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Pulp and Paper Magazine

A Semi-Monthly Magazine Devoted to the Science and Practice of the Pulp and Paper Manufacturing Industry with an Up-to-date Review of Conditions in the Allied Trades.

Official Journal of the Technical Section of the Canadian Pulp and Paper Association

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VOL. XIII. MONTREAL, OCTOBER 15, 1916 No. 20

PULP AND PAPER MAGAZINE TO BE A WEEKLY

Arrangements have now been completed for the turning of the Pulp and Paper Magazine into a weekly publication, this forward step to be made on the first of January, 1917.

Four years ago the present publishers of the Pulp and Paper Magazine purchased that Journal from the Bigger & Wilson Company. It was then a small sized paper, published once a month. The first step taken by the new publishers was to enlarge its size to the present dimensions and publish it twice a month. Now a second forward step has been taken and the publication will shortly appear as a weekly.

No better evidence of the prosperity and progress made by the pulp and paper industry can be given than that furnished by the Pulp and Paper Magazine. It has grown in size, in circulation, in

influence, and in usefulness, and today is the official organ of the technical section of the Pulp and Paper Association, and occupies a commanding place among the Pulp and Paper Publications on the Continent. Under the leadership of the Pulp and Paper Magazine the Canadian Pulp and Paper Association was formed, the Forest Products Laboratory at McGill University created, and the Technical Section of the Pulp and Paper Association made a possibility.

Much of the success which has come to the Pulp and Paper Magazine must be attributed to the two editors who have given it their best services, namely Mr. A. G. McIntyre and Mr. Roy Campbell. As editors of the Pulp and Paper Magazine, they both have done much to further the best interests of the industry, and those associated with it.

Arrangements have been completed whereby Professor J. Newell Stephenson, now head of the Forestry Department of the University of Maine at Orono, will take over the editorship of the Pulp and Paper Magazine when it launches on its career as a weekly. Some facts regarding the new editor appear elsewhere in this issue.

THE PRICE OF PAPER.

A somewhat serious crisis has arisen here in the relationship between the newspaper publishers and the news print manufacturers. A few days ago a meeting of the Canadian Press Association was held in Toronto at which the whole paper question was thoroughly discussed and a representative committee delegated to visit Ottawa and register before the Minister of Finance their protests in regard to the shortage of paper in Canada, and the mounting prices of the same. In Ottawa they were met by representatives of the Pulp and Paper Association, and the whole situation was carefully considered before the Minister and also by the two organizations as separate bodies.

The newspaper men complained that they were unable to secure new contracts for any length of time, and that the prices asked for the supplying of white paper were prohibitive and if paid would mean the collapse of many newspapers. They urged upon the Government that an inquiry should be instituted into the cost of manufacturing news print in Canada and, following that, such steps be taken by the Government as it should find necessary to safeguard the supply of news print for Canadian publishers. The publishers suggested to the Government that either an embargo or export duty be placed on white paper or that the Government fix a maximum price above which manufacturers would not be allowed to charge Canadian publishers.

In refutation of the publishers' statements, the news print manufacturers pointed out that the attack on the part of the publishers had come without warning and that they had not consulted or [346] tried to negotiate with the news print manufacturers. They further pointed out that the cost of everything entering into the manufacture of paper had advanced in price, that old trade channels had been upset, and that there was a great deal of uncertainty regarding the future cost of paper making materials. The manufacturers agreed to call a meeting of all their members and thoroughly discuss the matter and later meet the publishers in a last effort to arrive at a satisfactory solution. It is understood that the manufacturers are asking an increase of from 25% to 33% over the figures now prevailing, and if the publishers do not see their way clear to accept these terms the manufacturers will then ask for a Government inquiry into the cost of paper making, feeling satisfied that such an investigation would vindicate them in the stand they have taken.

There is no doubt but that manufacturers of news print are being unjustly blamed for a condition of affairs over which they have no control. They are not arbitrarily increasing the price of white paper. Everything entering into the manufacture of news print has advanced in price; labor is scarce and commands higher wages; dye stuffs have advanced to almost unheard of prices; in copper wire paper men are competing against munition makers while a similar story can be told in regard to every ingredient entering in their finished product. In addition to that a sudden and unprecedented demand resulting from improvement in business and a presidential election in the United States has made the consumption of paper exceed production. Further, the war has interfered with regular channels of trade and has shut-off the whole of continental Europe from the markets of the world with the result that publishers who formerly depended on Europe have turned to Canada and the United States in an effort to have their needs supplied.

The situation is undoubtedly embarrassing and may possibly work hardships to some publishers, but the whole of the world's business fabric is confronted with extraordinary conditions. It is as unreasonable to blame the manufacturers of news print for the advance in the cost of white paper, as it would be to blame the bridge builder or the man who erects skyscrapers for advancing the price of steel. In the last analysis it is the war which is to blame. The advance in the cost of news print is not an arbitrary procedure, but rather the result of world conditions over which the paper makers have no control.

THE GATHERING IN NEW YORK.

The over-worked words, co-operation and service, best describe the spirit of the recent

gathering held in New York, under the auspices of the American Chemical Society. The affiliated organizations such as the technical section of the Pulp and Paper Association met at the same time, and their deliberations were permeated with the same spirit as characterized the chemical organization.

Hundreds of the best chemical men on the continent, technical experts from pulp and paper mills, college men from all the great universities, and others interested in the spread of technical and chemical knowledge, gathered in New York and gave their best. Men who had experimented for years in the quiet of their own laboratories, made public the results of their patient research work. Technical experts and college men vied with practical mill men in revealing the things which they had found to be of benefit in the working out of the manufacturing problems of the day. There were no secrets, the cards were laid on the table, and men who found a certain line of work, or policy, or experiments beneficial, frankly and freely made public the result of their findings.

The chemists felt that it was “up to them” to make this continent independent of Germany in chemical research. The result of their two years of effort were simply beyond belief; even the chemists themselves were surprised at the wonderful progress that had been made in supplying dye-stuffs and other chemicals that were formerly obtained from Germany. If the war should continue another year, this continent will be practically independent of the foreign dye-maker.

In much the same way, satisfactory progress was made in connection with the technical work of the Pulp and Paper Association. The papers read, the discussions carried on, and the conclusions reached, marked further progress in the work of the Association, and made it more than ever apparent that the technical man is an increasingly important factor in the modern paper mill. A number of the papers read at the gathering appear in this issue of the Pulp and Paper Magazine.

PRODUCTION AND SHIPMENTS.

The last weekly letter on production and shipment was sent out by the News-Print Manufacturers Association on October 7th.

The report from the Western Territory for the week ending October 7th shows production equivalent to 107.1%, and shipments equivalent to 103.8% of maximum production capacity.

The report from the Canadian Territory for the same week shows production equivalent to 100.1%, and shipments equivalent to 97.2% of maximum productive capacity.

A number of the mills have been running on other grades of papers, and in the case of one large Canadian mill, low water has caused low production.

There has been an increase in inventory during the week in question of 476 cents. It will, of course, be understood that this increase is not surprising, as it is impossible to maintain inventories at the same low figures reported last week.

New Editor of Pulp and Paper Magazine

Professor J. Newell Stephenson, who is to assume the editorship of The Pulp and Paper Magazine on the first of January, 1917, when it changes from a bi-monthly to a weekly publication, is at present head of the paper making department in the University of Maine, Orono, and assistant professor of chemistry in the same university. Like so many paper-makers from south of the Line, Mr. Stephenson realizes that the future of the industry lies north of the 49th parallel, and in casting in his lot with the Pulp and Paper Magazine, he is but following a natural development.

PROF. J. NEWELL STEPHENSEN,

New Editor Pulp and Paper Magazine.

The new editor was born at New Rochelle, N.Y., and educated in the schools of that city and Great Barrington, Mass. After graduating from the high school, he was employed as foreman in the Stanley Instrument Company's Watt Meter Factory. Later an opportunity to learn paper-making presented itself and was taken advantage of by the subject of this sketch. Encouraged by his employers, the B. D. Rising Paper Company, Mr. Stephenson decided to go to college, and in 1905 entered the Massachusetts Institute of Technology from which he graduated four years later as a Chemical Engineer. The year following graduation was spent at Lawrenceville, N.Y., as a teacher of drawing, then came a post in the Chemical Engineering Department of the Rose Polytechnical Institute of Terre Haute, Indiana. Three years later the University of Maine established a Pulp and Paper Course, and Mr. Stephenson was given charge of the Paper-Making Department. Two years ago he was made assistant professor of chemistry. While he has never been in actual journalism, Mr. Stephenson was associate editor to his college paper, and has done considerable writing for the various paper trade journals in Canada and the United States, as a matter of fact, the work he did in this connection, led to his appointment as chairman on the Committee on Abstracts of the Technical Committee of the American Pulp and Paper Association.

Mr. Stephenson takes up his duties on January first.

TECHNICAL SECTION MEETING NOVEMBER 24th.

The Annual Meeting of the Technical Section of the Canadian Pulp and Paper Association will be held in Montreal on Friday, November 24th.

Arrangements are being made for a most interesting meeting. The business to be considered is very important, and there will be in addition a programme of papers by experts which should be unusually instructive and also should evoke good discussion. Dr. J. S. Bates, Chairman of the Section has received assurance from Mr. Ellwood Wilson, Forester to the Laurentide Company, of his being able to attend and present a paper on "Forestry in Connection with Pulp Mill Operation." Mr. O. F. Bryant of the Forest Products Laboratories will discuss "Pulp Wood Measurements." Three other papers are expected concerning which announcement will be made in the next issue of Pulp and Paper Magazine.

The original intention was to hold a two day meeting but the members of the Council feel that the extreme activity of pulp and paper mills at the present time precludes the absence of technical men from the mills for longer than one day.

With the papers forthcoming it is expected that this will be one of the very best of the Section meetings. Technical men are strongly urged to make preparations now to be in Montreal for the occasion.

CHEMICAL EXPOSITION.

That the Third National Exposition of Chemical Industries will be a great success is already assured. An additional third floor has already been engaged, and plans are being made to use the fourth floor. In addition it is hoped to have large sections showing the resources of the country awaiting development.

Two prizes have been offered to the students of Cooper Union Art Schools to draw up a poster seal for the next exposition. The designs for this purpose will be finished January 1st next year, and prizes awarded February 1st. All designs submitted and which the Jury consider fit, will be exhibited during the next exposition.

Among those interested in the pulp and paper lines, who joined the Entente delegation from Ontario in visiting Montreal, Three Rivers and Quebec were W. P. Gundy, managing director of W. J. Gage and Co., and S. J. Moore, President of the F. N. Burt Co., Toronto.

SOME CHEMICAL AND PHYSICAL REACTIONS OF ROSIN SIZE SOLUTIONS

[348]

Paper read by J. A. DeCEW at the meeting of the American Chemical Society.

