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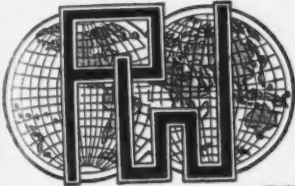






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BUYER'S GUIDE : Classified Index to Advertisements

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AGALITE. Union Talc Co.....	Page 71	COLORS AND DYESTUFFS (Continued) Page Marden, Orth & Hastings Corp..... 4 National Aniline & Chemical Co..... 41	MAGNETIC EXTRACTOR. Page Roland T. Oakes Co..... 6
ALUM. Pennsylvania Salt Mfg. Co..... Superior Chemical Co..... Winkler & Bro., Isaac.....	76 75 70	CONDENSERS. Westinghouse Electric & Mfg. Co..... 41	MILL COGS. N. P. Bowsher Co..... 9
ARCHITECTS AND ENGINEERS. Hardy S. Ferguson..... George F. Hardy..... Smith, F. L..... Tomlines, Thomas L..... Vitale & Rothery..... Joseph H. Wallace & Co.....	49 49 49 49 49 49	CONVEYORS. Godfrey, John F..... 71	PAPER BAGS. Schorsch & Co..... 11
ASBESTINE PULP. International Pulp Co.....	1	CRANES AND TRAMWAYS. Shepard Electric Crane & Hoist Co..... 11	PAPER BAG MACHINERY. Lockport Machine Co..... Pottevin Machine Co..... 11
BALL BEARINGS. S. K. F. Ball Bearing Co.....	27	ENGINES. Ball Engine Co..... 73	PAPER CORES. Elixman Paper Core Co..... 18
BELTING. Graton & Knight Mfg. Co.....	47	ENGINES, STEAM. Westinghouse Electric & Mfg. Co..... 29	PAPER CUTTERS. Hamblet Machine Co..... Knowlton Co., M. D..... Oswego Machine Works..... Smith & Winchester Mfg. Co..... 18
BLEACHING POWDER. Arnold Hoffman & Co., Inc..... Bush, Beach & Gent, Inc..... J. L. & D. S. Riker.....	63 6 75	EVAPORATORS. Swenson Evaporator Co..... 47 Zarembo Co..... 2	PAPER DEALERS. Dillon & Barnes..... Hamilton & Hansell, Inc..... C. L. La Boiteaux Co..... Mid West Paper Co..... National Paper Trades Exchange O'Meara Co., Maurice..... Paper Manufacturers Co..... Pulp & Paper Trading Co..... Ryan Paper Co., S. A..... Seaman Paper Co..... Strype, Fred C..... Volbrette, Jules.....
BLOTTING PAPER. Eaton-Dikeman Co.....	3	FELTS. Appleton Woolen Mills..... Draper Bros. Co..... Fitchburg Duck Mills..... F. C. Huyck & Sons..... Waterbury Felt Co..... H. Waterbury & Sons Co.....	61 39 33 67 21 20 5 97 1 43 49
CALENDER ROLLS. Farrel Foundry & Machine Co..... Lohdell Car Wheel Co.....	64 37	FILTERING SYSTEMS. Hungerford & Terry, Inc..... New York Continental Jewell Filtration Co. Norwood Engineering Co.....	20 3 5 71
CARBON TOOLS. Thos. L. Dickinson.....	71	FILTER PLATERS AND SCREENS (PER'D METAL). Harrington & King Perforating Co.....	31
CASEIN. Howe, Chas. T.....	70	FOURDRINER WIRES. Appleton Wire Works..... Wm. Cable Excelsior Wire Mfg. Co..... Cheney Bieglow Wire Works..... Eastwood Wire Mfg. Co..... Thomas E. Gleason..... Tyler Co., W. S.....	76 76 13 76 6 69
CASTINGS BRONZE. Wm. A. Hardy & Sons Co.....	39	FRICTION CLUTCHES. Caldwell Co., W. E.....	43
CHEMICAL EXPERTS. Arthur D. Little, Inc.....	49	GRINDERS. Roy & Son Co., B. S.....	19
CHINA CLAY. Miner-Edgar Co..... Star Clay Co.....	39 76	GUMMED TAPE MACHINES. Liberty Paper Co.....	47
CLAY. Vanderbilt Co., R. T.....	1	KNIVES, ETC. R. J. Dowd Knife Works..... Eagle Knife & Bar Works.....	45 39
COATING MACHINES. Mayer Coating Machines Co.....	70	KRAFT PAPERS. Brown Co..... 3	
COLORS AND DYESTUFFS. Bayer Co., Inc..... Butcher Co., L. H..... Heller & Merz Co..... Kalbfleisch Corp., The..... Kuttruff, Pickhardt & Co., Inc.....	71 69 37 65 64	KREOLITE. Jennison-Wright Co., The..... 23	

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	Page		Page		Page	
PAPER AND PULP MACHINERY (CN.)			PERFORATED METALS.			
Noble & Wood Machine Co.....	68	Harrington & King Perforating Co.....	31	Union Sulphur Co.....	69	
Norwood Engineering Co.....	71	Manhattan Perforated Metal Co.....	71	TANKS.		
Ryther & Pringle Co.....	17	PULP PROCESS.			New England Tank & Tower Co.....	69
Sandy Hill Iron & Brass Works.....	41	Castle, Gotheil & Overton.....	33	A. T. Stearns Lumber Co.....	67	
Savery, Jr., Thos. H.....	47	PULP STONES.			TIERING MACHINES.	
Shartle Brothers Machine Co.....	50, 53	Lombard & Co.....	70	Economy Engineering Co.....	71	
Smith & Winchester Mfg. Co.....	68	PUMPS.			New York Revolving Portable Elevator Co.....	49
Union Iron Works.....	73	Shartle Brothers Machine Co.....	50, 53	Revolator Co.....	49	
PAPER MAKERS' SUPPLIES.			QUARTZ, GRANULATED.			
Moray & Co.....	1	New England Quartz Co.....	3	TIMBER ESTIMATES.		
Scandinavian-American Trading Co.....	6	ROLL BARS AND BED PLATES.			Bradley, R. R.....	49
Webster Planing Mill Co.....	73	Shartle Brothers Machine Co.....	50, 53	D. E. Lauderburn.....	49	
PAPER MANUFACTURERS.			ROSIN SIZE.			
American Coating Mills.....	3	Arabol Mfg. Co.....	75	James W. Sewall.....	49	
Collins Mfg. Co.....	65	Vera Chemical Co.....	75	TOILET PAPER.		
Diamond State Fibre Co.....	2	ROTARY BLEACHERS.			Ewing Co., H. Norwood.....	51
Eastern Mfg. Co.....	13	Biggs Boiler Works Company.....	72	TRANSMISSION MACHINERY.		
Howard Paper Co.....	33	SCALES, GRAVITY.			H. W. Caldwell & Sons Co.....	64
Kalamazoo Vegetable Parchment Co.....	52	Simmons Co., John.....	33	TURBINES, STEAM.		
Missouri Pulp & Paper Co.....	73	SCREENS.			Westinghouse Electric & Mfg. Co.....	29
Stratford Paper Co.....	52	Bird Machinery Co.....	25	TWINES.		
Tatearts Paper Co.....	3	Harmon Machine Co.....	72	Columbian Rope Co.....	43	
PAPER STOCK.			Wm. A. Hardy & Sons Co.....	WATERPROOF PAPERS.		
Atterbury & McKelvey, Inc.....	73	Union Screen Plate Co.....	11	National Waterproofing Co.....	70	
Atterbury Bros.....	61	SECOND HAND PAPER MILL MACHINERY			WATER WHEELS.	
Edwin Butterworth & Co.....	35	Shartle Brothers Machine Co.....	50, 53	James Lefel & Co.....	74	
Cantavano & Bro., Vito G.....	1	SIZING.			WOOD PIPES.	
Castle, Gotheil & Overton.....	61	Corn Products Refining Co.....	47	Wyckoff & Son Co., A.....	69	
Cookson Bros.....	67	SKYLIGHTS.			WOOD PREPARING MACHINERY.	
Federal Paper Stock Co.....	71	E. Van Noorden Co.....	5	Ryther & Pringle Co.....	17	
Gumbinsky Bros. Co.....	68	SLITTERS AND REWINDERS.			Waterville Iron Works.....	2
Keller Co., Inc., E. J.....	61	Cameron Machine Co.....	73	WOOD PULP.		
Maier, Marx.....	61	Dietz Machine Works.....	64	Scandinavian-American Trading Co.....	6	
Main Paper Stock Co., Inc.....	61	Samuel M. Langston.....	53	WOOD PULP IMPORTERS.		
Mendelson Bros. Stock Co.....	52	Meisel Press & Mfg. Co.....	70	American Woodpulp Corp.....	13	
O'Meara Co., Maurice.....	21	STOKERS, MECHANICAL.			Andersen & Co., J.....	6
Pioneer Paper Stock Co.....	72	Westinghouse Electric & Mfg. Co.....	29	Bache Trading Co., Inc.....	69	
Salomon, Inc., A.....	73	SULPHATE ("KRAFT" SODA) PULP.			Beebe & Co., Ira L.....	61
Salomon Bros. & Co.....	61	Dryden Timber & Power Co., Ltd.....	65	Gottesman & Co., Inc., M.....	31	
Train Smith Company.....	1	Scandinavian-American Trading Co.....	6	Interstate Pulp & Paper Co.....	5	
Western Paper Stock Company.....	72	SULPHITE, BLEACHED & UNBLEACHED.			Lagerloef Trading Co.....	1
PAPER TESTERS.			Parsons Pulp & Lumber Co.....	New York Overseas Co., Inc.....	1	
The Ashcroft Mfg. Co.....	13	SULPHITE PULP.			Pagel & Co., Inc., A. J.....	15
Berkins & Son, Inc., B. F.....	65	Brown Co.....	57	Parsons & Whittemore, Inc.....	3	
PAPER TOWELS.			Riordon Pulp & Paper Co.....	Patton & Co., Inc., J. F.....	61	
Lehigh Paper Mills.....	2	Scandinavian-American Trading Co.....	6	Price & Pierce, Ltd.....	1	
PAPER TUBE MACHINERY.			Scandinavian-American Trading Co.....			
Dietz Machine Works.....	64					
Grissinger Machine Works.....	70					

SPECIAL CLASSIFIED DIRECTORY, PAGE 53; "WANTS" AND "FOR SALE," PAGES 50 AND 51.

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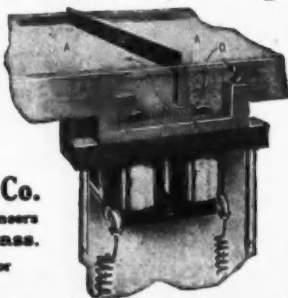
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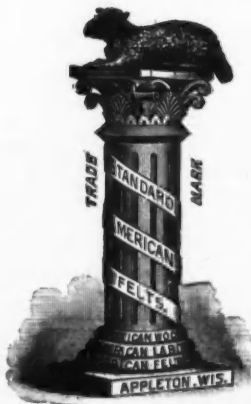
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Thursday, May 23, 1918

Table of Contents

News of the Trade:

	PAGE.
Technical Men Hold Important Meeting at Dayton.....	8
News Print Investigation to be Concluded This Week....	10
Mr. Colver on War Industries Board.....	12
Wisconsin Paper Makers Plan Water Improvement.....	14
Gatti-McQuade's Hoboken Warehouse Burns.....	14
Dill & Collins Co. Acquires Mill of M. & Wm. H. Nixon Co.	16
Folding Box Makers Meet in Cleveland.....	16
Trade News From Western New York.....	16
Canada May Extend Price of 2.85c. for News Print.....	18
Michigan Paper Company Makes Improvements.....	18
To Enlarge Plant of Beveridge Paper Company.....	18
Good Advertising for Munising Bond.....	18
Bids and Specifications for Government Paper.....	20
New York Trade Jottings.....	22
Big Interest in Red Cross Drive.....	22
Oddities in Waste Paper Supply.....	22
Report of the Executive Committee.....	26
Standard Methods of Testing Materials.....	26
Vocational Education.....	28
Recording Operations on Paper Machines.....	30
Dinner at the Dayton City Club.....	32
Report of Champion Coated Paper Company.....	35
Sulphur Production in 1917.....	35
Using Sulphite By-Liquor at Watertown.....	35
Mr. Schoonmanker's Remarks on Motors.....	36
The Castor Oil Story.....	38
Technical Men Visit the Paper Mills.....	38
Valuations of Power Plant Methods.....	40
Modern Methods in the Paper Mill Boiler Plant.....	42
Those Present at the Convention.....	48

	PAGE.
Car Shortage in Canada is Constantly Improving.....	54
Movements of Wayagamack Stock.....	54
The North American Company's Showing.....	54
Sequel to the Newfoundland Deal.....	54
Mine Props for Fuel.....	54
New Sulphite Mill.....	54
New Pulp Company.....	54
The Industry and Education.....	54
Production of Book Paper Shows Increase for April.....	55
Mill Stocks of News Print Show Decline for April.....	56
Paper Prices Advance in Toronto.....	58
Wood Pulp Rates Increased.....	58
Imports of Paper and Paper Stocks.....	60
Exports of Paper and Paper Stocks.....	60
Paper Trade to Play Golf.....	66
Wortendyke Manufacturing Company Sends Men to Colors.....	66

Editorial:

The Red Cross Drive.....	34
Vocational Education.....	34
About the Official Bulletin.....	34

Obituary:

Harold Ackley Banker.....	66
---------------------------	----

Market Review:

New York Market Review.....	58
Market Quotations.....	59
Miscellaneous Markets.....	62

WANTS AND FOR SALE ADVERTISEMENTS—50 and 51.

TECHNICAL MEN HOLD BIG MEETING AT DAYTON

Eleventh Gathering of the Chemists and Engineers Is One of the Most Interesting and Delightful in the History of This Branch of the Paper Making Industry—Mayor Switzer's Felicitous Welcome to the City Is Especially Appreciated—Helpful Reports Are Made By Members of the Various Standing Committees—Mr. Williamson Arouses Much Interest in His Report.

SPECIALY REPORTED FOR THE PAPER TRADE JOURNAL BY C. E. BURROUGHS

DAYTON, Ohio, May 20, 1918.—The 1918 Spring meeting of the Technical Association of the Paper and Pulp Industry—the eleventh gathering of this most important branch of the science of paper making—was held in Dayton on Thursday and Friday of last week and it may be recorded as the unanimous opinion of those who were in attendance that no more delightful gathering of chemists and engineers has ever passed into the official records of this rapidly growing organization. What with the most superb weather conditions that could be desired, and with luncheons and dinners given by most delightful hosts, with business sessions at which papers were presented and discussions engaged in concerning subjects that at this present war-time period are fraught with most serious import to the paper industry at large, the Committee of Arrangements from executive heads down are all deserving of unstinted praise and congratulation. And as for the place chosen for the meeting, no finer city can be found than Dayton, no hotels with more courteous and efficient management and no better paper makers than the gracious hosts of the beautiful Miami valley. Thanks, sincere and unexaggerated, are due them all and the two days of the prearranged programme passed all too quickly, while the 150 or more members and guests attending carried away with them the feeling that Dayton is worth visiting again.

Dayton's Rapid Rise to Prominence

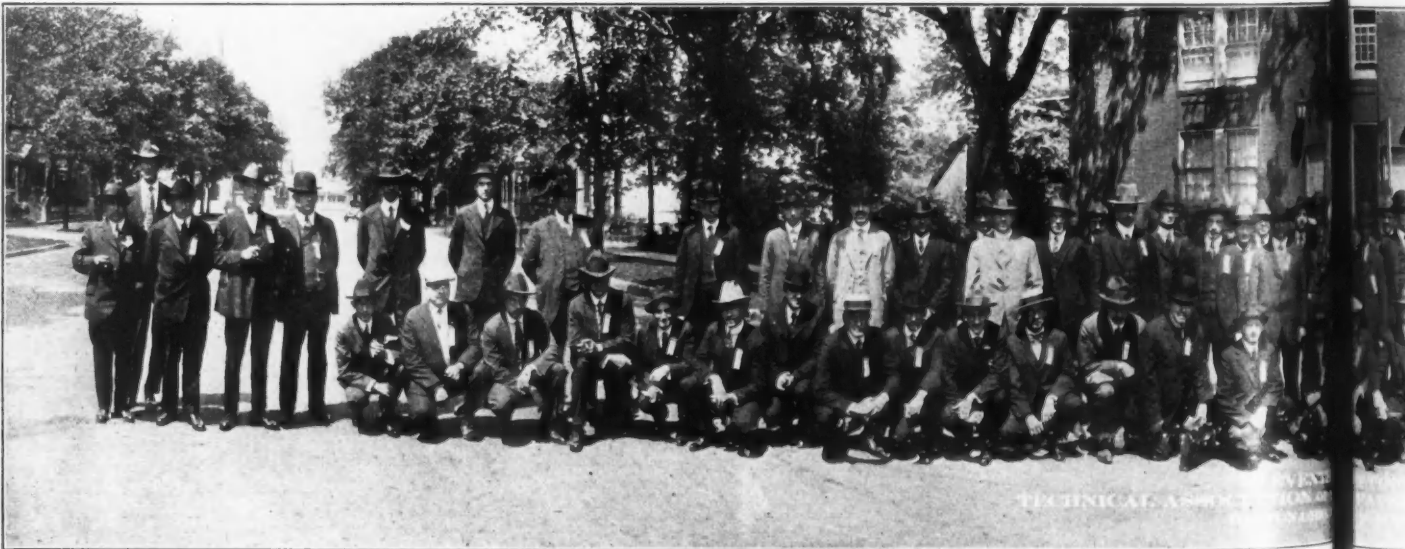
A little over five years ago Dayton and the Miami valley suffered a most disastrous flood, but in less than 24 hours after the waters receded, Dayton began to rise and she is still climbing, until today with a conservatively estimated population of 160,000, she will bear a very favorable comparison to many cities twice and even three times her size. Few cities anywhere possess her community spirit, not many excel her

in natural location, and certainly none at present surpass her in the actual work of helping to win the war.

That the famous Wright brothers, Wilbur and Orville, came from Dayton and later left Dayton to win the recognition they so richly deserved only emphasizes the Biblical proverb of prophets without honor in their own country. It is no reflection upon Dayton to say that these two dreamers who saw visions and wandered far and won international recognition for their inventions abroad in France and England before returning to this country, were destined to see their dreams come true in that best of places—their old home town—although death has claimed one of them. But the honor that is theirs today and the glorious pride that is yet to come when the war is over and the boys come home, is destined to make Dayton one of the most famous cities in history anywhere.

Auspicious Place for the Meeting

While there are paper making centers in this country that may surpass the Miami valley in this respect and which therefore might equally well or even better have been chosen for the Spring meeting of the Technical Association in every given year, it may be said without fear of even a whispered contradiction that no more auspicious location could possibly have been selected in this the critical year of the war. To bring 150 or more men and three ladies—for two wives and one charming little daughter came all the way from Massachusetts—to assemble the best brains in the science of making paper in a famous paper making valley was one thing, but to give them the incomparable opportunity to hear, learn and see just what Dayton is doing and has done toward the ultimate downfall of the Beast of Berlin is quite another story. It was the greatest object lesson in patriotism—even the best Americans among us need such a lesson occasionally—that it has ever



PICTURE TAKEN AT THE ELEVENTH MEETING OF THE TECHNICAL ASSOCIATION OF THE P

been the privilege of the men who make paper or any other men, for that matter to witness, for Dayton is actually winning the war and for that service alone, apart from the business sessions participated in, thanks—unstinted thanks are due.

Members Assemble Early

As early as Wednesday afternoon here and there in the nicest of its present day military khaki coloring, the lobby of the Miami Hotel, chosen as official headquarters for the session, showed many groups of technical men already beginning to talk it over, while later in the evening, as far as the traveling public, the commercial goddess and others whose business takes them away from home was concerned, rooms with or without a bath were not to be had. The Miami Hotel is exceedingly popular at any time or season, but it will tax the capacity of the largest hotel to handle an influx of guests 25 per cent. above its normal capacity. Great credit is due and been publicly acknowledged to E. C. Hendrickson, of the Geo. H. Mead Company, of Dayton, who engineered the hotel arrangements. The New Hotel Gibbons, formerly the popular Algonquin, still fireproof, but dressed up in a new name, was in the same boat, which fortunately nobody attempted to rock. But by the time everybody had arrived on Thursday morning, rooms and bath's at these or other hotels had been awarded and the assembled conventioners got down to business only thirty minutes after the assigned hour of 10 o'clock when the convention session was called to order.

Up on the mezzanine floor of the headquarters hotel, the Miami, the registration took place. Guests who had been thoughtful enough of themselves and considerate enough of the feelings of the committee to reserve rooms in advance were given cards showing their room number and hotel assignment together with the Tappi badge of honor—the pin holding the white ribbon badge, by the way, being fashioned to represent the miniature Wright aeroplane, an exceedingly lappy idea on the committee's part, instigated perhaps by the Greater Dayton Association, as the former Dayton Chamber of Commerce has come to be called. Below each biplane was a groove containing the wearer's name, a device common enough at conventions nowadays and a very practical one withal, eliminating all formality of introduction and facilitating an easy acquaintance and if necessary, an easy method of remembering every one's name.

President Carruth Opens Business Session

The business session of the convention opened at 10:30 o'clock in Community Hall, one of the munificent gifts to the city of Dayton by one of her most loyal citizens, John H. Patterson, president of the National Cash Register Company. The main floor of t.'s handsome modern building is given over to a gymnasium which when arranged with chairs affords an auditorium with a seating capacity of about 500. Here the meeting was called to order by President H. P. Carruth, now himself a citizen of Dayton and a recent valued addition to the efficient staff of the Geo. H. Mead Company. After briefly calling attention to the purposes for which this session had assembled, President Carruth introduced the Honorable J. M. Switzer, mayor of Dayton.

Mayor Switzer Makes Felicitous Address

Mayor Switzer possesses a pleasing personality and is gifted with that rare art of making a felicitous opening address—a difficult task always when made to an audience of entire strangers. Before he had fairly started, the applause that greeted his remarks showed that among Dayton's municipal officials, Mayor Switzer is one of those popular men than which there is no whicher. He said in part:

"We want to impress upon you gentlemen at the outset that we who have the best interests of Dayton at heart are boosters, not boasters. But I hope I may be pardoned if I refer at once to the fact that in addition to your own convention today, Dayton is housing and welcoming the greatest circus in the world. (Applause and laughter. Ringling Bros. Circus was billed for Dayton Thursday, May 16.) In offering your gathering these words of welcome in a very modest way, I want to assure you that we city officials from time to time are called upon to do many things and to perform many official acts not always in the line of pleasure. But I say to you that to be given the privilege of officially welcoming your association to the city of Dayton at this, the opening session of your convention, is one of the greatest pleasures it has been my good fortune to enjoy. Dayton is one of the best, even if in point of official census figures, it is not the biggest city in Ohio today. Take anything we have and use it for your convenience, comfort and welfare; our city is a city of manufacturing institutions—not one of mere plants and factories.

(Continued on page 24.)



OF THE PAPER AND PULP INDUSTRY AT DAYTON, OHIO, MAY 16-17, 1918.

NEWS PRINT INVESTIGATION TO BE CONCLUDED THIS WEEK

F. A. Gaby, Chief Engineer of the Hydro-Electric Power Commission, Is Among the Most Important and Interesting Witnesses Called Last Week by the Federal Trade Commission—Answers Which Have Been Received from the National Paper Trade Association to the Commission Questionnaire to the Paper Jobbers Are Put in the Records—Testimony Regarding Pulp Wood Prices.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., May 21, 1918.—The news print hearings before the Federal Trade Commission were resumed yesterday afternoon, after an adjournment from Saturday, on what may be the last week of the drawn out hearings. At this afternoon session it is probable that a definite agreement will be reached as to when the case can be "cleaned up" insofar as the attorneys are concerned.

Dr. E. O. Merchant on the Stand

When the hearings were resumed yesterday Dr. E. O. Merchant took the floor on behalf of the Commission stating that at the meeting of the accountants of the Commission, the publishers, and the manufacturers, held in New York the principles upon which the cost accounting figures should be introduced was decided upon.

With some further explanation, he introduced all of the cost figures of the various plants which have been appraised by both the accountants of the Commission and the manufacturers. There were only two items, he said, upon which Price, Waterhouse for the manufacturers, and Perle Morse, for the Commission were not agreed, and this was up to the Commission itself. The items referred to are stumpage and what is a fair value for depreciation. This, Dr. Merchant explained, is a matter for the Commission to decide. Upon all other points the accountants for the manufacturers, and the Commission had agreed.

The figures of the Price, Waterhouse Company, made for the manufacturers were introduced in two parts, one part for 1917 and the other for the first three months of 1918. These show the cost figures for each month and then they are grouped. The figures, as finally put into the record, were signed by both the Price, Waterhouse Company, and Perle Morse.

The only company on which no figures were available was the Gould Company, and the figures which were taken from the books of this firm were so incomplete that accountants for both the Commission and the manufacturers agreed that it would serve no good purpose to have the incomplete figures go into the record. Mr. Wise explained to the Commission, however, that the Gould mill was not a "high cost" mill but one of the lowest cost of the American mills, and in a class with the Laurentide and other low cost Canadian concerns.

An arbitrary depreciation charge of \$3.20 per ton of paper was taken by the accountants and used in the estimates which were filed with the Commission. This was the rate agreed upon by the accountants.

One of the interesting sidelights on yesterday's hearing was the fact that a Government carrier pigeon flew in the open window (of course denoting peace). It was noticeable, however, that the dove of peace made a very short stay.

Want to Announce Price June 1

Commissioner Colver brought up the question of the time the hearings would take. Mr. Wise stated that he had two or three witnesses that he wished to have testify in rebuttal of some state-

ments made by publishers' witnesses, but he stated their testimony would be very short. Commissioner Colver stated that the Commission was very anxious to be able to announce a price, if possible, by June 1.

It is possible that the hearings may come to an end this week, although Mr. Wise told the Commission that he would like to have over Sunday to prepare his argument and go over the testimony. It is probable that the question of the length of the hearings will be definitely settled when the hearings reconvene this afternoon. The hearings, it is believed, will be over either the latter part of this week or anyhow by Wednesday of next week. The hearing adjourned yesterday afternoon until this afternoon to give the attorneys time to go over the cost figures introduced.

F. A. Gaby on the Stand

By far the most interesting and important witness called by the Commission last week was Frederick A. Gaby, chief engineer of the Hydro-Electric Power Commission of Ontario, who occupied the stand during Saturday's session.

Mr. Gaby explained at some length, during the earlier part of his testimony, his experience, his position with the Power Commission, and just what the Commission is called upon to do. He stated that since the Commission has been in existence, "the Abitibi is the only development for the water power development for use in the development of the pulp resources of the province and the one which the Commission has passed on."

He testified that the lease granted to the Abitibi Power & Paper Company contains the same provisions as the standard form of lease, in general, at least.

There is an annual rental charge, Mr. Gaby stated, of 35 cents per horse power for the first 20 years. The company also has the right, he stated, to "sell power or deliver power to others."

Dr. E. O. Merchant, for the Trade Commission, asked Mr. Gaby this question: "What value, if any, did the power site obtained by the Abitibi Power & Paper Company have prior to the time that those limits containing the woodlands and the power were granted to private parties to develop?"

Mr. Gaby replied: "The first would be the market ability of the power, the available market within reasonable transmission distance of the development."

"The second would be the physical conditions obtaining at the development as to the cost of its construction, and the annual charges that would accrue if developed at the particular site."

"In my opinion there is no general recognized values for water powers, but each one will have to be dealt with on its particular merits, having regard to the market, the cost of development, distance of transmission, and the cost of delivering it to the source of the market; that is, the market for the power."

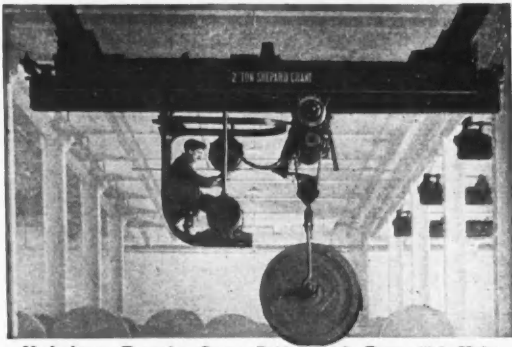
Mr. Gaby was asked how his Commission arrived at the valuation of developed power in a certain case of which he spoke. He said:

"In the case of developed power—in the case of the Ontario Power Company, the contract has been made by the company for the full capacity of the development, and it is simply a matter of determining how much could be paid for the property, with those contracts in existence, to carry its interest, sinking fund, the operation, and a charge for depreciation. In other words, we paid as much as possible for the properties, having consideration for the contracts which were in existence for the next 20 or 30 years, the object in that case being to control the property, to get operation for the Commission, as the Commission had a contract with the company for a supply of power at \$9, until 1950."

Mr. Gaby stated that in making an appraisal of the plant the Commission used the cost to the company at the time it was installed and not at the present market price.

The witness testified that the Commission operates for the Province a small ground wood mill in Campbellford, Ont., and

(Continued on page 60.)



