/4	
No. 1 S. & S. C.		
Book	8 1/4 @ 9 1/4	
Coated Book	9 1/4 @ 12	
Coated Label	9 1/4 @ 10 1/4	
News—Rolls mill..	3 1/2 net cash	
News—Sheets mill.	4 1/4 net cash	
No. 1 Manila	7 @ 7 1/2	
No. 1 Fibre.....	6 @ 6 1/2	
No. 2 Manila	5 1/4 @ 5 1/2	
Butchers' Manila ..	5 @ 5 1/2	
No. 1 Kraft.....	9 @ 10	
No. 2 Kraft	8 1/2 @ 9	
Wood Tag Board..	5 1/4 @ 5 1/2	
Screenings	4 @ 6	
Boards, per ton, delivered.		
Plain Chip	65 @ 70	

Solid News	75.00	@	80.00
Manila Lined Chips ..	—	@	85.00
Container Liner	95.00	@	100.00
Solid Wood Pulp.....	90.00	@	100.00
Straw Board	60.00	@	65.00
Filled Pulp Board..	85.00	@	90.00

Old Papers

Shavings—			
No. 1 Hard White	4.50	@	4.70
No. 1 Soft White	3.50	@	3.75
No. 2 Soft White	1.75	@	2.00
No. 1 Mixed.....	1.25	@	—
No. 2 Mixed.....	1.00	@	—
Ledgers & Writings	2.00	@	2.25
Solid Books	1.35	@	1.50
Blanks	1.50	@	1.60
No. 2 Books, light.	1.20	@	1.30
Extra No. 1 Manila	2.75	@	3.00
No. 1 Manilas.....	1.15	@	1.25
Folded News (over-issue)	1.00	@	—
Old Newspapers...	.75	@	.85
Mixed Papers .....	.75	@	.85
Straw Clippings ..	.75	@	.85
Binders' Chippings.	.75	@	.85

BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds .....	.12	@	—
Ledgers .....	.15	@	—
Writings—			
Superfine .....	.18	@	—
Fine .....	.15	@	—
Books, S. & S. C..	.11	@	—
Book, M. F. ....	.10	@	—
Book, Coated .....	.11	@	—
Label .....	.13	@	—
News, Sheets .....	.05 1/2	@	—
News, Rolls .....	.04	@	—
Manilas—			
No. 1 Manila.....	.07 1/2	@	—
No. 1 Fibre.....	.08	@	—
No. 1 Jute.....	.10	@	—
Sulphite, No. 1...	.09	@	—
Kraft Wrappings...	.09	@	—
Common Bogus ...	3.25	@	—

These prices are F. O. B. MILL.		
Chip Board		

Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

FOR THE WEEK ENDING SEPTEMBER 3, 1918.

SUMMARY.

Cigarette papers	115 cs.
Miscellaneous papers	21 cs.

MISCELLANEOUS PAPER.

Geo. Lueders, Marseilles, 4 cs.

American Express Co., Marseilles, 17 cs.

CIGARETTE PAPER.

Liggett & Myers Tobacco Co., Marseilles, 115 cs.

PAPER STOCK.

E. J. Kellar & Co., Marseilles, 82 bls.

IMPROVEMENTS IN PULP MACHINE

(Continued from page 46.)

passing over said receptacle, said drum being adapted to press pulp onto said felt belt, means for increasing the thickness of portions of the belt to cushion pressure exerted between said drum and said felt belt, and means for removing moisture from said pulp through said increased portion of the belt.

2. In a machine of the character described, a receptacle containing pulp, a drum journaled in said receptacle and partly immersed in the pulp, a felt belt trained to contact with the periphery of said drum, means for rotating said belt, means arranged within said belt for increasing the thickness of portions thereof to cushion pressure exerted between said drum and said felt belt, and means for removing moisture through said increased portion of the belt.

3. In a machine of the class described, a receptacle containing pulp, a felt belt passing over said receptacle, a drum journaled in said receptacle and adapted to press a sheet of pulp onto said belt, a second belt engaging a portion of said first named belt to cushion pressure between said drum and said first named belt, and means for removing moisture from said sheet of pulp through both of said felt belts.

4. In a machine of the character described, a receptacle containing pulp, a belt passing over said receptacle, a drum journaled in said receptacle and adapted to press a sheet of pulp onto said belt, a second felt belt arranged between the upper and lower runs of said first named belt and engaging a portion thereof to cushion pressure between said drum and said first named belt, and suction means for removing moisture from said sheet of pulp through both of said belts.