It is quite to be expected that in any class of chemical reactions which occur under such varying conditions as those existing during the precipitation of rosin size in paper mill practice, there will be among the various investigators a certain amount of disagreement regarding the theoretical explanation of what actually takes place. There is also some confusion resulting from the termology which is commonly used in describing sodium resinate compounds existing in rosin size, as for example, in the use of the phrase “free rosin”. The purpose of the following remarks is not to recapitulate the work of other investigators, nor to criticize their conclusions, but to submit a short discussion of the effect upon the chemical reactions involved, of the various physical conditions in which the material may be used.

It is a well known fact that a rosin soap will easily dissolve an equivalent amount of rosin to that which has been saponified, and this extra rosin, whether in solution in the size wax, or whether in suspension in a diluted solution, is still called “free rosin” in the termology of the trade. In order, however, to distinguish between the various states in which the rosin might exist, it should be divided into three classes, consisting first, of dissolved rosin, second, colloidal rosin, and third, rosin in suspension. The reason for this is that before the rosin soap can be used in the art of paper making it must first be brought into dilute aqueous solution.

If the soap should be readily soluble, then dilution may take place in cold water and consequently the diluting can be carried out within the beater itself. On the other hand, if the rosin soap is not readily soluble in cold water, owing to the fact that it contains a considerable quantity of dissolved rosin, it is necessary to bring it into a sufficiently dilute condition so that no further material separation of rosin will take place when it comes in contact with the paper stock. Obviously the difficulty of carrying out this operation increases in proportion with the amount of extra rosin which is held in solution in the rosin soap.

Authorities disagree as to whether abietic acid is mono-basic or dibasic and it cannot be stated definitely whether rosin which is in complete solution in a rosin soap is there in the form of an acid resinate, or whether it is merely dissolved rosin. It seems to the writer that a fairly intelligible conception is obtained by assuming that a sodium resinate containing rosin in solution, is in fact an acid resinate of the alkali metal and that from this solution insoluble acid resinates of the heavy metals can be produced.

Some interesting data on this subject is recorded by E. O. Ellingson in a paper before the American Chemical Society, 1914, the subject being “Abietic acid and some of its salts.” In this investigation he shows clearly that certain insoluble acid abietates were formed when a dilute aqueous solution of sodium abietate was added in small proportions to a dilute solution of a metallic salt.

The salts of Chromium, Manganese, Nickel, Iron, Cadmium, Cobalt, Strontium, Copper, all gave precipitates carrying an excess of abietic acid. The one exception was the Salt of Aluminum, which under exactly the same conditions produced a basic aluminum abietate. From this it is proven that a neutral sodium resinate solution when poured into a dilute solution of sulphate of alumina, will always produce a precipitate of basic aluminum resinate.

On the other hand, the investigations of Naugebauer, republished in Paper XI., 10-17, shows that a neutral resinate when precipitated with a considerable excess of sulphate of alumina, will produce an acid precipitate containing approximately 33 per cent. of rosin excess, and with the maximum amount of alum the rosin acid in the precipitate does not exceed 41 per cent.

If we can accept the results of this investigator then it is evident that insoluble acid resinates containing a limited amount of rosin acids can be produced from a neutral sodium resinate by precipitation with even an aluminum salt.

The results produced with sulphate of aluminum therefore, will depend largely upon the mass

action of the materials, chemical equilibrium being established in accordance with the relative amount and acidity of the alum used. In short, if 100 grs. of rosin in the form of a neutral resinate is precipitated with approximately 33 grs. of alum, we will have as a result, a basic alum resinate. If, on the other hand, it is precipitated with 330 grs. of alum, we would have an acid resinate of alumina containing approximately 40 per cent. of rosin acid. With less alum excess the amount of rosin acid in the precipitate will be proportionately less.

If the basic aluminum resinates were a satisfactory water repellant then the problem of paper sizing would be a very simple one, and all that would be necessary in practice would be to use the size and alum in proper chemical equivalents. All experience shows however, that when using a neutral resinate for sizing, it is necessary to use a large alum excess in order to obtain a sufficiently water repellant condition in the paper. The inference is that the insoluble acid resinates are essentially the agents which impart to the paper that resistance to aqueous penetration called “Sizing.”

Remington and his associates claim that resinate of alumina only, is formed when a neutral sodium resinate is precipitated with alum, even if the alum is used in excess, but that it is decomposed by extraction with alcohol and that this fact leads others to believe that a portion of the rosin is uncombined. These investigators publish the result of 50 tests for sizing paper, from which they draw their conclusions, but it would seem that their methods of making the tests were quite inefficient, inasmuch as they used not less than 5 per cent. of rosin, and as high as 12 per cent. without always getting sizing results. Now, in mill practice, a very poor size should give results with 3 per cent. of rosin, while an efficient size should produce a very hard-sized paper with an equivalent amount. It would seem unwise to form any fixed conclusion from tests which gave such unsatisfactory results. [349]

Other investigators such as, Emil Meuser and Naugebauer, (Paper, June 25th, 1913), and also Otto Kress & Struthers (Paper April 16th, 1913), have demonstrated by exhaustive tests that rosin acids are liberated from a neutral resinate when alum is used in excess and that the amount of these rosin acids may be from 33 per cent. to 41 per cent. of the total rosin, depending upon the alum excess used.

If an acid resinate of alumina containing 40 parts of rosin acids, can be produced from 100 parts of neutral resinate of soda and 330 parts of sulphate of alumina, then 20 parts of alum will be required to produce the same results from an acid resinate of soda, containing 40 per cent. of rosin acids, or with 200 parts of alum one can produce from this an aluminum resinate with 64 per cent. of rosin acid.

These highly acid resinates are found to be very colloidal in character and have great capacity for distribution within the paper pulp. They also show considerable resistance to dehydration and are thus able to retain their plastic character while the paper is being dried. Such are the properties that these highly acid resinates seem to possess in addition to their water repellant characteristics.

It has been demonstrated in paper mill tests that the rosin acids alone are thrown out of solution from a rosin soap by means of acid, can also produce sizing results providing that the rosin acids precipitated have a similar colloidal character to the aluminum precipitate. The practical difficulty, however, of obtaining colloidal precipitates when using acid, makes this practice a very uncertain one, for it would be only under very favorable circumstances that this practice could be carried out with success. The same difficulty is experienced when other metallic salts, (e.g.,) the salts of iron or calcium, are used to replace the aluminum sulphate, for the precipitates from these are much more dense and granular than those derived from aluminum.

It would seem therefore that the real necessity for the use of sulphate of alumina for precipitating the rosin is not so much the necessity for forming acid aluminum resinates, but the fact that the rosin precipitated in this way has a more colloidal character, than that thrown out of solution by other coagulants, and consequently will have greater covering power and efficiency as a water repellant. This explanation is opposed to the theory that rosin acids in the form of emulsion or suspensions are efficient sizing agents, for it is obvious that visible floating rosin has lost its colloidal character and its covering power.

The fact is that the so called free rosin emulsions, when properly made, contain but a very small amount of rosin acid in the emulsified form, practically all of it remaining in solution in the dilute soap. The art of preparing good rosin size emulsions (using the term as generally understood) is therefore the ability to dilute a solution of rosin acids, without the actual liberation of rosin in the emulsified form. The difficulty in doing this will explain the erratic results obtained by Remington and other investigators when endeavoring to determine the effect of rosin size containing dissolved rosin.

The laboratory difficulties involved are shown by an article by Otto Kress and R. T. Struthers, published in Paper, April 1913. Their results show that from a rosin saponified with 15% of sodium carbonate, over 98% was obtained by them in hot dilute aqueous solution, and that from a rosin saponified with 10% of sodium carbonate, only 50.6% was brought into actual solution in hot water. It is quite possible however, to dilute such a rosin soap holding in solution about 45% of rosin acids, to an aqueous solution of 2% solids, without having any of the rosin become insoluble. In this condition all of the rosin acids can enter into chemical reactions with other solutions and will precipitate from solution in a very bulky colloidal mass.

Between the extremes of physical condition just described, there are a great number of

intermediate stages. The rosin acids may be partly liberated by dilution in the form of small visible floating particles and coarse granular masses and a part may be in a state of colloidal solution. It is safe to say that all rosin particles which are sufficiently coarse to be classed as suspensions, have lost the greater part of their sizing value. That portion of the rosin acids which is in colloidal solution is still effective for sizing purposes because it has the property of becoming fixed upon the fibres by absorption. This action can only take place, however, when the paper stock is free from such electrolytes as may discharge the colloid before it reaches the fibre. Dilute acid resinate solutions may contain variable proportions of dissolved acid resinates, colloidal rosin, and rosin suspensions, and the relative proportion of these is what determines the basis of its waterproofing possibilities. Assuming that the sizing value of these solutions varies directly with the amount of rosin acids that are in true and colloidal solution, we have a measure of efficiency which checks very closely with actual mill results.

The maximum amount of rosin acids that can be held in stable solution in a diluted rosin soap of from 1% to 2%, total solids, is about 50% of the total rosin content. In such a solution there is always a slight tendency towards hydrolysis which increases with the amount of dilution, but the fact that these solutions when once prepared can be then boiled without decomposition, shows that the solutions are fairly well stabilized and also that there can be very little rosin then present in the colloidal form.

The conclusions which it is desired to submit as offering a satisfactory explanation of practically all the phenomena in connection with sizing paper with rosin is as follows:—

(1). That the rosin acids which are precipitated from dilute solution by means of a coagulant which will deposit the rosin in a colloidal mass, is the material which when properly incorporated into the paper stock and dried therein, produces the water resistant characteristic known as sizing.

(2). That the results obtained from a given quantity of material are largely dependent upon the character of the rosin colloid and its treatment during the process of manufacturing the paper.

(3). This product can be obtained in limited quantity from a neutral resinate, by the use of large excess of alum, or it may be obtained in large proportions from an acid resinate and a relatively less excess of alum. The maximum obtained from a neutral resinate being about 40% of the total rosin, and from an acid resinate about 70% of the total rosin, when a sulphate of alumina containing no free acid is used.

American Newspaper Publishers’ Association Committee on Paper.

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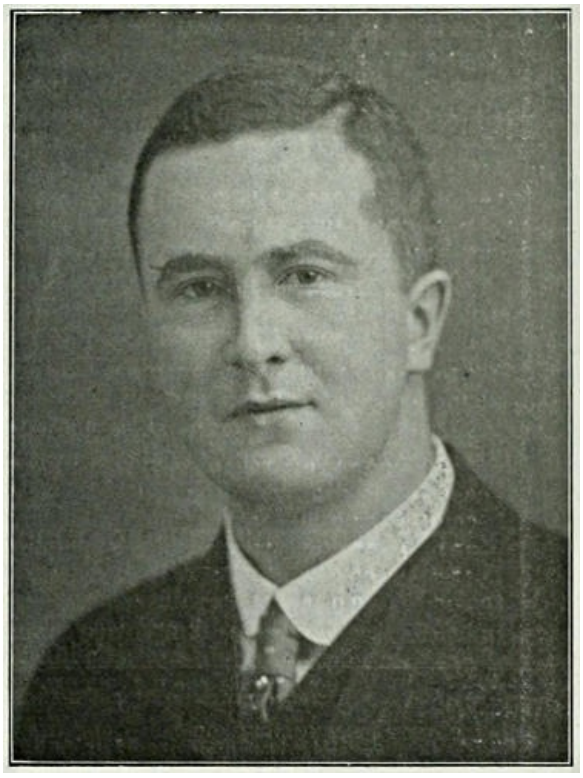
Mr. A. G. McIntyre, of Toronto, has been appointed Manager of the Committee on Paper of the American Newspaper Publishers’ Association.