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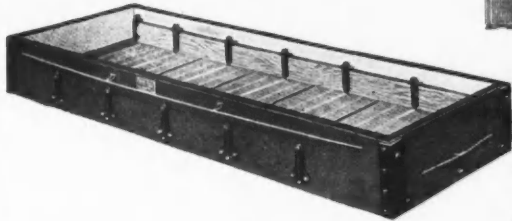
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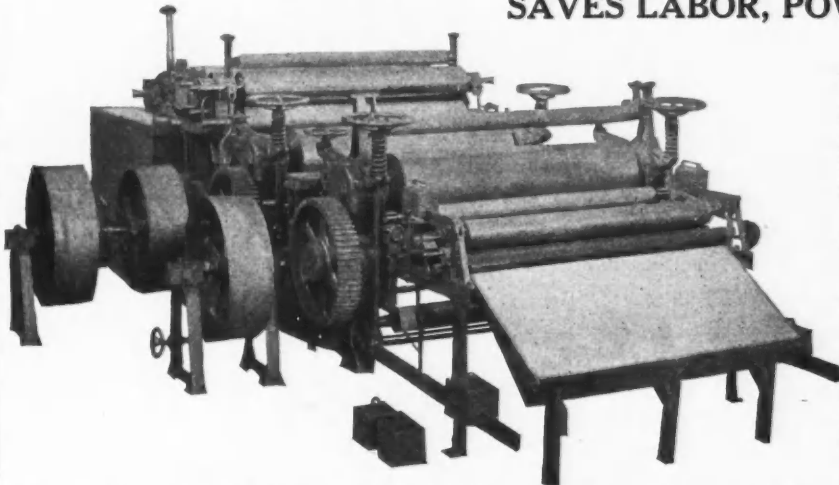
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MR. COLVER TO HAVE CHARGE OF PAPER ON THE WAR BOARD

It Is Understood That the Appointee Will Submit a List of Practical Paper Men to Barney M. Baruch Who Will Select a Certain Number of Men to Act in Conjunction With Commissioner Colver in His Work—New Work Will Not Interfer With Mr. Colver's Work on the Federal Trade Commission—Too Early As Yet to State Plans of Organization—Circulation Statistics.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., May 20, 1918.—The prediction printed in last week's issue of the PAPER TRADE JOURNAL to the effect that the man to have charge of the paper industries problems at the War Industries Board would be a western man, who would NOT be a manufacturer of paper, came true with the announcement by Barney M. Baruch, chairman of the War Industries Board that Federal Trade Commissioner William B. Colver would be that man.

The following is the official announcement made by the War Industries Board in this connection:

"Mr. William B. Colver has been appointed by the War Industries Board in charge of wood pulp and its products, including news print and all grades of paper.

"Mr. Colver as a member of the Federal Trade Commission has been in charge of this subject for more than a year and it is felt that his knowledge of the industry will be extremely helpful. Although Mr. Colver is now chairman of the Federal Trade Commission, this will in no way interfere with his work there."

The statement is made officially that the new work will not interfere with Commissioner Colver's work on the Commission. Whether this is so or not remains to be seen. Up to this time men who have been appointed on the War Industries Board as representing specific commodities have found it more than a day's work to keep in touch with the ever changing situation. It is possible that Commissioner Colver will surround himself with some practical paper men who will lift the main part of the burden off his shoulders. It is too early yet to know just what his plan of organization will be.

Practical Paper Men to Act with Mr. Colver

Up to today no definite announcement has been made as to the policy of the new Paper Section of the War Industries Board.

It is understood here, however, on very good authority, that Commissioner Colver will, in all probability, submit a list of practical paper men to Barney M. Baruch, chief of the War Industries Board who will select a certain number of men to act in conjunction with Commissioner Colver in his work, whatever it

may be. It is not yet known here whether a man will be selected from each branch of the paper industry, but your correspondent has learned on the very highest authority that at least several paper men will be appointed to act with Commissioner Colver. This will give him the advice of practical paper men in whatever work he may have to undertake.

Circulation and Advertising Statistics

In connection with tables given out showing the circulation and advertising statistics of publishers using news print and book paper for the month April the Federal Trade Commission makes the following statement:

"The figures show very little change from those reported for the month of March. There was a slight decrease in the average number of pages of daily and weekly newspapers and a corresponding increase in the average number of pages of Sunday and monthly newspapers. Weekly and semi-monthly magazines and periodicals showed a considerable increase in the average number of pages printed while the monthly magazines showed a small decrease.

"Several large daily newspapers showed excessive returns running as high as 37 per cent in Boston, 28 per cent in New York and 25 per cent in Philadelphia. These papers also showed an excessive percentage of free copies. One daily paper reported subscriptions in arrears three months or more amounting to about 36 per cent of its total circulation and one farm paper reported arrears amounting to 47 per cent of its circulation.

"Some monthly magazines showed excessive returns. One reported returns as high as 42 per cent, another 37 per cent, two 28 per cent, one 20 per cent and another 15 per cent. Weekly magazines also showed some large percentages of returns, one being as high as 33 per cent, two around 20 per cent, two around 15 per cent, and two around 13 per cent.

"The reports indicate that some publishers are endeavoring to eliminate wastes and curtail consumption but the results of their efforts are being offset by the action of other publishers who continue to practice wasteful methods despite the appeal of the Government to curtail wastes in every way possible. The aggregate quantity of paper wasted by newspaper publishers monthly is considerably larger than our average exports to foreign countries.

"The statistics collected by the Commission for the month of April showed considerable improvement in conditions owing to increased production and shipments. While mill stocks of newsprint paper continued to decline there was a considerable increase in the stocks held by jobbers and publishers. The same was true to a smaller degree of the stocks of book paper used by publishers of periodicals and magazines."

Manufacturing Cost and Selling Expense of News Print

The following interesting self-explanatory statement has been prepared by the Federal Trade Commission and was submitted at today's hearing.

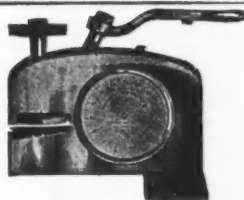
	YEAR, 1917.				JANUARY, 1918.				FEBRUARY, 1918.				MARCH, 1918.			
	Commercial Manfg. Cost News Print Sales.	Selling Expense.	General and Adm. Expenses.	Total.	Commercial Manfg. Cost News Print Sales.	Selling Expense.	General and Adm. Expenses.	Total.	Commercial Manfg. Cost News Print Sales.	Selling Expense.	General and Adm. Expenses.	Total.	Commercial Manfg. Cost News Print Sales.	Selling Expense.	General and Adm. Expenses.	Total.
International Paper Company...	\$43.14	\$0.52	\$1.66	\$45.32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Minn. & Ontario.....	39.53	.....	2.00	41.53	\$54.12	.....	.....	.....	\$2.47	\$56.69	\$53.10	.....	\$1.75	\$54.85	.....	.....
Belgo-Canadian.....	38.83	.95	2.71	42.49	41.43	\$1.24	3.78	46.45	42.45	\$1.27	4.32	48.04	41.66	\$1.21	3.00	45.87
Brompton.....	50.77	1.29	1.42	53.48	60.12	.74	1.33	62.19	60.21	.79	1.67	62.67	60.23	.84	1.30	62.37
Abitibi P. & P. Company.....	43.46	.86	2.68	47.00	45.09	1.57	3.33	49.99	45.06	1.20	2.98	49.24	46.35	1.90	2.87	51.13
Laurentide Company.....	36.11	1.37	2.48	39.96	41.40	1.20	3.39	45.99	43.75	1.64	4.30	49.69	43.05	.96	2.66	46.67
Price Brothers.....	36.83	1.84	2.72	41.39	41.62	1.97	3.07	46.66	42.92	1.94	2.02	46.88	42.71	2.12	2.20	47.03
Donnacona P. Company.....	43.36	1.20	1.51	46.07	45.49	.60	1.50	47.59	47.37	.60	1.56	49.53	47.13	.60	.91	48.64
Spanish River.....	39.06	.38	1.96	41.40	49.67	4.04	53.71	50.65	4.18	54.83	49.85	3.15	53.00

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**The Ashcroft
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WISCONSIN PAPER MAKERS PLAN WATER IMPROVEMENT

Wisconsin Valley Improvement Company, Composed Almost Entirely of Paper Mill Men of the Wisconsin River Valley, Plans to Build Storage Reservoir by Building Dam Across the Mouth of the Spirit River at Tomahawk—Three Hundred Employees of the Marinette & Menominee Paper Co. Qualified for the Five Per Cent. Bonus Distributed Last Week—Appleton Adopts Kenosha Plan.

APPLETON, Wis., May 21, 1918.—Directors of the Wisconsin Valley Improvement Company, composed almost entirely of paper-mill men of the Wisconsin River Valley, have purchased 4,000 acres of land in Lincoln county for the purpose of developing a storage reservoir by building a dam across the mouth of the Spirit River at Tomahawk, Wis. The storage increase available when this dam is completed will be 15 per cent. in summer and 14 per cent. in winter.

The dam when completed will be 16 feet in height and will be constructed of concrete with a retaining wall to the north. A fifteen foot head of water can be raised by the proposed improvement. The width of the reservoir will vary from several hundred feet to nearly a mile and its length will be about six miles. The storage capacity of this new reservoir is estimated at about 572,083,000 cubic feet. The capacity of all the reservoirs on the Wisconsin river is about 5,000,000,000 cubic feet, available to powers at Tomahawk, Merrill, Wausau, and other cities along the river.

Heavy rains of the past two weeks have added to the amount of water in the storage basins. The Wisconsin Valley Improvement Company's report showed the amount of water held in its reservoirs increased from 11.2 per cent. of capacity to 16 per cent. in two weeks and the reservoir at Rhineland now contains 20 per cent. of its capacity as compared with 17.7 per cent. two weeks ago. Heavy rains fell south of the great reservoirs but very little precipitation was reported along the feeder streams.

South of Wausau the Wisconsin River raised 1.2 feet in 24 hours while at Merrill, near several of the storage basins, the rise was only .8 of a foot.

Floods were caused in several cities on the Wisconsin River south of Wausau, notably at Grand Rapids where cellars were flooded and streets inundated.

High water also caused considerable trouble in the Fox River valley. Water in Lake Winnebago reached a point where it was necessary to open several sluice gates. Brilliant electrical displays accompanied the wind and rain.

Marinette Paper Co.'s Bonus Plan

Three hundred employees of the Marinette & Menominee Paper Company of Marinette, Wis., qualified for the 5 per cent. bonus distributed by the company last week. The amount of money distributed was between \$14,000 and \$15,000. The company suggested that the bonuses be applied on the purchase of Liberty loan bonds.

Appleton Adopts the Kenosha Plan

Appleton has adopted the "Kenosha" plan of financing war activities. A war chest will be established from which all donations for war work will be made.

Wage earners will be asked to donate the equivalent of one-half hour's wages a week while employers will give as much as the aggregate donation of their employees. Professional men will give from one to three per cent. of their incomes per year.

Neenah was the first city in the Fox River valley to adopt this plan and it is working out with considerable success in that city. Kenosha, the first Wisconsin city to put the plan in operation, has donated more than \$100,000 to organizations engaged in war work in the last seven months.

Wausau Sulphate Co. Starts Park

Work has been started by the Wausau Sulphate Fibre Company on a fine new public park at Mosinee, Wis., along the banks of the Wisconsin River. The grounds are being laid out into one of the most attractive spots in Wisconsin. Mosinee, because of its many natural beauties, has long been a mecca for Wisconsin tourists.

Graef & Co. to Locate at Menasha

After several months of negotiation, the Graef Wire and Manufacturing Company, a company recently organized to manufacture wire weaving looms and other papermill machinery, has practically decided to locate its new plant at Menasha. Appleton, Neenah, Menasha, Oshkosh and Sheboygan bid for the enterprise, each city offering splendid inducements.

It is reported the company favored Appleton as the location of the plant, but delay in making a tangible offer and the splendid inducements offered by Menasha citizens induced the promoters to call off further negotiations and start work immediately on two buildings at Menasha.

Two large buildings, one 110 feet wide by 150 feet long and another 24 feet wide by 150 feet long will be erected at once. Orders have been received from a dozen states and from several foreign countries. It is reported the company has enough work ahead to keep the plant running for several months. Machines have been manufactured for the new company by the Sailer-Whitmore Company of Neenah.

Mr. Graef is one of the heavy stockholders in the International Wire Works of Menasha and it is probable the machinery owned by that company will be moved to one of the buildings of the new company. The Graef Wire and Manufacturing Company will be incorporated in a few days with a capital stock of \$100,000, it is reported.

Paper Mill Accidents

Charles Zirbell, 47 years old, unmarried, was killed last week at the mill of the Nekoosa-Edwards Company, Port Edwards, Wis. He was engaged in unloading coal from a car with a log loader when he was caught between the "jammer" and a wood pile. His body was crushed to pulp. John Coan, employed as backtender by the Whiting-Plover Paper Company was severely injured when his arm was drawn between two felt rolls of a paper machine. William Johnson, foreman in the mill of the Gilbert Paper Company at Menasha was wound around a revolving shaft when his clothing became caught but escaped fatal injuries.

Gatti-McQuade's Hoboken Warehouse Burns

Flames which burst from the rear windows of the Gatti-McQuade plant in Hoboken early Saturday evening soon spread to the entire five-story building, illuminating the meadows surrounding it, and started a fire that burned for a number of days.

The building, which was filled with a big stock of new rags and paper stock, to be used in paper manufacture, is isolated from other structures in the Hoboken industrial district. Otherwise it is likely that the entire waterfront would have been endangered.

Firemen who dragged long leads of hose to the fire discovered that the water pressure at that point was so weak they could make little progress against the spreading flames. After fighting the fire several hours they abandoned their efforts to extinguish it and expended their energies in protecting surrounding houses.

The loss to building and contents is estimated at \$75,000. The company expects to rebuild in the near future, and for the present will occupy temporary quarters.

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Value of Swedish Kronor during week ending May 21st. Normal rate of exchange: 1 Krono = 28.80 cents.

May 14th—34.05 cents—increased value	27.05%
" 15th—34.25 " " "	27.79%
" 16th—34.50 " " "	28.73%
" 17th—34.90 " " "	30.02%
" 18th—34.90 " " "	30.02%
" 20th—35.00 " " "	30.59%
" 21st—34.75 " " "	29.66%

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DILL & COLLINS CO. ACQUIRES MILL OF M. & WM. H. NIXON CO.

Well Known Philadelphia Concern Acquires the Old Established Mill at Manayunk Which It Will Operate in the Manufacture of the Old Standard Lines of Paper for Which the Plant Was Famous—Dill & Collins Co. Announces That It Will Be Impossible to Announce the Definite Policy of the Concern at This Time—Increase Expected in All Lines of Coarse Paper Soon.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, May 20, 1918.—By far the most important news of the week in this district is that of the sale of the old established Flatrock Mill, at Manayunk, formerly owned by the Martin and William H. Nixon Paper Company, which has changed hands more than once in the past few years, to the Dill & Collins Company.

According to announcement made by officials of the last named firm, the entire plant was taken over by them last Thursday, and is now being operated under their supervision in the manufacture of the old standard lines for which the mill was famous. These lines comprise everything that the Dill & Collins Company makes in its other mills, with the exception of coated paper.

Price and other details of the sale are withheld by the purchasers, while the sellers are all Boston interests. The Nixon plant was almost completely rebuilt and equipped with the most up-to-date paper-making machinery about four years ago, and is now one of the best mills of its kind in the country, having an output of about fifty tons a day. It passed from the hands of the Nixon interests some years ago, and again changed hands when Mr. Hare, of the Megargee-Hare Paper Company, sold his interests to Boston men.

More Advances in Coarse Paper

Jobbers here report that the only mill which has been accepting orders for wrapping paper for some weeks has just announced an increase of about \$15 a ton in the price of its product. This is expected to be followed by further general increases in all other lines of coarse paper.

Less Demand for Booklet Paper

Considerable reduction has been noted by jobbers and dealers here in the sale of paper for use in advertising booklets. According to a representative of the D. L. Ward Paper Company, even the nationally advertised concerns are restricting their output of booklets and confining their advertising to other forms. There has been no let-up, however, in the standards maintained by high-class firms. According to the authority quoted, one big local corporation recently took a loss of 3 x 4 inches per sheet to get a standard grade of India paper for its catalogue.

More Business Than Mills Can Handle

Despite the general reduction from this former source of demand, dealers generally are still finding more business in this district than they can get the mills to handle, most of it of course for future delivery. Although the railroads are being used more and more by the government, further improvement in the freight situation is noted by local dealers.

Folding Box Makers Meet in Cleveland

CLEVELAND, Ohio, May 20, 1918.—The ninth general membership meeting of the Folding Box Manufacturers' National Association was held at the Hotel Statler, Cleveland, on May 11. The outstanding feature of the meeting was a thorough consideration of the present industrial situation and the best means of assisting the Federal Administration in bringing about coal conservation,

should further restriction be necessary or advisable, without curtailing production in the industry more than may be strictly necessary.

The Federal Trade Commission is about to make a survey of the folding box, the label manufacturing, the lithographic and the stiff box industries, with the object in view of advising the Fuel Administration of the most desirable course to pursue should further coal restriction be necessary in the fall. The meeting authorized the appointment of a war service committee to represent the folding box industry in any conferences that might be called by the Federal Trade Commission or the Fuel Administration. It was provided that conferences on the part of this committee be held with similar committees to be appointed by the Label Manufacturers' National Association and the National Association of Employing Lithographers, and it is understood also that it will confer with the committees to be appointed by the stiff box manufacturers.

Eight applications for membership were received and acted upon at this meeting. The association now embraces sixty folding box manufacturers. Six of the new members represent New England manufacturers who had made application as a result of a division meeting held at the Old Colony Club, Boston, on May 7, to which the local manufacturers in New England had been invited. The sentiment prevailing at that meeting favored frequent conferences during these unprecedented times and, therefore, it was decided to hold another meeting of the New England manufacturers in Boston on June 4. These group, or division, meetings will be held hereafter as frequently as is practicable in the various manufacturing centers throughout the country, so that local problems may be treated at close range. Another group meeting will soon be held in Chicago, to which all folding box manufacturers in the territory tributary to that commercial center will be invited. Another one will soon be held at Philadelphia.

J. E. Clenny, vice president The Sefton Manufacturing Corporation, Chicago, and president of the association, conducted the meeting at Cleveland. Charles R. Stevenson, the industrial engineer having charge of the cost installation programme, reported that good progress was being made among the folding box manufacturers in the installing of the modern, scientific and uniform cost accounting system that had been devised and recently adopted by the association. Correspondence in relation to the affairs of the association should be addressed to H. A. Dickie, secretary, 1457 Broadway, New York.

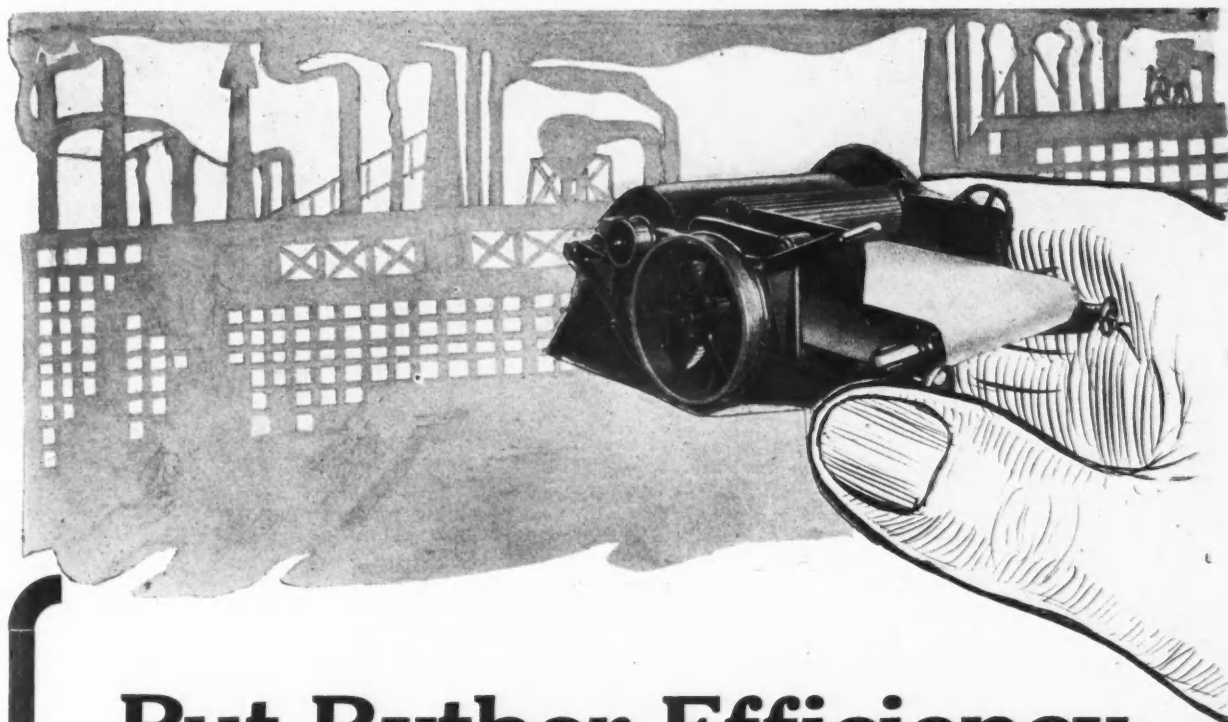
Trade News from Western New York

NIAGARA FALLS, N. Y., May 29, 1918.—The Defiance Paper Company, which was closed by order of the government because the Federal authorities wanted the power for use by plants making war materials, will resume the manufacture of paper on or before June 1. The plant was closed down early this year. An electric furnace was installed and for about two months the company has been manufacturing ferro-silicon for the government.

The Defiance company will use steam power for the manufacture of wall paper until the government permits it to use electric power. It is believed when the gigantic power development to be generated by the consolidated companies, recently approved by the State and Government, the paper companies closed under Federal orders, will again be permitted to use electric power. T. M. Uptegraff, general manager of the Defiance company, stated that the company will continue the manufacture of ferro-silicon for the duration of the war.

Gaylor M. Uptegraff of the Defiance company has purchased from Dr. Harold Hayes of Buffalo a three-acre estate on the lower river road between Lewiston and Youngstown, about nine miles from Niagara Falls.

The beaters at the plant of the Tonawanda Board and Paper Company walked out last Wednesday night and the big paper mill was closed down until Friday noon. The men demanded an increase. The places of the men were filled by new men.



Put Ryther Efficiency in Your Mill

For the preliminary reduction of dry, partly dry and partly frozen
pulp laps, sheets and board, the

RYTHER SHREDDER

has demonstrated its efficiency plus in such important plants as The
Ticonderoga Pulp and Paper Company, Riordan Pulp & Paper Co.,
Westfield River Paper Company, Hollingsworth & Whitney Co.,
International Paper Company, and a host of others.

Write for our catalog.

Ryther & Pringle Company

Carthage, N. Y., U. S. A.

CANADA MAY EXTEND PRICE OF 2.85c. FOR NEWS PRINT

Although This Price Was Recently Extended Until June 1, It Is Probable That It Will Be Additionally Extended, Provided the Federal Trade Commission in the United States Has Not Completed Its Investigation By That Time—Expert Is Taking Testimony at the Mills—Is Engaged at the Plant of Price Bros.—Prof. Macallum on Reforestation—Presents a Voluminous Report.

[FROM OUR REGULAR CORRESPONDENT.]

OTTAWA, Ont., May 21, 1918.—The order of the government fixing the price of news print paper at \$2.85 per hundred pounds will likely be extended over June 1 to which date it at present extends. No sittings of the commission have been held lately owing to the fact that Washington will soon be issuing the report of the Federal Trade Commission on the cost of producing news print in the United States and Canada, and Commissioner Pringle feels the report will serve as a valuable guide to him in his inquiry at home. He points out that the American commission has gone into the cost very scientifically, using the expert testimony of men from both the ranks of the manufacturers and publishers. In view of the coming of this report the manufacturers and publishers are mutually agreed that matters should be held in abeyance and should the report not be to hand by June 1, it is not expected there will be much objection to the extension of the present price.

"Do you think the manufacturers and publishers might get together on the matter?" your correspondent asked Commissioner Pringle.

"I not only think they might, but I think they should," he replied very decidedly, "I think there should be give and take on each side."

The expert whom he appointed to take evidence in the mills in the person of J. McNicoll is hard at work. At the time of writing he is busy in the Price Brothers mills.

Scheme of Reforestation

A scheme of reforestation is referred to in the report of Professor Macallum, chairman of the advisory committee on scientific research which has been tabled in parliament by Sir George Foster, minister of trade and commerce. The report which is a voluminous one, covers various branches.

There are some interesting references to the work done by the committee which enquired into the question of the growth and reproduction of the forests of Canada, more particularly those of the Eastern provinces. In regard to this matter the report says: "The research council is of the opinion that the investigation of the growth and reproduction of our forest trees, thus inaugurated and continued, will in a few years enable the forestry departments of the federal and provincial governments to inaugurate on a scientific and practical basis a scheme of reforestation which will parallel the best results obtained in the past in Europe and in consequence preserve for Canada one of her greatest and enviable resources, now in danger of extinction because of reckless waste and of the almost entire disregard of any system required for its prevention.

Michigan Paper Co. Makes Improvements

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., May 16.—The Michigan Paper company, of Plainwell, has begun work on the general improvement and extension of the steam plant of its large paper mill. The present boiler room will be enlarged and a 300 horse power Wickes water tube boiler will be installed, also an additional Murphy stoker

and a Green fuel economizer. This will give the mill a battery of six 300 horse power boilers of the most improved type, in addition to an auxiliary plant of three 250 horse power boilers. It is also possible that use of electric motors for driving power in the mill will be materially extended, though those plans remain to be worked out.

In the erection of its second mill, the Michigan Paper company adopted the use of electric motors to drive the machinery and was the pioneer concern in the Kalamazoo valley in making this move. Machinery in the old mill is still engine driven.

"The contemplated improvements in our steam plant are made with the view of conserving coal consumption," said George Gilkey, assistant secretary of the company. "With the installation of the new 300 horse power boiler and auxiliary equipment we hope to be able to abandon permanently the battery of three 250 horse power boilers. Such a move would work us a big saving in our coal bills, and coal is becoming more and more a big item of expense with us."

Mr. Gilkey stated that business is good at his plant, with sufficient orders on the books to insure steady operation at full capacity for an indefinite period.

It was with a good deal of pride that he told how readily the mill employees have been responding to the many calls for war aid and the sales of Liberty bonds.

"I am unable to furnish the figures showing the total bond purchases by our employees," said Mr. Gilkey, "but I know the response to all calls has been liberal. While we have subscribed for several thousand of the three issues for our help, it is safe to say that they have purchased as equal amount direct. Many of them had the money and preferred to pay cash."

Most of the employees of the Michigan Paper company have been with the mill for years. They own their homes in Plainwell and want to be counted as permanent citizens of the village.

To Enlarge Plant of Beveridge Paper Co.

[FROM OUR REGULAR CORRESPONDENT.]

KALAMAZOO, Mich., May 20, 1918.—M. C. J. Billingham, of this city, architect and mill engineer, has prepared the preliminary plans and specifications for the enlargement of the Beveridge Paper Company, Indianapolis, Ind. This concern is engaged in the manufacture of board and bristol specialties and operates two cylinder machines, one 54 inch six cylinder and one 72 inch five cylinder. There are five jordan engines and four 800 pound and five 1,000 pound beaters.

The improvements provided for in the prepared plans consist of enlargement of the present beater room and the addition of several new beaters, also the installation of a conversion system for old papers. This will require a battery of cooking, bleaching and washing machines. The power plant of the mill is also to be overhauled and brought up to date. The first step in the power plant improvements have been made in the purchase and installation of a 750 horse power cross compound engine, the product of the Allis-Chalmers company.

Mr. Billingham could give no definite information as to the date the contemplated enlargements in the Indiana mill will be made. The matter is now under advisement by the company's officials.

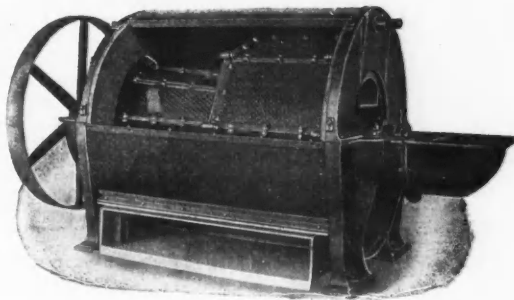
Good Advertising for Munising Bond

Charles G. Oberley, general manager of the Munising Paper Company, Munising, Mich., has been remembering his customers and friends in the trade with a handsome oxidized silver paper pad holders for desk purposes accompanied with a generous supply of pads of Munising bond paper in various colors. On the clamp at the top the holder bears the trade mark of the company and the firm name and address. The holder and the paper make a most effective advertisement that will be sure to be appreciated by everyone receiving it.

“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.



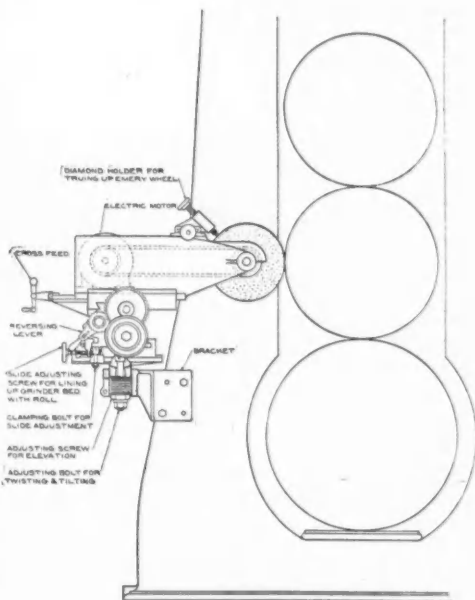
The cost of power and upkeep is extremely small and the results are very satisfactory.

Knotter Design No. 2

WE ASK A THOROUGH INVESTIGATION

IMPROVED PAPER MACHINERY CO.

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



U. & Z.

*Patented Portable
Calender Roll*

GRINDER

Write for U. & Z. Circular

B. S. ROY & SON CO.

Established 1868

Worcester, Mass., U. S. A.