5. In a machine of the character described, a receptacle containing pulp, a felt belt passing over said receptacle, a drum journaled in said receptacle and adapted to press a sheet of pulp onto said belt, suction means for removing moisture from said sheet of pulp, and means for increasing the thickness of said belt over said suction to protect the pulp sheet against the influence of the suction.

6. In a machine of the character described, a receptacle containing pulp, a drum journaled in said receptacle, a couch roll arranged over said drum, a felt belt trained around said couch roll, said drum adapted to press a sheet of pulp onto said belt, a second felt belt arranged within said first mentioned belt moving in unison therewith in engagement with a portion thereof to protect the pulp sheet against pressure between said couch roll and said drum, and suction means arranged to remove moisture from said pulp sheet through both of said belts.

St. Louis Trade News

[FROM OUR REGULAR CORRESPONDENT.]

ST. LOUIS, Mo., August 31, 1918.—A tremendous demand for envelopes has arisen in St. Louis as a result of the various gov-

ernmental and other war activities. This, in addition to the commercial business, which is heavy, has caused an unprecedented demand for envelopes, with the result that all factories in St. Louis are taxed to the utmost. As an example, more than 6,000,000 envelopes were used in St. Louis during the Third Liberty Loan, and while no orders have as yet been placed and requirements are not definitely known, it is believed that even more will be required for the Fourth Loan, which campaign will start next month. For the Second War Fund of the Red Cross the campaign required about 3,000,000 envelopes. St. Louis is the headquarters for the Thrift Stamp campaign in Missouri, and it is estimated that between 10,000,000 and 12,000,000 envelopes have been required, and the campaign is not yet closed. Factories also are being urged to handle government business, which is difficult in face of the necessity of taking care of their regular customers. As in other lines, labor is scarce.

The Seaman Paper Company several months ago moved into the six-story building at 1006-1008 Clark avenue, in the Cupples District. This is a fireproof building, comprising 40,000 square feet, and is equipped with hydraulic elevators and sprinklers. The Seaman branch in St. Louis was opened six years ago with an 8 x 10 office in the Rialto building, and the business has steadily grown under the management of T. H. Baker until it now amounts to \$1,500,000 annually. The branch moved into its present quarters from 316 S. Fourth street, where it was located for three years. Mr. Baker came to St. Louis in 1892, having previously been with George H. Friend & Co. of West Carrollton, O. He has wide experience both in the mill and sales end.

During the heavy rain of last Saturday, the basement of the Evertz-Etz Paper Company, 1542 South Seventh street was flooded, resulting in the damage of several thousand dollars worth of stock.

Boston Trade Marking Time

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., September 3, 1918.—The paper mills though oversold in practically every instance, are not seeking new business owing to their desire to conform to every Government regulation and the jobbers anxious for business, cannot accept orders with any assurance of being able to deliver the goods. The mills have practically no surplus of standard stocks and the lines of the jobbers are likewise depleted. Prices are constantly advancing to higher levels, resulting in consumers buying only for actual needs.

Some grades are practically off the market as far as a future supply is concerned, particularly Kraft, manufacturers of which are sold up until after the first of the year.

Box board is one grade which is least affected as consumers of this grade have been fearful of incurring the displeasure of the Government by being accused of hoarding stock and have made purchases only for immediate consumption. It is expected another few weeks will see greater activity for this grade with further advance in prices.

Raw materials continue to advance in price with a ready demand for any offerings which is particularly interesting to those specializing in paper stock.

While the fuel situation appears more favorable, the drought of the past two months has so affected the streams that many of the mills have been obliged to resort to the use of steam for power.

DAILY CAPACITY 300 TONS

MAIN PAPER STOCK CO., INC.

**SPECIAL GRADERS OF PAPER STOCK
NEW AND OLD COTTON RAGS**

If you have special requirements we can certainly please you.

Branch, 321 Pearl St. 25-27-29-31 Peck Slip New York City


MARX MAIER, Inc.
200 FIFTH AVENUE NEW YORK
FOREIGN AND DOMESTIC
New and Old Linen and Cotton Rags
Jute Stock, Flax and Cotton Waste

WILLIAM B. DILLON
DILLON & BARNES
Paper Mill Products and Supplies
52 VANDERBILT AVENUE NEW YORK
Telephone, 7353 Murray Hill

Atterbury Brothers
(INCORPORATED)
Wood Pulp, Rags and Paper Stock
French Caseine
145 Nassau Street (Potter Building) NEW YORK

Salomon Bros. & Co.
IMPORTERS OF
All Grades of Rags and Paper Stock
200 Fifth Avenue, NEW YORK
Cotton Waste : Linters : Ramie

Don't Guess at Important Matters
BOWSER'S SPEED OF MOTION INDICATOR
IS INDISPENSABLE



In obtaining a UNIFORM speed of machinery, and is one of the most PROFITABLE little devices ever put in a mill. Will pay for itself in 30 days. Dial 12 in. in diam. Weight, 10 lbs.
The N. P. Bowser Co., South Bend, Ind.