His varied experience in paper and associated lines well qualifies him to handle the paper situation at the present critical time.

Mr. McIntyre has been both Engineer and Manager of some of the most successful paper companies in Canada, during which time he has designed and built a number of mills, together with having managed and operated same as well.



A. G. McINTYRE.

He has been associated with the following companies:

Jonquiere Pulp Company.

Price Bros. & Company, Limited.

Bathurst Lumber Company, Limited.

Mattagami Pulp and Paper Company, Limited.

He also became Editor of the Pulp and Paper Magazine, when this magazine was purchased by the present owners, the Industrial & Educational Press, and acted in this capacity for a year after its re-organization.

He was also Superintendent and Organizer of the Forests Products Laboratories of Canada, under the Dominion Government, located in Montreal, where a large technical staff are engaged in working on paper making problems.

Mr. McIntyre was also Organizer and first Secretary-Treasurer of the Canadian Pulp and Paper Association, and leaves the position of General Manager of the Mattagami Pulp and Paper Company, Limited, Toronto, to take up this work.

His experience has been a unique combination of paper mill engineering, paper mill executive, publishing, Government expert work and association work.

The office of the Committee on Paper will be located in the World Building, New York City.

Mr. McIntyre has made the following statement, in connection with taking up this work:

> “I have accepted this work of the Paper Committee, with the idea that something can be done to alleviate the present serious condition for the consumers of newsprint paper.
>
> “Everyone knows there is a serious shortage in production over the demand; at the same time, much can be done by both manufacturers and consumers to adjust their business to the present conditions.
>
> “Consumers must practise rigid economies, making all papers non-returnable; eliminating press room wastes and all avoidable consumption of paper. If this does not bring the consumption within the production, sufficient new mills must be constructed to take care of the normal consumption with the normal increase, as there is only very little new tonnage proposed, which will come on the market by 1918.
>
> “Manufacturers must turn aside from export business, taking care of old and permanent customers; should run mills at the fullest possible capacity, and at a reasonable margin of profit.
>
> “It has been distinctly understood with me before taking up this work, that the basis of relief will be mutual understanding and information between manufacturer and consumer, with sufficient increased tonnage provided, either by the present manufacturers, or by a few of the consumers, to protect the members of the American Newspaper Publishers’ Association in their supply of print paper.”

MARKET VALUES OF PAPER STOCKS.

The present unprecedented situation in the paper industry has fomented considerable speculative enthusiasm in Canadian paper and pulp stocks. Trading in these issues on the Montreal and Toronto stock exchanges has increased very materially, and prices are way up from the low of the year. Canada produces half as much newsprint as the United States, and she is increasing her capacity at a much faster rate than American mills.

The following table shows the extent of the advance this year in a number of prominent pulp and paper stocks listed on the Montreal and Toronto exchanges:

	Present price	Low 1916	Advance
Laurentide Paper	198	176	22
Wayagamack	74	27	47
Riordon Pulp & Paper	99	58	41
Price Brothers	95	60	35
Spanish River com.	15½	3½	12
Spanish pfd.	44	29	15
Toronto Paper	55	42	13

The Conservation Commission calls the attention of Canada to experiments showing that jack pine is well suited for making kraft paper. It will grow on poor land and is largely used in the West for fuel.

Why Paper is Dearer

In a letter to the members of the News-Print Manufacturers Association Mr. G. F. Steele ably refutes the charge that the recent advance in the price of paper were arbitrary measures.

The writer was unavoidably absent from New York when the monthly report of production and shipments for the month of August was sent out from this office on September 19th.

You have doubtless observed the decreased production in August as compared with the month of July. This was largely caused by the difficulties encountered by one of the large Canadian mills by a terrible forest fire, which decreased operations for several weeks. It will doubtless occur, however, to every one of our members that due to the terrific pressure which has been placed on the operation of the mills during the past eight months, that it is a great wonder that production keeps up to the present high point. Machines are running at a much greater speed then they were ever expected to run, and ordinary shut downs for repairs and replacements have not been made this summer. It is usually the custom for most news-print mills to shut down at the end of the summer before freezing weather occurs, to run their screening and tailings into wrappers. I do not know of a single mill which has indulged in this desirable practice this year, and in order to get a supply of wrappers for the coming six months it may be necessary for some mills to stop making news-print paper temporarily and run out their wrapper stock.

During the months of June, July and August in normal years production drops down materially, and stocks are accumulated for the great Fall demand. During the months of June, July and August of this year, instead of accumulating increased stocks, you doubtless have observed from the statement submitted to you that total stocks at hand at all points, including stocks on hand at mills, in transit, and at destination points, decreased 7,316 tons or 10.6 per cent.. It was thought by those who are best posted in the industry that stocks were at danger point on June 1st, and that unless these stocks could be replenished there would be grave danger of the necessity of some papers suspending publication temporarily because of the inability of the mills to get paper to them in time for their requirements during the coming Fall and Winter. During the three months of June 1st to September 1st, 1915, storage stocks increased as much as they have declined this year.

During the past few weeks the newspapers have been full of violent outcries, uttered by publishers, regarding the high price of news-print paper. There have come to my desk during a period of two weeks over 1,500 radical and abusive articles, making all sorts of baseless and unfounded charges against the manufacture of news-print paper. It is quite evident that these newspaper publishers are more scared than hurt up to this time, for owing to the peculiar nature of this business and the fact that the great bulk of the business is contracted for the calendar year in the fall months of the preceding year, it is the belief of those who are best posted in the industry that on the average the price of roll news-print paper which is sold on contract has not advanced up to this time more than 5% or $2.00 per ton. Many newspapers have taken advantage of the situation to raise subscription prices and to raise their advertising rates, when these same papers are paying no higher price for their supply of news-print paper than they were paying a

year ago.

So much has been said about the price of news-print paper, and so little has been said about the rise in price of other commodities, that I have endeavored to make up a list gleaned from responsible commercial publications regarding the rise in other commodities.

Just as soon as the price of news-print paper advances, no matter how little, the newspaper publishers promptly outdo the Prophet Jeremiah with their lamentations and demand an immediate investigation on the part of the government. We do not see the same demand when the prices of other commodities advance.

The selling price of the raw materials entering into the manufacture of news-print paper has increased to a very remarkable extent during the past year. Many mills now making news-print paper are paying a very much enhanced price for the cost of raw materials which they have to purchase. Other mills purchasing the chemical and ground wood pulps entering into the manufacture of their products are operating on old contracts which expire with the calendar year. There is every indication at the present time that the price of these two commodities after January 1st, 1917 will be practically double the price which ruled a year ago, and perhaps in the case of chemical pulp three or four times the price which ruled a year ago. The mills which are forced to make news-print paper from these high priced raw materials will necessarily have to charge what would seem like an inordinate price to operate at a profit.

Consider, for example, a paper mill which is dependent on the market for its supply of raw material. Sulphite pulp, of which news-print paper contains approximately 25%, is now selling around $100.00 at the sulphite mills and the mill which converts it into news-print paper will pay $25.00 per ton of paper for this item. Ground wood, which constitutes 75% of news-print paper, is selling at $30.00 per ton F.O.B. ground wood mill, and the converting mill pays $22.50 per ton of paper for this. As it takes approximately 110 pounds of pulp to make 100 pounds of paper, this brings the total cost per ton to $52.25 for the raw materials alone. Add to this a freight rate of 12c per hundred pounds for pulp, 40% dry, and the cost per ton of raw material comes to $58.85. Add to this the manufacturing costs which, according to the Tariff Board figures in 1911 amounted to $10.14 in the United States, and a larger figure in Canada. These costs have easily increased 50% since 1911, which makes a total cost of the paper $74.06 per ton.

The majority of paper mills make one or both grades of pulp, in which case increased expenditure is dependent on the increased cost of pulpwood, coal, labor, machine clothing, repair materials, chemicals, etc., but the mills dependent on the market for raw materials have to obtain large prices to operate at a profit.

In the year 1914, the average price of news-print paper was approximately $2.00 per hundred pounds F.O.B. cars at mill. The largest producer of news-print paper in the world, is now charging for renewal of contracts $3.00 per hundred pounds F.O.B. mill or an increase of 50%. Compare this increase with the increases in the following commodities, taken from such authorities as:

R. G. Dun & Co.—“WEEKLY REVIEW”.

“THE ANNALIST”.

BRADSTREET’S. [352]

U.S. Market Statistics (As quoted by the “N.Y. SUN”.)

Monthly Summary of U.S. Commerce.

Then follows a long list of articles in daily use which have advanced from 25 to 467 per cent. showing that the advance in the cost of paper is not an isolated case. The cost of living index accordingly to the New York Annalist increased from September 1915 to September 1916 from 135 to 185, an increase of over 37 per cent., and the market value of securities listed on the New York Stock Exchange increased from July 30th, 1914 to September 1916, deducting value of new editions, by over $3,000,000,000.00, a net increase of 33 per cent.

According to Bradstreet’s, out of 106 commodities which their index table embraces, all but 17 advanced in price between September 1st, 1915 and September 1st, 1916, representing for the entire groups an average increase of over 16½%. According to Dun’s last review, out of 328 commodities quoted, 42 showed advances in price over the previous week, while but 25 showed decreases.

There is another matter to be considered. During 1915 there was a decided increase in the price of practically every commodity, except paper. The Journal of Commerce quotes from the United States figures as follows:

“Wholesale prices of commodities in the United States averaged considerably higher in 1915 than in the preceding year, according to Bulletin 200 of the Bureau of Labor Statistics of the United States Department of Labor. ***The Bureau’s weighted index number for December (1915) stood at 105, the highest point reached in any year since the collection of data for the present series of reports on Wholesale Prices, dating back to 1890, was begun.

“Violent fluctuations were recorded during 1915 in the prices of all commodities, particularly drugs and chemicals and metal products. ***In the fuel and lighting group*** in August the prices again advanced (after a Spring slump) the increase continuing for the rest of the year. ***Articles belonging to the food group were in the aggregate highest in price in December and lowest in September. The increase between January and December in this group was nearly 4%.” The paper market, however, remained unchanged.

In other words, the price of other commodities advanced rapidly during the year 1915, while the price of news-print paper was stationary, and at the present time the advanced selling price of news-print paper does not compare unfavorably with the high cost of living as evidenced by practically all other staple commodities.

COMING TO CANADA.

The Bryant Paper Company, of Kalamazoo, is planning the construction of a pulp mill in Canada, involving the expenditure of approximately $1,500,000. The company is now one of the largest book paper manufacturers in the United States, its daily output being 200 tons. It operates ten machines at present, but has prepared plans and specifications for the addition of two more machines, each 154 inches in width.