BIDS AND SPECIFICATIONS FOR GOVERNMENT PAPER

Purchasing Officer for the Government Printing Office at Washington Announces Awards on Numerous Lots of Paper—Some Interesting Prices Are Included in the List—Purchasing Officer for the Panama Canal Announces Awards on Paper and Paper Specialties—Purchasing Officer for the Panama Canal Announces Bids to Be Opened—Other Bids and Awards.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., May 20, 1918.—The following awards have been announced at the Government Printing Office.

13,000 pounds (200 reams) of 24 x 38—65, kraft wrapping paper will be furnished by D. S. Walton Company, at \$.0694 per pound.

Carter, Rice & Company, will furnish, at \$.055 per pound, 80,000 pounds of green bristol board in 20 $\frac{3}{4}$ in. rolls, basis of 22 $\frac{1}{2}$ x 28 $\frac{1}{2}$ —100. Bids for these items were opened on April 15.

8,750 pounds (100 reams) of 21 x 32 $\frac{1}{2}$ in. No. 48 blue commercial ledger paper will be furnished by Dobler & Mudge at \$16.08 per ream, bids for which were opened on April 26.

129,000 pounds of white machine finish paper will be furnished by the Miami Paper Company, at \$.0805 per pound, bids for which were opened on April 29.

The Maurice O'Meara Company will furnish 20,000 pounds (2,000 reams) of 17 x 28 in. No. 8 green writing paper at \$1.37 per ream.

60,000 pounds of yellow bristol board in 20 $\frac{3}{4}$ -in. rolls, basis of 22 $\frac{1}{2}$ x 28 $\frac{1}{2}$ —100 will be furnished by the Smith-Dixon Company, at \$.0555.

The Maurice O'Meara Company will furnish 2,000 pounds (5,000 sheets) of 22 $\frac{1}{2}$ x 28 $\frac{1}{2}$ —200, orange cardboard at \$29.00 per 1,000. Bids for these items were opened on May 1.

20,000 pounds (100 reams) of 22 $\frac{1}{2}$ x 28 $\frac{1}{2}$ —200, white china-board will be furnished by the Holyoke Card & Paper Company, at \$30.80 per 1,000, bids for which were opened on May 6.

The Smith-Dixon Company will furnish 20,400 pounds (200 reams) of 21 x 31—102, buff bristol board at \$.058 per pound.

10,000 pounds (50 reams) of 22 $\frac{1}{2}$ x 28 $\frac{1}{2}$ —200, green cardboard will be furnished by the Maurice O'Meara Company, at \$29.00 per ream. Bids for these items were opened on May 10.

The following paper awards have been announced by the Purchasing Officer of the Panama Canal:

The R. P. Andrews Paper Company will furnish 2,000,000 hygienic paper drinking cups at \$2,020.00.

150 reams (75,000 sheets) of 22 x 34 in., No. 16 light blue writing paper will be furnished by George W. Millar & Co., at \$528.00. Bids for these two items were opened on May 2.

Dobler & Mudge will furnish 600 reams (300,000 sheets) of 17 x 22 in., No. 20 white bond paper at \$2,070.00, bids for which were opened on May 3.

Bids for Panama Canal

Bids are to be opened by the Purchasing Officer of the Panama Canal on June 4 for furnishing 100 reams (50,000 sheets) of 22 $\frac{1}{2}$ x 28 $\frac{1}{2}$ —100, manila tag paper.

Government Printing Office Bids

The following paper bids are to be opened at the Government Printing Office on May 27.

500,000 pounds of No. 1 white machine finish printing paper in 38 in. rolls, basis of 25 x 38, 35 or 40.

17,500 pounds (200 reams) of 21 x 32 $\frac{1}{2}$ in., No. 48 yellow commercial ledger paper.

33,000 pounds (2,000 reams) of 17 x 28 in., No. 13 white glazed bond paper.

The following bids were opened at the Printing Office last week.

2,300 pounds (10 reams) of 22 $\frac{1}{2}$ x 28 $\frac{1}{2}$, 230, white index bristol board; Mathers-Lamm Paper Company, at \$.1485 per pound; Carter, Rice & Co., at \$.215; Cornelius Kahlen, at \$.18; Megargee Hare Paper Company, at \$.0747.

1,045,000 pounds of white machine finish printing paper, basis of 25 x 38—35.

45,000 pounds in 9 $\frac{1}{2}$ in. rolls; Champion Coated Paper Company, at \$.0755 per pound; Miami Paper Company, at \$.0896; Bryant Paper Company, at \$.0825; R. P. Andrews Paper Company, at \$.0795.

1,000,000 pounds in 48 in. rolls; Champion Coated Paper Company, at \$.0745 per pound; Dill & Collins Company at \$.075; Jessup & Moore Paper Company at \$.07 1/5; Bryant Paper Company, at \$.075; and R. P. Andrews Paper Company, at (a) \$.072 (b) at \$.0694.

Bids are to be opened on May 29 at the Government Printing Office for 47,250 pounds (270 reams) of 22 $\frac{1}{2}$ x 28 $\frac{1}{2}$, 175, index bristol board. The colors are to be divided as follows: 8,750 pounds (50 reams), white; 17,500 pounds (100 reams) blue; 8,750 pounds (50 reams) of buff; 3,500 pounds (20 reams) of green, and 8,750 pounds (50 reams) of pink.

H. C. Wilder Commissioned Major

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., May 20, 1918.—Harry C. Wilder, son of Mr. and Mrs. Mark S. Wilder, 204 Keyes avenue, this city, has just been commissioned major of the 309th Regiment, Heavy Artillery, Camp Dix, Wrightstown, N. J. This is the pleasing news just conveyed in a letter from him to his parents. He is the first boy from Northern New York to earn such high military honor.

When the United States declared war on Germany, Harry C. Wilder was connected with the Malone Light & Power Company, being its secretary and treasurer. He was the first to be called to the officers' training camp at Madison Barracks for work and instructions. He reported for duty in March, 1917, in the engineering class and assisted in laying out and constructing the temporary camps, preparatory to the officers' training school. He remained during the summer, specializing in the heavy artillery branch of the service, which he has since followed.

At the close of the training school he was commissioned a captain and received the distinction of being the only one recommended by Col. W. R. Sample as captain adjutant. When he arrived at Camp Dix with the other officers he was assigned as captain adjutant to the 309th Regiment, Heavy Artillery. He was one of the first officers to be sent to the School of Fire at Fort Sill, Oklahoma, for special training and instructions. Since returning to his regiment at Camp Dix, he has been instructor of the officers' school in addition to acting as senior captain. His commission as major was just received.

Major Wilder was especially qualified to develop into a heavy artillery officer. In addition to his education, he also possessed natural characteristics that assisted him in his persistent efforts to become efficient and merit advancement.

He was born in Carthage 26 years ago, attended the High School there, completed his course in Exeter Academy, entered Amherst College and was graduated in the class of 1913. After leaving college he entered the Malone Light & Power Company, where he worked until he entered military service. His father, Mark S. Wilder, is president of the Remington Paper & Power Company in this city.

Tenders for Hought Paper Co. Close June 10

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ont., May 20, 1918.—June 10 is the day set for receiving tenders for the purchase of the assets of the Hought Paper Mills, East Camden, Ontario, now in liquidation.

Of Interest to Paper Mills

We have just added ten highly trained salesmen to specialize in

Book Papers

Arrangements are now being made to add another large warehouse to accommodate our stock of Book, Bond, Ledger, Writing, Super and Coated Papers.

We are now acting as Export Agents for many high grade lines of Book Papers and are open to take up United States representation for such lines.

Our highly efficient sales staff, our effective advertising campaign—in short our complete organization and resources—are at your disposal.

O'Meara Distribution Covers the Globe

Maurice O'Meara Company

448-450 Pearl Street

NEW YORK

New York Trade Jottings

H. L. Sampson, manager of the National Paper Products Company, Carthage, N. Y., spent a few days visiting friends in the trade last week.

Alfred Bleyer & Co., the well known paper and twine firm, 229-230 West street, are celebrating the fiftieth anniversary of their organization.

The Henle Wax Paper Mfg. Company, 411-413 East 107th street, New York City, whose plant was recently damaged by fire, has increased its capital from \$50,000 to \$250,000.

H. E. Cogeshall, of the Kirby-Cogeshall Company, Chicago and Milwaukee, was in town last week for the purpose of placing orders for his concern. While in town Mr. Cogeshall stayed at the Prince George.

Robert Lasher, of Lasher & Lathrop, Inc., 29 La Fayette street, has the sympathy of his many friends in the recent bereavement he has experienced. His daughter Catherine, age 7 years, died last week from spinal meningitis.

About June 1 the Champion Coated Paper Company will move from their present location, 108 Duane street, to 324 Pearl street. The company will occupy the entire building and expects to have about four times as much space as at present.

The regular monthly meeting of the Tissue Paper Manufacturers' Association was held Thursday of last week at the Association's rooms, 18 East 41st street. There was a good attendance and the usual routine business was transacted, including a discussion of market conditions in general.

The first large sample book to be issued under the new substance number weights is being sent out to the trade in New York City and vicinity by Lasher & Lathrop, Inc., 29-33 La Fayette street. The book contains 540 sample sheets of bond, ledger, linen, writing and manifold papers, and took approximately six months to compile.

The Seaman Paper Company, 200 Fifth avenue, has announced the addition to its sales force of Gustave Wuerst, who will confine his attentions to boxboards and similar lines. Mr. Wuerst formerly was connected with sales department of the United Paperboard Company, and before that was with the American Strawboard Company in Chicago.

Judge Hough in the United States District Court last week appointed Charles W. Hollaway an additional receiver for the Federal Dyestuff and Chemical Corporation, whose plant is at Kingsport, Tenn., on the application of the Noteholders' Committee. He has already qualified in Tennessee. The Judge also approved a contract of the committee, who are to advance money for the payrolls, for the purchasing of materials, and other incidentals to carry out the contract with the United States Government for the purchase of 9,000,000 pounds of picric acid.

The Metropolitan Bag and Paper Jobbers' Association, in order to make a creditable showing for the paper dealers' division in the drive this week for the Red Cross Fund, has sent the following letter to its members: "The Metropolitan Bag and Paper Jobbers' Association is conducting an active campaign to raise funds for the American Red Cross, and very earnestly solicits your subscription. The gigantic task imposed upon the Red Cross, in its work on the battlefields of Europe, in caring for, housing and

feeding the destitute millions of women and children behind the battle lines, in almost inconceivable proportions, is one which requires an endless flow of funds. We in this country, enjoying wealth, prosperity and the security of our homes, having no realization of the horrors of war, should strain our every resource to give, give freely, and keep on giving. Will you help in raising the new \$100,000,000 fund to enable this worthy organization to continue its noble work? Please make checks payable to the American Red Cross and mail to the Metropolitan Bag and Paper Jobbers' Association.

Big Interest in Red Cross Drive

From present indications it looks as if the result of the Red Cross drive in the paper industry might be very satisfactory, if everyone continues hustling the way they have started in.

At the close of the first day nineteen firms in New York City had reported a 100 per cent subscription list for their concerns, meaning that every member of their force had contributed his bit.

To these and to every concern who does the same will be awarded a Victory Emblem to be displayed as proof of the fact that every one of their employes has seen the desirability of helping this worthy cause along.

All concerns who have not yet reported should get in touch with the chairman of their division in the trade, the complete list of whom was printed in the PAPER TRADE JOURNAL of last week. All of the Chairmen and the members of their committees as well, are heart and soul in their work and a remarkably efficient organization has been perfected, so efficient in fact that according to the committeemen there is not a paper office in the city with a force of over two people that is not represented on some committee.

The list of those reported on the first day as being entitled to a Victory Emblem follows. Bardeen Paper Company, Clarke & Co., Clement & Stockwell, Conrow Brothers, Dill & Collins Company, Eastern Manufacturing Company, Falulah Paper Company, J. H. Gafney, John S. Graham, Gresham Blank Book Company, New York & Pennsylvania Company, Pepperell Card & Paper Company, Poland Paper Company, John F. Post, Eugene A. Steinfeld, Strathmore Paper Company, S. D. Warren & Co., and the West Virginia Pulp & Paper Company.

Oddities in Waste Paper Supply

[FROM OUR REGULAR CORRESPONDENT.]

DAYTON, Ohio, May 20.—One of the oddities of a supply of waste paper received by the Fox Paper company at Lockland recently was a bunch of copies of the Cincinnati Enquirer of the late forties and early fifties. One of the oldest papers was dated April 1, 1848 and showed that the paper of that period was published by Gerard, Day & Company. The front page was made up of small advertisements. Five of the 28 columns were made up of news, most of which was from several days to several weeks old. Four of the remaining columns were taken up with the annual report of the city clerk. The telegraph news apparently was decidedly scarce in those days.

Fire at Peerless Paper Plant

[BY TELEGRAPH TO THE PAPER TRADE JOURNAL.]

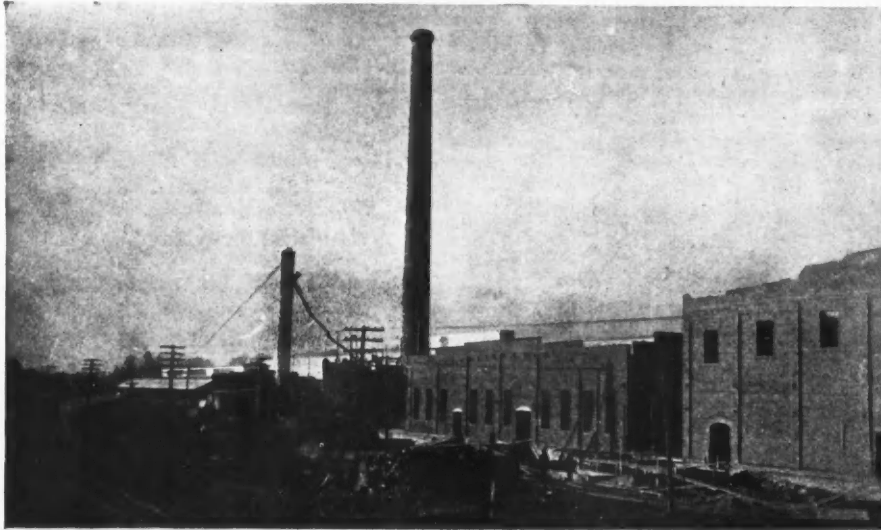
DAYTON, Ohio, May 22, 1918.—Fire in the plant of the Peerless Paper Company caused a loss of \$50,000. The fire started on the fourth floor among rolls of soda pulp.

Feculose Co. Moves Offices

BOSTON, Mass., May 20, 1918.—The Feculose Company of America has removed its office to more commodious and convenient quarters at 239 Atlantic avenue.

Kreolite Wood Block Floors

"They outlast the factory"



Top View—Monroe Binder Board Company's new buildings at Monroe, Mich. These buildings have Kreolite Wood Block Floors throughout.

Side View—Showing Kreolite yellow pine tongue and groove roof, including trusses. This roof was given Kreolite treatment as a protection from the constantly ascending moisture and warmth from the manufacture of the pulp into boards.



Steam, Acids, Water

have no effect on Kreolite Wood Block Floors. Engine rooms, digesters, beater rooms, machine rooms, finishing rooms and shipping rooms require Kreolite Wood Block Floors for everlasting service.

The following concerns are a few of the many others that now have Kreolite Wood Block Floors seeing service:

River Raisin Paper Co., Boehme & Rauch Co., the Goodrich and Goodyear Cos., Keystone Leather Co., Dye Mill Barbour Flax Spinning Co., and Westinghouse Companies.

Send for Catalogue "Factory Floors"

The Jennison-Wright Company

2488 Broadway

: : : :

TOLEDO, OHIO

TECHNICAL MEN HOLD BIG MEETING AT DAYTON

(Continued from page 9.)

There are concerns and companies in Dayton that are so vast and far-reaching in their scope as to belong really to the class of institutions. It has been often referred to as "the city of a thousand factories." This appellation is a fit one and almost literally true, for we make and manufacture everything from pins to aeroplanes, from cash registers and Delco lights to automobiles and sewing machines.

"Dayton is the home of the Wright boys. Once upon a time we told them they were impractical, were fools and so on. But they saw a vision, and that vision is today come true. This war will be won in the air. (Applause). In the making of war munitions, as well as aeroplanes, we in Dayton are today playing a very important part. We are aiding to right a tremendous wrong and we shall not falter in the pursuit of this aim until the mad man of Berlin is forever set aside. (Tremendous applause.) I take it that your first task in your convention deliberations is to conform your industries to make the world a better place to live in for men, women and little children. (Cheers).

"Here in Dayton just now we have set ourselves the task to raise \$1,000,000 war-chest for the Red Cross, Y. M. C. A., Knights of Columbus, and other war aids and charities, in one big appeal. What we are doing here in Dayton is either being done in each of your own home cities or soon will be done.

"We are proud to claim that Dayton is also the home of the model factory of the world. The N. C. R. as we fondly term the National Cash Register Company, is an institution rather than a mere manufacturing industry—a real educational institution which people come to visit from all over the world, and of which we in Dayton are justly proud. I trust many of you will visit it during your stay."

In speaking of the disastrous flood of 1913 that Dayton suffered, the mayor said:

"We now no longer stand in fear of the danger of its repetition, for our industries and homes are now secure in the construction, now nearing completion, of an immense piece of engineering work—our flood protection plant. It was necessary to invoke the aid of state legislation, for this is a matter of vital concern, not only to Dayton, but to the entire Miami and adjoining valleys. It is now in actual process of construction and all you engineers should see it.

"Here in Dayton and its environs, we have the largest aviation schools and flying fields to be found anywhere within the supervision of the U. S. Government. All these things and many others you should see during your stay here, and if your entertainment committee which has planned your days here falls short of its duty, it will be accountable to me.

"Our municipal form of government is well worth your study and observation. Managing a city in these modern times is not much different than managing a big business. Here in Dayton we have a committee of five men, at a small salary who form the so-called City Commission, comparable, if you please, to the board of directors of every business corporation. This commission in turn employs a man at a big salary and holds him responsible.

"Dayton, unlike many cities before this war, had been living within her income, but even with the war and its heavy demands upon us all, we are not running so very far behind. Our Greater Dayton Association, of which perhaps you may know something, but of which I trust you will learn more before your departure, is not an association or chamber of commerce. It is an enthusiastic, non-partisan, non-political body of 10,000 men and women who are constantly supporting

our city government, and at heart deeply and vitally interested in civic improvement.

"You are here in your convention to interchange ideas in order to serve others better and that is all that is worth while. We wish you well, and when you leave, we hope you will want to come back. Do come back, come again, come often!" (Cheers and applause.)

Mr. Fletcher Responds

After Mayor Switzer had finished Harry E. Fletcher, treasurer of the Fletcher Paper Company, of Alpena, Mich., and one of the most popular members of the association, responded to the mayor's welcome on behalf of the Executive Committee. Mr. Fletcher in a particularly sincere tone thanked the mayor for his gracious welcome and promised him that the Executive Committee "would hold to a strict accountability any member of that motley crowd that even attempted to tarnish Dayton's good reputation."

Why the Mayor Cut the Circus

President Carruth next introduced T. J. Nielson, secretary of the Greater Dayton Association.

Mr. Nielson explained that, according to the program he was "not registered as a speaker," but was there in his capacity as "emergency man."

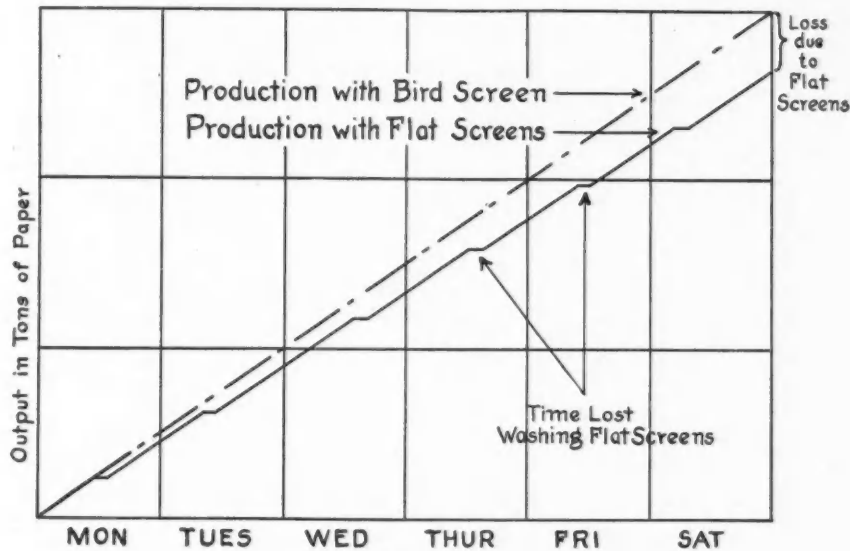
"Keep this a secret," said Mr. Nielson, "but when I was asked to see the mayor and ask him to make the opening address you have just heard, I went into his office to arrange the engagement. Of course, as you know, all busy mayors keep an official engagement book. So does ours. He took it out and turned it over slowly to Thursday, May 16, while I watched him over his shoulder to see that he did not make any mistake as to the date and in a terrible anxiety for fear that this particular day would be filled already with too many official engagements. To my supreme amazement the page for Thursday, May 16, was blank save for the single entry—'Ringling Bros. Circus.' And so in fear lest the mayor should forget, I came along. Before we go any further, I want you please to register your votes on this question: Did the mayor boost or boast?"

Mr. Nielson referred to the phrase "Dominant Dayton," which he said "had unfortunately attached itself to our city and which we feel is hardly in accord with our municipal modesty." Recently the Baltimore & Ohio Railroad made a survey of Dayton. Said Mr. Nielson, "They gave us a total population of 155,596. But this was six months ago and I think it is safe to say that today Dayton's population may be put conservatively at 160,000. To speak for a moment and to forget the individual in myself as representing the Greater Dayton Association, 10,000 men back this organization to make Dayton that which she is deserving to be.

"The Greater Dayton Association took its origin at the time of our great flood in 1913. Within 24 hours after the waters receded the city began to grow. The Dayton Association of Commerce, as it was called at that time, passed out of existence and the new organization of which we in Dayton are all so proud sprang into being. The right kind of community spirit is to be found here, and with that sort of backing there is no limit to the drive we can accomplish. I feel perfectly safe in saying to you that today, outside of your own home town, there is no better city than Dayton.

"In the organization and methods of civic and industrial management I have no fear in saying we have in connection with the Greater Dayton Association the best equipped office

(Continued on page 26.)



The Production of Paper with a Bird Screen

Just follow the production curve—it emphasizes how the Bird Screen produces more paper than a flat screen. In the flat screen the production runs steadily for a day or so, then the paper gets dirty—production is stopped dead.

After an hour wasted in washing up, the machine starts up again and that lost production cannot be regained.

Now study the line showing the output with a Bird Screen—it runs along uninterruptedly—no lost production and clean paper all the time.

In the course of a year the lost production due to washing screens adds up quickly and the cost per ton is correspondingly increased.

For high production and low costs per ton, install a Bird. Complete data and catalog A sent on request.

Bird Machine Company
East Walpole : Massachusetts

General Sales Representative, T. H. Savery, Jr.
 1630 Republic Building - - Chicago, Illinois

TECHNICAL MEN HOLD BIG MEETING AT DAYTON

(Continued from page 24.)

in the United States. Come over and see us if only to see how we are able to do things. Our information and experience are yours for the asking. Write us, care the G. D. A. Come and see us whenever you are in Dayton again. Good wishes to you all, for you are twice and thrice welcome."

Report of the Executive Committee

Next in order came the official report of the Executive Committee of the Technical Association, which was read into the minutes by Raymond S. Hatch, of the Crocker-McElwain Company, of Holyoke, Mass. The report showed a total membership during the official year of 415 members, which left a net membership of 394, after all deductions had been made for resignations, deaths or other causes. "It is with much gratification," said Mr. Hatch, "that your committee can report a total investment (he did not use the word 'subscription'), of \$1,700 in the Liberty Loans." Attention was called to the resignation of Ernst Mahler, of the Kimberly-Clark Company. Mr. Mahler was a member of the Executive Committee and last year at Neenah reported for the Committee on Vocational Education, of which he was chairman. The vacancy caused by Mr. Mahler's resignation has been filled by F. C. Clark, of the Paper Laboratory, Bureau of Standards, Washington, D. C. Mr. Clark's absence from the Dayton session was unavoidable, though two of his able young assistants were present, Mr. Conley and Mr. Curtis. Mr. Curtis, it will be recalled, is a Daytonian, formerly with the Aetna Paper Company, who enlisted with the Dayton Battery at the entrance of this country into the war, but who has since been transferred to the Bureau of Standards under Mr. Clark.

In the report of the Executive Committee, Mr. Hatch read the official thanks to the city of Dayton and to the mills of the Miami valley. He also took the opportunity to welcome officially the delegates present from the Canadian association. On the question of dispensing with the usual Fall meeting of the Technical Association, the report recommended that no meeting at that time be held which at the conclusion of the reading of the report was officially voted upon and recorded as not to be held. Mr. Hatch referred to the proposed plan of publishing a book in the course of the next few weeks that would contain for purposes of record all important papers and digests of the recent developments in the paper industry, a plan that has met with widespread favor due to the natural situation that is bound to arise after the cessation of hostilities.

Secretary-Treasurer Keenan Reports

In speaking extempore of the work of his office of secretary-treasurer, Thos. J. Keenan called attention to the duplicate relation of his position and that of the facts embodied in the report of the Executive Committee, as a reason for his not submitting an official written report. Mr. Keenan reported \$2,800 cash in the treasury. In referring to the forthcoming publication of the above mentioned pamphlet of 64 pages, being a reprint of the various papers issued by the Technical Association for free distribution among members, Mr. Keenan announced that a few copies would be available for non-members and others interested at a nominal price. In urging upon all present to secure new members, Mr. Keenan called attention to the matter of references that must accompany each application. The references given were scrutinized most carefully and each one was communicated with as to his actual personal knowledge of the ability and experience of every candidate for membership.

The special lecture by Robert B. Wolf, of the Spanish River Pulp & Paper Mills, Ltd., of the "Soo," on the subject of

"Results Obtained in Recording of Operations on Paper Machines," was postponed until the afternoon session owing to the inability of securing a lantern operator at the morning session.

Here followed the reports of four standing committees:

Heat, Light and Power

John H. Thickens, of the Bathurst Lumber Company, Bathurst, N. B., in his report for the Committee on Heat, Light and Power called attention to the questionnaire sent out as a result of information thus obtained expressed the hope that his committee would in the near future have certain recommendations to make to the Executive Committee, which recommendation would later be published.

Sulphate Pulp

Dr. Otto Kress, of the Forest Products Laboratory at Madison, Wis., reported very briefly for the Committee on Sulphate Pulp, but was immediately drawn into several discussions at some length, which he handled in a decidedly clear and interesting style extempore. Dr. Kress carries in his head a legion of figures at instant command and impresses his listeners always very favorably. In describing the cooking process employed at the mill where the actual tests were conducted, he replied in answer to a question that the cooking process had consumed one hour to come to pressure and three hours under pressure. The labor was poor, due to the inroads of a local strike at this particular mill, and boys were used in place of men. The digesters were charged with 13,000 lbs. of dry wood and yielded approximately 3 tons of pulp. An average of 36 cooks, between the method employed by the mill and the method pursued by the laboratory, was taken to arrive at these approximate figures. He laid particular stress on the point that in their new laboratory method each chip was thoroughly impregnated in the digester and that there was no excess liquor. When questioned as to their various experiences in blowing cooks, he replied that in some instances half or more was left in the digester. The method of forcing the liquor into the digesters was that of using a pressure pump. Dr. Kress lamented the fact that in performing many of their experiments, only such machinery was used as was at hand and expressed regret that sufficient money was not available to perform their experiments under the auspices of the most modern machinery and the most favorable conditions.

Standard Methods of Testing Materials

Hans Gesell reported for the above standing committee, and his remarks were the cause of much amusement to the crowd. His report was unique in that the material tested in this particular experiment and the micro-photographs presented with the report all hovered around a pair of trousers supposed to be made of paper fibre of German make.

It transpired in the course of this report that the trousers belonged to Secretary Keenan. In the test Mr. Gesell said, "I washed the trousers, but they did not come apart," and everybody howled. It proved upon examination that they were 70 per cent. paper fibre and 30 per cent. silk from Japan. Mr. Gesell said he realized as soon as he started the experiment "that Keenan had never worn them; they were built for a Japanese, judging from their architecture; they were far too narrow in their broadest part."

Mr. Carruth, after the laughter had subsided, asked, "Where is Exhibit A?" Someone suggested that the secretary rise and face the wall and lift his coat-tails. Mr. Keenan then

(Continued on page 28.)



Both radial and thrust bearings in this Jordan are S K F. The saving in power and the excellent quality of the cost of tained repay stock ob- S K F many times over.

BALL BEARINGS

No. 3 of a Series of SKF Users

The use of S K F Radial and Thrust Bearings on Jordan Engines results in many advantages. The trouble with the ordinary type of thrust bearing is eliminated. Production is improved in both quality and quantity.

Power wasted by plain bearings is saved by S K F Ball Bearings. S K F Bearings — accurate bearings of skillfully worked steel—mean a great improvement over plain bearings.

Our new Catalog "S K F Ball Bearings for Paper and Pulp Making Machinery" shows the construction of Ball Bearing Jordans. It also shows how S K F Thrust Bearings can be used to replace plain thrust bearings.

Send us your name and we will be glad to forward you a copy.

HARTFORD

SKF BALL BEARING CO.