J. F. Patton & Co., Inc.
Agents for
Domestic Wood Pulp
of all grades
Aeolian Building
33 West 42nd Street New York

AGALITE FILLER
UNITED STATES TALC CO.
GOUVERNEUR : NEW YORK

E. J. KELLER CO., Inc.
E. J. KELLER, Pres.
200 FIFTH AVE. NEW YORK
Importers and Dealers
New and Old Cotton and Linen Rags,
Gunny Bagging, Burlap Bagging,
Ropes, Flax Waste, Cotton
Waste, Paper Stock, Wood
Pulp and Rag Pulp
Inquiries Solicited

FOREIGN and DOMESTIC
Paper Stock
New Cuttings
and Rags

CASTLE, GOTTHEIL & OVERTON

Jute Stock
Sizing, Sulphite
and Soda Pulps
200 FIFTH AVE. NEW YORK

The Mathieson Alkali Works, Inc.

WORKS AT

SALTVILLE, VIRGINIA, and at
NIAGARA FALLS, NEW YORK

“Eagle-Thistle” Brand BLEACHING POWDER

HIGH TEST

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

LIQUID CHLORINE

Pure, anhydrous, in improved and convenient packages.

Soda Ash

48 per cent. and 58 per cent.

Caustic Soda

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

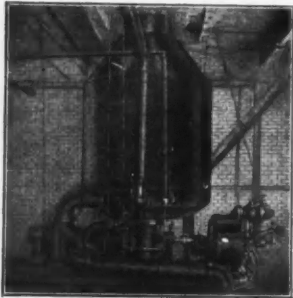
Bicarbonate of Soda

Packed in Kegs, Barrels or Bags; also Cases

Arnold Hoffman & Company, Inc.

SOLE AGENTS

PROVIDENCE: 55 Canal Street NEW YORK: 61 Broadway BOSTON: 88 Broad Street
PHILADELPHIA: Delaware Ave. and Green St. CHARLOTTE, N. C.



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

WINESTOCK DE-FIBERING AND DE-INKING PROCESS

PATENTED

Produces Strongest, Brightest and Best Pulp Obtainable from Waste Papers. Not a Mere Say-So, but a Fact.

CAPACITY—12 TO 15 TONS IN 24 HOURS

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

CASTLE, GOTTHEIL & OVERTON

200 Fifth Ave. Building SOLE SELLING AGENTS IN THE UNITED STATES **New York, N. Y.**

E. D. Jones & Sons Co., Pittsfield, Mass., Builders in the United States.
Waterous Engine Works Co., Ltd., Builders and Selling Agents for Canada, Brantford, Canada.

We Purchase Paper for Export

PROMPT payment, New York. Our overseas branches and representatives are established paper dealers of experience and organized to handle tonnage of importance. Mills seeking new profitable, permanent markets are asked to kindly communicate with us.

STORM & BULL, Inc.

Paper Exporters—Pulp Importers

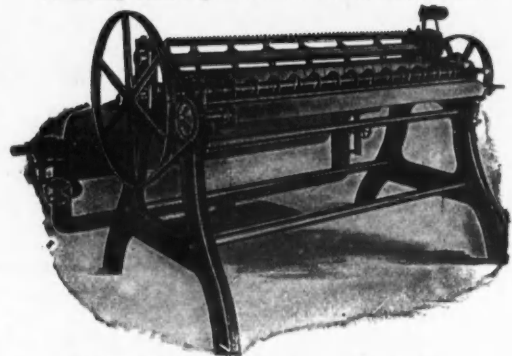
2 RECTOR ST. NEW YORK

OWN HOUSES AT:—Buenos Ayres, Montevideo, Valparaiso, La Paz (Bolivia), Christiania, Stockholm.

REPRESENTATIVES AT:—Cape Town, Melbourne, Sydney, Adelaide, Rio de Janeiro, Sao Paulo, Pernambuco, Lima, Santiago (Chile).