Suggestions as to Purchase of Pulp Wood

Messrs. C. P. Winslow and R. Thelan of Madison Wis. gave a very interesting paper on the consumption of Pulpwood and the best method of purchasing it. A summary follows:—

The annual consumption of pulpwood in the United States amounts to approximately 4,300,000 cords, representing an expenditure in the neighborhood of $36,000,000 per year by approximately 250 companies. From these figures it is apparent that the question of proper pulpwood specifications is of wide importance.

While the value of pulpwood is dependent basically upon the tons of dry pulp that can be produced from a given number of dry tons of wood, the great quantity of the wood is bought and sold either on the basis of an estimated and variable volume of wood in an assumed space, or on the theoretical quantity or volume of lumber which can be cut. Thus, with dry weight as the real and final measure, we find substituted for it a variable and indefinite volume, and the result in the long run is fair to neither seller nor purchaser.

While by far the greater proportion of pulpwood is purchased as cordwood or by log scale, it must not be overlooked that the use of sawmill waste is steadily increasing, and amounts to approximately 7.7 per cent. of the total. It is manifestly impossible to apply the log scale to the measurement of such material.

While it is entirely evident that a completely satisfactory basis of specification cannot be secured with a unit of measure based on volume, it is equally apparent that such unit of measure must continue to be used very largely for this purpose. It is desirable, therefore, where perfection cannot be had, to compromise on the issue, and some suggestions along this line are as follows:

1. An enumeration of the basic and fundamental principles which must underlie any correct system of specification should show clearly the relation of yield of pulp to the dry weight of specific gravity of the wood and the relation and probable variation of this dry weight in a given volume.

2. For the conditions where the cord will continue to be used as the unit of measure, the formulation of definite specifications to the end that this unit of measure may come to represent an approximately fixed volume of solid wood.

3. A study of the relation of actual cubic contents of logs of varying sizes to the board foot measure, as determined by the various log scales used in the purchase of pulpwood.

4. A study into all phases of the question of supplying pulpwood in the form of baled chips as the source of supply. Such a study should cover such points as the quantity of chips secured from a ton or a stacked cord of various forms of mill waste and from a standard cord, the cost and best methods of chipping, drying and baling, and finally of methods for determining the moisture content of the baled chip, which would presumably be sold on a weight basis.

5. Attention to methods for limiting, describing and illustrating such points as “knotty,” “rough,” “doty,” “fire scarred,” “heart-rot,” “sap-rot,” etc. All of these defects detract from the value of the material, but to just what extent is not at present generally established.

6. Other points, such as standard methods of determining the dry weight and moisture content of the wood, or of measurement of wood fiber dimensions, also require attention. [353]

Guesses About Pulpwood Supply of Future

One of the most interesting papers read at the convention dealt with the Pulpwood Supply of the Future. It was by Prof. P. S. Lovejoy of the University of Michigan.

Mr. Lovejoy pointed out that the amount of cotton or corn raised in the country each year, the regions of production and the approximate costs and the sale values were known, and that with

about the same relative degree of accuracy the principal items of timber production were known. In the case of pulpwood, statistics compiled from reports of the mills showed the consumption by species, by States, the amounts and kinds imported and how these items compare with past performances.

Attention is now being devoted, Mr. Lovejoy said, to learning where our remaining forests are and what is in them, but the results are far from satisfactory as compared with the record of manufacturing. He asserted that we did not know now, within 25 per cent., what our stand of saw timber is for the whole community or for a given region or State. Practically nothing is known about the existing pulpwood supply, so that guesses as to the future cannot be accurate, but Mr. Lovejoy explained that there were many things upon which such guesses could be based.

Competition Between Saw Mill and Pulp Mill.

A condition that would have to be met was greater competition between pulp mill and sawmill, Mr. Lovejoy said, as the value of lumber was constantly increasing while the merchantable grades of lumber were declining. The pulp mill is at a disadvantage in this respect; that it represents a greater capital than the sawmill and cannot be moved to a new location.

On the other hand, Mr. Lovejoy continued, the pulp mill owner is able to use a poorer grade of material than the sawmill, and every time a new way of using still poorer material is found he increases his supply of raw material and extends his period of operation at one place. Another way in which to increase his available raw material is to see that the forests which are tributary to his plant are not burned out. Forest fires cannot be insured against and always result in the end in considerable loss to the industry. A really efficient organization for the prevention of fire can usually be maintained at from 2 to 10 cents per acre each year, Mr. Lovejoy stated, and it is cheaper and more effective to protect large areas over a long period than otherwise.

Wood End of Pulp Production Wasteful.

Mr. Lovejoy pointed out that in many cases the woods end of pulp production was very wasteful. As an example, he cited a given forest area, having a stand of one-third beech, birch and maple, one-third spruce and one-third hemlock and balsam. Only a small part of the stand offers good log timber, not sufficient to attract a sawmill. A contractor is obtained to get out the pulp stock, the mill specifying that the stock shall not exceed 5 per cent. species other than spruce. The spruce comes out, together with all the balsam that the contractor can get by with. That skins the stand, but is not the worst of it. A lot of slash is left on the ground offering good material for a fire. If fire does not come the wind throws a lot of balsam. Side-light hitting the hemlock parch-blights it and it dies. Conditions are favorable to tree-destroying insects. If the forest finally survives it will not longer be a pulp-producing forest.

As a remedy for this condition, Mr. Lovejoy urged a dependable inventory of the forest resources by combined Federal, State and private agencies and the development of greater co-operation between wood-using plants, so that everything the forest produced could be utilized. He suggested that private owners might be induced to go into the business of raising timber, rather than have all the forests owned directly by the mills.

Conservation of Raw Materials Essential.

The conservation of raw materials was essential to a well-organized industry, and there was danger that the pulpwood supply might not be protected. Growth of timber was slow, a cord an acre being the approximate annual rate for well worked forests. The annual consumption is about 5,000,000 cords of pulpwood in this country; a tree of 50 years of age is the best for the purpose. Working on this basis, it would clean-cut from 150,000 to 200,000 acres each year to meet the demand. Under the present system of unscientific cutting, the number of acres cut over each year reaches several million.

5,000,000 Acres of Timber Land Needed.

Putting it another way, Mr. Lovejoy asserted that 5,000,000 acres of timber land were needed to establish the industry on such a basis, provided that only 100,000 acres were cut over each year. Compared with the 500,000,000 acres needed for all timber requirements of the United States, this is a small amount, he explained, and it is up to the pulpwood men to see that it does not get lost in the shuffle.

Fire and heavy taxes prevent the growing of timber from being an attractive investment proposition to the individual, but for a corporation it is different, said Mr. Lovejoy. Under proper management the forest land will begin to render return at once. Several pulpwood mills are already on this basis.

In closing, Mr. Lovejoy urged the importance of less severe competition and greater co-operation. Such changes were radical, but they must be undertaken to preserve the industry.

TRADE ENQUIRIES.

A firm at Bristol, Eng., has asked the Canadian Trade and Commerce Department for quotations for a contract on woodpulp board. They desire the board to be 40 inches by 45 at about 180 sheets to the British cwt., and ask for 100 to 150 tons a year, delivered ten tons per month.

A Glasgow, Scot., firm states that a large demand exists there for straw-boards, leather-boards and pulpwood-board. They have forwarded samples to the Department of Trade and Commerce at Ottawa for quotations.

Two Russian firms have asked the Dominion Trade and Commerce Department for quotations for writing papers for commercial purposes. They prefer white and light blue colors. Quotations for quantities c.i.f. Vladivostok, desired. They sent samples with their request.

Sweden's Production and Export of Paper

Translated from "Papir Journalen" Christiania, Norway by the News-print Manufacturers' Association.

In the report of the Swedish Chamber of Commerce is said as a general opinion about the Swedish paper industry in 1915, that it has had to pass through many troubles, and that operation has been difficult and expensive.

Of raw materials, pulpwood prices increased very early on account of forced pitprops export, and because pitprops used much timber previously chiefly had been used for wood pulp and cellulose, that is pine and spruce of large dimensions. To a larger extent there were made purchases of pulpwood in Sweden for export to Norway, which, on which account of the war, could not supply its demand by imports from Russia. On account of the purchases for foreign consumers, the supply in some places was so scant that several woodpulp and paper mills had difficulties in covering their requirements. These conditions caused a great rise in prices. After repeated petitions from the Swedish Paper Mills Association on November 6th, 1915, an embargo was declared on the export of unrefined spruce and pine. In spite of this, felling and purchases for foreign consumers have been continued, in the hope that licenses would be given liberally and likewise with the thought that after the coming peace, it would be possible to ship great quantities of pulpwood from Sweden to countries, where it then would be in great demand. In some parts of the country these conditions have brought about an enormous wood felling which for a long time to come will decrease the supply of pulpwood.

A number of requisites to the woodpulp and paper industry, which must be imported have not only increased in prices enormously, but it has been attended by many difficulties in obtaining the most necessary supply.

The rise in prices of some raw materials and requirements have at the end of the year been estimated at the following figures:

	per cent.
Pulpwood has gone up	30-60
Dyestuffs	400
Chloride of lime	1000
Coal	400-500
China clay	100-200
Resin and other chemicals	300
Sulphur	160-200
Felts, wires, reserve parts, oils and everything else necessary to the unhampered operation of the machines	100-500
New machines to replace worn out ones, electric appliances, etc.	65-500

But in other respects too, the production has become more expensive, for instance increased wages to employees and laborers on account of the famine, greatly increased freights for imports and exports, considerably raised railway tariffs, etc.

All these items of increased cost in production and operation, have, of course, brought about an increase in the prices of paper, so far as this has been possible. Some buyers in foreign countries have consented to an increase of price for deliveries on older contracts. The sellers in Sweden, by the bye have arranged to sell f.o.b. Swedish ports, and have avoided thereby the risk of increase in freight and insurance. In the first half of last year, the prices could be raised on a few qualities. But only in the latter half of the year came a systematic co-operation among the Swedish producers for a regulation of prices, and this price regulating was done in concurrence with the Norwegian paper producers.

The foreign demand for paper has increased latterly, and now very high prices are offered for some qualities. The demand for paper suitable for the producing of yarn especially has been very great and of these kinds of paper Sweden has sold quite a good deal. There has been a demand for paper yarns and textiles made therefrom; but the production thereof is very limited in Sweden. The production and the exports of some other paper goods has increased during 1915. But the increase has not always, to cite the report mentioned, been as great as might have been desired in order to get a firm hold on the world markets for the Swedish paper industry, for which the present time is most favorable.

THE GOVERNMENT'S PAPER BILL.

The high cost of paper is hampering the work of the United States government seriously. Publications are being cut down and plans are under way to discontinue those of minor importance. Officials in all departments put into effect today orders to conserve paper. A principal step is use of smaller type in printing.

The United States government annually places the largest individual contract made in this country for paper. When paper required for present fiscal year is ready for delivery, general purchasing agents have been warned that mills will not be able to meet a demand equally as great next year, even at enormous increase in price.