CONNECTICUT

TECHNICAL MEN HOLD BIG MEETING AT DAYTON

(Continued from page 26.)

explained the trousers. It seems that some friend had presented them as a curiosity and an example of the paper clothing that rumors in the public and trade press have recently ascribed to German manufacture. The microscopical examination, however, had revealed them in their true material. The paper fibre was such as could not have been grown in Japan. Mr. Keenan made a stirring appeal for the suitability of such material for Summer wear at least. Mr. Gesell suggested that tailors' bills might be eliminated in so far as such trousers "never lost their crease."

Photographs had been made of what the microscope had revealed and these were passed around by the genial Harry Fletcher, who suggested that "all should take a closer look at Keenan's pants."

During the discussion that had been entered into, Mr. Carruth offered the suggestion that the fibre might perhaps be some little known indigenous grass fibre of Japan, of which there are so many in that little progressive empire.

Vocational Education

In reporting for this committee, Geo. E. Williamson, chief engineer of the Strathmore Paper Company, of Mittineague, Mass., made a most favorable impression upon those present. The discussion of his report was very spirited, and during the luncheon at the Miami later about twenty men sat with Mr. Williamson to discuss further the most important work. Another extra convention session was held by those keenly interested under Mr. Williamson's guidance and plans were adopted to be put into practice in various mills. The subject is one of such vital import to the mills that the PAPER TRADE JOURNAL hopes to cooperate with Mr. Williamson in lending helpful publicity to the practical plans of his committee.

Mr. Carruth at the close of this report called special attention to the labor conditions in the mills at present, so far as the difficulties attendant upon the efforts put forth upon this subject. It is very difficult to secure good labor. Not enough men are available; probably at no time have there ever been so many jobs and so few men to fill them. To hire men away from another mill "simply passes the buck, and the merry game goes on."

In commenting on the lack of assistance from the various mills in helping the committee solve these vocational education problems and on the widespread indifference toward the subject, Harry Fletcher jumped up and said, "I wish publicly here and now to take a slap at 36 of the 42 mills in the State of Michigan, for in my own State I know what I'm talking about. Only 6 mills have deigned to extend us even the graceful courtesy of a reply. The Kalamazoo section, boasted to be one of the greatest paper centers in the world, has simply gone flat on this big question. And I want to say right now if there is anybody here from that section who doesn't like what I've said, he knows what he can do." (Cheers and applause).

Messrs. Kellogg and Dawe Make Remarks

Hereupon, R. S. Kellogg, secretary of the News Print Service Bureau, arose and said: "If it only takes about \$100 to try this thing out, it looks as if it would not take much money to buy immunity for the entire State of Michigan." From his personal travels and interviews Mr. Kellogg said he felt sure that New York and Wisconsin were alive to the needs of university extension work and without much effort these States could be induced to adopt such courses in vocational education.

Arthur L. Dawe, secretary of the Canadian Pulp and Paper Association, who was present in his official delegate's capac-

ity, spoke of their work throughout the Dominion in the matter of publishing text-books. Letters had been sent out, he said, and the results were most gratifying. He assured his hearers that before long such a set of text-books would soon be available.

Mr. Carruth thanked Mr. Dawe on behalf of the American Association which was exceedingly pleased to note "the warm spirit of cooperation so evident on both sides of the border."

Mr. Wolf Relates His Experiences

R. B. Wolf called attention during the discussion of Mr. Williamson's report to the almost universal aversion of employees to such matters until they have been given a practical lesson of the way it works in their own cases. "The secret lies," said Mr. Wolf, "in each mill's turning its own plant into an educational institution."

The question of illiteracy among paper mill employees was brought up and in certain districts it has been proved a matter of record that two men out of every five can neither read nor write. Mr. Williamson said that such instruction should start from bed-rock, and cited instances of some mills that are already maintaining classes in elementary English instruction and simon-pure Americanism as well.

Mr. Wolf injected the question whether foremen or department heads were helpful in such instruction. It was brought out that in one Southern mill that to combine the gentle art of hiring and firing with the science of teaching did not work out. Local conditions in such matters should always govern. Mr. Wolf cited an instance while he was connected with the Burgess Sulphite company, more recently re-named the Brown Company. One of the head electricians on his own initiative asked permission to organize a class and teach it himself in the intricacies of winding armatures and motors, and was allowed to do so. It was immediately successful. In order not to be taken as differing with Mr. Williamson in the lengthy discussion which took place, Mr. Wolf openly complimented the latter's work and said, "You may count on Spanish River to help in every way we can." Mr. Williamson cited an instance of a mill that had employed an outsider to teach classes in English to foreigners and also mechanical drawing, the latter subject, however, being taught by one of the mill's own employees, but one holding no authority over the men he was teaching.

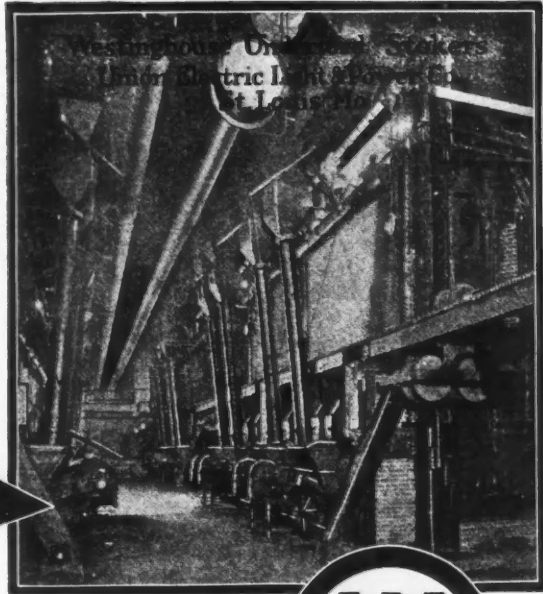
President Carruth here brought out the fact that in Massachusetts there was in process of operation a system of State aid in vocational instruction in which the State pays half the expense, on the single condition that the man who does the teaching be a practical man and no theorist.

Interesting Incidents Told By Mr. Drew

One of the most interesting incidents related during this discussion was told by Mr. A. C. Drew, superintendent of the Pairpoint Corporation, at New Bedford, Mass., on the Massachusetts coast. It seems that in this mill the majority of employees are Portuguese, who speak no English at all. Mr. Drew described their interest in what they were doing by saying that their only interest was manifested at quitting time. They are so densely ignorant, even in their own tongue, as to be at times unable to tell their own names, working at one time under one Christian name and at another time giving the time clerk or foreman an entirely different one through sheer ignorance. "But there is one thing they can all do," said Mr. Drew, "they can count, every mother's son of them. On pay-day, let a few pennies less than they expect be found

(Continued on page 30.)

Burning Low Grade Illinois Coal Successfully-



**John Hunter, Chief Engineer
of the Union Electric Light &
Power Co., St. Louis, Mo., says:**

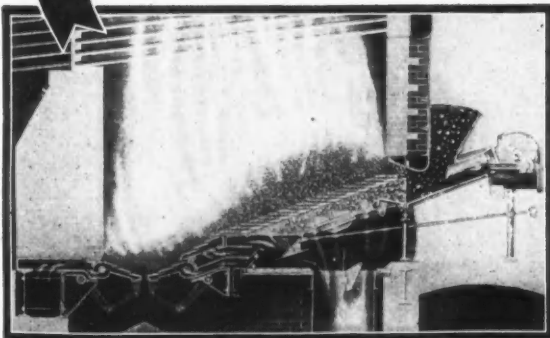


"Heretofore there was little encouragement from any source outside of the manufacturer that successful operation could be obtained with this coal (Low Grade Illinois) on this equipment.

"However, after six months' operation, the success of the venture has been proved beyond a doubt.

"Boiler ratings up to 200% are being carried continuously, with an overall boiler efficiency of 74.5%—this as opposed to approximately 65%, which was the maximum efficiency obtainable with our former stoker equipment."

**WESTINGHOUSE ELECTRIC &
MANUFACTURING CO.,
East Pittsburgh, Pa.**



Westinghouse

Underfeed, Roney and Chain Grate Stokers

TECHNICAL MEN HOLD BIG MEETING AT DAYTON

(Continued from page 28.)

in the pay envelope and you will soon discover they can count."

Mr. Drew went on to tell how one of them had responded to the urge of learning to read and write, how he would proudly but slyly exhibit small pieces of paper with his name Ernest written on it, and so on up the various steps of acquiring the rudiments of an education. The value of this was soon to be demonstrated in a practical manner. For one night the whole gang struck and if it had not been for the Portuguese, there might have been an ugly evening for somebody. But in the progress of the fellow's education, he had often acted as interpreter between foreman and others and was rather looked up to and admired by his fellows. So at this critical juncture Mr. Drew sent for Ernest and Ernest saved the day by explaining to the men in their own dialect just how matters stood.

On the subject of the widespread indifference of employees toward doing a certain job and the benefits to be obtained in learning a few elementary facts about exactly what one is doing, Mr. Wolf asked President Carruth to call on Mr. Hatch

to repeat a story the latter had told recently. So here it is:

Mr. Hatch's Hammer Story

A new president of a railroad corporation in assuming control of the affairs of the company made the mistake of following too closely the details of the big organization. He was most anxious, this new official, to speed up every new bit of construction and in the course of looking into suitable bonuses and so on among the best workers at the bottom of the organization was told of an old employee who had been on the company's pay-roll for 35 years and never had been late or absent. So the president sent for the old fellow, who proved to be an Irishman. In the course of complimenting the old fellow, the president said: "And what do you do?" "What is your particular job?" "I hit the boxes with a hammer," referring to his custom of tapping the journals on the trucks underneath the cars.

"What do you do that for?" said the official. "I'm dommed if I know, sor," said the Irishman. And in the midst of the hilarious laughter, President Carruth remarked that "suitable bonus is good" and entertained the motion to adjourn.

AFTERNOON CONVENTION SESSION

After a special luncheon at the Hotel Miami—nothing official, no speeches, just a simple getting together of a crowd brimming with enthusiasm and glad to the last man that he had come to the convention—back to the convention hall went the various groups to stand in a glaring sun and facing it, to have the official photographer, Sam R. Kremer, of Dayton, do his darndest. Just why somebody does not invent a camera that does not have to retire modestly into the shade and abandon those whose picture is to be taken to the merciless place in the sun, is more than the province of a mere victim to surmise. But you will always notice that the photographer as well as the camera have no feelings in the matter, and the group blinks and winks and sheds copious tears while gazing straight into the sun. Two exposures were made with the revolving camera used—one with hats off and one with hats on—but the "hats-off" photo was spoiled by the lights and shadows, nearly every face wearing too much sunlight. The group picture shown here with "hats-on" is the better, and many members and guests placed their orders on the spot. If you forgot to do so, or mislaid the photographer's address, it is 118 West Court street, Dayton. (Note:—This is not a paid advertisement. The photographer did not even ask us to mention his name.)

Features of the Picture

A glance at the group shows two or three little oddities. For instance, although May 15 had been announced as the official opening of the Panama season, there are only two straw hat sports in the bunch—"Acid System" Jenssen and Skinner. The two Englishmen in caps are "Rube" Robertson and Bill Nixon. And in "Salvation Army row," who is the chap with the brief case down on his knees praying for all he is worth? And what is he praying for? When the photographer started playing the game of "hats on, hats off," Bob Wolf went suddenly deaf and took his off at the wrong moment. The lone soldier boy is Curtis, now detailed to the Bureau of Standards. And last, but not least, look at the brand new "Simplex" car, marked "A. H. N." Whose is it? Some Miami Valley plutocrat who is keeping the automobile industry alive!

The photographing over, the meeting quickly came to order in the N. C. R. hall, or "Downtown" Club, as it is frequently called. For J. H. Patterson has also given his National Cash Register people in particular and the entire city of Dayton one of the

handsomest country clubs to be found anywhere. It lies out in the hills and dales section, a suburb of extraordinary natural beauty, another one of the big developments of Dayton, thanks to Mr. Patterson.

Recording Operations on Paper Machines

President Carruth started the session by announcing Mr. Wolf's lecture, "Results Obtained in Recording Operations on Paper Machines." Mr. Wolf began his remarks, which were entirely without notes, by apologizing for the ante-meridian absence of the movie operator and informing the audience that "Mr. Campbell has kindly volunteered—I believe that is the right word—to act as slide operator." Mr. Wolf explained that although Mr. Keenan had telegraphed him over a month ago the invitation to attend and lecture, business engagements had intervened and he had not found it possible to decide upon coming till very recently, "when the boys at the mill made a few slides, taken from the records posted daily at the Sturgeon Falls mill." Mr. Wolf paid a fine compliment to Mr. Shipman and to Mr. Brawn, both of whom were present, in regard to their excellent work in the research department of the Spanish River Pulp & Paper Mills, Ltd.

The difficulty of pursuing much research work is heightened by the attitude of the union leaders to the posting of production records. The records shown on the slides were all based on quality production. The general theory is that the men must be interested or the best results cannot be readily obtained. The posting of production records based on quantity seems to instill in the men a fear of losing their jobs or of suffering some penalty and the maximum results are not obtainable. The psychology of Mr. Wolf's work divides itself into three fields—the raw materials, the will of man and esprit de corps.

The first field is purely a natural one, working under natural laws of chemistry and physics; the second is the inner, subjective desire to do the work well of one's own free will; and the third, the spirit of winning the game, of friendly rivalry and the joy of doing a job well. These research studies are going to enable us to build up a real science of paper making that will take into account not only the laws of nature but the intellect of man. Hitherto we have taught the art of paper making, the art of

(Continued on page 32.)

Bleached and Unbleached
WOOD PULP
 of every description

M. GOTTESMAN & COMPANY

18 East 41st Street

INCORPORATED

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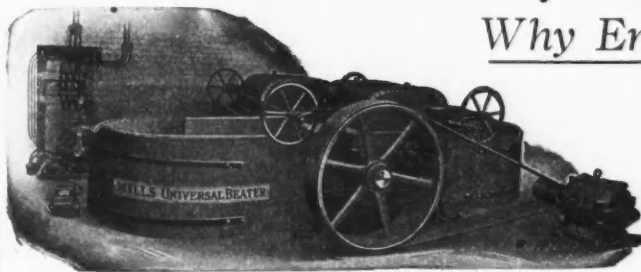
Established 1886

NEW YORK, N. Y.

Fourdrinier and Cylinder Paper Machines

Why Enlarge Your Beater Room?

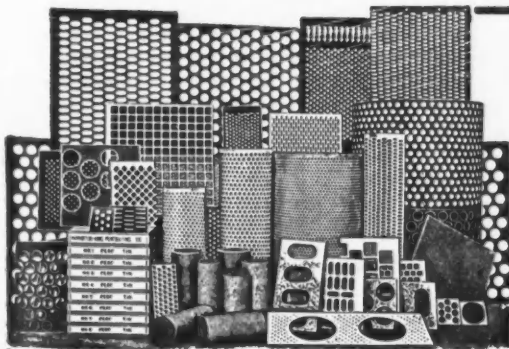
Why Add More Power?



All infringements on present patents and patents to be issued will be vigorously prosecuted

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

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



PERFORATED METALS

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

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

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618 NORTH UNION AVE., CHICAGO, ILL.

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TECHNICAL MEN HOLD BIG MEETING AT DAYTON

(Continued from page 30.)

cooking pulp, etc. The old way used to be to teach a man how to make paper by putting him at work in a paper mill and letting him see everything that happens. "But that method is, nowadays, too slow," said the lecturer; "it would take about eight or nine years in a paper mill to see everything happen that can happen." The feeling in the minds of the men that they have learned to do the job right for the mere joy of seeing it done right may be slow in coming, but the self-expression is there in every man, and, if the science is taught him first, the art will come later. The joy of working cannot come until the man's unrest and dissatisfaction are removed. Then, when the quality is right, the quantity will be right. This spirit of friendly rivalry spreads rapidly through the whole mill. The men in the beater room soon learn that if their stock is more uniform, the machine will turn out a better sheet. And so the beater men in their turn watch the ground wood stock, and the back-tenders learn to watch their steam. Every one learns in turn, and the quality of the mill product is enhanced. Mr. Wolf showed by slides thrown on the screen the actual increase in the efficiency percentages of the men.

Even the lime-slackers were interested when a recording thermometer was installed and they were explained the cost of every degree of temperature. Mr. Wolf outlined at considerable length the advantages that had been obtained by the introduction of efficiency records. An instance was cited showing how at first the "old-timers" in the mill were opposed to the "tommy-rot." One old machine-tender simply would not try; he stayed behind a whole month through pure stubbornness, and every day his name was at the bottom of the efficiency records as posted. Finally he could stand it no longer; his desire to win got the better of him and he caught every man on the list and is a regular top-notch today. And even the labor organization leaders are committed to the plan of these quality records and efficiency percentage lists. Mr. Wolf's talk was listened to with rapt attention, and the enjoyment was intense during his entire lecture. Mr. Wolf is a ready thinker and of pleasing address, and one of the best informed young men in the industry today on methods of obtaining efficiency.

Modern Methods in a Boiler Plant

The next paper George E. Williamson presented on "Modern Methods in a Paper Mill Boiler Plant." In addition to being the chief engineer of the Strathmore Paper Company, at Mittineague, Mass., Mr. Williamson is deeply interested in the subject of vocational education, and is at present chairman of that standing committee of the Technical Association. During Mr. Williamson's reading of his paper, whether it was the psychological suggestiveness of the subject or actually the excessive heat of the auditorium, due to its having been darkened during the showing of Mr. Wolf's slides, it is a fact that several members quietly shed their coats and vests.

Mr. Williamson surprised his hearers by reaching the end of

his paper before the audience seemed to think he was half through, and he laughingly explained that the larger part of the bulky notes he carried was composed of tables, charts, data and other statistical matter. He mentioned that his "paper" had already been called a "book" by way of reference to its obvious size.

During the absence of President Carruth from this point on, Dr. Otto Kress conducted the meeting to its adjournment. An open discussion followed Mr. Williamson's paper on the matter of the cost of steam and the waste of it in the plant and mill.

Other Interesting Papers

Secretary Keenan read into the afternoon minutes a report that had been prepared on "Government Paper Bibliography," by a Miss Stockbridge, which was adopted by title reading merely.

The next paper presented was by Walter N. Polakov, consulting engineer, on the subject, "Valuation of Power Plant Methods." Mr. Polakov showed many charts on the screen, covering a multiplicity of subjects on coal conservation and boiler room efficiency methods, and was listened to with unflagging interest throughout.

Storage of Bituminous Coal

The paper on "The Storage of Bituminous Coal," which was prepared from original experiments and research by E. Matheson, of the St. Croix Paper Company, because of the speaker's absence was read in full by Secretary Keenan and discussed eagerly and in great detail by many of those present.

The danger of spontaneous combustion in the coal pile is due to the presence of iron pyrites, grease, oil and other extraneous substances. The resinous matter, too, in the coal substance is largely responsible. It had come to be supposed that the rise in the temperature of the coal pile to the ignition point was due to the sulphur in it. But this idea has now been abandoned, as the amount of sulphur is far too small, even if it all suffers oxidation. Experiments on weathered coal shows that only one-tenth of the total sulphur it contains has been influenced by oxidation. The presence of pyrites is not sufficient to raise the temperature of the pile to the burning point, though a large amount of moisture could help. But the natural moisture of the coal pile has not been sufficiently determined upon.

Much trouble is due to the coal itself. Its deterioration begins at the mines. The size of the lumps has much to do with the case. Storage of freshly mined coal is liable to be dangerous at all times. The warning is, if freshly stored, the coal that is in the newest pile should be used first. To burn with any degree of rapidity, the coal pile must be heated to the ignition point. If possible, screen your coal. At the Calumet & Hecla mines over 200,000 tons are used; it is always screened, and there never has been a coal-pile fire.

Sunlight helps combustion. And if you have much coal to store, more than you have bunkers for, let some one who understands such matters advise you.

BIG DINNER GIVEN AT THE DAYTON CITY CLUB

Thursday evening was the occasion of one of the most enjoyable dinners ever tendered to the members and guests of the Technical Association. Not only in point of numbers present, in simplicity of menu befitting days of food conservation and in the general spirit of a genial crowd of good fellows, but also in the amazing revelation of just what is being done and has been done in the matter of aircraft production, marked the event as one of the most memorable gatherings that could possibly be held anywhere.

After the coffee had been served and the cigars passed, Presi-

dent Carruth, in the absence of the appointed toastmaster, called attention to one of the guests of the evening, who was there in his official capacity of delegate from the Canadian Association, Arthur L. Dawe.

Mr. Dawe spoke of the Toronto meeting to be held June 6 and 7 and extended a very cordial invitation to the American members and guests to come in as large numbers as possible. Instead of visiting paper mills, as was done last year, the convention will visit the plants of the big users of paper, such as the lithographing

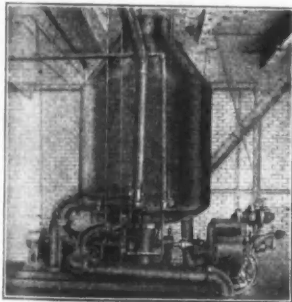
(Continued on page 36.)

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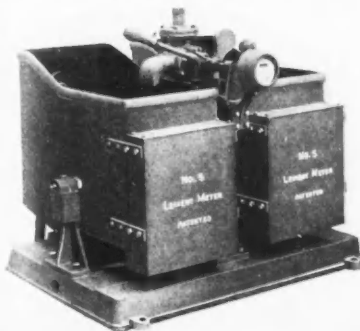
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Editorial

Vol. LXVI. New York, Thursday, May 23, 1918 No. 21
FORTY-SIXTH YEAR

The Red Cross Drive

President Wilson, speaking Saturday evening in New York, expressed in his inimitable manner the spirit that should prompt the making of contributions to the Red Cross fund for which the campaign is being conducted this week. Said he in one part of his great address:

"But when you give something of your heart, something of your soul, something of yourself goes with the gift, particularly when it is given in such form that it never can come back by way of direct benefit to yourself. You know there is the old cynical definition of gratitude, as 'the lively expectation of favors to come.' Well, there is no expectation of favors to come in this kind of giving. These things are bestowed in order that the world may be a fitter place to live in, that men may be succored, that homes may be restored, that suffering may be relieved, that the face of the earth may have the blight of destruction taken away from it and that wherever force goes, there shall go mercy and helpfulness.

"And when you give, give absolutely all that you can spare, and don't consider yourself liberal in the giving. If you give with self adulation, you are not giving at all, you are giving to your own vanity; but if you give until it hurts, then your heart blood goes into it."

After appeals like the foregoing the drive for the Red Cross Fund is bound to "go over the top" with a rush.

Committees in the paper trade throughout the country are earnestly at work in securing subscriptions for the fund and members of the trade should endeavor to make their subscriptions through these committees. The New York committee, of which John G. Luke is chairman, as well as some of the other committees, have been doing notably effective work and from present indications ought to make an excellent record. Remember, however, that these committees need continued co-operation until the campaign closes on Monday. Let your personal subscription be as generous as possible and endeavor to make others appreciate the need of putting their heart blood into whatever they give.

Vocational Education

Among the various vital subjects discussed at the spring meeting held at Dayton, Ohio, last week by the Technical Association of the Pulp and Paper Industry, none apparently aroused more interest than that on Vocational Training introduced by George E. Williamson, chairman of the standing committee of the association on that subject. This is a hopeful sign because while some mills have for some little time back been paying considerable attention to this matter, others unfortunately have practically ignored it and have not given it the attention it deserves. And as Mr. Wolf remarked at the meeting the secret of successfully handling the matter is in turning each mill into an educational institution. In

every pulp and paper mill plant where this plan has been tried it has worked out altogether to the satisfaction of those who have been responsible for its adoption.

Because of the way in which events are shaping themselves in the world at present, trained, intelligent workers in the industry are becoming more and more necessary, and they will be more than ever essential in every plant that hopes to be successful in the period of competition that will follow the close of the war. This statement is made advisedly; it is based on the opinion of the foremost men in the country who are interested in such subjects.

Pulp and paper manufacturers who have not already actively concerned themselves about this important matter should not delay any longer about interesting themselves in it. First and foremost perhaps wherever it is necessary the exceedingly vital matter of Americanism should be taken up and from this the subject of vocational education should be developed as rapidly and as extensively as the conditions of each plant permit. This will tend to solve many of the labor problems with which pulp and paper manufacturers have had to contend for a long time past and will be found a profitable proposition in every respect.

The PAPER TRADE JOURNAL will be glad to publish helpful views on the subject of vocational education from whoever may care to submit them.

About the Official Bulletin

In its current issue the *Saturday Evening Post*, the weekly periodical issued in Philadelphia, prints an editorial under the caption of "A Valued Contemporary," hinting at the lack of those qualities that make valuable and necessary a government publication that some months ago was the subject of considerable interest in the paper trade. This is what the *Saturday Evening Post* has to say about *The Official Bulletin*, the publication referred to:

"An unselfish interest in American literature moves us to call your attention to one of our competitors, which otherwise would most likely escape your notice. Its title is *The Official Bulletin*. It is published at Washington "under order of the President of the United States," as the subtitle announces. The subscription price is five dollars a year. It contains a dozen to sixteen pages, about two-thirds the size of this page, of the least expensive quality of news print paper. As to its editorial quality—the care and judgment with which its contents are selected and the skill with which they are presented—we prefer to express no opinion, for we are always content to let the other fellow edit his paper in his own way.

"Copies of the journal may be consulted at all or nearly all public libraries and at many post offices. We urge you to scrape up some degree of acquaintance with it, because it is the only journal of general information and opinion which this Democratic Congress seems willing to permit in national circulation. As *The Official Bulletin* is carried free in the mails it is not subject to that ingenious zone system which will obviously destroy national circulation for journals that are obliged to pay postage.

"So after the new postal law comes fully into effect and postage-paying publications have been restricted to regional circulation the one medium through which American citizens living far apart

can get a certain amount of general information and opinion in the same way will be *The Official Bulletin*, at five dollars a year. Look over a copy and see how the prospect pleases you."

This is the publication, it will be recollected, for which along last summer when publication was started, the Government directed the International Paper Company to furnish paper at 2.50 cents per pound, although P. T. Dodge, president of the company, protested that his concern was making only a very moderate profit at 3 cents per pound, which was the price his company asked for the paper.

This incident naturally has served to make *The Official Bulletin* of more than ordinary interest in the paper trade and members of the trade therefore will undoubtedly appreciate having their attention attracted to this notice regarding it from what may fairly be regarded as a good authority in the publishing business.

Better obtain and look over a copy of this publication as the *Saturday Evening Post* suggests. In these days when the Government is so urgently advising the conservation of paper it is not unlikely that this paper will impress you as extravagance in the consumption of news print that might well be avoided just now.

Report of Champion Coated Paper Co.

[FROM OUR REGULAR CORRESPONDENT.]

DAYTON, Ohio, May 20, 1918.—The annual meeting of the stockholders of the Champion Coated Paper Company at Hamilton last week developed that business operations during the year were attended with some set-backs and handicaps. A deficit in the operations was attributed to difficulties due to embargoes, increased cost of coal, higher wages and a strike. This combination of causes would have been sufficient to have affected almost any kind of business, it is believed, and it is not surprising that the usual dividend was not declared.

President Peter G. Thomson reported that the coating mill was shut down on account of the shortage of labor; that 275 men either had enlisted or had been drafted, out of a total of 1,500 employees, and that these men could not be replaced. During the year, wages increased 60 per cent. There was no change in the personnel of the directorate, all of the old members having been re-elected.

The officers of the company are Peter G. Thomson, president; Peter G. Thomson, Jr., vice president; Walter D. Randall, secretary and treasurer.

The stockholders of the Champion Fibre Company held a meeting at the same time and the old board was re-elected.

Sulphur Production in 1917

Sulphur was produced in 1917 by eight mines, one in Louisiana, two each in Texas, Nevada, and Wyoming, and one in Colorado. To avoid revealing confidential reports precise statistics of the production of domestic sulphur must be withheld, but according to the United States Geological Survey, Department of the Interior, the production in 1917 was roughly 50 per cent. greater than in 1916 and the indications point to a still further increase in 1918.

Statistics received from the Bureau of Foreign and Domestic Commerce show that 973 long tons of sulphur were imported into the United States in 1917 and that 152,831 long tons were exported. The imports of sulphur in 1917 were less than 5 per cent. of those in 1916, but the exports were more than 18 per cent. greater than in 1916 and were the largest ever made from this country in a single year. The total value of the sulphur exported in 1917 was \$3,504,661, which would indicate an average value for the sulphur of \$22.93 a ton.

Using Sulphite By-Liquor at Watertown

WATERTOWN, N. Y., May 20, 1918.—The use of sulphite waste liquor as a substitute for oil on streets and roads as a dust layer and binder has been forced into prominence by the utter lack of oil on the market this year. Indications are that the new outlet for this waste product from the sulphite mill will mean an important revenue to the mills that now permit the material to pollute streams, to the displeasure of cities that dot the streams and the death of all fish life therein.

President J. A. Campbell, of the Dexter Sulphite Pulp & Paper Company, has offered the city of Watertown from 50 to 100 barrels of this liquor free for experimental purposes, provided the city will pay for the transportation from the mill at Dexter. He appeared before the Board of Public Works last Friday night and presented the offer, saying that 30,000 gallons go to waste at his plant each day, and that if the city found that it could be used to advantage he would furnish it at the cost of placing in a tank for shipment here.

Dr. Campbell informed the board that this liquor is being used with success in many places. He warned the city against the use of sprinklers or containers of metal, for he said the acid would eat through them. He said that rubber packing could not be used, as only glass, lead and wood resists the acid. Despite the statement, neither he nor E. W. Sayles, city engineer, believed the liquid would injure automobile tires.