The "Dietz" Toilet Paper Machines

For making Toilet Paper Rolls with or without perforations



Self-Adjusting—Easy to Operate
WE ALSO MANUFACTURE

AUTOMATIC TUBE MACHINES

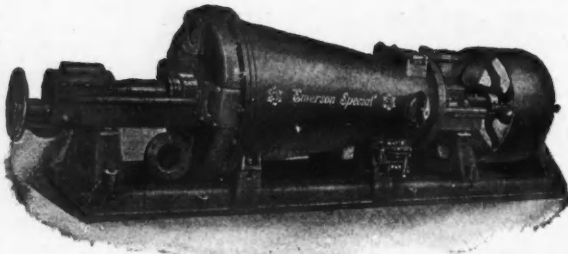
FOR MAKING TUBES FOR TOILET PAPER ROLLS
CAPABLE OF PRODUCING 3,600 WIRE STITCHED
TUBES PER HOUR

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

DIETZ MACHINE WORKS

126-128 Fountain St., Philadelphia, Pa.
Corner Waterloo St., Below Diamond St., Bet. Front and 2d Sts.

EMERSON MANUFACTURING CO. LAWRENCE MASS.



See the Second-Hand Machinery ads and note the
ABSENCE of

EMERSON BEATING ENGINES

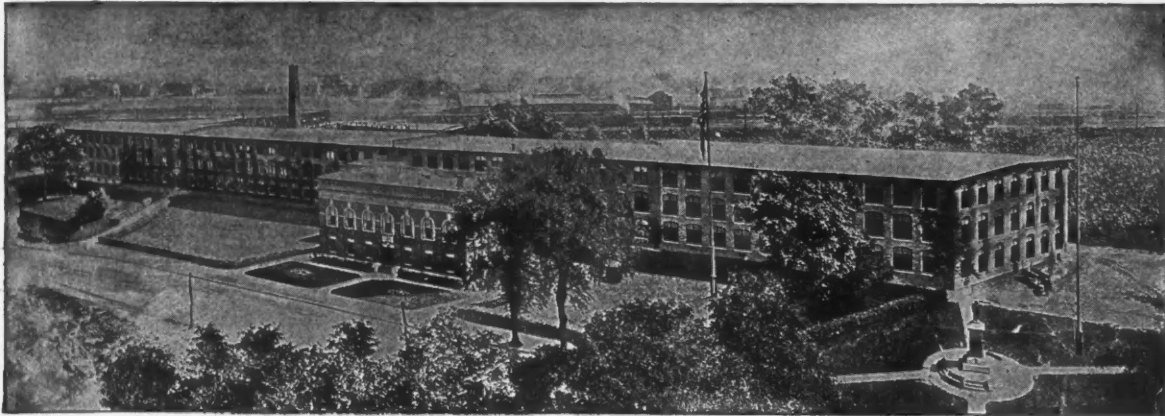
They seldom wear out and are never thrown out.
PERFECT CIRCULATION. NO "PADDLING."

The "EMERSON" JORDAN

does its work with half the power required by others of no greater capacity.

WRITE FOR DETAILS.

F. C. HUYCK & SONS ALBANY, N. Y.

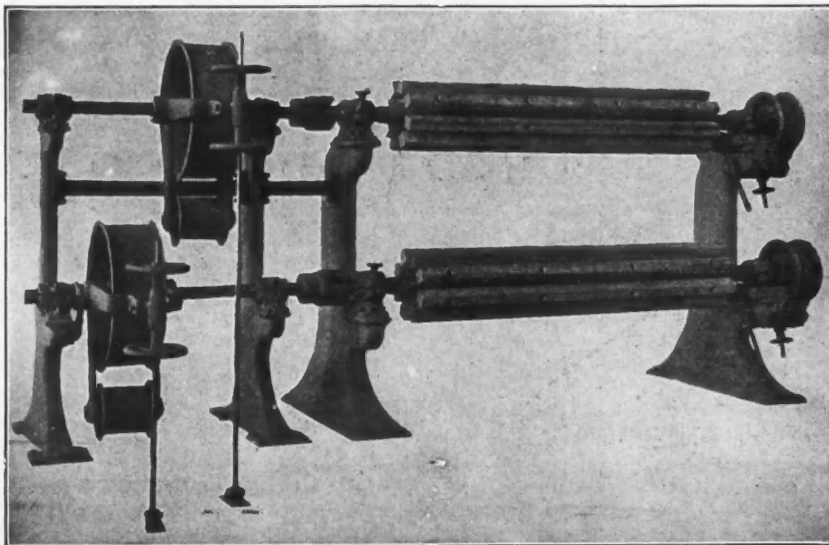


Manufacturers of Kenwood Felts and Jackets for all kinds of Paper and Pulp
Seamless Felts both for high speed machines and fine papers.