Dr. O. H. Briggs, head of government general supply division says: "Latest reports show a crisis in the paper industry, and retrenchment all along the line will be enforced. Government contract price for fine grades of typewriting paper last year was 12 cents a pound. Today we should have to pay 20 cents. We are using 100 different kinds of paper. Since the war the price has jumped about 100% and will continue to soar."

Government printing demands about 15 carloads daily and paper for its use alone has amounted to more than $1,000,000 a year. Printing paper for this year's work costs 4½ cents, but contracts for future supplies will show 100% increase or more in price.

CHANGES AT FOREST PRODUCTS LABORATORY

Dr. J. S. Bates, Superintendent of the Forest Products Laboratories, has left for Shawinigan Falls to assist the Imperial Government in the production of chemical products needed in munitions manufacture. Dr. Bates is "loaned" to the Imperial Government by the Dominion Government for the period of the war.

W. Boyd Campbell B.Sc., Assistant Superintendent, who has been to the front for the past twelve months, has returned to take up the duties of Dr. Bates until his return.

There arrived 10,368,000,000 matches in New York a few days ago from Sweden on SS. Stockholm to relieve shortage in United States. Steamer also brought 7,500 bales of wood pulp.

INSURANCE OF STANDING TIMBER REGARDED AS FEASIBLE.

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Standing timber is one fire risk that hitherto has not been regarded with favor by the fire insurance companies. Some insurance of this sort has been written in Canada by the London Lloyds on separate limited tracts and an excess loss only, the insured bearing all losses below this limit. The Phoenix Insurance Co., of London, is, however, this year writing some insurance upon green standing timber in Oregon and Washington, with certain restrictions, and at rates varying from 1 and 1½ per cent. The timber must be accessible to markets, not unduly exposed to fire hazard, and only one risk is taken in each fire zone or area indicated by the Company. No risk is written greater than $17,500 in any one such area.

W. R. Brown in an article on this subject in "American Forestry" goes in to some detail in discussing the possibilities of this subject. He summarizes the fire experiences within the territory of various fire prevention associations, and his figures include the 22,000,000 acres under the supervision of E. C. Allen in the twelve western private fire prevention associations which he supervises; the New Hampshire Timberland Owners' Association with 1,000,000 acres; the Northern Fire Protective Association of Michigan with 2,000,000 acres; the St. Maurice Valley Fire Protective Association of Quebec with an area of 8,000,000 acres—the total of the four associations being 33,000,000 acres. The expenditure for forest ranging and fire prevention is approximately 1 cent an acre for the first three and ¼ cent an acre for the Canadian

organization. In the western associations the fire loss for the year 1910 was one-half of 1 per cent. In each association since that time it has been much less than that figure, except for 1914 in the Canadian association, when one fire got away and the fire loss of the year was three-fourths of 1 per cent. upon the timber valuation. Taking all four areas together and summarizing the figures for each which Mr. Allen gives, the average yearly losses respectively were as follows:

1910, .005; 1911, .000171; 1912, .0002328; 1913, .0012636; 1914, .00253; 1915, .00427.

The writer concludes from these figures that in such protective areas fire insurance should cost for the loss ratio not over one-half per cent. annually, with another one-half per cent. added for administration cost of the insurance plan. He gives some further experience upon which to base this conclusion. In Minnesota during the last ten years, with its forest wealth of $280,000,000, the average fire loss has been about $100,000 or one-thirty-fourth of 1 per cent. annually.—American Lumberman.

PAPER CLOTHES.

A new German textile in which paper is spun with about 20 per cent. of cotton is being exhibited in Copenhagen.

Unspun cotton in the form of down is glued to one side of endless rolls of paper and the paper is then shorn into narrow bands, which are spun with the cotton side outwards.

Danish experts were shown “paper” underclothing, jerseys, sheets, bandages, and horse blankets, but the cost of production of the cloth is said to be too high to allow its competing with cotton and woolen cloth under normal conditions.

MUNICIPAL FORESTRY.

Forestry can never appeal to individual enterprise on a large scale. Returns are too slow. As a national enterprise of the highest importance it is gaining recognition, and there is a tendency among some American cities to take advantage of its many possibilities. With the exception of the vicinity of the Great Lakes, the world’s largest reservoir of pure fresh water, cities must have water supplies from available drainage or watershed areas. These can be devoted to forestry with advantage from a sanitary point of view, and also with profit when the trees begin to mature. Where convenient, the forested area can also be made to serve as public parks. The city of Fall River, Mass., began in 1909 to plant trees in Watuppa Pond Reservation. There are 3,232 acres of land belonging to the municipality in a natural forest condition and 1,552 acres suitable for reforesting. The trees are supplied by the State Forestry Bureau. The Metropolitan Water Board, which represents Boston and other cities in this matter, has planted, chiefly in the Wachusetts Reservation, about 1,800 acres with forest trees. In six years the State forestry service has furnished to the cities of the State a sufficient number of trees to cover 1,481 acres, and it is estimated that 15,000 acres in city reservoir tracts have been put under some kind of forest treatment. Massachusetts has gone beyond the use of the watershed reservations for this purpose. An act was passed by the Legislature three years ago permitting cities to buy land to be kept distinctly as forests, quite aside from water purposes. There are now several of these city forests in existence.

Elsewhere in the United States the same tendency exists. In ten large and middling-sized cities forest domains aggregating over 150,000 acres are maintained, and it is probable that municipal forests comprise 250,000 acres. Newark, N.J., has a forest of 22,000 acres, and in time the whole of it may be scientifically forested. Hartford, Conn., has a forest property of 4,000 acres, which is being developed for timber production. Here are examples for Canadian cities. Winnipeg’s water development may be made to serve a double purpose. Even Toronto’s suburban ravines, though unsuited and unnecessary for water supply, might serve the dual purpose of timber production and park systems. Municipal trading has many critics, often unreasonable, but municipal reforesting should be made a possibility where Provincial authority is neglecting its duty in that regard and falling behind in the march of progress.—Toronto Globe.

PUBLISHERS TO MAKE PAPER.

Fifty newspaper publishers of Florida are considering establishment of a plant to manufacture paper from pulp of fibrous trees and bushes in that state, particularly palmetto. Investigations have shown fibrous material is of better quality than spruce pulp which is used in manufacture of newsprint.

In connection with the advance in paper issues, timber limits, which normally have a value of about $1,000 a square mile, have risen to $2,000 a square mile.

A prominent dealer who returned a few days ago from the Quebec woodlands reports that the supply of pulpwood this year is but 50 per cent. of what it was a year ago because of the inability to get labor.

SCARCITY OF PAPER IN FOREIGN COUNTRIES.

The following information furnished by United States consuls and published in the United States Commerce Reports, will be of interest to the Canadian paper trade:—

Government May Take Action to Relieve Brazilian Situation.

The scarcity of paper, and particularly of news-print paper, in Rio de Janeiro is still a serious matter. While stocks have been replenished, there are signs that another crisis is approaching. The “Jornal do Commercio”, the leading daily paper of the city, in an editorial on July 7, seriously proposed that unless the Brazilian Congress saw fit to reduce the import duties on news-print paper for a time, all the newspapers of the country should begin to eliminate news that was superfluous and print smaller daily editions so as to save paper.

The matter has attracted widespread attention, perhaps on account of the impressions that importers usually profit by a scarcity on the local market to make exorbitant demands for what stocks they may have on hand. Although the serious situation now confronting the country has been looming up threateningly for a long time past, no effort seems to have been made to save paper or to collect waste paper and rags.

Senhor Dunshee de Abrantee, of the Brazilian Chamber of Deputies, himself a man familiar with journalism and the needs of the paper trade, has already presented to Congress a proposed amendment to the forthcoming budget law, providing that imported paper shall pay no duty and only the expediente tax on entering the country.

Spanish Government Asked To Seek Remedy.

The scarcity of paper in Spain has caused some anxiety, and representatives of Spanish publishers, printers, and manufacturers of paper and cardboard have informed the Government of their willingness to postpone filling export orders until after the domestic demand for their products has been fully met. They also expressed a desire that the Government fix prices and conditions to control the export of raw materials used in paper manufacture. Accordingly, a royal order, published June 15, 1916, appointed a commission, a representative of the Government presiding, formed of three delegates chosen from each interested group, namely, paper manufacturers, newspaper publishers, and those engaged in bookmaking arts.

This commission is to pass on all complaints formulated, proposing, if necessary, such methods as it judges opportune with respect to the export of paper and un-manufactured cardboard. The custom house authorities must submit to this commission a sample of every class of paper or cardboard exported, its origin, and the name of the exporter.

The paper-making interests in Spain employs chiefly wood-pulp, and its price has increased about 85 per cent since the war began. Imports of wood-pulp in 1913 amounted to 61,000 metric tons of 2,204.6 pounds each; in 1914 to 40,000 tons, and in 1915 to 50,000 tons. More than half of this supply comes from Sweden; other sources are Germany and Norway.

Wood-pulp and logs for making pulp coming from foreign countries were exempted from the transport tax in March last, and an export duty of 18 pesetas gold per 100 kilograms ($1.58 per 100 pounds) levied on endless paper weighing from 41 to 50 grams per square metre and containing mechanical pulp.

SUPPLY AND DEMAND LAW CONTROLS PAPER PRICES.

In his address before the New York Business Publishers’ Association, formerly the New York Trade Press Association, at the Advertising Club of New York on Oct. 2, Judge C. F. Moore, secretary of the Bureau of Statistics of the Book Paper Manufacturers’ Association, declared that there was a real paper famine in the United States, and that the law of supply and demand was solely responsible for the present high prices of book paper.

He went on to say that the people in the United States were enormously busy and that they were using more paper than ever before; that there was a more acute paper famine abroad than in America, that the mills in the United States were all working day and night six days a week, and that because of discouraging legislation passed by Congress in the past the paper manufacturers had not been keen on building new plants and installing new machinery when there was such a chance for keen competition from abroad. He asserted that there had been no agreement by paper makers to boost the price or to regulate it.

LOCKWOOD’S DIRECTORY.

Lockwood’s Directory of the Paper & Stationery Allied Trades for 1917, has just been received by the Pulp and Paper Magazines. The work has come to be regarded as a standard publication, and is eagerly looked for by those engaged in the pulp and paper industry.

The Directory this year contains 768 pages as compared with 742 pages for the previous year. It contains a vast amount of information relating to paper dealers, rag and paper stock dealers, paper box manufacturers, twine manufacturers, wall paper makers, envelope manufacturers, paper bag producers, trade associations, the stationary trade, water marks and brands, etc.

The Trade Statistics contained in the Paper are brought right up to date, which in view of the changed conditions brought about by the European war, make it of particular value. The price to anyone engaged in the trade is $3.00. It is published by the Lockwood Journal Company, 10 East 39th St., New York.

THE WOOD DISTILLATION INDUSTRY.

It is estimated by the New York State College of Forestry that 640 cords of beech, birch and maple wood are used every day in the wood distillation industry in New York State. The industry has been greatly stimulated by the European war inasmuch as acetate of lime, of one the principal products of the industry, is used in the manufacture of high explosives.