The city may make the experiment, for this year not a bit of oil can be bought for sprinkling the streets. The sulphite would require a new sprinkler, but even at that price it is believed that the test would be economical, despite the fact that at least three applications a year would be found necessary in place of the one oil coat usually given.

There are several sulphite plants in this section, and for a number of years considerable effort has been made to compel the mill owners to withdraw this waste from the rivers. There is hardly a stream in the section in which fish have not been killed by the acid and the water made undrinkable. If this by-product can be utilized profitably for sprinkling roads, the paper mill men will be relieved from public condemnation and the public relieved from a nuisance long deplored.

Some industries are taking the stand that they will only promote men who are citizens or who have applied for their first citizenship papers. In this attitude employers are moved by two considerations—patriotism and the need for national preparedness with a realization of their own responsibility; and second, the need for an improved and more stable labor supply and a reduction in accidents among non-English speaking men.

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TECHNICAL MEN HOLD BIG MEETING AT DAYTON

(Continued from page 32.)

plant of Rolph, Stone & Clark, the Dominion Envelope Company, Eaton's printing establishment and the British-American Wax Paper Company. The papers already arranged for, the speakers promised, would be the equal of those of other years in point of view of their technical value. A trip is also planned that will include a visit to the Toronto Technical School. And to judge from the enthusiastic applause that followed Secretary Dawe's remarks, many of the American members expect to be in attendance.

In introducing the chief speaker of the evening, President Caruth called attention to the fact that Dayton was an airplane city, but not one person in the room, with the possible exception of the speaker himself, and George H. Mead, who is a director of the Dayton-Wright Company, actually knew what an astounding revelation it was to be their privilege to hear. The speaker was Mr. Schoonmaker, chief engineer of the Dayton-Wright Company, one of the most modest and unassuming speakers imaginable, but a young man who had at his command an array of technical figures and comparative statistics and production records that would stagger many older and experienced extempore speakers. Not a note or memorandum, no high-sounding oratory or rhetorical flights, not the slightest hesitation nor even any unusual rise in voice nor affected gesticulation in delivery, even though he was constantly interrupted by round upon round of whole-hearted applause. It was the message he carried that thrilled his hearers, and we venture to say that no more wonderful address was made than was listened to at this dinner. Even though it was delivered at a time when one of Dayton's chief citizens is under fire in the matter of the proposed investigation of the Aircraft Board, no names whatever were mentioned, no appeal was made for fair play and no apologies offered. It was a straight out-and-out exposition of facts and figures, and no man who heard it could help but feel that he was a listener at one of the first public utterances anywhere on a subject which will make history before the war is over. The country at large is to be sincerely congratulated that it has young men of the type and training of Mr. Schoonmaker, who work first and talk afterward.

Mr. Schoonmaker's Remarks

The following is a summary of his remarks:

"Much has been heard recently in the talk of the men you meet and the articles you read in the press about the work of the Aircraft Board, which may be briefly summarized as follows: The Liberty motor is a failure, a vast sum of money has been wasted, the aircraft program is a fizzle, and we have only one airplane on the other side.

"When we entered the war we had no aeroplane motors, no battle-plane motors, we were adopting for use types successful over there. We had nothing to base our hopes on; whatever we built must be built out of the air, so to speak.

"Engines had to be built in large quantities. We decided to take the motors apart and lot out their construction in parts. The assembling of these fabricated parts would then be comparatively easy. Such a motor would prove to be as good as one built up all the way. We had therefore to go to the other side for our information.

"The English were building an air-cooled motor. Weight was a big item. This motor had no water jackets, no radiator. An air-cooled motor, it was soon learned, had a greater gas and oil consumption, and therefore the water-cooled type was the lighter of the two, in spite of its apparent additional weight. We decided to build the water-cooled type. Our airplanes must be built to carry arms and machine guns as well as armament through the air.

"There were two schools—the Allied and the German. The aeroplane must be considered as a vehicle, and there were four speeds to be considered."

Here Mr. Schoonmaker facetiously referred to a friend of his who once said, upon hearing these four speeds discussed, "That's the first time I ever knew an airplane carried gear-boxes."

"They do not have a gear-box. The four speeds referred to are speeds of action: How fast can they travel? What is their climbing speed? Their landing speed? Their diving speed? No single plane could be expected to embody a maximum of all four. The Germans have excelled in the high dive, the Allies in the high climb. They are exactly opposite. The high climbing machine is low in weight per horse-power, while the high diving is low in pounds and head-on resistance.

Evolutions of the Motor Used

"Our type of motor is the V-type, following that of England. But we had no model, no designs, nothing to start with. Two men—one from the Pacific Coast who knew more about air motors probably than any one in the country, and the other from the Packard Company, met in the New Willard Hotel in Washington, D. C., in a room with nothing but their brains, a few sheets of hotel paper and pen, pencils and ink—no drafting instruments—nothing. These two men in five days had perfected crude working drawings of a motor, and the next day experts came down from Detroit from the Packard plant to make accurate drawings, and in twenty-one days this motor was on exhibition in Washington. (Cheers.) Its cylinder has a 5-inch bore and a 7-inch stroke. The present 12-cylinder Liberty motor was planned to develop 375 horse-power and weigh 775 pounds; it has actually shown 435 horse-power and weighs exactly 790 pounds. (Tremendous applause.)

"Henry Ford is making the cylinders—5,000 every week at present. The cylinder walls vary from 3-64 inch to 3-32 inch in thickness, and he conceived the idea of making them out of tube, cut at an angle of 60 degrees, turned around, bumped together in the forge, hardly without being touched, and they fit to a hair. There is one weak spot only in the head; that is where the welded parts all but meet, leaving a tiny hole. But that hole comes exactly in the center of the spot that is next bored out for the valve cages, for the valves are in the head. (Tremendous applause.)

"The Lincoln Motor Company has been organized to make the other motor parts. This is the old Cadillac Company. These three companies—the Lincoln Company, the Ford Company, and the Packard Company—are making 3,000 of these Liberty motors per month. Already 1,400 have been completed, and today over 75 per cent of these have been in the air and are absolutely perfect. (Cheers.)

Five Types of Planes

"There are five types of planes: The scout, the battle-plane (sometimes known as a day bombing machine), the photography machine, the artillery observer, and the night bomber, built to carry a heavy load of ammunition—the 5-ton truck of the air. The trend of production and use has been away from the scout toward the battle-plane or two-place fighting machine, the three latter types not being produced.

"We should know these facts, in order to stamp out the lies that are being told. Tell the truth—the whole truth and the entire story actually as it is. As to production of planes, we are ninety days behind a schedule, but it is a theoretical schedule, made up over a year ago, when nobody knew conditions. We had no fighting planes when we entered the war. As to the actual success of the Liberty motor: THERE IS NOTHING WRONG. (Cheers.)

(Continued on page 38.)

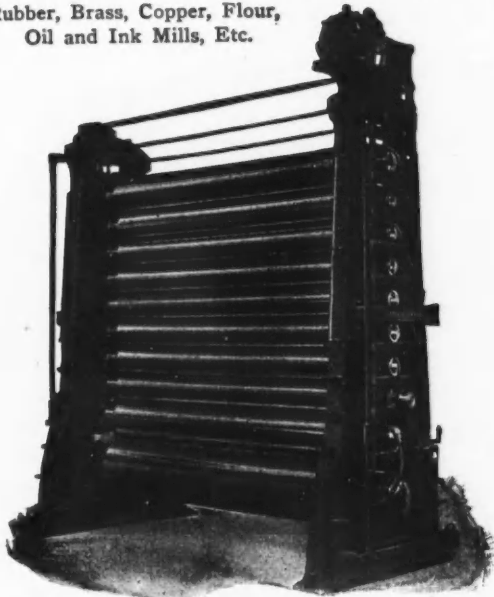
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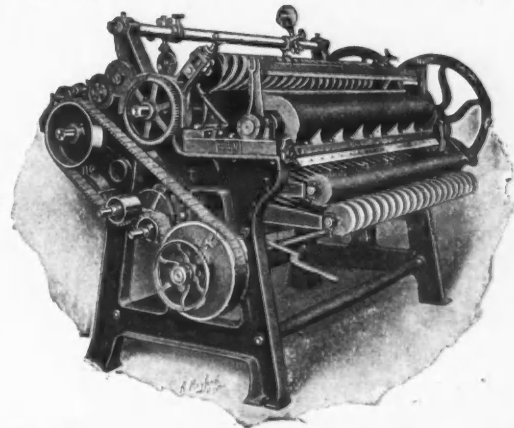
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TECHNICAL MEN HOLD BIG MEETING AT DAYTON

(Continued from page 36.)

Here in Dayton we have had only one material motor failure. Statements have appeared in the English press, attributed to the Aircraft Board of the English army, to the effect that the designing and building of the Liberty motor is the one great feat of our war production.

Have Speed of 1800 R. P. M.

"The propellers have a speed of 1800 r. p. m. The machine guns must shoot between the two propeller blades as they whirl around past the muzzle of the gun. The guns are synchronized and tested, so as not to shoot the propellers off. To test their accuracy in firing, a large disk was arranged behind the propellers, so as to show where each bullet struck. Instead of a long line of various bullet holes, as you might suppose, the track of those bullets was a line only eight inches long. And 25,500 shots were fired and the ammunition used in the tests was all rejected stuff at that. (Tremendous applause.)

Equipment of Each Plane

"It is interesting to record what each battle-plane will carry in the way of equipment. Two synchronized guns of the Marlin type, two Lewis guns and ammunition, bombs, radio outfit, automatic photographic apparatus, intercommunicating telephones, electrically heated clothing, wireless ground telephone, generators for all this heating and lighting system, operating instruments, and lights therefor, navigation lights and a Very signal pistol. Thirty-two complete were loaded last week for shipment 'over there.' By July 31 we shall have had our one thousand and first machine under test, and our production will then be 28 per day. As to money, rumor says we have squandered \$800,000,000 and have nothing to show. Stamp out the lie! (Cheers.)

"We have at present 15 flying fields, costing \$3,000,000 each; 4,000 aviators, worth \$10,000 each; Dayton has the best-equipped experimental aero station in the world. (Tremendous applause.)

The Castor Oil Story

"Now for the castor-oil story. When it was decided to use castor oil as a motor lubricant, this Government bought up all the castor oil in the country, but that was not enough, so we purchased 110,000 acres of land to raise castor plants, and soon had a shipload of castor beans on the way from Ceylon.

"When a battle-plane is ready, it is sent up 10,000 feet, held there for an hour, brought down and coated. It is the equal of the best on the other side. A Rolls-Royce engine, with mechanic and flyer, were sent over here for test. 'It is the best I ever saw,' said each man, in speaking of the machine they accompanied. And they spent six weeks in flying before the test. The official figures of this comparative test between the English battle-plane with the Rolls-Royce motor and our fighter with the Liberty motor have never been announced. Nor have the official figures of the Liberty machine ever been made public. But the semi-official figures I will give you.

Attains Speed of 112 Miles Per Hour

"The Liberty motor, with a speed of 112 miles per hour, under its regular military load, flying during a period of two weeks, has attained in the air a speed of 134 miles per hour, and with no load 138 miles per hour. Now for the test with the Rolls-Royce. The English machine went up first, and when it had reached a height of 1,500 feet the Liberty motor went up. Our pilot had a cold motor to start with, but it caught the Rolls-Royce at 7,000 feet. It climbed the first 5,000 feet in 3 minutes 25 seconds, and the first 10,000 feet in 7½ minutes. Its vertical speed was double that of an express elevator in one of our highest buildings. The elevator goes up at the rate of 550 feet per

minute, and the Liberty motor 1,250 feet per minute. (Cheers.)

"We have been as bad off for workmen as we were for planes and motors. We have had to specialize on men, for they do individual work and each mechanic has to be a specialist in his line. In one of our Liberty motors there are 4,000 metal parts fabricated. Counting the motor as one piece in our fighting machines, there are exactly—or were, at last count—32,840 parts.

Two Other Companies

"Two other companies besides the Dayton-Wright Company are today actually producing or preparing to produce airplanes. The Curtiss Company is planning to produce a faster plane to combat the scout. And two other companies are busy on the night-bombers.

"Our battle-planes will clear the air on the other side, and we must have them in whole fleets, for the life of a plane is very short, indeed. When the air is cleared, the night bombers will win the war. It is your duty to spread the truth."

The cheering and applause when Mr. Schoonmaker sat down lasted over a full minute. The audience meanwhile had risen to its feet, and President Carruth led the cheering with "three cheers and a double tiger," which were given with tremendous enthusiasm and to the echo.

Geo. H. Mead Speaks

President Carruth then introduced George H. Mead, who said he wanted to set everybody straight "as to why I came in late and in my present garb." (Mr. Mead was in evening dress.) He said:

"I was present earlier in the evening at a much less important occasion—to me, at least, if not to the groom. It was merely a wedding." (Laughter.) Mr. Mead spoke in terms of highest praise of Mr. Schoonmaker's engineering work in the Dayton-Wright Company, "in which I am merely a modest director." There were two reasons why it seemed advisable to ask Mr. Schoonmaker to give his talk on aeroplane production.

Too Much Scoffing at Air Board

"In the first place," said Mr. Mead, "there is far too much scoffing at the work of the Aircraft Board. I was present the other night at a dinner in New York City at the Union League Club—just a private dinner of fifteen men. And the castor-oil 'hoax,' as one gentleman chose to term it, was up for discussion. His entire argument was based on the fact that 'any oil probably would freeze at a high altitude, anyway,' and he never apparently stopped to think that the motor was probably not suffering much from the cold. (Laughter.) You technical men can perform a great service by showing exactly what is being done, for the truth is that it is little short of marvelous.

Furnishes An Inspiration

"The second reason is that it furnishes us all an inspiration. Are we in the paper manufacturing world making the most of our opportunities? Perhaps we are lagging. You men have a tremendous responsibility, for when this war is over, we in America's paper mills will be far ahead of the rest of the world in the steps we have made in the industry. Your association work cannot be magnified too greatly. You young men should be given more responsibility. It is true that it takes experience to make a good sheet of paper, but this very experience of your elders, if conferred upon you younger men in the way of added responsibilities, should put this country where it rightfully belongs, far in the lead of the other paper-making nations of the world." (Applause.)

(Continued on page 40.)

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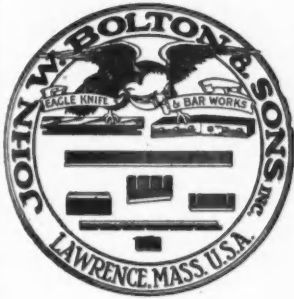
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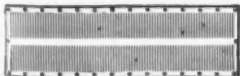
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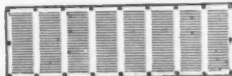
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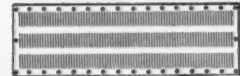


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Acid-Resisting Bronze Castings, Suction Plates, Babbitt Metal, Hardy Bronze Screws.

Old Plates Recut to Accurate Gauge.



STYLE "C"

TECHNICAL MEN VISIT THE PAPER MILLS

(Continued from page 38.)

Beautiful weather attended the second day's session of the spring meeting of the Technical Association. An early start at 8:30 from the Miami saw the crowd off in about twenty-five autos down the Miami Valley, along the Dixie Highway, for a delightful trip of thirty-five miles. Perhaps no section of this country can boast of so many big and well-known paper mills within so short a distance of one another. Dayton, to start with, has two—the Aetna and the Mead Pulp & Paper Company; next comes West Carrollton, seven miles down the valley, with the big mill of the Miami Paper Company; then Miamisburg, three miles away, has the Miamisburg Paper Company, and the roofing-felt mill of the Ohio Paper Company. In the seven miles to Franklin you pass three American Writing Paper Company mills, the old Harding mill, the Excello mill, and the Franklin mill, besides the two mills of the Srere Brothers, and that of the Franklin Board & Paper Company, the plant of the Franklin Coated Paper Company, and the Patent Vulcanite Roofing Company's plant. In the six miles from here to Middletown the Crystal Paper Company is passed, and when once inside the little city there are the three Gardner-Harvey mills, the recent Oglesby-Sorg combination to choose from, along with the Wardlaw-Thomas mill of rope and jute manilas, and one of the most famous blotting paper mills in this country, the Wrenn Blotting Mill. Upon arrival in Hamilton, after a twelve-mile stretch, there are three others, the Beckett Champion Coated and Sterling, truly a company of twenty-three paper-making plants and one converting plant that can scarcely anywhere be tallied up in thirty-five miles, as the bird flies.

Luncheon of the Hamilton Club

When the slowest of the autos were safely arrived at Hamilton, the Champion Coated Paper Company became the host and threw open its doors to inspection, under the leadership of a guide, philosopher and friend in the person of Peter G. Thomson, Jr. Many of the men missed Alex. Thomson, who was out of town, and several were delighted to greet Logan Thomson, Colonel Thomson's youngest son, who was up on leave from the ord-

nance department in Washington, where he is now a lieutenant in the service of the colors.

After a tour of inspection, luncheon was served at the Hamilton Club to over a hundred hungry guests. On the return trip to Dayton a brief stop was made at one of the board mills of the Gardner-Harvey Company. And it should be said, in passing, that if anybody in these United States can make a better board than Tom Harvey we can't imagine who it can be, unless it is his brother, George H. And one of the proudest men that day in the whole Miami Valley should have been Mr. Harvey senior, the venerable daddy of them both, for he was there and as happy as a youngster at his first party.

On the last part of the trip, a stop was made at McCook Field, the Government testing station, where the Liberty motors come out of the Dayton-Wright plant, just across the road. And a giant battle-plane came flying gracefully over the string of autos as they came to a halt at the roadside. Up she went in a high, dizzy climb to the wonder even of those to whom flying machines are no novelty, and, after looping the loop, flew away out of sight to the northeast with the wings a-glimmer in the rays of a glorious sun trying hard to hurry beneath the hilly horizon, as if he knew he was an hour late. Suddenly a second machine appeared out of the air, as if from nowhere, and landed, dancing along the greensward with all the grace of a Colonial dame in a Revolutionary minuet.

Upon arrival at Dayton, a short time later, the happy crowd dispersed, some to leave for homes at once and others to continue on in motors to Wilbur Wright Field, twelve miles up the valley toward Fairfield, Ohio, where the army flying field is located, and where it is no extraordinary sight to behold from eight to a dozen army planes pirouetting and dancing, diving and looping and climbing and landing all at once, with a daring abandon that raises the hair on the heads of those of us who are not too old to have some there. And, in conclusion, let us say briefly: SOME CONVENTION, SOME CROWD, SOME VALLEY, SOME TOWN!

VALUATION OF POWER PLANT METHOD*

BY WALTER N. POLAKOV, Consulting Engineer, New York.

The question of determining the value of the physical properties of our industrial establishments and public utilities has been repeatedly brought to public attention. The purpose was primarily to justify the increased cost of commodities, rates and transportation as gravely influenced by heavy investments in the machinery of production. Yet: "The loss to the companies from the undervaluation of their property is insignificant in comparison to the actual losses due to the lack of proper operating methods. What is needed most is the correct valuation of operating and managerial methods in vogue, and overestimating the importance of property valuation is like trying to trace old sins instead of preventing the committing of new ones."

In other words, to keep pace with industrial progress in order to meet the requirements and competition, improved instruments of production were adopted. Increase of investments is followed necessarily by reduction of the rate of profit, and in order to secure the same or larger earnings the manufacturer must expand the production, ergo, increase the investments. This is the process we actually observe in our industrial development. Salvation is sought therefore through raising the commercial profits by increasing the selling prices.

*Read before the Technical Association of the Pulp and Paper Industry at the Spring Meeting, Dayton, Ohio, May 16-17, 1918.

In the course of the present War for Democracy, the most amazing reshaping of principles underlying the industrial life is taking place. Allied governments have been forced to admit that the industries should serve the country first. Handcapped by unscientific, disorganized production of the most necessary commodities, they have come to realize that the right to control and direct production involves the responsibility of applying proper methods to secure beneficial results. Furthermore, precedents have been established where those who were not carrying on their business for the common good were denied the privilege of running it at all.

On May the 8th, the preliminary steps toward putting into operation a general plan for fuel conservation were made by appointment by the United States Fuel Administration of administrative engineers for the Pittsburgh district. The plan contemplates the saving of up to 50,000,000 tons of coal used annually in industrial plants, by means of correct operating methods. It includes personal inspection of every power plant and classification and rating of their operating efficiency. The appraisal of power plant methods discloses the fact too often overlooked, that the revenue producing factor is not the investment and equipment but the method of its use.

(Continued on page 42.)



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Manufacturers of **Paper and Pulp
 Mill Machinery**

TECHNICAL MEN HOLD BIG MEETING AT DAYTON

(Continued from page 40.)

It was the business of financiers to invest money in industries and they wanted to know what this investment is and what return they are getting. The question they now ask is: *What is the value of the methods and what do they lead to?* Unfit methods and incapable leaders are equally harmful to both investors and consumers, and their interests unite in demanding that methods of the highest value be developed and put into use.

Criterion for Valuation

Now, what is the criterion for valuation of the power plant managerial methods? Obviously such a measurement can not be made unless we have something to compare with. Evidently such measure is the *ratio of what the performance is and what it should be*. Yet we can not say, under the given circumstances, that so many pounds of steam per lb. of coal should be our standard, as both coal and equipment available are vastly different in different plants. Similarly, it would be a rank absurdity to say that a H.P. or K.W.H. should cost so much. Averages for entire industry or even districts are worse than no measure at all since, for some plants these would be unjust while some others would continue the waste though below the average.

Simple Method Needed

What is needed therefore is a simple method whereby a busy executive can judge at a glance, without every thing going into a mass of technical details, how close the actual performance of the plant is to the best possible, under the given circumstances.

No plant without dependable, complete and permanent records of performance can claim freedom from waste. In fact the losses of fuel are very large indeed, averaging in my experience from 30 to 50 per cent. Such a waste of natural resources particularly at this time must be condemned as giving comfort to the enemy as it tends to disorganize transportation and create further shortage of coal cars and ultimately interfere with the production.

As a remedy against such danger, it has been recommended that the U. S. Fuel Administration establish a kind of priority on fuel deliveries, giving preference to plants whose records show that they know what they are doing and giving the plants without records or with poor ones only such fuel as may be left available after the more efficient plants are provided with due allotments.

Obviously it is not feasible to evaluate with any degree of accuracy, the wastefulness of the plant management unguided with records and standards. It is quite different however in the case of plants provided with means to intelligently control the production.

Plant Standards Differ

For those plants standards of the best possible performance can be established, naturally these tasks or aims being different. Such standards of performance take into account all the influential variable conditions that are beyond the operating control, such as, load, quality of fuel, etc. When this is done it is easy to interpret the engineering results into dollar and cents terms, thus

establishing for any and each individual plant a certain cost at which the power should be generated under given conditions and with given prices of labor and supplies. Evidently, even in the same plant this standard will fluctuate with the change of power output, with the change of price of fuel, with new schedule of wages, etc. *but the ratio of what the actual cost is and what it should be under the circumstances gives a reliable measure of operating perfection.*

Inasmuch as standard cost cannot be determined without first finding out how the maximum economy can be secured, the process of standardization of costs is also a process of devising the best way for operation and management. Once both methods and results are positively established cost is but the form of expression of the final result. It is true that the standard cost is influenced by the price of commodities used in the course of generation of power, as well as, by some conditions beyond the control of the management and operating engineers, but the adjustment of the standard costs to every change of these factors can be made as simple as the use of a slide rule. Furthermore, a separate account should be kept for such charges as are the part of business policy, so that a division of responsibility between those managing the production and directing the business could be clearly drawn.

As long as costs of production of power come as an unexpected surprise and arouse the curiosity to an extent of comparing them with the preceding month, year or any other plant's data—the management of such power plants is evidently a very haphazard undertaking, lacking the aim at any definite goal. Without pre-determined standards, superintendents and managers will continue to believe that they control the production and owners will remain in a happy ignorance as to how much of their money goes to waste and why.

Cost of Power the Result of Method

The cost of power is the result of method as well as of other factors. Price of commodity and labor used is known; efficiency of equipment used is known; nature of service is known, and their influence on cost of product is easily found from a comparatively simple study. In a given plant these factors remain constant until change is made by purchase. For different plants factors of merit could be established equalizing for the unequal condition. Now if costs vary, it is due to variation of the methods of management of the plant. If these methods are standardized, and the costs still vary, other conditions being constant, it means that standard methods are not lived up to; that is, the management fails to manage.

This method thus offers a mechanism for measuring the efficiency of the plant management. If the principle and methods are right the results will necessarily be the best obtainable and consequently the only best method or "standard method" finds its expression in the lowest possible cost or "standard cost" for each given plant.

MODERN METHODS IN THE PAPER MILL BOILER PLANT*

By GEO. E. WILLIAMSON, CHIEF ENGINEER, STRATHMORE PAPER COMPANY, MITTINEAGUE, MASS.

The nationwide fuel famine of last winter, the five coalless days, and the idle Mondays impressed upon the mind of every thoughtful person the extreme need of fuel conservation. The efficient burning of coal, too long neglected by industry at large, has become through necessity a question of most serious moment. The following press dispatch of May 4, 1918, puts the proposition

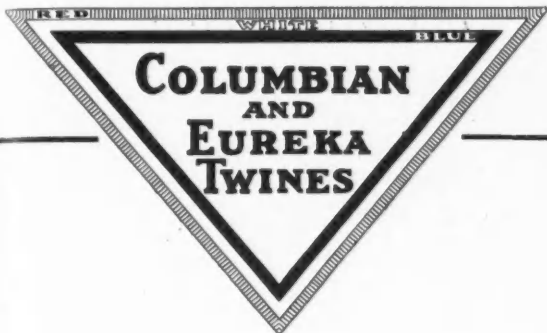
*Read before the Technical Association of the Pulp and Paper Industry at the spring meeting, Dayton, Ohio, May 16-1, 1918.

squarely before every power plant owner, manager and operator:

Industrial Plants to Be Rated According to Boiler Efficiency

WASHINGTON, May 4.—Drastic checks on industrial fuel consumption are under consideration by the Fuel Administration. P. B. Noyes, director of conservation, plans to put inspectors in industrial plants to supervise the use of coal.

(Continued on page 44.)



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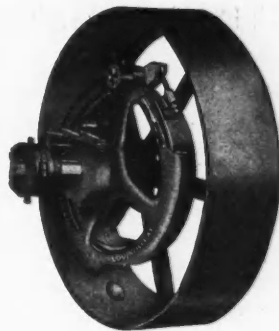
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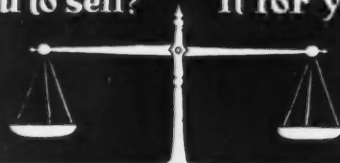
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TECHNICAL MEN HOLD BIG MEETING AT DAYTON

(Continued from page 42.)

Fuel Administration officials say enormous amounts of coal are wasted daily through inefficient firing methods and obsolete equipment.

Mr. Noyes appeared today before the House Appropriations Committee and asked an appropriation of \$1,500,000 for the inspection service.

His plans contemplate the rating of plants according to their boiler efficiency for the delivery of coal. Plants wasting fuel will be required to take corrective measures, or their coal supply may be cut off. The programme, it is said, will bring a saving of from 25,000,000 to 30,000,000 tons of coal a year.

I believe, therefore, that any knowledge of value on this vital subject which any of us may have, should, as a patriotic duty, be disseminated as widely as possible.

This paper describes briefly the results of an attempt on the part of the Strathmore Paper Company, operating four mills at Mittineague and Woronoco, Massachusetts, to improve the economy of its boiler plants.

At the Mittineague mills, the steam plant was originally built about twenty-five years ago, but has been enlarged and rebuilt several times during the ensuing years.

Boiler Plant Equipment

The boiler plant equipment consists of the following:

Eight horizontal tubular boilers, 66 in. diameter, tubes 18 ft. long, safety valves set to blow-off at 130 lb.

One Green fuel economizer, 240 tubes.

One Goulds 6 in. × 8 in. triplex engine driven feed pump.

One 12 in. × 7 in. × 12 in. Warren steam driven feed pump.

One Green Fuel Economizer Company's forced draft fan, driven by an 8 in. × 10 in. Chandler & Taylor engine.

One 1,250 hp. type EB, Webster open feed water heater.

Steam is generated in this plant:

A Nordberg Corliss cross compound engine, 20 in. × 36 in. × 48 in.

One 1,500 KW Curtiss mixed pressure turbine with condensing and auxiliary equipment.

Two Fitchburg engines driving paper machines.

Heating, drying and manufacturing purposes.

The steam plant at the Woronoco mills was built in 1913, and has the following equipment:

Six Manning vertical boilers, fire box 90 in. in diameter, tubes 20 ft. long, safety valves set to blow off at 175 lb.

One 1,250 hp. type EB, Webster open feed water heater.

One Sturtevant fuel economizer, 528 tubes.

One No. 4 Janesville three-stage boiler feed pump driven by a Terry steam turbine.

One 7½ in. × 4½ in. × 12 in. Deane duplex steam pump.

One Green Fuel Economizer Company's steel plate forced draft fan, driven by an 8 in. × 8 in. Troy enclosed semicrank type engine.

This plant generates steam for:

One 2,500 kva. Westinghouse turbogenerator unit with condensing and auxiliary equipment.

Two engines driving paper machines.

Heating, drying and manufacturing purposes.