THE BLACK-CLAWSON CO. HAMILTON OHIO, U. S. A.

Builders of Paper and Pulp Mill Machinery



Sheet and Roll Pasting Machines

We issue a Catalogue which contains real information. Write for it.

FOR

**ECONOMY
QUALITY
AND
QUANTITY**

our high speed Straight Fourdrinier, Harper Fourdrinier and Cylinder Machines are unsurpassed.

Farrel Foundry & Machine Co.

ANSONIA, CONN., U. S. A.

*Largest Manufacturers
in the World of*

CHILLED ROLLS



CALENDERS

with Patent Hydraulic Lift

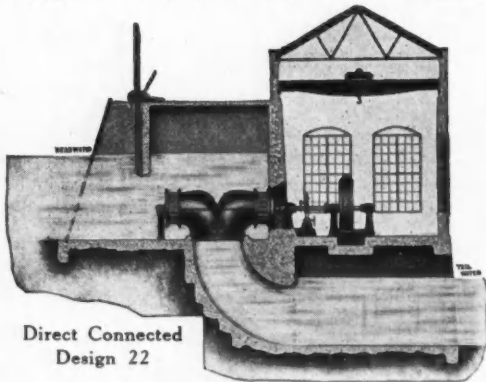
ROLL GRINDING MACHINES

Leffel Turbine Water Wheels

VERTICAL AND HORIZONTAL DESIGNS

Direct Connected, Driving Generators, Pulp
Grinders, Milling Machines, Pumps, Etc.

HIGH EFFICIENCY UNITS



Direct Connected
Design 22

WRITE FOR BULLETIN #4

THE JAMES LEFFEL & CO.

SPRINGFIELD, OHIO, U. S. A.

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The Colby Eng. Co., Inc. 70 First St., Portland, Ore.
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GRAVITY AND PRESSURE TYPES

All Sizes, to Suit Locations
No Proposition too Large or Small

WRITE OR WIRE

WE WILL CALL ON YOU

NORWOOD ENGINEERING COMPANY

FLORENCE, MASS.



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

Manufactured by **THOS. L. DICKINSON**, 64 NASSAU STREET
NEW YORK

Successor to John Dickinson, Established 1796.
Agents for Great Britain, C. W. BURTON, GRIFFITHS & CO.,
Ludgate Square, London.

PULP STONES

of absolutely the finest quality

LOMBARD & CO.

Importers and Dealers

236-238 A Street : BOSTON, MASS.

Branch at Montreal, Canada

VERA ROSIN SIZE

Guaranteed to Be Absolutely Clean and Pure

SHIPPED IN BARRELS and TANK CARS

OUR VERA PAPER SIZE

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

OUR VERA MILL SIZE

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

OUR VERA BEATER SIZE

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

VERA CHEMICAL COMPANY

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Stoneham, Mass.

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COLORS
CHEMICALS
OILS

MARDEN, ORTH & HASTINGS CORP.
 (Established 1837)
 61 Broadway, NEW YORK

Boston Philadelphia Chicago Cleveland Seattle San Francisco

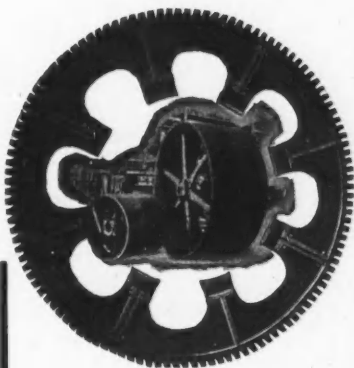
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 905-914 PARK ROW BLDG.
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 DEALERS IN

New and Old Cotton and Linen Rags, Gunny Bagging, Burlap Bagging, Rope, Hosiery Clips, Black Cotton Stockings, Cotton and Wool Waste.