THREE IDLE MILLS.

At the present time there are but three idle pulp and paper mills in Canada, two of which are located in British Columbia, and the third in Nova Scotia. These are all small mills, and in contrast to that, it is only necessary to point out that all the other mills in Canada are working to capacity.

The annual consumption of paper pulp wood in the United States is 4,300,000 cords, representing an expenditure of $36,000,000 by approximately 250 companies.

SHOES LIKE “THE WONDERFUL ONE HORSE SHAY.” [357]

When a man is “on his uppers” he is in a very serious condition for then his shoe soles have worn out and he has no money to buy more. This expression therefore carries with it the assumption that the uppers of our shoes wear better than the soles. It is a slang phrase of recent introduction: for can we not recall our boyhood days, and see those gorgeous patches on our Sunday best wax calf shoes, or our every day high boots—patches which were striking emblems of the cobbler’s art? Yes, the soles outwore the uppers then, but they had other less desirable qualities than durability. Hark back, and you can hear again that vibrant reverberation echoing upon the stillness of the Sabbath morn as the deacon, contribution box in hand, tip-toed up and down the aisle; every squeak of those blessed boots sounding like the droaning of a rusty saw in a hemlock log.

Times have changed, however, since those happy days. The Chemist has been busy, and his achievements in the leather industry have been revolutionary. In 1884, Augustus Schultz of New York City, who was not a tanner but a chemist, patented a process for tanning with chromium salts. As a result of this discovery, over ninety per cent. of the shoes worn throughout the world to-day are made with chrome-tanned upper leather. This chrome-tanned leather, which, we are proud to say was made commercially possible in America, is cheaper, more durable, easier to manufacture, holds its shape better, and, in every other respect, is superior to bark-tanned leather of former years. This is the reason why we do not wear patches on our shoe uppers to-day.

The sole leather of to-day, it is claimed, does not wear so well as that of former years. Possibly this may be the case, but still the statement is open to a question. Granted, however, that the sole leather of fifty years ago did wear somewhat longer, there are reasons why we should not care to return to its use. In place of the old style leather, which was a hard and as hard and as slippery as steel, we now have a leather which cuts well, looks well, and, above all else, feels well on the foot. Therefore, looking to our comfort as we do, we would never be satisfied with the shoes that grandpa used to wear.

The meeting of the American Chemical Society, which was held in New York City during the week of September 25 to 30, and the Exposition of Chemical Industries meeting there at the same time, makes us wonder if the chemist will soon be able to make the sole of a shoe wear as long as the upper. Something along this line may be forthcoming, as it is pretty well known in the trade that a sole leather can be produced by means of a so-called chrome combination tannage which will outwear bark-tanned leather three to one. To prove this point, a recent series of tests were made on twenty mail carriers and twenty policemen in New York City. On the right shoe of each was a sole made from a chrome combination, and on the left was the best oak sole obtainable. On the average, two oak soles wore through and the men were on the third before the chrome combination saw its finish.

With the price of leather constantly going up and the supply of hides not sufficient to meet the demand, the time is soon coming when we shall be forced to produce sole leather possessing a greater degree of wearing quality. We shall then have shoes on our feet which will be like the proverbial, “One Horse Shay”; for, when they do go, even the cobbler will not be able to find the pieces.

WORK OF THE BUREAU OF STANDARDS.

Reference is made in a recent issue of the “Scientific American” to the excellent work being done at the Bureau of Standards, Washington, D.C. In relation to the pulp and paper laboratory presided over by Frederick C. Clark, a prominent member of the Technical Association of the Pulp and Paper Industry, the “Scientific American” says:

“Some time ago, the Government, realizing that we were cut off from supplies of rags and waste paper, which heretofore had been imported in large quantities, appealed to the public to save such refuse material and sell it to paper manufacturers. As a result of this appeal, a manufacturer of waxed paper asked the Department of Commerce whether any use could be made of clippings of his product. In the production of waxed paper sheets, this company is burdened with large quantities of clippings, which have been hauled away by the carload and destroyed. Owing to the association of the paraffin wax with the fiber of the paper, such clippings cannot be introduced into ordinary paper pulp.”

QUEBEC’S FOREST ECONOMY.

(Telegraph, St. John, N.B.).

Quebec, some years ago, established a provincial nursery, and this year, in addition to the young trees planted on Crown lands, the provincial nursery shipped 400,000 seedlings to pulp and paper companies which are reafforesting the lands they have cut over. The Laurentide company alone bought 250,000 of these young trees. A large number were sold to other pulp and paper companies, and to private individuals. The Perthius seignory alone bought 50,000 seedlings this year; and this is the sixth year in succession during which trees have been bought from the province for use in this seignory. With this example just over our provincial line fence, New Brunswick continues a policy of waste and neglect.

PAPER SHORTAGE SERIOUS IN NEW ZEALAND.

New Zealand paper shortage is interfering greatly with printing business and the government is limiting publications turned out by it. Because of difficulty in getting paper, managers of a number of publications talk of suspending.

Supplies of certain lines of paper, cardboards, pasteboards, etc., are almost impossible to obtain, and it seems unlikely that this condition will improve much until some time after the war, unless American or Canadian manufacturers are able to relieve the situation. Scarcity of envelopes is very marked, and it is almost impossible to obtain certain lines. One firm in Auckland took orders for 25,000,000 envelopes, but has been able to get orders accepted in the United States for only 15,000,000, and to date only 5,000,000 have been delivered.

The output of pulp and paper from British Columbia last year was 50,307 tons of manufactured paper and 13,000 tons of sulphite pulp, valued at $3,200,000.

UNITED STATES NOTES

(Special to Pulp and Paper Magazine).

October 14, 1916.

Considerable interest was manifest in the New York paper circle during the past fortnight by the resignation from the International Paper Company of Arthur E. Wright. Mr. Wright has been connected with the International for many years. At one time he was Vice-President and Sales Manager, but several years ago he relinquished the former position to devote his entire time to the daily distribution of the company's 1,500 tons of paper. Mr. Wright has been appointed Secretary of the Perkins-Goodwin Company at 33 West 42nd Street, New York, and has already assumed his new duties.

Another addition to its mills is announced by the Union Bag & Paper Company. At the offices of the big concern in the Woolworth Building, New York, it was said last week it had been decided to build a plant at Hudson Falls, N.Y., for the manufacture of paper bags. The specifications call for a four story building, 100 by 400 feet. Work will be begun immediately and when completed it is expected to increase the company's pay roll by approximately 400 people.

Press dispatches from San Francisco, Cal., state that the Northwestern Compo Board Company, which, by the way, is a branch of the C. A. Smith Lumber Company, had negotiated with the Union Lumber Company to utilize its redwood refuse at Fort Bragg, Cal., for the manufacture of Compo board. It is also understood that work will be started immediately upon the erection of a suitable mill at that place.

Hans Lagerlof, President of the Scandinavian Trading Company, with offices in the Produce Exchange Building, New York, has just returned from a protracted trip through Scandinavia. Mr. Lagerlof left the States last July, and relates some very interesting experiences during his sojourn in the war zone.

After being idle for about six years, the old paper mills at Mount Holly Springs, Mass., will shortly resume operations. The Mount Holly Paper Mills, Inc., has been chartered in Massachusetts to take over the properties and good will of the old concern. The officers of the new corporation are: Frank Locke, President; H. T. Maynard, Vice-President and General Manager, and H. A. G. Locke, Treasurer. It is stated that the mills will be placed in operations as soon as repairs can be made and new necessary machinery installed.

The Northwestern Paper Company, of Minneapolis, Minn., has amended its charter increasing its capital from $1,000,000 to $1,500,000.

Quite a number of the leading paper jobbers exhibited at the third annual printing show at New York, September 30th to October 7th, where they demonstrated their various grades of papers to the printers of the country. This exhibition has always interested the paper jobbers very much, and it was said that this year's show was attended by a greater number of people than ever before.

The correspondent on the Pacific Coast of one of the leading trade journals states in a current dispatch that the Hawley Pulp and Paper Company is building a new pare mill at Oregon City, Ore. Orders have been placed for the machinery and excavation for a concrete foundation has begun. It is expected that the mill will be ready for operation about Spring time.

It is understood on good authority that the Kalamazoo Paper Company, Kalamazoo, Mich., in

order to have sufficient power to run its new coating plant, will increase its present power plant by the installation of a new 1,250 horsepower turbine engine. Other necessary additions will also be added which will make the company have one of the largest power plants in the state.

The Delaware charters during the past fortnight listed the Roberts Sulphite Company. Objects of the new corporation are to deal in wood pulp and paper stock. The capital stock is placed at $2,500,000.

Another large pulp corporation to be reported during the past fortnight is the Filer Fibre Company. This is a $300,000 concern. It proposes to engage in the manufacture of wood pulp at Manistee, Mich. It is understood that the concern, which is backed by E. G. Filer, will begin immediately the building of its mill, and be in operation sometime about the early spring.

Fifty newspaper publishers of the State of Florida, convened at Jacksonville on October 6th and 7th to discuss the high cost of printing paper and consider the advisability of establishing a plant in Florida to manufacture paper from pulp of fibrous trees and bushes, particularly the palmetto. Investigations, it is said, have shown that fibrous materials are of better quality than the spruce pulp which is used by the mills in the north. Several specimens were shown at the meeting and those from the Florida trees showed more tensile strength than any of the other grades submitted. It was said that the Florida editors will endorse and promote any move that will bring about the establishment of a mill in that state.

NEW YORK MARKETS.

New York, N.Y., October 7, 1916.

The outlook in ground wood pulp is very discouraging, so far as the consumer is concerned. There is now a definite certainty that the market must continue to grow more acute and that the value of pulp will be on the ascendancy for some time. While there has been no material increase [359] in the quotations reported for ground wood, since our last issue, these figures are beginning to represent nominal issues, for it is becoming rather difficult to negotiate for such supplies. Now, more than ever, does the prediction, made several months ago, that ground wood pulp would reach $40.00 per ton, seem plausible. From the grinders come reports that they have little to offer. They are working their mills to capacity fulfilling obligations which carry them through the balance of the year. Those mills which have surplus stocks are asking tophigh prices.

It is most unfortunate at this time, but it is understood that, in various parts of the country, the water conditions are very poor and that it is with difficulty many of the machines are being kept in operation. In fact, some of the mills have been shut down a good part of the time, owing to lack of water power. This is a very serious condition, because the demand has reached extraordinary proportions. Not only is there the usual call for ground wood, caused by the Fall business, but there is an added demand, stimulated by the shortage of sulphites and the rush of many mills to substitute, as far as possible, the ground wood pulp. Present quotations have already reached $30 per ton, f.o.b. mill.