Tests Made from Time to Time

For many years close attention has been given to the burning of coal under boilers. From time to time, regulation boiler tests were conducted in accordance with the power code of the American Society of Mechanical Engineers; check tests on different grades and mixtures of coal were made, and standards of evaporation were established. Records were kept in the form of a daily power plant log, giving time of operation, pressures, tem-

peratures, quantities of water fed to boilers, apparent and equivalent evaporation, condition of equipment, and other usual boiler room data, also corresponding data for the engine and turbine plants. These methods, although a considerable advance over those existing in the majority of paper and pulp mill power plants, did not prove entirely sufficient, as it was realized that the maximum possible efficiency was not being obtained continuously. The results easily shown in tests did not remain as every day performances, and the interest and enthusiasm aroused in the firemen at these times soon disappeared, and with them the high evaporation and efficiency. How to bring about such conditions permanently became the problem. After considerable investigation and deliberation, we decided to adopt scientific methods of boiler room management and operation which had proven successful in many cases coming under our observation. The work was started in January, 1917.

Find the Reasons

The first thing to do was to find the reasons for good or poor economy. Our coal and water records for the past years, when analyzed, brought out two facts:

1.—That some firemen obtained higher efficiency than others.

2.—That efficiency obtained during tests was much higher than that secured in every day operation.

It is a foregone conclusion that no two firemen fire alike. Yet there can be only one best method. To discover this best method, we had first, to install such additional instruments as would show the observer every change of condition, and its effect on the results; second, to get an observer, or study man, who could devote all his time and attention to the problem.

An instrument, or control board was installed in each boiler room in a location readily seen by the firemen. Upon each board were mounted:

(a) Steam flow meters, one piped to each boiler.

(b) A combination draft gauge, indicating draft in boiler uptake and furnace, and pressure in ash pit.

(c) A recording thermometer with two pens, recording temperature of feed water entering economizer and boilers, respectively.

(d) An electric pyrometer connected to a thermo couple in each uptake, to indicate flue gas temperature.

Adjacent to each board is a Venturi feed water meter, a gas collector and analyzer, and a portable recording flow meter. The draft gauges are piped to each boiler in such a way that through a system of valves, operated by levers, the draft in uptake and furnace and the ash pit pressure can be obtained at once by pressing the lever corresponding to any boiler. Likewise, the temperature of flue gas may be read by making the proper electrical connection for any boiler by turning a hand wheel.

The installation of instruments on a boiler control board has several unique features:

(a) Steam flow meters only are individual for each boiler. All other instruments can be selectively connected with any boiler.

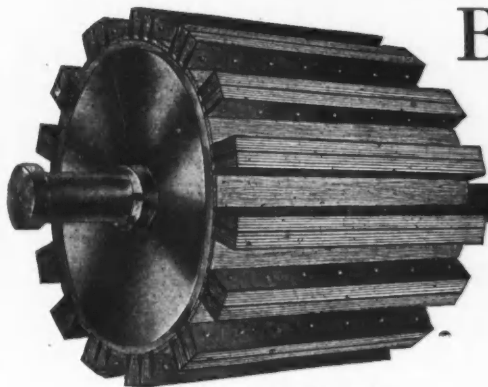
(b) Indicating instruments are used for the control and adjustment of working conditions of boilers.

(c) Recording instruments are employed for registering data necessary for computation of results.

(d) Centralization of instruments reduces first cost—i. e., investment.

(e) Centralization of instruments also affords the observer or head fireman the opportunity to compare almost instantly the working of every boiler in the plant.

(Continued on page 46.)



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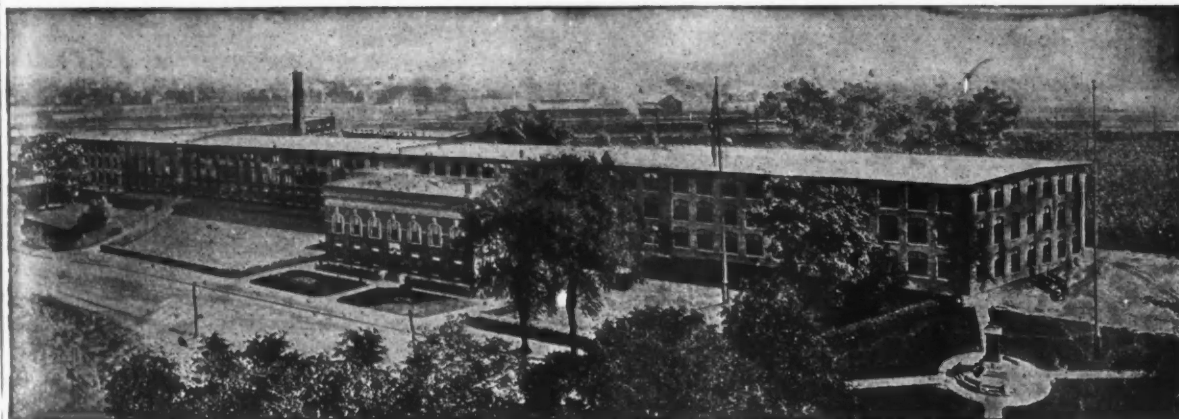
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TECHNICAL MEN HOLD BIG MEETING AT DAYTON

(Continued from page 44.)

Study men, or observers, for this kind of work are not to be found ready-made except at a very high price. Accordingly, we decided to develop one, and selected for this purpose a young engineer in our organization, whom we appointed power supervisor. His duties comprised, in addition to the aforesaid study work, training the firemen and coal passers, so that they might become proficient enough to accomplish the standard task, keeping of records, obtaining fuel analyses, making daily computations of boiler and grate efficiency, drawing charts showing in graphical form the weekly amount of coal burned, b.t.u.'s in coal, efficiency, cost of 1,000 lbs. of steam, and other information of value.

Supervisor Handles This Work

The power supervisor handles all of this work in the two power plants, and will soon begin to make studies and work out improvements in the distribution and use of steam and power throughout the mills. When everything is on a more or less routine basis, he will undoubtedly be able to devote considerable time to engineering work outside of power plants. He is essentially a staff worker, cooperating with the chief operating engineer, but usurping none of his authority and privileges.

Having obtained the necessary instruments and a man to do the work, we ran a large number of boiler tests with different conditions of draft, ash pit pressure, thickness of fires, rate of combustion, flue gas temperature, coal mixtures, method of firing, etc., before we were at all certain that all variable conditions were accounted for and that we really knew how to adjust the conditions in order to secure the maximum of efficiency at any rate of driving. Following these study tests, we made a number of check tests to ascertain beyond doubt the possibility of attaining the pre-determined results at will.

Standard of Efficiency Determined Upon

During the tests, no attempt was made to change the methods of the firemen, but as the work progressed, it became a very important task of the supervisor to train the men to improve one condition after another until the every-day results obtained were comparable with those obtained under favorable test conditions. A standard boiler and grate efficiency was then determined upon, based not only on results of tests, but on every day performance under improved conditions and methods over a period of several weeks.

The next step was the determination of a suitable bonus for accomplishing the standard task. Men realize that if they save coal, their services become more valuable to their employer, hence they expect a corresponding additional compensation or bonus. This compensation must be sufficiently liberal to be a real incentive for the men. We pay day wages for work resulting in less than the standard task, and a fixed bonus for the firemen when the standard task is reached or exceeded, provided the fireman's records are properly made, that the steam pressure has not dropped below a certain limit, and a few other considerations. A similar bonus, smaller in amount, is likewise paid the fireman's helpers. In order to reward the chief operating engineer for his part in maintaining conditions so that the boiler room employees can earn their bonus, he is paid a small bonus each day for every employee who accomplishes the standard task. When all of the men reach the standard, the amount of his bonus is doubled.

A bonus is likewise paid coal passers, but on an entirely different basis, namely 1c. per 1,000 lbs. of coal wheeled, weighed, recorded, and delivered in front of the boilers, provided the record kept by them agrees with that recorded by the automatic scale, provided also that coal has been furnished as needed and in the correct proportion, and that the specified amount only is left on the

floor in front of the boilers at the end of the tour of duty. As it is to the interests of the fireman to burn as little coal as possible, and of the coal passer to deliver as much as possible, one is a desirable check on the other.

Simple Records Kept

In order to provide the data necessary to determine the efficiency of operation for each tour, and the reasons responsible therefor, simple records are kept, partly by means of the recording instruments on the boiler control boards and coal scales, together with readings by the head firemen of steam flow meters, draft gauges, and electric pyrometers for flue gas temperatures. Frequent analyses are made of flue gas, both instantaneous samples and those collected over a period of eight hours. Frequent determinations are made in the chemical laboratory or by the power supervisor of the b.t.u. in the coal used, samples being taken continuously from the coal delivered to the boiler room. Samples of coal are collected daily and moisture determinations made by weighing 5 lb. samples, drying on top of boilers for twenty-four hours, and weighing again.

Computations Every Morning

Computations are made every morning by the power supervisor from the records of the previous day, and the efficiency for each tour is determined. A slip is made out for each man, notifying him whether or not the bonus was earned, and placed in his box in the boiler room the day following in every case. If the task is not accomplished, the reason therefor is given.

It could hardly be expected that the high task set would be accomplished were not the boiler equipment maintained in good condition. If the men lose their bonus because of the fault of the maintenance department in neglecting upkeep, cleaning and repairs, it is unfair to penalize the firemen for poor evaporation. The penalty belongs to the management for failing to arrange for cleaning the heating surfaces, repairing the dampers, making boiler settings tight, etc. Thus, the bonus to firemen under such conditions should be allowed, and the management should shoulder the consequences. To provide in our plants against such deterioration of efficiency, we have adopted the plan of schedule inspections of all machinery and periodic overhauling at regular intervals.

Coincident with the power plant betterment work, there has been carried along a reorganization of another branch of service, stores and material service. Supplies and repair parts used for the proper maintenance of the power plants have been standardized in common with similar standardization throughout the mills. The proper quantities of each item to be carried have been determined so as not to tie up an excessive amount of capital on the one hand, and to avoid having the supply exhausted when needed, on the other. Finally, we have catalogued all standardized articles and adopted means of maintaining the supply automatically.

Two Groups of Management

From the foregoing outline, it may be clearly seen that we divide the duties of power plant management into two groups:

1—Increasing the efficiency of operation:

(a) While the management devises new and more efficient methods, and provides the conditions under which higher economy can be secured, the engineers and firemen are expected to maintain the standards and live up to the tasks set for them.

2—Taking care of equipment and supplies:

(a) Engineers and firemen cannot influence these conditions, but the management can control them through the purchasing department, storekeepers, engineering and maintenance departments.

(Continued on page 48.)

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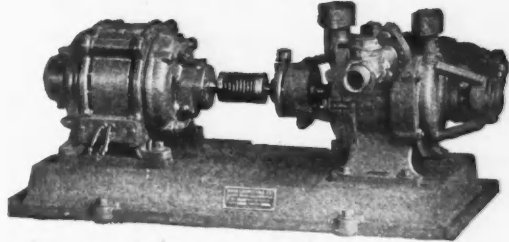
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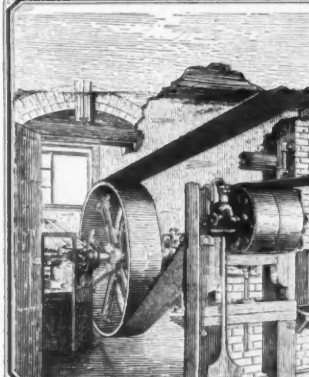
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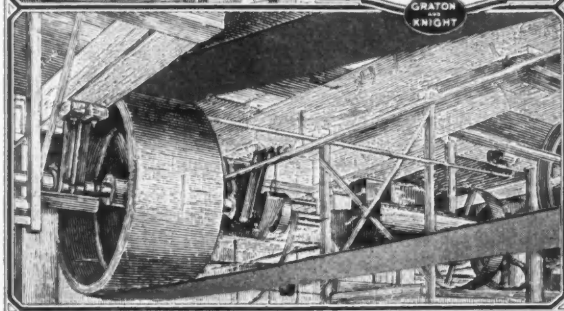
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TECHNICAL MEN HOLD BIG MEETING AT DAYTON

(Continued from page 46.)

The human factor in this whole work is of paramount importance. With the present scarcity of labor, high rate of wages paid in other industries, and numerous temptations to quit and try luck somewhere else, we have felt that no effort should be spared to make our employment as attractive as possible. We therefore started our reorganization by building service rooms for boiler room employees, with shower baths, lavatories and lockers. We provided restful seats in the boiler room, an ample supply of running water for drinking, improved ventilation, better designed tools, wheelbarrows rebuilt to carry heavier loads with less effort, and other minor improvements and conveniences to make the work less arduous and more pleasant. The results have fully justified the expenditures.

Before starting our work of scientific power plant betterment, we were operating the boilers at our Mittineague plant at an every day boiler and grate efficiency of approximately 68 per cent., by no means a poor figure for an industrial power plant. As a

result of our studies and tests, however, we found that we could raise this efficiency to 74 per cent., and did so for a period of six weeks or more. This figure was, therefore, established as a standard, and the task to be accomplished was based upon it. During the winter months, owing to lack of boiler capacity and its effect upon efficiency, we made the standard task 73 per cent. At our Woronoco boiler plant, the average boiler and grate inefficiency was 68 per cent. also, and the standard task has been set at 75 per cent. efficiency with 1 per cent. less when the plant is operating at full capacity, owing to the conditions beyond the fireman's control.

In conclusion, I wish to acknowledge particularly the work done in connection with our power plant betterment problem by Walter N. Polakov, consulting engineer, who has directed the work from the start, and Arthur F. Graves, power supervisor, who has labored untiringly for the success of the installation of the plant at the mill.

AMONG THOSE PRESENT AT THE CONVENTION

Among the members and guests present at the dinner as well as at other functions were the following:

William H. Artz, commercial engineer, Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.

James L. Carey, paper mill architect and engineer, Chicago.

Henry P. Carruth, Geo. H. Mead Company, Dayton, Ohio.

Max Cline, chemist, Bureau of Tests, International Paper Company, Glens Falls, N. Y.

Albert D. Conley, Paper Laboratory, Bureau of Standards, Washington, D. C.

Arthur S. Cosler, superintendent, sulphite mill, Marathon Paper Mills Company, Rothschild, Wis.

W. W. Cronkhite, commercial engineer, General Electric Company, Schenectady, N. Y.

Frederick A. Curtis, chemist, Paper Laboratory, Bureau of Standards, Washington, D. C.

John F. Davis, superintendent, Beckett Paper Company, Hamilton, Ohio.

J. A. DeCew, president, Process Engineers, Ltd., Montreal, Que.

Henry E. Fletcher, secretary and general manager, Fletcher Paper Company, Alpena, Mich.

Raymond S. Hatch, general superintendent, Crocker McElwain Company, Holyoke, Mass.

Edward Hutchins, engineer, International Paper Company, New York.

G. D. Jessen, consulting engineer, G. D. Jessen Company, New York.

Thomas J. Keenan, secretary of the Technical Association of the Pulp and Paper Industry, New York.

Paul Kellogg, paper buyer, Larkin Company, Buffalo, N. Y.

Frederic P. Klund, assistant secretary

and mechanical engineer, Hammermill Paper Company, Erie, Pa.

Otto Kress, in charge of section of pulp and paper, Forest Products Laboratory, Madison, Wis.

Charles McDowell, president, McDowell Paper Mills, Manayunk, Pa.

George C. McNaughton, engineer in forest products, Forest Products Laboratory, Madison, Wis.

Alex W. Macvie, chemist and expert, Bryant Paper Company, Kalamazoo, Mich.

George H. Mead, president, Mead Pulp & Paper Company, Dayton, Ohio.

William L. Nixon, general superintendent, Chemical Paper Manufacturing Company, Holyoke, Mass.

Vasco E. Nunez, Nashua Gummed & Coated Paper Company, Nashua, N. H.

Henry F. Obermanns, assistant to president, Hammermill Paper Company, Erie, Pa.

Charles F. Rhodes, superintendent, Bureau of Tests, International Paper Company, Glens Falls, N. Y.

Thomas H. Savery, Jr., manufacturers' agent, Chicago.

L. H. Shipman, in charge of bleaching and chemical departments, Spanish River Pulp & Paper Mills, Sault Ste. Marie, Ont.

Hervey J. Skinner, vice-president, Arthur D. Little, Inc., Boston, Mass.

George K. Spence, chief chemist, New York & Pennsylvania Company, Johnsonburg, Pa.

Arthur O. Spierling, assistant mechanical engineer, Hammermill Paper Company, Erie, Pa.

Howard S. Taylore, engineer, Lake Superior & Spanish River Pulp & Paper Mills, Ltd., Sault Ste. Marie, Ont., Canada.

J. H. Thickens, manager, pulp and paper division, Bathurst Lumber Company, Bathurst, N. B.

Sidney D. Wells, assistant superintendent, Chesapeake Pulp & Paper Co., West Point, Va.

George E. Williamson, chief engineer, Strathmore Paper Co., Mittineague, Mass.

J. B. Wilt, sulphite superintendent, Parsons Pulp & Lumber Co., Parsons, W. Va.

Robert B. Wolf, manager, Lake Superior & Spanish River Pulp & Paper Mills, Ltd., Sault Ste. Marie, Ont.

W. E. B. Baker, chemist, York Haven Paper Co., York Haven, Pa.

Arthur B. C. Drew, superintendent, The Pairpoint Corporation, Mrs. Drew and Miss Dorothy Drew, New Bedford, Mass.

George H. Harvey, general manager and secretary, the Colin Gardner Paper Company, and treasurer the Gardner-Harvey Paper Company, Middletown, Ohio.

A. H. Nevius, vice-president, general manager, Miami Paper Company, West Carrollton, Ohio.

Ralph M. Snell, manager, Paper Makers Chemical Company, Holyoke, Mass.

James M. Wade, sales agent, General Electric Company, Boston, Mass.

James B. Wagg, superintendent, Strathmore Paper Company, Woronoco, Mass.

James H. Wright, assistant to president, Bryant Paper Company, Kalamazoo, Mich.

Ross Campbell, research chemist, American Writing Paper Company, Holyoke, Mass.

Norman Clark, chemist, Nashua Gummed & Coated Paper Company, Nashua, N. H.

Lester E. Milkey, sales engineer, The Sandusky Foundry & Machine Company, Sandusky, Ohio.

James Furlong, superintendent, Patent Vulcanite Roofing Co., Anderson, Ind.

L. M. Start, Worcester, Mass.

Wm. B. Fulton, W. A. Rivling, Boston.

(Continued on page 52.)

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Minimum rate for advertisements of 25 words or less, first insertion \$1.00.
Situations Wanted, 4 cents a word for first insertion and 2 cents a word for each subsequent insertion of same ad. No ad of less than 25 words taken.

Help and Miscellaneous Wants, and small For Sale Ads, 4 cents a word for each and every insertion. No ad of less than 25 words taken.

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

Cash must accompany order.

WANTED—Machine tenders on 110-inch fourdrinier machine running on kraft paper. Address Box 327, care Paper Trade Journal.

MACHINE TENDER AND BEATERMAN WANTED on cylinder papers; rope and jute tissue. Good wages; steady work. Address Edwin T. Garrett Co., Lansdowne, Pa.

WANTED—Experienced third hands for position as back tenders—Twelve hours \$4.00 to \$4.50 per day, depending on experience. Address Box 328, care Paper Trade Journal.

MILLWRIGHT WANTED—Competent man for paper mill repairs. Good job, steady employment. Write stating experience and wages expected. Address Box 313, care Paper Trade Journal.

WANTED—Good, sober, steady machine tender on container board. Good wages to right party. Address Box 314, care Paper Trade Journal.

WANTED A MANUFACTURING SUPER-INTENDENT—We want a man as a Superintendent, capable of taking over the entire charge of Paper Making, including beaters, Jordans, Paper Machines, etc., manufacturing high grade Tissue products in one of the most modern plants, delightfully located in the East. We want a man of technical education but thoroughly practical in every respect who has had experience in our line and who can obtain results by a process of reasoning and deductions instead of by rule of thumb methods. We particularly wish a man of executive ability, capable of instructing others and supervising their work and progress. A rapidly growing business necessitates a man conforming to the above requirements, whose moral qualities must be the best. Give details thoroughly in full confidence. State salary expected to start. Address Box 315, care Paper Trade Journal.

WANTED—Foreman for soda pulp mill. Three tours. In reply state age, experience and salary expected. Address District of Columbia Paper Mfg. Co., Washington, D. C.

WANTED—A cylinder machine tender in a three machine mill making rope and jute specialties. Steady work. 8 hours. Good pay. Address Box 316, care Paper Trade Journal.

FOR SALE:—

One cylinder machine complete with thirty-six 36" x 72" dryers.

One cylinder machine complete with fifteen 36" x 64" dryers.

Address

The Shurtle Brothers Machine Company
Middletown, Ohio

HELP WANTED

OPERATOR WANTED on 106" Kidder slitter and rewinder, running on news and manila. Married man preferred. Steady work. Also want man to run 81" Hamblet sheeter. Address Box 317, care Paper Trade Journal.

WANTED—Draughtsmen for large Canadian manufacturing concern, familiar with pulp mill machinery, saw mill machinery and boilers. Permanent positions for the right parties. Married men preferred. Apply Box 318, care Paper Trade Journal.

WANTED—First class machine tender in three-tour mill on 120" fourdrinier making fine papers. Address Box 319, care Paper Trade Journal.

BEATER ENGINEER WANTED in three tour mill making fine papers. Address Box 320, care Paper Trade Journal.

WANTED MACHINE TENDER, BACK TENDER, BEATERMAN in New England book mill, fourdrinier machine, three shifts. Address Box 310, care Paper Trade Journal.

FOREMAN to take charge of print shop in a Texas city. Must be thoroughly familiar with printing of roll and sheet paper, bags and boxes; also stereotyping. Name reference, last position, age, etc. Address Box 311, care Paper Trade Journal.

WANTED—Three first helpers on beaters, some experience in beating on high-grade ledgers, bonds and index. Three tour mill. \$4.00 per day, eight hours. References required. Address Box 289, care Paper Trade Journal.

WANTED—Reliable man who understands lining and upkeep of digestors. Address Box 292, care Paper Trade Journal.

WANTED—Young man for laboratory work in a pulp and paper mill. Salary \$70.00 per month. Address Box 293, care Paper Trade Journal.

WANTED—First-class millwright for paper mill. Must be reliable. Steady work, good salary. Address Box 294, care Paper Trade Journal.

SULPHITE COOK WITH SLOW COOK EXPERIENCE WANTED—Good, steady position for the right man. Eight hour tour. Address Box 295, care Paper Trade Journal.

WANTED—Steady, reliable and capable man to grind rolls for paper machine. Middle aged man preferred. Address Box 296, care Paper Trade Journal.

WANTED—Two back tenders for cylinder or fourdrinier machines; eight hours; good pay; steady work; in a three machine paper mill located in Massachusetts. Address Box 297, care Paper Trade Journal.

WANTED—TWO BACK TENDERS for cylinder board machines; two tour basis; pays \$4.92 per day. Address Box 298, care Paper Trade Journal.

WANTED—First-class mechanic for a pulp and paper mill situated in excellent part of country. Will pay well for man of ability and experience who can get results. Communications confidential. Address Box 299, care Paper Trade Journal.

WANTED—Two first-class machine tenders, back tenders, finishers and beatermen for new board mills. Two tours. In good city. Good opportunity for right men. State full experience. Address Box 300, care Paper Trade Journal.

BACK TENDER WANTED on cylinder machines. Permanent positions for the right men. Wages \$4.00 per day. Apply immediately to Box 301, care Paper Trade Journal.

(Continued on page 51.)

FOR SALE

PAPER MACHINES—One 84" Double Cylinder Machine, first and second presses, 36 dryers, calenders, Reel and Winder, Marshall Drive. 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.

RAG CUTTERS—One Taylor Heavy Type Rag Cutter, triplex bed knife.

REAM CUTTERS—One 48" Acme; 76", 38", 48" Cranston; 55" Seybold; 42" Sheridan.

BOARD CALENDERS—One 45" Farrel; 65" Downingtown.

SUPER CALENDERS—Two 62", one 53", four 45" stack super calenders.

PRESSES—Six Hydraulic Presses, one Boomer & Boschert Screw Press, one Filter Press.

JORDANS—One Jordan Refining Engine.

PUMPS—One 9" x 12" Goulds Triplex, several triplex stuff and suction pumps; two triplex Hydraulic Pumps.

SLITTERS—One 50" Black & Clawson, 110" Kidder, 40" Kidder.

Two Shredders.

Two 7' x 25' Rotary Boilers, complete with drive. Two Kollergangs with stones.

One Lombard Governor.

Two Centrifugal, two Wandell Screens, twelve Three Pocket Grinders.

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

Two Trombley & Paul Sulphur Burners.

Four Barkers.

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FOR SALE

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

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" Holyoke. 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 28 x 62" all ready to set up. Lot of odd dryers.

DUSTERS—One 6 bowl Holyoke 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 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 50.)

HELP WANTED

WANTED AT ONCE—By a large soda pulp mill; machine tenders for pulp drying machine. Chipper men; cutters off on wet machines, rotary furnace men, and foremen. No strike—two tours—highest wages, large city. State experience with references, age, married or single, all applications treated confidentially. Address Box 284, care Paper Trade Journal.

WANTED—Machine tenders, back tenders, and beaterman, 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.

SALESMAN, energetic, for wood pulp business to represent well established firm. Give details as to experience, etc. Address Box 272, care Paper Trade Journal.

WANTED—Machine tenders for cylinder machine making roofing felt and sheathing paper. Mill located in California. Address Box 273, care Paper Trade Journal.

WANTED—Beaterman for roofing stock and mixed papers for sheathing. Mill located in California. Address Box 274, care Paper Trade Journal.

SULPHATE MEN WANTED, as cooks, wash room and recovery men. Send references. Nekoosa-Edwards Paper Co., Address F. H. Rosebush, Port Edwards, Wis.

WANTED—Paper slitter experienced on Langston or Kidder machines. Address Paper Manufacturers Co., Inc., 526 Cherry St., Philadelphia, Pa.

WANTED SUPERINTENDENT with experience in the manufacture of Cellulose for surgical dressings. Good opportunity for the right man. Write Box 258, care Paper Trade Journal.

WANTED—Machine tender for light weight wrapping in specialty mill in Connecticut. Steady work and good pay. Address Box 135, care Paper Trade Journal.

BEATERMAN—Desire first class beaterman, on ledger, writing and book papers. Beating for two machines making 24 tons per 24 hours. Rate 55c. per hour—8 hours per day. Address Box 63, care Paper Trade Journal.

SUPER CALENDER MAN—Desire a first class super calender man. Rate 45c. per hour—10 hours per day. Address Box 64, care Paper Trade Journal.

SITUATIONS WANTED

POSITION WANTED AS SUPERINTENDENT OR FOREMAN by practical paper maker—12 years' experience as superintendent making, blottings, tissues, filter, kraft, high grade bond and book. Fine record. Address Box 329, care Paper Trade Journal.

FIRST CLASS CYLINDER MACHINE TENDER, experienced on high test container and combination box boards. Married man with family and strictly temperate. Address Box 321, care Paper Trade Journal.

POSITION WANTED—First class superintendent with 15 years' experience wants position with concern making news, wrapping, manila, envelopes and kraft. Now employed with well known mill. Best references. Address Box 322, care Paper Trade Journal.

WANTED POSITION AS CHIEF ENGINEER. Will take full charge of steam and electrical departments. No plant too large, can give best of results and bring equipment up to the highest efficiency, know the paper mill business from A to Z. Strictly temperate. A No. 1 references. Address Box 323, care Paper Trade Journal.

WANTED—Position as foreman in sulphite mill, nineteen years experience, strictly temperate. Reference on request. Address Box 324, care Paper Trade Journal.

SITUATIONS WANTED

WANTED POSITION AS SUPERINTENDENT in mill making tissues all grades, also light weight tag or folder. Best of references, now employed. Can bring all skilled help if necessary. Address Box 325, care Paper Trade Journal.

CYLINDER MACHINE TENDER WISHES TO MAKE A CHANGE, well experienced on all grades of box boards, news, chip, container, tag, bristols and wrapping papers. Best references. Married and sober. Address Box 326, care Paper Trade Journal.

SALESMAN—Five years' experience in the wholesale paper and cardboard line, desires connection with a reputable house, where proper opportunity is offered. Not particular about location. Address Box 306, care Paper Trade Journal.

MASTER MECHANIC OPEN FOR POSITION. Over 20 years' experience as master mechanic in large mills. Used to mill construction and maintenance. All draughtsman and executive. Book or writing mill preferred, but others considered. Strictly temperate and can deliver the goods. References the best. Address Box 307, care Paper Trade Journal.

SUPERINTENDENT 24 years' practical experience on book, sulphite bonds, ledger, waxing, imitation and manifold parchment papers, open for engagement June 15. Organizer capable of handling skilled and unskilled help. Address Box 286, care Paper Trade Journal.

COATING ROOM FOREMAN—Would like to make a change. Have had sixteen years' experience on single and double coat-ers. Steady and reliable, know how to handle help and get results. Have been employed at present position for long time. Can give first class references. Address Box 287, care Paper Trade Journal.

MECHANICAL ENGINEER DESIRES to make a change either now or later. Experienced man to take charge of planning, designing, construction and maintenance of pulp and paper mills, electrolytic bleach plants and steam power plants. Address Box 279, care Paper Trade Journal.

MISCELLANEOUS

AGENCY DESIRED for paper in any of its branches. Ten years' excellent experience as salesman. Thoroughly familiar with jobbing trade. Can give absolute proof of producing results. Reference of highest character. Address Box 304, care Paper Trade Journal.

CYLINDER MOLDS, tanks, and head boxes, plain dandy rolls, Brass wire cloth. Fine seams for tissue paper a specialty. We put them on tight. Address Clark Mfg. Co., 79 Merrick Ave., Holyoke, Mass.

TAYLOR AND STILES RAG CUTTER NO. 10 OR NO. 11 WANTED—Must be in good condition. Advise where can be seen, price and other details. Address National Manufacturing Company, 193 Henderson St., Jersey City, N. J.