PAPER MAKERS' SUPPLIES

Power-Transmitting Machinery

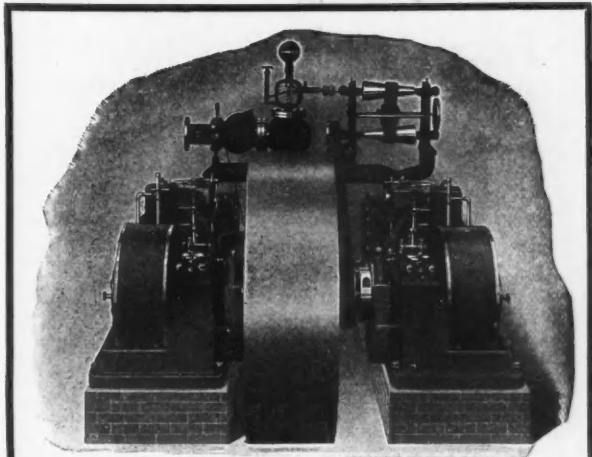


We cast and finish Sheaves (with English or American grooves), Pulleys, Band Wheels, Fly Wheels, Gears, Sprocket Wheels, &c.

We design and manufacture complete rope drives. Our machine-molded sheaves are perfect in balance, accurately

finished and free from flaws injurious to the rope. Rope drives designed by us are successful. Write us.

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Are You Getting Maximum Production from Your Paper Machine?

Or do you lose time making speed changes or because of a variable speed drive that lays down on the job every so often.

GET THE MOST OUT OF YOUR PAPER MACHINE BY USING A

Ball Variable Speed Engine

The twist of a handwheel changes the speed to any desired amount—*instantly*.

But the outstanding feature of the Ball Engine is its *dependability*.

We'll be glad to go over the matter with you.

Ask for our Variable Speed Bulletin

Ball Engine Co. Erie, Pa.

IMPROVED HIGH SPEED MACHINERY TO MAKE

PAPER BAGS

OF EVERY STYLE OF BOTTOM FOR LINED AND UNLINED BAGS

POTDEVIN MACHINE CO.
 1221 38th STREET BROOKLYN, N. Y.

ZAREMBA

PATENT

EVAPORATOR

In Mills of West Virginia Pulp & Paper Co.—12 Zarembo installations demonstrate Zarembo success in the soda pulp field.

ZAREMBA COMPANY, BUFFALO, U. S. A.

The Quality Mark
on Paper Bags & Sacks



SCHORSCH & Co.
500 E. 133rd. St. N.Y.

Taggarts Paper Co.

MANUFACTURERS OF
Catalogue, Light Weight Manilas
and Specialties

MAIN OFFICE

Sherman Bldg., WATERTOWN, N. Y.

BLEACHED SULPHITE

FOR

Writing, Book and Tissue Papers

PARSONS Pulp & Lumber Co.

EDWIN J. DEWEY, Manager Pulp Sales

Office, 1207-1210 Finance Bldg.,
PHILADELPHIA, PA.

Mill at
PARSONS, WEST VA.

Improve Your Paper by using

our

Iron Extractor

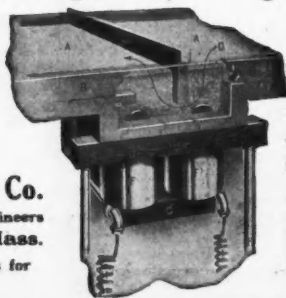
which takes out the
iron particles.

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The Roland T. Oakes Co.