Conditions in the sulphite markets seem to be growing worse, rather than showing any tendency to improve. Importations are very limited and it is apparent that the foreign producers are not at all very anxious to have much of their stock sent to his country. For, they say, the continent of Europe presents a much better paying field. It is understood that the Germans, the French, Italians, and the other countries which are able to get stock from Sweden are paying whatever is being asked—more than the current quotations in the United States. Domestic mills are working to capacity and the volume of imports from Canada has increased considerably, but the demand is of such proportions that it is impossible for the manufacturers to keep up with it. A great deal of interest is reported in the market, but mills still hesitate about paying the very high prices and are buying very cautiously, in the hope that the situation will improve in the near future. But indications are far from warranting such hopes. Bleached sulphite is to-day quoted—nominally—at as high as 9½c for foreign stock. Easy bleaching is going at about 6½c—whenever it can be had. Domestic unbleached is quoted at about 4c, but is also not available in large quantities. Foreign strong unbleached remains at about 5c to 5½c. Krafts are to-day practically unobtainable. The producers are consuming whatever they have not already contracted to sell, finding it more profitable to convert the pulp into paper. Reports have been heard of instances where manufacturers have not found it possible to live up to their obligations and have had to stop deliveries on contracts. The nominal price for kraft pulp is about 5¾c.

The rag market, as a whole, is very quiet. As the local dealers say, the situation is dependent on the action of roofing rags and, since these are inactive, the other grades are forced into a similar

state. Reports from the roofing mills show that they are all working to capacity and that they have plenty of orders on hand. However, they are all pretty well stocked with rags and have no need to come into the market. It seems to be understood in the trade, from the way the buying is going on, that the manufacturers are conferring possibly once a week and are informing each other of the various amounts of stock which have been offered by dealers and of the prices which have been named. In this way it has been possible for them to keep tabs on the rag men and to keep the market from advancing. Because of the inactivity in roofing, thirds and blues, solid whites, and the other grades of old rags have not been moving very well, nor have they been bringing the prices which the dealers expected they would be bringing at this time of the year. A slight increase, however, was noted in the demand for No. 1 new white rags. In fact, one rumor had it that a large lot of these rags had been sold at 10c. It is known that a large writing manufacturer refused an offer at 9c and a little later wired an acceptance, but it was not taken.

Rope has been looming up strong within the past few weeks and the market is now verging the 6c mark. It is understood that there are lots of stocks in England, but these cannot be had because of the embargo so the domestic manufacturers find themselves facing a scarcity in this particular commodity. The demand is now improving and bids fair to continue so for some time.

The waste paper market has been characterized with considerable activity during the past few weeks. The shortage of sulphite has stimulated buying considerably and everyone is in the market looking for stock. Hard white and soft white shavings, in particular, are in strong demand and are reaching a stage where they will be hard to obtain. They are quoted about as follows: hard white, 4¼c to 4¾c; soft white, 3 to 4c. The demand for ledger, magazine and book stock is fairly strong and will most likely increase in strength, if present indications are to be taken into account. Ledger stock is at 2¼c to 2½c; magazine, at 1¾c; krafts, at 3c; mixed papers, at 60c to 65c.

In the paper market, the acute situation remains unrelieved, nor is there any apparent sign of relief visible. This is true of all kinds of paper. The mills are all operating to capacity in the hope of catching up with orders, but this hope has been futile as will be realized when it is understood that some of the manufacturers are still working on orders received several months ago. Newsprint has been the miracle of the industry. Despite all of the schemes which have been published stating the many ways in which the newspapers were curtailing their consumption and saving paper, the demand is to-day as strong as it ever was. The mills are shipping more than 100 per cent. of their production—drawing from their reserve supplies, so that these have dwindled to a dangerous degree. It would be hard to name a real quotation for newsprint at the present time for the only lots to be had are not those in the hands of jobbers who are asking as much as they can get for their stock.

Wrapping papers are still very hard to get. It will be interesting to know that many of the large consumers of wrapping paper have reached the stage where they find they cannot stand the cost and are making price as follows: so much for an article unwrapped, and so much for an article wrapped.

R. W. JOLLY.

ROOF TRUSSES COLLAPSE AT PLANT OF ONTARIO PAPER COMPANY, LIMITED.

[360]

On the 19th of September six roof trusses on the new machine room building, which is under construction at the plant of the Ontario Paper Company, Thorold, collapsed.

The building when completed will have fourteen trusses and at the time of the accident six trusses had been erected with the exception of riveting them. Seventy-five per cent. of the rivet holes had been filled with proper bolts. The trusses were all tied together with purlins of 6″ × 8″ Long Leaf Yellow Pine.

When the six trusses were finished the guy line which held No. 1 truss was slacked off as it was felt that the steel work would support itself. When the guy line was loose the entire six trusses simply toppled over without any warning.

Mr. Sam Bartlett, who was working on this structure in the capacity of iron worker was caught between the falling structure and an 18″ 1. beam and was instantly killed. He was a resident of Sydney, Nova Scotia.

Careful examination of the steel was made after the accident and while a number of theories have been advanced to explain the failure nothing definite can be determined.

The collapse will not delay construction materially as the wreckage has been cleared away and new trusses are rapidly being built.

WHERE QUEBEC LEADS.

Not only does Quebec take effective measures against fire in her forest lands, but she takes

effective measures to keep the forests in perpetuation, where they do not cover cultivable land. Quebec some years ago established a provincial nursery, and this year, in addition to the young trees planted on Crown lands, the provincial nursery shipped 400,000 seedlings to pulp and paper companies which are reafforesting the lands they have cut over. The Laurentide company alone bought 250,000 of these young trees. A large number were sold to other pulp and paper companies and to private individuals. The Perthius seignory alone bought 50,000 seedlings this year; and this is the sixth year in succession during which trees have been bought from the province for use in this seignory.—Hamilton Herald.

REGULATIONS RE WET PULP.

With regard to the importation of wet sulphite wood-pulp from Canada and the United States, according to a bulletin just issued by the Trade and Commerce Department, the British Royal Commission on Paper have decided that where they are satisfied that this pulp contains moisture in excess of the quantity contained in ordinary dry pulp, they will grant licenses for that excess up to, but not exceeding, 40 per cent. of the total weight, in the case of pulp arriving in the United Kingdom after August 7. The pulp must be imported on the ordinary licenses issued by the commission. The amount of moisture excess must be proved by the certificate of a competent chemist.

SHINGLES THAT WILL NOT BURN.

According to information in the hands of the West Coast Lumbermen’s Association, an Iowa pharmacist after seventeen months experimenting, has produced a liquid which makes wooden shingles absolutely fireproof. In a test of the new fireproofing liquid, made at the University of Iowa by the inventor, a block of wood one-half inch thick was saturated with the fireproofing and then placed in running water for twenty-four hours. After that it was thoroughly dried again and held for one hour over a Bunsen burner, which had a temperature of between 700 and 1,000 degrees Fahrenheit, that being a much greater heat, it is said, than is developed in a conflagration. The wood was not burned and only charred very slightly at the point of the flame. The new compound is reported to be sufficiently low in cost to make it practical in connection with shingle manufacture, and when a shingle is saturated the moisture drys out, leaving an insoluble mineral fireproofing substance in the fibre cells of the wood, which cannot be washed out with water and is said absolutely to prevent combustion.

TO VISIT CANADA.

A special trade commission from Australia which will investigate overseas methods of manufacture and production, and conditions of employment, in timber, paper, iron and other industries will shortly come to Canada. The commission will be composed of experts, an equal number of representatives of capital and labor being arranged for. They will also visit the United States.

Two new wet machines are being placed in the Foley pulp mill at Thorold and a new grinder has been installed in the Davey mill, which is connected with the Foley plant and will shortly be operated in conjunction with it.

Waste hemlock tanbark remaining after tannin is extracted is being used by a number of mills in place of between 30% and 40% of expensive rag stock ordinarily used in making felt roofing.

A. A. McDiarmid, has resigned his position as chief engineer on the Mattagami Pulp and Paper Co., Toronto, and is now engaged in special work at Sault Ste. Marie.

OUR PULP AND PAPER EXPORTS.

The increase in the exports of paper, wood for pulp and pulp for the twelve months ending June last is 23.8 per cent. To a considerable extent this is due to advancing prices. It will be noticed that the export of wood pulp during the period of the twelve months in question has declined slightly. There is more wood available at the present time than a few months ago. Northern Ontario points report the most acute shortage, although the situation there has improved somewhat.

	1915.	1916.	1916.	
			To Britain.	To U.S.
Paper	$16,200,635	$21,256,296	$1,032,786	$17,759,018
Pulpwood	6,463,125	6,102,170	——	6,102,170
Wood pulp	9,257,036	12,220,988	672,673	10,793,647
Total	$31,920,796	$39,579,454	$1,705,459	$34,654,835

PULP AND PAPER NEWS

Mr. H. Moore, secretary of the Clements Paper Co., Nashville, Tenn., spent a few days in Toronto and Montreal recently calling upon the trade.

W. J. Gage, President of W. J. Gage and Co., Toronto and the Kinleith Paper Co., St. Catharines, has been awarded $4,000 damages by Arbitrator P. H. Brayton in his claim against the city of Toronto. In connection with the Bathurst street hill improvements a retaining wall was built which stood against the Gage property and the latter contended that the site should be treated as a business location. Mr. Gage witnesses declared that the damage done was several times more than what has been awarded. The official arbitrator took the view that the land occupied by the retaining wall should be paid for and no more and handed out judgment accordingly.

At the annual meeting held recently in Toronto, the report of the directors and the annual financial statement of the Spanish River Paper Mills, Limited, which have already been published in these columns, were presented. The improvement in the company's position was favorably commented upon. George H. Mead was re-elected president, P. B. Wilson, Vice-president, Thomas Gibson, Secretary and A. H. Chitty, Treasurer.

So serious has become the shortage of news print in Winnipeg, that the newspapers of that city have discontinued giving free copies to employees while all correspondents have been cut off and no free exchanges to other newspapers are given.

The district fire rangers around Port Arthur have returned to their homes having concluded their duties for the present season. The loss from fires in the Thunder Bay district this year was the smallest on record.

John Rumelhart, who was convicted of having stolen pulp wood in his possession, was sentenced at Port Arthur to twenty-six months in the penitentiary. In passing sentence upon him Sir Glenholme Falconbridge stated that the rights of pulp wood owners must be respected. The pulp wood in question was from a storage room of the Horrigan Co., which was located at Black Bay.

The engagement is announced of Miss Edna Frances, daughter of Mr. and Mrs. Frank E. Mutton, Toronto, to Flight Lieutenant Arthur W. Kilgour, youngest son of Mr. Robert Kilgour of Toronto, President of the Trent River Paper Co., Frankford, Ont. Miss Mutton left this week for Bombay, India, where the marriage will take place.

Herbert C. Jarvis, General Manager of the Empire Wall Paper Co., Limited, Toronto, states that the price of all materials entering in the manufacture of wall paper, has increased by leaps and bounds during the past few months and the end is not yet in sight. A few months ago prices were advanced and the company expected that this increase would result in decreased sales but on the contrary the demand is steadily growing. With the large contracts which the firm have, Mr. Jarvis says that he hopes to maintain net prices about the same as are today.