FOR SALE—Two rotary boilers, 3/4-in. plate. One boiler 18 ft. long, 6 ft. diameter. One boiler 16 ft. long, 7-in. diameter. Address Fort Orange Paper Company, Castle-ton-on-Hudson, N. Y.

FOR SALE—Old krafts. One car load. Quote best offer at Syracuse, N. Y., to E. A. Parks, Wholesale Paper Stock Dealer, 1071 South Clinton St., Syracuse, N. Y.

FOR SALE—Small ground wood mill situated in Forestport, N. Y. Good opportunity for person with small capital. Owners time taken up with other business. Good terms. Apply to Edwin S. Crabtree, Millerton, N. B., Canada.

WANTED—A second hand five or more roll paper super calender, about 60 in. face. State full particulars. Address Box 249, care Paper Trade Journal.

FOR SALE

F. O. B. at good shipping points in Newfoundland Harbors a large quantity Spruce Wood fully barked. Address

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TECHNICAL MEN HOLD BIG MEETING AT DAYTON

(Continued from page 48.)

Mr. Tulley, P. I. Williams, A. X. Schwebel, H. F. Holton, C. G. McClellan, E. L. Outterson.

J. H. Harlow, Old Town, Me.

H. E. Harmon, secretary, Knowlton Brothers, Inc., Watertown, N. Y.

C. F. Buss, Mr. Anderson.

G. A. Macklem, Beloit, Wis.

C. H. Helvey, Hamilton, Ohio.

M. H. Pfau, Ticonderoga, N. Y.

H. Gesell, New York.

R. S. Kellogg, New York.

H. D. Tones, Cleveland.

Robert B. Harbison, secretary, Sterling Paper Company, Hamilton, Ohio.

D. S. Barbour, secretary and manager, Patent Vulcanite Roofing Company, Anderson, Mo.

E. F. Bearce, Mead Pulp & Paper Company, Chillicothe, Ohio.

R. O. Harper, Great Barrington, Mass.

T. F. Martin, New York.

W. M. Benzing, general manager, Sterling Paper Company, Hamilton, Ohio.

John Hedalen, Riordan Pulp & Paper Company, Ltd., Montreal, Que.

Gardner-Harvey Company, fifteen representatives.

W. E. B. Baker, York Haven Paper Company, York Haven, Pa.

S. V. Burrows, Process Engineers, Limited, Montreal, Que.

W. E. Brawn, Spanish River Pulp & Paper Mills, Ltd., Sturgeon Falls, Ontario, Ont.

H. B. Prather, architects and engineers, Cleveland.

Mr. and Mrs. S. W. Simpson and Raymond C. Simpson, who motored down from Otsego, Mich.

Frank Smith, Sorg Paper Company, Middletown, Ohio.

C. E. Burroughs, of the PAPER TRADE JOURNAL.

Walter N. Polakov, consulting engineer, New York.

W. W. Sunderland, president, Miami Paper Company, West Carrollton, Ohio.

T. Beckett, president, Beckett Paper Company, Hamilton, Ohio.

Arthur L. Dawe, secretary, Canadian Pulp & Paper Association.

E. P. Gleason, Nekoosa-Edwards Paper Company, Port Edwards, Wis.

Mr. Wilson, Sorg Paper Company, Middletown, Ohio.

J. A. De Cew, president, Process Engineers, Limited, Montreal.

H. W. Rogers, Schenectady, N. Y.

R. W. Hovey, Montreal, Canada.

B. M. Hess, Chicago.

A. N. Russell, Ticonderoga, N. Y.

O. L. E. Weber, secretary and general manager Watab Pulp & Paper Company, Sartell, Minn.

Roy L. Strong, Lee Paper Company, Vicksburg, Mich.

A. E. Cofrin, superintendent Northern Paper Mills, Green Bay, Wis.

Mr. and Mrs. R. P. Hill, Holyoke, Mass.

Geo. F. Adams, Appleton, Wis.

H. L. Kutter, Hamilton, Ohio.

E. I. Clapp, Brewer, Maine.

C. A. Jobson, New York & Pennsylvania Company, Johnsonburg, Pa.

E. C. Tucker, Holyoke, Mass.

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Kalamazoo Vegetable Parchment Company
Kalamazoo, Michigan

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Lockport, N. Y.

TORONTO TYPE FOUNDRY CO., 79 York St., Toronto, Canada

Agents for Canada

CANADIAN-AMERICAN MACHINERY CO., London, England
Foreign Agents

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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, 208 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.

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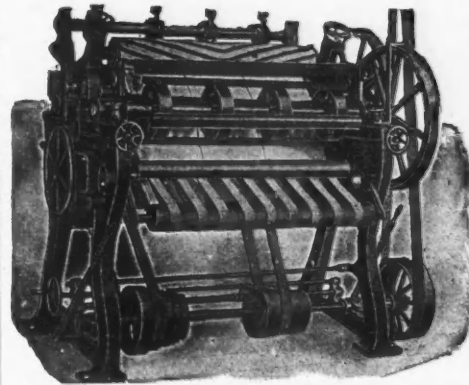
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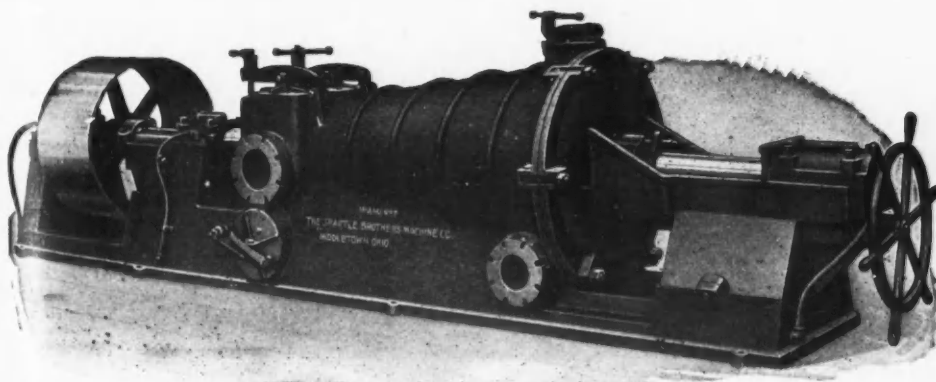
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CAR SHORTAGE IN CANADA IS CONSTANTLY IMPROVING

Pulp and Paper Mills Are Said Now to Have Almost a Surplus of Cars—Some Disappointment Is Expressed in the Showing Made by the Annual Report of the North American Pulp & Paper Co.—Claim of \$400,000 Reported to Have Been Presented Against the Publishers Paper Co. for Diverting Shipping from Important War Requirements—New Sulphite Mill.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., May 20, 1918.—An extraordinary improvement in the car situation is now in evidence, and from all quarters it is now reported that the pulp and paper mills have "almost a surplus" of cars. It is true that the railways have not yet got a reserve of power, but a lot of new locomotives are on order and will be delivered in September. About 7,000 box cars are under construction also for the Government lines, and it is thought that next winter the car shortage will not again be what it was during the past winter. Heavy shipments of pulp and pulpwood are now going to the United States, the pulpwood being mostly from new areas opened up by the National Transcontinental Railway and the Temiskaming & Northern Ontario Railway.

Movements of Wayagamack Stock

A marked flurry in the stock of the Wayagamack Pulp & Paper Company, of Three Rivers, Que., has taken place during the past week. Close to 2,000 shares changed hands suddenly within about an hour, but despite brisk trading the price only moved a fraction, and soon yielded the little gain that had been made. In the juggling that went on, some interests which were once prominent in the stock are said to have found an exit for the balance they had on hand, and to have exchanged it for an interest in another paper issue more to their liking. The financial editor of the *Montreal Star*, in commenting on this, says the incident "should not be construed as in any way reflecting on the position of the company, which is understood to be excellent, although not perhaps so bullish as before the price of paper restrictions were imposed on the trade. It was purely one of those peculiar developments which arise from time to time out of the ownership of the floating supply of the stock in the Street, over which the company can have no direct control. Traders had picked up some cheap stock and they took the logical time for disposing of it to advantage. The same thing is being done all the time, particularly during periods of activity, the only difference being that in this case the whole thing flattened out prematurely, due to some fault in the handling of the coup."

New Sulphite Mill

The big new sulphite mill of J. R. Booth, at the Cahudiere Falls will shortly be in operation, as well as the new acid system and other improvements. Everything is now waiting on the completion of the work on the digesters, which is going forward satisfactorily.

The North American Co.'s Showing

There is some disappointment here at the fact that the annual report of the North American Pulp & Paper Company showed only a surplus of \$105,165 for the year ended December 31, 1917, as against a previous deficit of \$309,360 for the year previous. Under the direction of J. E. A. Dubuc the company has made a big effort, but it has been considerably handicapped by the rise in the cost of labor and supplies, and the restriction of its market by the war and by car shortage. In accordance with an agreement made in October, 1916, Mr. Dubuc has turned over to the company 59,302 shares of his personal holdings, which he undertook to do if the net earnings in 1917 were less than \$1,500,000. A similar

guarantee for 1918 is held by the trustees of the company from Mr. Dubuc. The gross operating revenue for 1917 was \$3,528,451, or \$434,659 less than in 1916, while the operating expenses were \$2,839,097, a drop of \$524,000. Total income was \$1,318,740, compared with \$808,262 the previous year.

Sequel to the Newfoundland Deal

According to the *Financial Times* here, the United States Shipping Board has presented a claim against the Publishers' Paper Company for \$400,000 as damages for diverting shipping from important war requirements to the carriage of Newfoundland pulp and paper to American ports. It will be remembered that some leading publishers in the United States formed a company which succeeded in getting ships to go to Lord Northcliffe's mills in Newfoundland and bring back about 17,000 tons of pulp and paper. Vigorous protest was made in the press in this country, which protest was reproduced in the English papers, and ultimately the whole affair was ventilated in the British House of Commons, no one being able to understand how ships could be got for this purpose when there was such an extreme shortage for more important purposes. The *Financial Times* now remarks that the claim of the United States Shipping Board against the publishers responsible for the occurrence "will make further imports of this pulp and paper prohibitive, as the price charged by Lord Northcliffe was the same as that of Canadian manufacturers, \$3.30 per 100 pounds, f. o. b. New York."

Mine Props for Fuel

Great quantities of spruce, balsam and other woods, cut from Newfoundland forests within the last four years for use as pit props in English and French collieries, will be used as fuel because of lack of tonnage to transport them overseas. A small portion of the wood has been used in the manufacture of wood pulp. Government officials are encouraging the use of the wood for fuel, to help out the coal situation.

New Pulp Company

The Beaver Cove Lumber & Pulp Company, with headquarters in Vancouver and a capital stock of \$1,000,000, has been granted a charter.

The Industry and Education

More than ordinary attention will be paid to the subject of technical education at the meeting of the Technical Section, Canadian Pulp and Paper Association, which will be held in Toronto on Thursday and Friday, June 6 and 7. Principal McKay, of the Toronto Technical School, and C. V. Corlees, manager of the Mond Nickel Company, will give addresses on the subject, and a general discussion will follow.

A Ticklish Problem in Price

If a Canadian paper owns, or finances, or partly finances, a paper mill, with a view to that mill supplying the paper with the whole of its output, how does the Government price regulations affect it? This is a question which has been raised in Canada, and a very ticklish and knotty question it is proving to be. Owing to the decree of the Government, news print is selling in Canada at \$2.85, while the same news print, if exported to the United States, would fetch \$3. It has been decided that the Canadian mills which are allowed to export the whole of their product, market price shall be recompensed for the same by the other mills which are allowed to export the whole of their product. But must a paper mill in which a big paper is financially interested, be recompensed? Francis N. McCrear, M. P., of Sherbrooke, raised the matter in Parliament a few days ago, when he said that Lord Atholstan, the owner of the *Montreal Star*, was also the owner of a paper mill, which mill had a capacity of 40 tons per day. He did not buy the mill for the purpose of going into the business of paper manufacturing, but simply to supply his own paper. All the paper he made in the mill was supplied to the *Montreal Star*.

PRODUCTION OF BOOK PAPER SHOWS INCREASE FOR APRIL

Shipment for the First Two Weeks of the Month Decreased, but Were Considerably Larger Than Production for the Last Two Weeks, with the Result for the Month That There Was a Small Increase of Stocks of Other Grades of Book Paper Than Periodical Paper—Jobbers' Stocks Show a Small Increase in All of the Grades—No Imports of Chemical Pulp from Norway or Sweden.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., May 20, 1918.—The Federal Trade Commission late last week gave out the following weekly reports from 48 book paper manufacturers operating 74 mills for the month of April, 1918, showing the following results:

Week ending	April 7	April 14	April 21	April 28
Mill stocks, first of week—				
Total book paper.....	27,654	28,512	28,668	29,279
Periodical paper.....	3,992	4,085	3,886	4,317
Produced during week—				
Total book paper.....	18,043	17,005	18,020	17,734
Periodical paper.....	4,960	4,055	5,138	4,419
Shipped during week—				
Total book paper.....	17,174	16,699	17,417	18,143
Periodical paper.....	4,884	4,243	4,706	4,776
Mill stocks, end of week—				
Total book paper.....	28,505	28,813	29,273	28,851
Periodical paper.....	4,064	3,897	4,317	3,959

Note.—Periodical paper includes that known by manufacturers to be used for printing magazines and periodicals. The total figures include the periodical book paper. The stocks contain a duplication of about 5,000 tons on account of the coated paper included.

Production in April showed considerable increase over the figures reported for the month of March. Shipments for the first two weeks decreased so that stocks of total book paper showed a considerable increase. Shipments for the last week of the month were larger than production, resulting in a decrease in stocks. The net result for the whole month was a small increase in stocks of other grades of book paper than periodical paper. Stocks on hand, or in transit to, delivery points at the end of the month were 13,299 tons as compared with 13,474 tons at the beginning of the month.

Commitments up to December 31, 1918, were 287,647 tons and after December 31, 1918, 70,140 tons making a total of 357,787 tons as compared with 392,283 tons at the end of March.

Loss of Production

Reports of 244 machines show the following loss of time during the month of April:

	Lack of Orders		Lack of Coal		Other Reasons	
	No. of Machines	Hours Idle	No. of Machines	Hours Idle	No. of Machines	Hours Idle
First week.....	7	262	4	192	18	491
Second week.....	3	157	4	96	13	274
Third week.....	11	304	..	..	36	1,133*
Fourth week.....	5	304	..	..	24	936

*Includes 14 machines idle 674 hours on account of holiday affecting one company.

Machines not running at all for various reasons were four for the first week, four for the second week, three for the third week and four for the fourth week.

Jobbers' Stocks and Commitments

Monthly reports from 247 jobbers show the following book paper stocks and commitments:

	No. 1 Eastern and Western Machine Finish	No. 1 Eastern and Western Super-calendered	Coated Book costing 10c. or less	Total
Warehouse stocks, first of month.....	11,369	6,226	8,531	26,126
Received during month.....	4,274	1,833	2,597	8,704
Shipped during month.....	3,711	1,507	2,323	7,541

Warehouse stocks, end of month.....	11,932	6,552	8,805	27,290
Commitments to buy.....	29,309	9,881	6,655	45,845
Commitments to sell.....	24,521	9,680	3,641	37,841

The table indicates a small increase in jobbers' stocks for each of the grades.

Imports and Exports

The exports of book paper from the United States and imports of chemical pulp for the months of February and March, 1918, as compared with the corresponding months of 1917 were as follows:

	1918	1917	1918	1917
	Net tons		Net tons	
Exports of book paper (total).....	2,510	2,861	3,243	3,755
Imports of unbleached sulphite (total).....	9,171	20,747	14,178	17,285
From Canada.....	9,171	5,457	14,178	9,949
From Sweden.....	.....	.....	14,038	6,571
From Norway.....	.....	1,252	.....	765
Imports of bleached sulphite (total).....	1,729	3,802	923	1,903
From Canada.....	1,729	990	923	822
From Sweden.....	.....	1,470	.....	500
From Norway.....	.....	1,342	.....	581
Total imports of unbleached chemical pulp.....	15,182	28,425	20,770	24,138
Total imports of bleached chemical pulp.....	1,729	3,827	923	1,920

Exports of book paper for March, 1918, were somewhat larger than for the month of February but less than for January or for the month of February, 1917. There were no imports of chemical pulp from Norway or Sweden during the month. Imports of unbleached sulphite from Canada were somewhat larger than for the month of February, while imports of bleached pulp were considerably less. The imports of both grades were less than for the month of March, 1917.

Book Paper Prices

Only a few small contracts for Machine Finish, Supercalendered and Coated book paper were made during the month of April. The range of prices and tonnage were as follows:

Kind	Number of Contracts	Aggregate Tonnage	Prices per 100 lbs. Including Discount
Machine finish.....	27	2,832	\$5.50@9.00
Supercalendered.....	12	2,355	5.50@8.05
Coated.....	2	287	8.00@.....
Total.....	41	5,474	

It is important to note that the variation in prices of different grades of book paper is due to considerable extent to differences in quality.

Reports from jobbers show the following prices per 100 lbs. quoted for warehouse deliveries of the various grades of book paper during April:

	Ream lots	500 lbs.	Ton lots
No. 1 Eastern M. F.—			
East and Middle West jobbers.....	\$7.08@11.50	\$6.25@11.00	\$5.75@11.00
Pacific Coast jobbers.....	10.50@13.25	9.75@12.50	9.25@12.25
No. 1 Western M. F.—			
East and Middle West jobbers.....	6.25@10.50	6.00@10.50	5.00@10.50
Pacific Coast jobbers.....	10.50@11.75	9.50@10.75	9.00@10.50
No. 1 Eastern Super—			
East and Middle West jobbers.....	7.50@11.50	6.50@11.00	6.00@10.50
Pacific Coast jobbers.....	10.75@13.25	10.00@12.50	9.75@11.50
No. 1 Western Super—			
East and Middle West jobbers.....	7.50@10.50	6.25@10.00	6.00@9.50
Pacific Coast jobbers.....	10.75@13.25	9.75@12.50	9.25@11.50
No. 2 Coated—			
East and Middle West jobbers.....	8.00@13.75	8.00@13.00	7.75@13.00
Pacific Coast jobbers.....	12.50@15.00	11.85@14.50	11.50@14.25

The variation in prices is due in part to difference in quality of paper and also to location. As will be noted prices on the Pacific Coast are much higher than in other parts of the country.

There was some increase in jobbers' prices during the month.

Pulp Prices

More than half the contract deliveries of bleached sulphite (No. 1 grade) were at prices ranging from \$110 to \$115 per ton and about 20 per cent additional at from \$110 to \$105 per ton. Nearly half the current deliveries of bleached sulphite were at prices ranging from \$100 to \$105, and another 40 per cent at prices ranging from \$110 to \$115 per ton.

The bulk of the contract deliveries of unbleached sulphite were at prices ranging from \$50 to \$75 per ton. Current deliveries of

(Continued on page 56.)

MILL STOCKS OF NEWS PRINT SHOW DECLINE FOR APRIL

Although Production Showed No Improvement Over March Shipments Continued to Exceed Production to Such an Extent That Supplies During the Month Showed a Decline of About 1,000 Tons—Loss of Production for the First Four Months of 1918, as Compared with 1917, Amounts to 30,437 Tons of Total Print and 29,981 Standard News Print Paper—Jobbers Increase Prices.

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., May 20, 1918.—The Federal Trade Commission has sent out the following reports from 35 domestic manufacturers operating 58 news print mills showing the following results for the month of April, 1918:

Week ending	April 7	April 14	April 21	April 28
Production—				
Total print	25,410	25,607	26,698	26,460
Standard news	23,674	22,834	24,212	23,980
Shipments—				
Total print	25,478	26,456	26,309	27,817
Standard news	23,207	23,769	23,927	25,339
Mill stocks—				
Total print	26,970	26,097	26,457	25,053
Standard news	21,024	20,004	20,201	18,891

Production showed an improvement over the March results but shipments continued to exceed production so that mill stocks declined about 1,000 tons during the month. A correction of the mill stocks reported for the first two weeks of the month has been made following the receipt of corrected figures from the Pacific Coast. Stocks on hand at delivery points increased from 3,729 to 4,900 tons during the month.

Loss of Production

Aside from the loss of production at Niagara Falls, there were various small losses due to shortage of pulp, of fuel and of ground wood, and high water and repairs during the month.

The production of paper since January 1, 1918, as compared with the corresponding period last year is as follows:

	Total Print Paper	Standard News
Production from January 1 to February 3, 1918	108,638	100,315
Production for corresponding period, 1917	125,894	118,149
Production from January 1 to March 3, 1918	192,999	176,852
Production for corresponding period, 1917	222,840	206,333
Production from January 1 to March 31, 1918	291,746	266,070
Production for corresponding period, 1917	327,037	301,707
Production from January 1 to April 28, 1918	397,084	362,767
Production for corresponding period, 1917	427,521	392,748

The loss in production for the first 4 months of 1918 as compared with 1917 amounts to 30,437 tons of total print and 29,981 of standard news.

Jobbers' Stocks and Commitments

Monthly reports from 247 jobbers show the following news print paper stocks and commitments:

	News Print Paper		
	Rolls Tons	Sheets Tons	Total Tons
Stocks in warehouses, first of month	2,356	6,701	9,057
Quantity received during month	2,899	3,503	6,402
Quantity shipped out during month	2,190	3,317	5,507
Stocks in warehouses, end of month	3,065	6,887	9,952
Commitments to buy	53,344	5,830	59,174
Commitments to sell	51,597	5,467	57,064

The table indicates a considerable increase in jobbers' stocks, especially of roll news.

Imports and Exports

The imports and exports of printing paper valued at not above 5 cents per pound (practically all news print) and of ground wood pulp for the months of February and March, 1918 as compared with the corresponding months of 1917 were as follows:

	February		March	
	1918	1917	1918	1917
Imports of news print paper (total)	38,428	33,487	57,366	47,229
From Canada	38,428	33,487	57,344	47,229
From Newfoundland	5,075	4,602	8,537	4,009
Exports of news print paper	7,861	12,815	8,151	23,065
From Canada	7,861	12,815	8,151	20,441
Exports of domestic wood pulp	365	990	1,057	1,649

There was a large increase in imports of news print from Canada in March. Exports also increased noticeably, being double the quantity exported in March, 1917. Imports of ground wood pulp from Canada were larger than for February, but less than half the imports for March, 1917.

News Print Prices

Only about 20 new contracts aggregating 10,750 tons were entered into by manufacturers during April, most of them being at prices to be determined by the Federal Trade Commission. Current shipments of roll news were at prices ranging from \$2.90 to \$3.50 and current shipments of sheet news were at prices ranging from \$3.25 to \$3.75 per 100 lbs. f. o. b. mill.

Reports from 247 jobbers showed the following prices for shipments in small quantities from their warehouses:

	East and Middle West		Pacific Coast	
	Rolls	Sheets	Rolls	Sheets
Ream lots		\$4.25@7.00		\$5.50@9.00
Case lots (500 lbs.)	\$3.60@6.00	4.00@6.50	\$5.50@8.00	5.75@8.50
Ton lots	3.20@5.25	3.75@6.25	5.00@8.00	5.25@8.25

Prices on the Pacific Coast were very much higher than in other parts of the country both for rolls and sheets.

There was some increase in jobbers' prices during the month.

Pulp Prices

The bulk of sulphite receipts (news grade) on contracts were at prices ranging from \$50 to \$70 per ton f. o. b. mill, about 40 per cent being between \$55 to \$60 and about 30 per cent being between \$60 and \$65 per ton. Current receipts were largely at prices ranging from \$60 to \$70 per ton.

Receipts of ground wood pulp on contracts ranged all the way from \$25 to \$40 per ton. The bulk of the current receipts were between \$30 and \$35 per ton.

BOOK PAPER PRODUCTION INCREASES

(Continued from page 55.)

unbleached sulphite showed a wide range from \$50 to \$100 per ton, depending upon the quality.

A third of the Soda Pulp contract deliveries was at prices ranging from \$70 to \$75 a ton and two-thirds at prices ranging from \$80 to \$85 per ton. Current deliveries were largely at prices ranging from \$80 to \$85, about a fifth being at from \$70 to \$75.

Crown Willamette Paper Co. Running Full

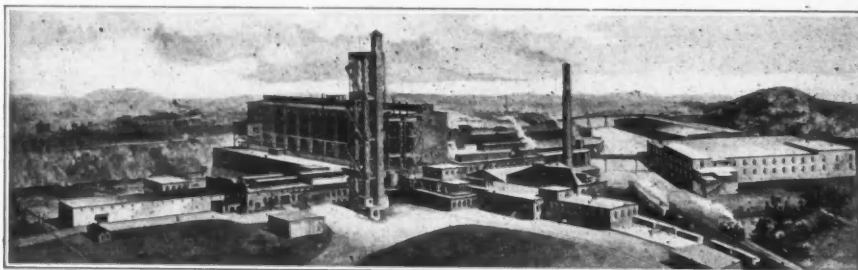
All of the plants of the Crown Willamette Paper Company, in Oregon, Washington and California, are running full. There is no surplus of news, but the contracts with the newspapers of the Pacific Coast are being filled promptly. Shipments to California points are being made by water and rail, and tonnage in vessels is scarce. The wrapping paper output is about normal, with a fair demand. There is an excellent seasonal demand for fruit paper, with prospects for large crops of deciduous fruits throughout the Pacific Coast.

The Floriston plant, at Floriston, Cal., is operating as usual on wrappings, tissue and fruit paper for the use of the California growers, with prospects for a large consumption this year. Great difficulty is experienced this season in securing pulp wood for this mill owing to the scarcity of labor. The company has its own timber, but is unable to get pulp wood out fast enough. Consequently, both sulphite and ground wood pulp are being shipped from the Crown Willamette Company's plants in Oregon to Floriston.

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New York Market Review

Office of the PAPER TRADE JOURNAL,
WEDNESDAY, May 22, 1918.

According to an agent for a large mill specializing in book papers, consumers do not seem to realize the seriousness of the situation they are facing. The mills are working against a number of very powerful handicaps, and with the best of present-day conditions are finding it impossible to run to full capacity. The drafts are taking their best men right and left, and the lame, the halt and the blind who are left behind are being tempted away by prospects of higher wages in war industries. To meet this condition the paper mills must give higher wages, and when they do it will be the ultimate consumer who pays. But even with higher wages, the labor is not to be had, and production is gradually growing smaller.

The other day the manager of one of the large mills in the East made the statement that its production was now 62 per cent of normal capacity, and that when it got down to 50 per cent it saw no way out, save to close down the plant, and that it was its intention to do so. Others, however, cannot take this way out, owing to the fact that they are running on Government orders and must supply the nation's needs. Day by day, too, the Government's needs are growing larger, and it is taking paper which formerly found its way to this market. In the light of the foregoing, how can the man who uses paper in quantities expect anything but a higher and higher price as time goes on? Another thing: Buyers should realize that paper today is made under difficulties. In this connection it is interesting to note a certain case in which a jobber had a considerable quantity of book paper returned because it varied one-half of one-one-thousandth of an inch. In less than two weeks the jobber sold the entire lot at a half cent more than his original price to his customer.

Prices of sheet tissue are firm, and New York stocks are gradually becoming depleted. Toilet paper roll orders from the Government are receiving preference, and few mills are accepting orders and almost none shipping except Government orders for tissue rolls.

Wrapping paper and all coarse screenings papers are very strong. Prices are steady and the demand strengthening. It is almost impossible to get delivery on kraft paper, and the market for it is not a bit easier now than it has been.

News print prices remain unchanged and exporters say that the demand is very large, but they are experiencing considerable difficulty getting licenses. The Government is issuing licenses practically only for paper called for on old contracts, and in this manner discouraging new business.

Prices for boards are again up; news is now \$70 per ton f. o. b. New York; straw is quoted at \$60, and chip \$65. The demand continues far in excess of the supply; one reason being the fact that the box makers are very busy and are using substantial quantities. During the past week several mills have withdrawn quotations, and some of them are now planning to close down for a few weeks, in order to repair machinery, which is made imperative by having to run day and night for some time and putting a great strain on the machinery.

Mechanical Pulp

After last week's easy market, wood pulp this week shows a \$2 drop in price, now being quoted \$28@32 per ton f. o. b. pulp mill. For a good pulp in big contracts, say 500-ton lots, dealers have made sales during the past week at \$30@31 per ton. But this weakness is only temporary and is due largely to the surplus there is just now in the market. In from four to six weeks prices may be looked for to stiffen, owing to the effect of a wood shortage and bad water conditions in the Northwest, and prices will follow values a good deal more closely than they have.

Chemical Pulp

All grades are very firm, and prices, while generally unchanged, have a strong upward tendency. Labor conditions continue to be a source of trouble, but shippers say railroad conditions are very greatly improved.

The market for bleached pulp is a good deal stronger than dealers can supply, and the same is true of mitscherlich. These two grades are getting to be like kraft, very difficult to obtain.

Rags

The steady upward trend of the market for some time has during the past week taken a radical jump, in line with previous performances. Buying in heavier volume has occasioned this advance, paper mills needing the stock and their buyers being forced to come into the market, resulting in the big boost.

The demand for old rags, which has been only fair up to the present time, has taken a very sharp advance in the demand, and prices are following closely.

Street soiled whites are still being quoted in the list, but they are practically out of this market, most of the packers putting them in roofing rags.

Prices for roofing rags, which do not show a change in quotations, are nevertheless very strong. Sales in instances are being made above the market price, one roofing mill which needed the stock paying 2.60 for No. 1 and 2.50 for No. 2 roofing stock during the past week.

Bagging

The bagging market continues strong. Prices have a firm tone, and sales are being made at the prices quoted, and above rather than below. Manila rope, both foreign and domestic, is up to 6.50@7, and is rather scarce at these prices.