Electrical Contractors and Engineers
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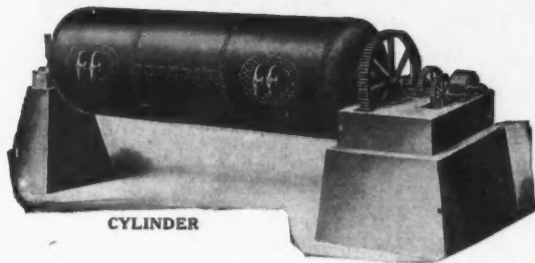
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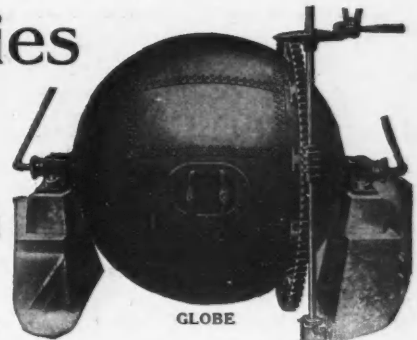
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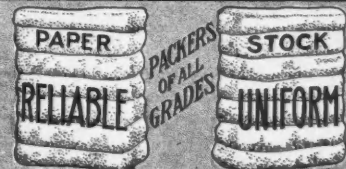
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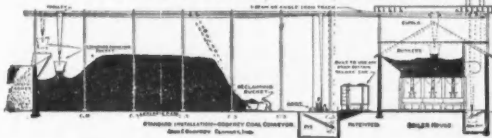
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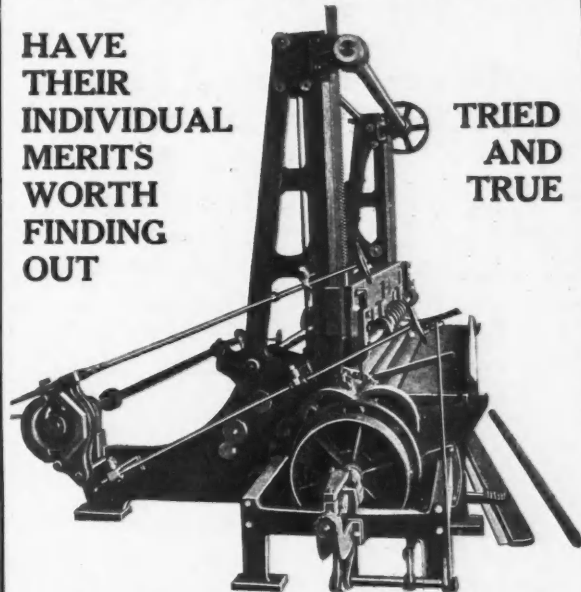