Paper Stock

Old waste papers show a fairly firm tone, but no price change. The demand has continued fairly well, but the supply is equal to the occasion and radical price changes are not looked for immediately.

Paper Prices Advance in Toronto

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ont., May 20, 1918.—Predicted advances in the price of book, bond, writing and wrapping papers have materialized, and last week quotations by Canadian mills to jobbers were raised all round. Bonds have gone up from a cent to a cent and a half a pound, and book papers from ¼ cent to 1¼ cents. The mills have been very slow in making these advances, but have now been driven to it through sheer necessity. Firmness in the pulp market, coupled with increases in the cost of several materials and shortage and inefficiency of labor, have all conduced to drive up production costs to a point where it has been found obligatory to pass on a portion of the increase to the consumer.

Indications all point to a scarcity of pulp wood, due in part to the impossibility of securing adequate labor and in part to the lack of cars to bring the wood from the timber limits to the mills. One large firm is reported to be offering as high as \$70 a month for rough labor, including board and lodging. Another has had its agents scouring Ontario towns for woodsmen, but with discouraging results. The Railway War Board is doing its best to cope with the transportation difficulty, but the car supply is still most inadequate.

Wood Pulp Rates Increased

WASHINGTON, D. C., May 15.—Increased rates on wood pulp sought by the Duluth, South Shore & Atlantic Railroad engaged in the transportation of wood pulp in Great Lakes territory were ordered by the Interstate Commerce Commission to become effective Sept. 12. Delay in putting the proposed rates into effect was made by the commission in order that an investigation might be made to ascertain the reasonableness of the request.

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 quotations of securities listed on the Stock Exchange of companies engaged in the manufacture of paper as reported on May 22, 1918, follow:

Table listing securities with columns for Bid and Asked prices. Includes American Writing Paper Company, International Paper Company, and United Bag and Paper Corporation.

Paper

Table listing various paper products like Bond, Ledgers, Writing, Extra Superfine, etc.

Mitscherlich 5.00 @ 5.50

Table listing Mitscherlich, Kraft (Domestic), Soda Bleached, etc.

Domestic Rags

Prices to Mill f. o. b. N. Y.

Table listing Domestic Rags: Shirt Cuttings, New White, Silesias, Washables, etc.

Cottons—according to grades—

Table listing Cottons: New Blue, New Black Soft, New Light Sec'ds, etc.

Whites, No. 1—

Table listing Whites, No. 1: Repacked, Miscellaneous, Whites, No. 2, etc.

Whites, No. 2—

Table listing Whites, No. 2: Repacked, Miscellaneous, St. Soiled Whites, etc.

Thirds and Blues—

Table listing Thirds and Blues: Repacked, Miscellaneous, Black Stocking, etc.

Foreign Rags

Table listing Foreign Rags: New White Cuttings, Unbleached Cottons, Light Flannelettes, etc.

Bagging

Prices to Mill f. o. b. N. Y.

Table listing Bagging: Gunny No. 1, Domestic, Foreign, Bright Bagging, etc.

Table listing Manila Rope: Foreign, Domestic, New Bar. Cut, Hessian Jute Threads.

Twines

Table listing Twines: India, No. 6 basis, Dark, Light, B. C., 18 basis, etc.

Table listing Twines: Finished Jute, Dark, 18 basis, Light, 18 basis, etc.

Table listing Twines: Jute Wrapping, 2-6 ply, Extra No. 1, No. 1, No. 2, etc.

Table listing Twines: Paper Makers' Twine, Balls, Box-Twine, 2-4 ply, etc.

Table listing Twines: Amer. Hemp, 6, Sisal Hay, No. 1 Basis, No. 2 Basis, etc.

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

Old Waste Papers

(f. o. b. New York.)

Table listing Old Waste Papers: Shavings, Hard White, No. 1, No. 2, etc.

Table listing Old Waste Papers: Flat Stock, Stitchless, Over Issue Mag., etc.

Table listing Old Waste Papers: Solid Book Ledger, Ledger Stock, No. 1 White News, etc.

Table listing Old Waste Papers: Manilas, New Env. Cut, New Cut, No. 1, etc.

Table listing Old Waste Papers: News, Strictly Overissue, No. 1 Mixed Paper, etc.

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Table listing Paper: Mill Price to Jobbers, No. 1 Rag Bond, No. 2 Rag Bond, etc.

Table listing Paper: Sulphite Bond, Cheap Ledger, Superfine Writing, etc.

Table listing Paper: No. 1 Fine Writing, No. 2 Fine Writing, No. 3 Fine Writing, etc.

Table listing Paper: No. 1 M. F. Book, No. 1 S. & S. C. Book, Coated Book, etc.

Table listing Paper: Coated Label, News—Rolls mill, News—Sheets mill, etc.

Table listing Paper: Butchers' Manila, No. 1 Kraft, No. 2 Kraft, etc.

Table listing Paper: Wood Tag Board, Screenings, Boards, per ton, de-livered, Plain Chip.

Table listing Paper: Solid News, Manila Lined Chip, Container Liner, etc.

Table listing Paper: Solid Wood Pulp, Straw Board, Filled Pulp Board.

Old Papers

Table listing Old Papers: Shavings, No. 1 Hard White, No. 1 Soft White, etc.

Table listing Old Papers: No. 2 Soft White, No. 1 Mixed, No. 2 Mixed, etc.

Table listing Old Papers: Ledgers & Writings, Solid Books, Blanks, etc.

Table listing Old Papers: No. 2 Books, light, Extra No. 1 Manila, No. 1 Manilas, etc.

Table listing Old Papers: Folded News (over-issue), Old Newspapers, Mixed Papers, etc.

Table listing Old Papers: Straw Clippings, Binders' Clippings.

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Table listing Paper: Bonds, Ledgers, Writings, Superfine, etc.

Table listing Paper: Extra Fine, Fine, Fine, No. 2, Fine, No. 3, etc.

Table listing Paper: Book, M. F., Book, S. & S. C., Book, Coated, etc.

Table listing Paper: Coated Lithograph, Label, News, No. 1 Jute Manila, etc.

Table listing Paper: Manila Sul., No. 1, Manila No. 2, Common Bogus, etc.

Table listing Paper: Straw Board, News board, Chip Board, Wood Pulp Board.

Bagging

Table listing Bagging: Gunny No. 1, Foreign, Domestic, Scrap Burlap, etc.

Table listing Bagging: No. 1 Scrap, Wool Tares, heavy, Wool Tares, light, etc.

Table listing Bagging: Manila Rope, No. 1, Mixed Rope, No. 1 New Lt. Burlap, etc.

Table listing Bagging: New Burlap Cuttings.

Old Papers

Table listing Old Papers: Shavings, No. 1 Hard White, No. 2 Hard White, etc.

Table listing Old Papers: No. 1 Soft White, No. 2 Soft White, No. 1 Mixed, etc.

Table listing Old Papers: No. 2 Mixed, Solid Ledger Stock, Writing Paper, etc.

Table listing Old Papers: No. 1 Books, heavy, No. 2 Books, light, No. 1 New Manila, etc.

(Continued on page 62.)

Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

FOR THE WEEK ENDING MAY 21, 1918.

SUMMARY.

Cigarette paper	760 cs.
Filter paper	78 cs.

CIGARETTE PAPER.

P. J. Schweitzer, Marseilles, 28 cs.
American Tobacco Co., Marseilles, 68 cs.
American Tobacco Co., Marseilles, 30 cs.
American Tobacco Co., Bordeaux, 100 cs.
American Tobacco Co., Bordeaux, 100 cs.
R. J. Reynolds, Bordeaux, 400 cs.

P. J. Schweitzer, Bordeaux, 34 cs.

J. Manheimer, Bordeaux, 78 cs. filter paper.

PAPER STOCK.

E. J. Kellar, Marseilles, 340 cls. rope.

CASEINE.

Atterbury Bros., Buenos Aires, 900 bgs.

NEWS PRINT INVESTIGATION TO BE CONCLUDED THIS WEEK

(Continued from page 10.)

that in connection the Commission owns some 250,000 cords about 20 to 30 miles north of the mill.

Mr. Gaby stated that about 50 per cent. of the wood was purchased for the mill this year from the settlers near the mill, and that this year there was an increase of from 50 cents to \$1.00 over last year, rough cord. The price delivered at the siding, he said, was about \$8.50.

The witness stated that there was an increase this past year of 10 per cent. to 15 per cent. in the cost of making pulp at the mill, the increase being due, he said to increased cost of labor, and increased cost of pulp wood. The wages increased, he stated, about 10 per cent. the past year. The mill is getting \$29.50 for groundwood pulp, Mr. Gaby said, f. o. b. the mill. Mr. Gaby stated that last year they got \$40.00 for what they are now getting the price of \$29.50. He attributed that to the fact that there is probably more pulp available than last year.

Both Sides Wanted G. F. Hardy

The Trade Commission offered in evidence a questionnaire which it had sent to George F. Hardy, the consulting engineer, whom both sides have tried to have testify at the hearings. There was considerable discussion about the introduction of such evidence, inasmuch as counsel for neither side had seen the questionnaire nor the answer and they were unable also to cross-examine the witness. In connection with the answers to the questionnaire filed for Mr. Hardy is the following of interest:

"As regards the mill itself within the mill yard proper, and this would include the handling and storage of raw materials and include the water power development both for grinding and miscellaneous power; presuming that the company's water power was sufficient for the total daily needs of the mill I have frequently used in preliminary talks with new clients and referring to an unknown property a figure of \$16,000.00 per ton as a lowest possible minimum for a 200 ton mill and \$18,000.00 per ton as a lowest possible minimum for a 100 ton mill, and have explained that the natural conditions must be exceptionally favorable and that a very close rating of actual capacities of equipment must be planned for; that the safety in such would depend largely upon the management; the grade of labor as controlled by housing conditions and many other things which no one could definitely foresee and that I thought they should call the minimum possible figures \$18,000.00 per ton for a 200 ton mill and \$20,000.00 per ton for a 100 ton mill.

"The forgoing was approximately my answer just previous to the war.

"Since the war began, we have made no estimates on a complete news print mill."

Answers from National Paper Trade

The Commission also put into the record last week the answers which had been received from the National Paper Trade Association to the Commission's questionnaire to the paper jobbers

handling news print. The questionnaire itself and a synopsis of the answers have already been printed in this paper a couple of months ago when the questions were sent out and the answers first received.

In connection with this same jobbers' questionnaire the Commission also introduced the following letter from the Graham Paper Company, as distinct from the answer of the National Paper Trade Association:

"Referring to the questionnaire recently sent out and received by us through the National Paper Jobbers Association; we submit the following answer to the inquiries contained therein:

"1. News print is usually sold on the following basis:

A. If from the mill—F.O.B. mill.

B. If from the warehouse—F.O.B. warehouse.

"In general terms, the basis price is F.O.B. point of shipment, and applies both to rolls or sheets.

"2. We favor prices based on delivery at point of shipment. It eliminates disputes as to rates of freight; damage and losses while enroute, and simplifies the records of sales for all parties.

"3. Our terms are net cash, thirty days on all open accounts; some sales, for prudential reasons, are "Draft attached to B/L," but terms of settlement remain net cash.

"We recommend that the paper merchants adopt and utilize the terms established by mills in selling news print; at present this is net cash. Uniform terms are more satisfactory to parties buying and selling when recognized and adhered to, and eliminates discrimination.

"5. Each sale under contract for shipment direct from mill, is governed by the terms of the purchase from the manufacturer. Therefore, the variation in the contracts of the manufacturers will likewise be evident in those made between the publisher and the paper merchant.

"6. Sales from warehouse stocks on contracts are usually no more than for deferred shipments, and, unless special conditions make a signed contract necessary, such contracts are verbal, requiring no standard form.

"7. We are in close touch with many of the smaller publishers; we recognize their necessities and believe the Commission realizes from its investigations that the paper merchants have been helpful to the publishers in securing for them and equitably distributing this essential commodity, when it would have been difficult or almost impossible for the publishers to obtain it.

"As a matter of general interest, the credit of the publishers, according to the experience of the Company has, during the past years, shown a decided improvement.

Against Changes in Form of Contract

A very large number of letters written by western publishers were also introduced into the record showing that these Pacific Coast publishers are unalterably opposed to any change in the

(Continued on page 66.)

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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

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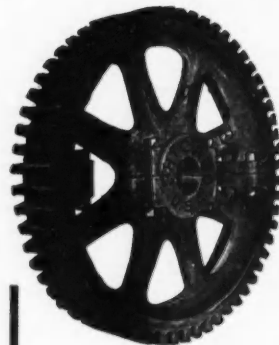
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Toronto, Canada

Obituary

Harold Ackley Banker

His many friends in the trade will learn with astonishment and regret of the sudden death on Saturday evening of Harold Ackley Banker at the Memorial Hospital, New York City, following an operation.

Mr. Banker was a graduate of Yale University, class of 1916, and upon leaving college became associated with his father, John W. Banker, in the paper and twine business at 17 White street.

Although comparatively a newcomer in the trade, he had made a host of friends, and his untimely demise will be greatly regretted.

He is survived by his parents, a brother and a bride of less than a year who was Miss Mary Stolk, with whom he lived at 650 W. 172d street, New York City.

Funeral services were held from the Banker home, 16 Madison avenue, Cranford, N. J., on Tuesday afternoon, May 21.

NEWS PRINT HEARING

(Continued from page 10.)

form of the paper contract. In their letters the editors all express the opinion that this new form of contract, as proposed by the A. N. P. A., would not only work hardship on the mills but would probably in the end militate against the publishers themselves.

Probable Cost of Pulp Wood

When witnesses for the publishers did not appear at the hearing on Thursday, owing to delay, the Commission put on some of its own witnesses. The first of these was Atlee B. Clarke, an employee of the Commission.

Mr. Clarke told the Commission that for the past three or four months he had spent his time going over the books of various paper and pulp and lumber concerns to try and ascertain just what the price of pulp wood would probably be in the next few months. In this connection the Commission had also sent out questionnaires and had tabulated figures which were available to the counsel of both sides. It was to explain these summary figures that the Commission's experts were put on the stand at the suggestion of Dr. E. O. Merchant.

Both Attorneys Wise and Allen for the publishers objected to the testimony of the Commission's experts, especially when he took up the probable costs of pulp wood. Mr. Wise pointed out to the Commission that when he had tried to develop such testimony through his own witnesses, experts from Maine and Canada, he had been shut off with remarks from the Commission that they wanted FACTS and not SPECULATION as to what the costs might be in the future. In spite of the objections of both sides the Commission's experts testified noting the exceptions made by the attorneys on this point. Mr. Clarke went into detail as to the cost figures which he presented for the record.

Another interesting witness last week was Henry S. Graves, Chief Forester of the United States. Mr. Graves spoke of reforestation and the economical cutting of timber. In part, he said:

"The bulk of the forests in the east are privately owned. These forests are, for the most part, acquired for the merchantable timber upon them and the owners, not having the incentive of permanent ownership of the land, have in the past—I am speaking generally—not used conservative methods in handling them. Until comparatively recently there has been very great waste and loss, by fires, and there has been relatively little handling of the property with a view to continued production of timber upon it. The forest fires have been the greatest cause of losses in the timber lands. That applies to the lands producing materials for paper, as well as other forest products, and this loss has contributed, of course, to the depletion of the supply.

"The methods of cutting in the past have been more or less crude, with a certain amount of wastefulness in the cutting perhaps inevitable in the early development of our forest regions.

"It is only comparatively recently—I am now speaking of the United States and not Canada—it is only comparatively recently that any real headway has been made against the destruction by fire. One has only to visit the forest regions to see the effect of path-sweeping fires that destroyed large areas of timber. In the last few years considerable headway has been made against the forest fire and in the direction of fire protection. This has been largely under the public leadership, which has secured co-operation of private owners, secured public funds and a measure of public direction."

Paper Trade to Play Golf

The annual spring tournament of the New York Paper Trade Golf Association will be held at the Hackensack Golf Club, Hackensack, N. J., on Tuesday and Wednesday, June 4 and 5, 1918.

In view of the war conditions prevailing, the prizes will be War Savings Stamps, except a medal will be awarded to the maker of the low gross score of the qualifying round, and another to the winner of the championship.

Those desiring to play are requested to hand in their entry blanks as soon as possible, but not later than May 27. Entrants are requested to state their handicap, par and name of home course, and those failing to do so will be placed at scratch. The entry blank should be accompanied by a check for \$5.00, the amount of the entrance fee, which includes greens fees, and the same should be sent to the Secretary, William C. Ridgway, 41 Park Row, New York City.

While the accommodations at the Hackensack Golf Club are limited, it will be possible for the Committee to take care of all those desiring to stay over night at some of the neighboring country clubs. In order to avoid confusion all those desiring accommodations for any of the nights of the tournament will please be sure to fill out the proper space on their entry blank.

The annual meeting and dinner of the association will be held at the club on the night of June 4, and players will please state on the entry blank whether or not they will attend. The cost of the dinner will be \$1.50, payable on the night of June 4.

The Hackensack Golf Club can best be reached by a train leaving the Erie Station, Jersey City, over the New York, Susquehanna & Western Railroad to the Main Street Station at Hackensack, where taxis can be taken to the club. Train leaves Jersey City at 9:04 a. m., arriving at Hackensack at 9:28. The course may also be reached by trolley from Fort Lee Ferry at 130th street, New York City, where boats leave every twenty minutes.

The committee consists of the following: B. J. Richardson, A. C. Scrimgeour, W. C. Ridgway, H. F. Harrison, A. C. Dubey.

Wortendyke Mfg. Co. Sends Men to Colors

RICHMOND, Va., May 21, 1918.—E. S. Lewis, of the Wortendyke Manufacturing Company, Richmond, Va., who formerly traveled Tennessee, Alabama, and Georgia, has been called to the colors, and will soon sail for France.

O. T. Davis, who traveled Louisiana and Mississippi, will go to Camp Lee this week.

O. B. Shelton, Traffic Manager, is now with the 12th Company, Virginia Coast Artillery, and is stationed at Fort Monroe.

E. B. Livy, Chief Clerk, is now in France.

Quite a large number have gone from each manufacturing department.

Cannot Export Paper Stock After May 17

The War Trade Board has just made an announcement in which it has added paper stock to the list of commodities to the export conservation list. Paper stock cannot be exported after May 17.

5000 Tons Hanger Wanted
For the
Season 1918-1919

We intend to place our contract within the next 30 to 45 days. Shipments to begin July 1, 1918, and to extend in monthly installments until June 1, 1919. We will be pleased to figure with any reputable concern that may be interested in all or any part of such an order.

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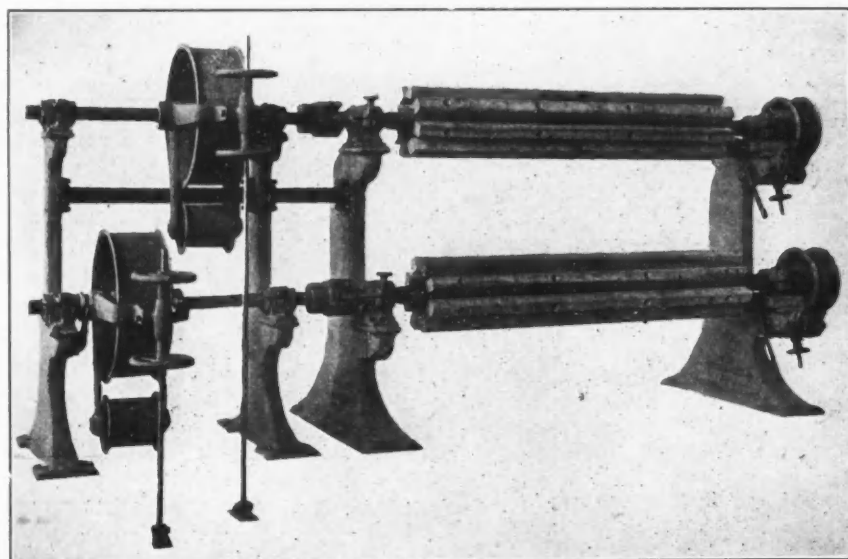
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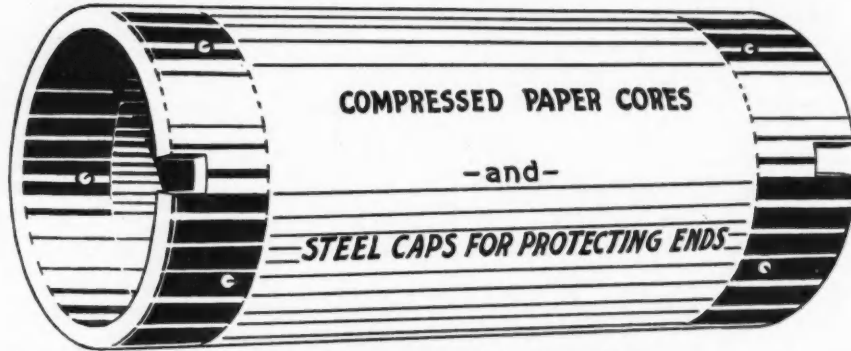
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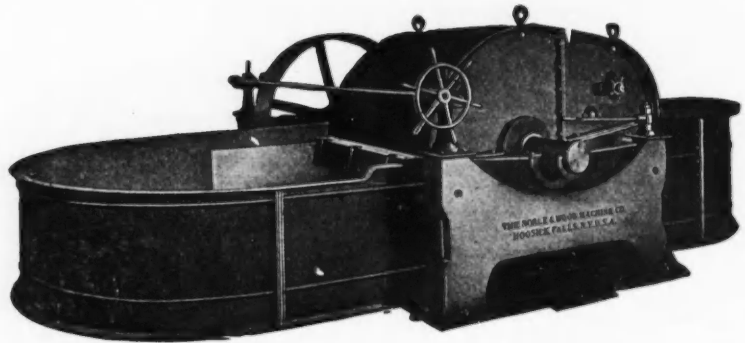
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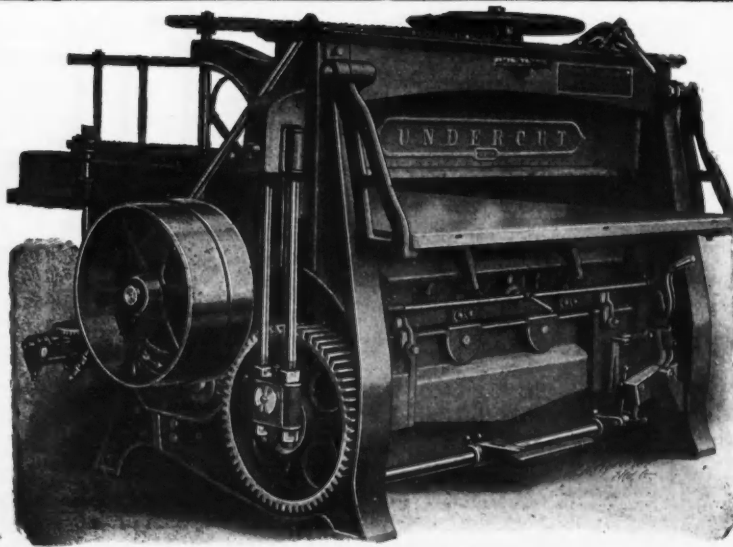
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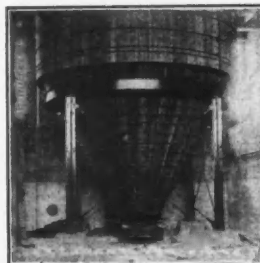
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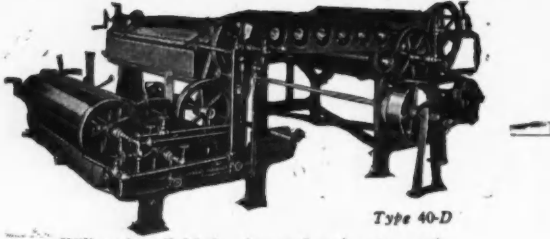
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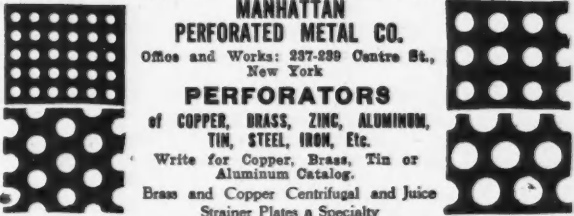

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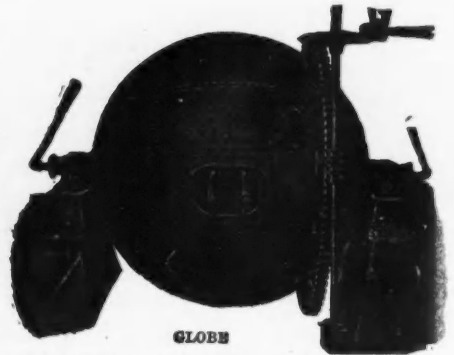
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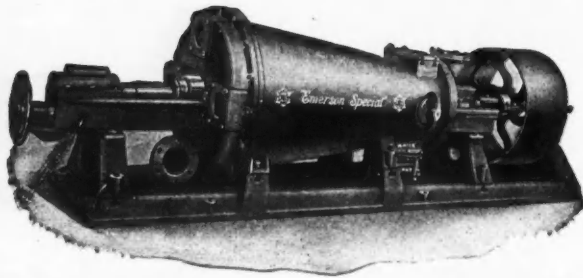


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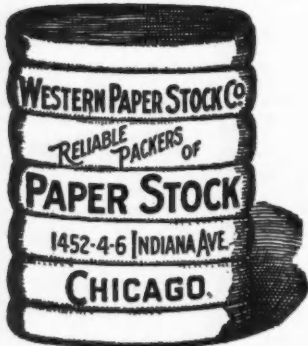
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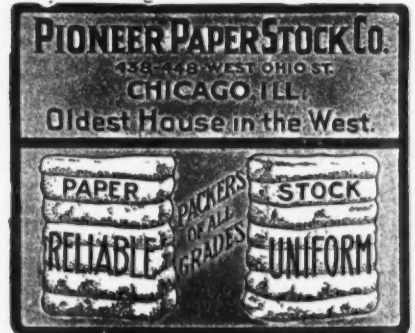
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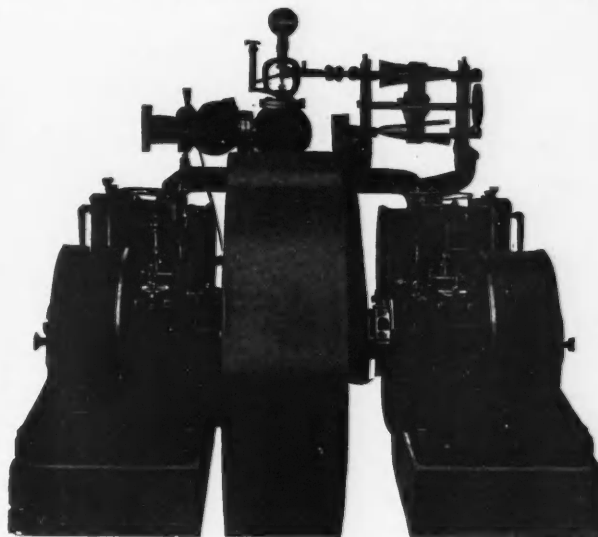
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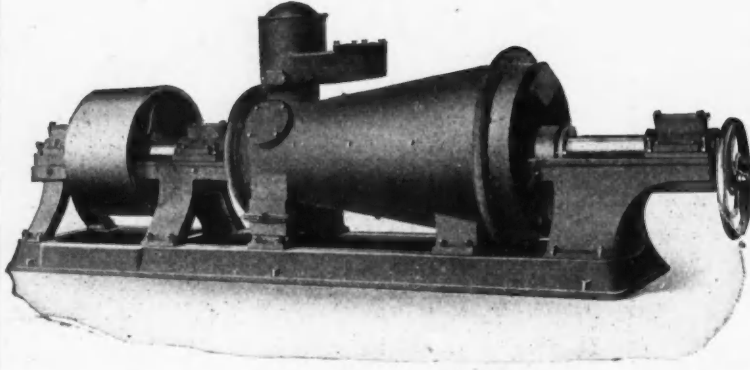
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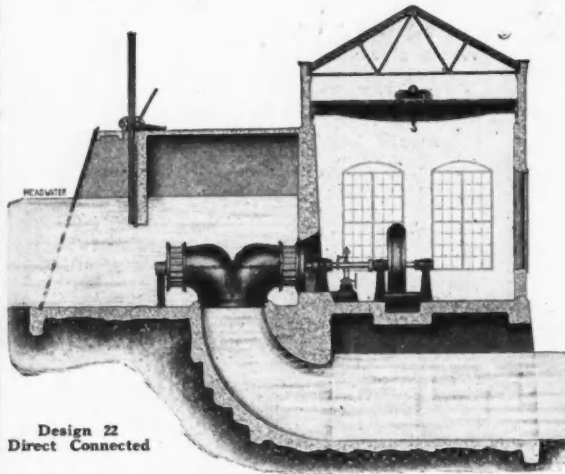
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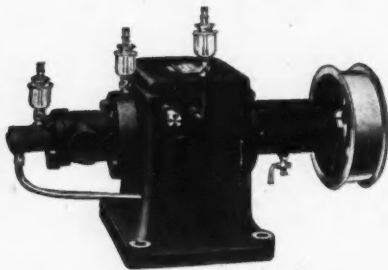
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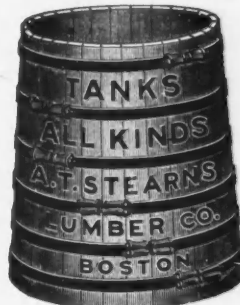
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