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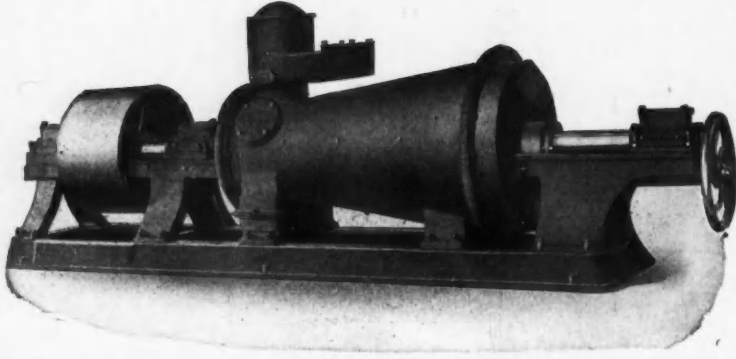
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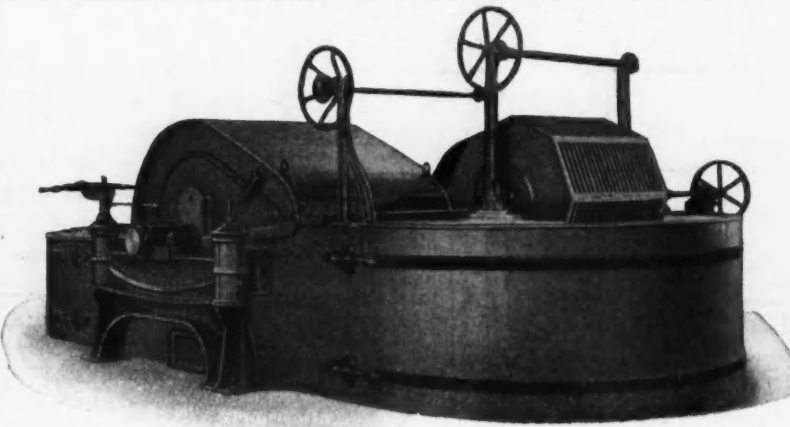
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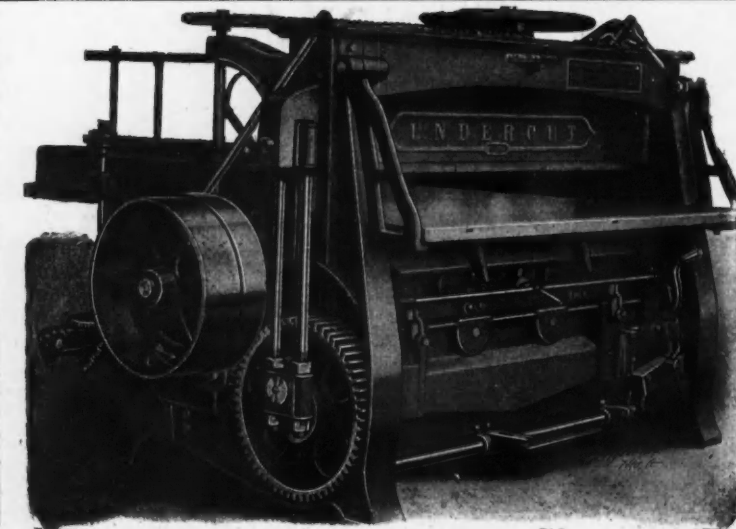
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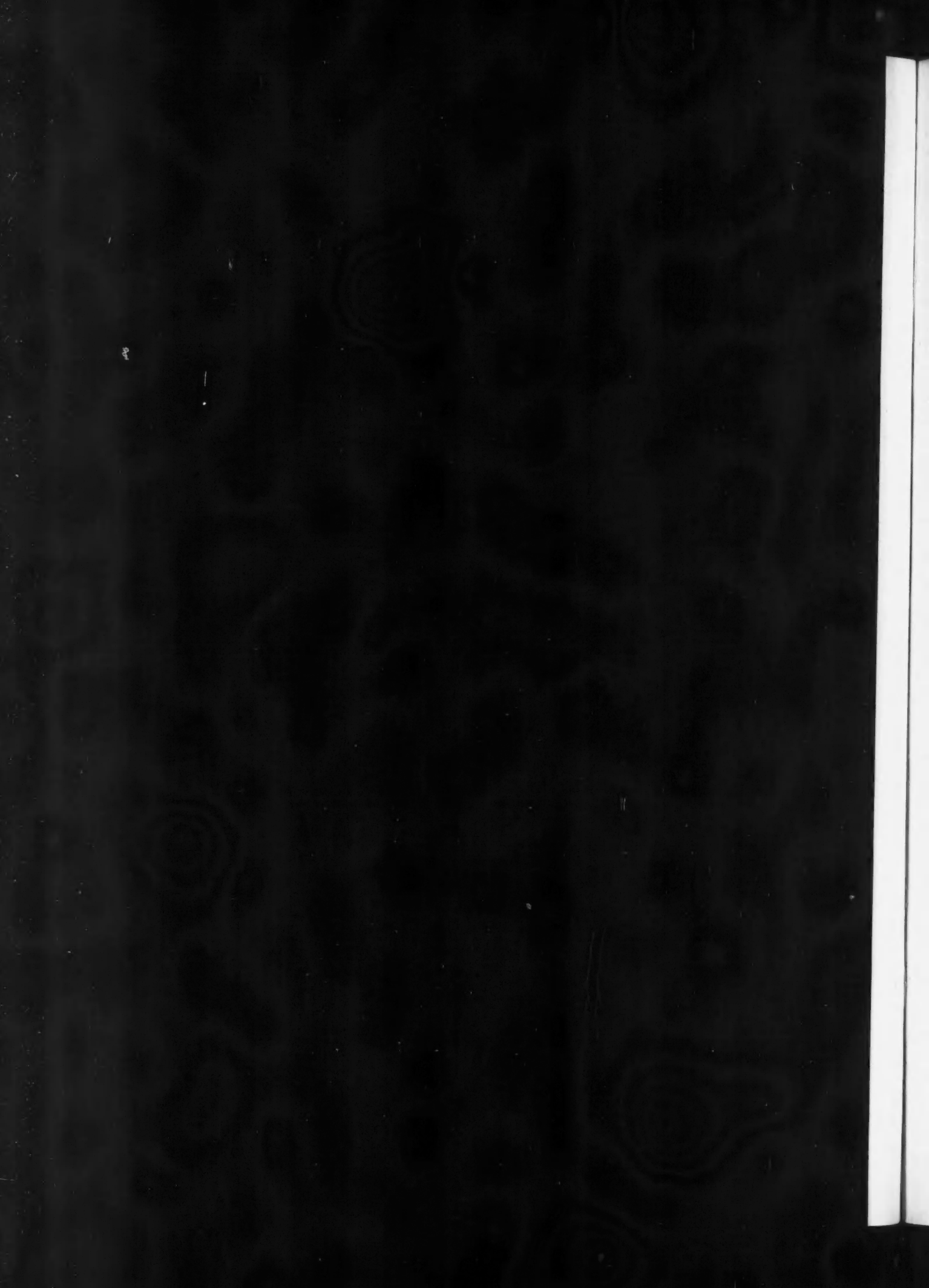
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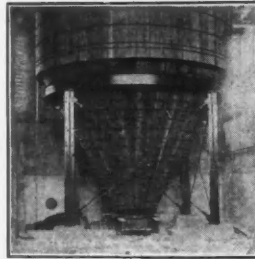
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