A charter has been granted to Canadian Wood Products, Limited, with headquarters in Toronto and a share capital of $40,000. The company is empowered to manufacture and deal in lumber, pulp and other forest products.

Ald. A. H. Stratton, of Peterboro, who was for many years engaged in the stationery and wall paper business in that city and is a brother of the late Hon. J. R. Stratton, proprietor of the Peterboro Examiner, has, in company with his brother-in-law, T. F. Matthews, purchased the plant and business of the Review Printing and Publishing Co., Peterboro, which has been in liquidation. The Review is one of the oldest in Ontario being established in 1853 by the Whites who later became owners of the Montreal Gazette.

The wholesale paper business in Montreal formerly carried on by John R. MacGregor has been taken over by John R. MacGregor and Thomas Harkness and is now conducted under the name of the MacGregor-Harkness Paper Co.

Port Arthur is to have a large sulphite plant, a free site being given the company on the north

water front, of some *0 acres. An agreement has been entered into between the corporation and has several and astern capitalists. The bylaw will be soon voted upon by the ratepayers. The first unit is to be started within thirty days after the carrying of the measure, and be completed and in operation within one year. It will have a capacity of fifty tons a day and, inside of five years, the capacity is to be increased to one hundred and fifty tons whereupon the company will receive a deed for a further tract of land of ninety-seven and one half acres. It is expected that by the time the complete mill of one hundred and fifty tons is finished the outlay on buildings and equipment will be in the neighborhood of five million dollars.

It was stated recently, both in reports on the street and in some newspapers that Hon. G. Howard Ferguson, Minister of Lands, Forests and Mines for Ontario had entered into a secret deal with a large paper company of Appleton, Wis., enabling that concern to export pulp from eight thousand acres of Crown lands in the Thunder Bay district, for manufacture in the United States. It was rumored that the law compelling all pulp wood on Ontario Crown lands to be first turned into pulp or paper in the province, before being sent out of the country, had been set aside by the simple provision of selling the land to the Appleton firm. Hon. Mr. Ferguson has given an emphatic denial to the charge, in which he stated there is not a word of truth, and adds that no suggestion had ever been made to him to allow pulp wood to be exported. He pointed out, in connection with tenders now being called for the right to cut pulp wood and other timber on the Pic river and other territory in the Thunder Bay district covering about 1,400 square miles that the provisions clearly state that the successful bidder must erect a pulp mill with a minimum capacity of one hundred and fifty tons daily which, with its equipment, must cost not less than a [362] million dollars, and also a paper mill with a capacity of one hundred tons a day. The tenders for the Pic River concession close on December 1st.

Thomas Gain, sales manager of the Don Valley Paper Mills, Toronto, who has been ill for some time, is able to be around again and attend to his duties.

Rev. Dr. A. C. Crews, who is editor of the Sunday School publications of the Methodist Book and Publishing House, Toronto, has been elected president of the Toronto Chess Club.

Charles V. Syrett, of the Victoria paper and Twine Co., Toronto, has returned from a motor trip to Erie, Cleveland and other cities. He also visited the mills of the Hammermill Paper Co.

Thomas Wark, who for some time has been superintendent of the Deferiet mill of the St. Regis Paper Co., has resigned his position to enter upon his new duties as superintendent of the St. Maurice Paper Co. at Cap Madeleine, Que.

A charter has been granted to the W. E. Gallagher Printing Co., Limited, with a capital stock of fifteen thousand dollars and headquarters in Kitchener, Ont. to engage in printing, publishing, engraving, book-binding, etc. as well as to deal in paper boxes and stationery. The incorporators of the company are W. E. Gallagher, A. B. Robertson and C. E. Cornell.

LAURENTIDE POWER COMPANY.

An offering is being made of $1,500,000 Laurentide Power bonds at 90 and interest.

The segregation of the Laurentide (Paper) Company’s water powers last year, to the Laurentide Power Company, created a new and very powerful factor in the hydro-electric situation in the Province of Quebec, and particularly as regards Montreal.

The new company was formed by the Laurentide (Paper) Company, with a capitalization of $7,500,000 of common shares, and the money derived from the sale 5% par value of first (closed) mortgage bonds, due 1946, and $10,500,000 of these securities was used to finance the development of the water power to a present capacity of 125,000 horse-power.

CANADA’S PAPER EXPORTS.

In the year ended June 30, 1916, Canada’s exports of paper were of a total value of $21,256,296, as against $16,200,635 in the corresponding period in 1915. Of this former amount $17,759,018 worth or more than the total value of the 1915 export was sent to the United States.

CHEAPER DYES.

As a result of a discovery made at the Forest Products Laboratory at Madison cheaper dyes are now available in the United States. It has been found that dyes made of osage orange wood are a commercial success and can be placed on the market at a considerably less cost than foreign-made dyes can be purchased. Carloads of the wood are now in transit, consigned to eastern extract plants.

The anti union Presbyterians are talking of establishing a weekly paper to forward their cause. The matter is being seriously taken up by the Publication on Committee and the new paper will likely be a weekly.

WANT TO BUY DONNACONA.

According to a press despatch from Watertown, N.Y. as the Pulp and Paper Magazine was going to press the following story regarding the attempted purchase of the Donnacona Paper Company appeared:—

The Donnacona Paper Company, with mills located at Donnacona, Quebec, thirty miles from Quebec City in the St. Lawrence river, is the prize now sought by the French syndicate of Parisian newspaper publishers who failed some time ago to secure control of the Remington Paper and Power Company's group of mills near here.

The French interests were unable to get permission from the Government boards of France to send money from that country to the United States in time to close the deal before their option expired.

The Donnacona mills is a new mill, having been in operation but a year. It has an output of one hundred tons of paper a day. A feature that appeals to the fact that pulpwood can be bought much cheaper in Canada than on this side.

G. H. P. Gould, paper mill magnate and owner of the St. Regis and Gould Paper Companies, is president of the Donnacona company, with Walter N. Kernan, of New York, vice-president.

AN AMERICAN VIEW

According to an American exchange the following are the facts relating to Canada's pulp and paper industry:—

The new mills planned and in course of construction, and the extensions to existing ones, will, if carried out as intended, add a per-diem capacity of 840 tons of newsprint before the end of 1918. During the twelve months ended March last the amount of printing paper exported was 463,204 tons, or at the rate of 1,544 tons per day, as compared with a tonnage of 292,579, or 975 tons per day, in the corresponding period ended March, 1914.

INTERNATIONAL PAPER INCREASES DIVIDEND

The International Paper Company doubled its dividend last week by declaring a quarterly distribution of 1 per cent., or 4 per cent. per annum on the preferred stock, as compared with the 2 per cent. annual rate maintained since 1908. There is $22,407,000 of the preferred outstanding.

BUYING CANADIAN MILLS.

N. M. Jones of Bangor, Maine announces that at a conference of capitalists in New York, from which he has just returned, the sale of the largest pulp and paper mill in the Canadian Maritime Provinces to a syndicate of Maine and New York men was arranged. The property, for which it is said $2,000,000 will be paid includes mills at the Reversing Falls, near St. John, N.B., and large timber lands in New Brunswick. The syndicate includes Hugh Chisholm of Portland, President of the Oxford Paper Company, and Maynard S. Bird, also of Portland.

PROTECT YOUR WIRE ROPE WHEN NOT IN USE.

When a shipment of wire rope is received and is not to be placed immediately into service, see that it is stored away in a place protected from the weather and any acid fumes. It is advisable to coat the outside layer of the reel or coil with a good lubricant.

(Special to Pulp & Paper Magazine.)

CANADIAN MARKETS

The news print situation is now the livest subject among the trade and the seriousness of conditions is being brought home to publishers as never before. The mills are not as alleged by some responsible for it all. While the war is unjustly charged with many ills in the way of trade disturbances, to attribute the present state of affairs entirely to the hostilities in Europe is quite correct, so far as Canada is concerned. Hundreds of men have joined the colors leaving most of the plants short of help and owing to abnormal demand and the embargoes which prevail, abroad —all due to the war,—there is not enough of that very necessity commodity—white paper—to go around. This in brief is, the exact state of affairs. In the past Canadian mills were looking for a market for their surplus product and were glad to make contracts covering a long period of time. News print was looked upon as staple and the variation in price from year to year was small indeed. Now the manufacturers do not know which way to turn. They could sell as much again as they are marketing if they had the productive facilities but of late months they have not been able to “pile up reserves”, as the banks state, and the stocks on hand are rapidly diminishing.

The average publisher has read a great deal about this condition of affairs but as there have been so many extravagant reports in all lines prevailing during this stirring period, he did not think there was much truth in the statement. It was only when the newspaper men tried to renew contracts that he realized for the first time he was face to face with a situation such as he has never been up against. There is no use blaming it on the mills. They have done the best they could under most trying circumstances. They are running their plants to full capacity and they have not unduly taken advantage of the situation to boost prices in Canada. The increase asked is infinitesimal to what the makers can obtain for their product on the other side.

The story is going the rounds, and so far has not been denied, that one of the big new plants of Canada was approached by American interests who offered to take the whole of its output for the coming year at four and a half one cents at the mill but the proposition flattering as it was, was turned down as the firm would not under any circumstances break faith with Canadian customers. Some sixty per cent. of the large newspapers whose contracts are now being carried until the end of the year and will have to be renewed are on the anxious seat.

A special meeting of the Canadian Press Association was held in Toronto last week at which there was a large attendance. The situation was thoroughly gone into. The statement was made that the output in Canada is now some eighteen hundred tons a day, yet only one sixth is consumed in the Dominion, the bulk of the product being exported to the United States. A deputation was sent to Ottawa to interview the Minister of Finance, Sir Thomas White. There representatives of the pulp and paper interest were also assembled and the whole situation was gone thoroughly into. The result was that an offer was made by the news print makers of three cents, f.o.b. mill. This applies to large contracts and on smaller the figures may be higher. It was pointed out by the paper manufacturers, that everything entering into the production of news print has gone up from 25 to four hundred per cent. and that labor has advanced about twenty-five per cent.

The upshot of the whole matter is that the newspaper publishers and the mill operators have appointed such committees which who will go exhaustively into the problem. A joint meeting will be held at an early date before R. W. Breadner, who is the tariff expert for the Dominion and the question of supply, cost and future outlook will be canvassed thoroughly. This meeting will be held in Ottawa and if an amicable arrangement cannot be reached, the federal authorities may fix the selling price.

One interesting statement was made at the conference and that was if the fifty to sixty per cent. increase went into effect on new contracts, it would mean an annual extra cost to Canadian newspapers of about two million dollars. One peculiar feature is that while publishers are talking of increased cost of producing papers the weekly newspaper men are the only ones who have so far raised their subscription rates. The increase is from one dollar to one dollar and half a year. A few dailies that have been selling at three dollars in the smaller cities have jumped their subscription price to four dollars but the larger dailies still continued to be delivered at the old price and the wonder is why the proprietors do not raise the figure for same.

In the book and writing line prices are stiff and are now fully fifty per cent. higher than they were a year ago. The producers think there will be no further raise for some months and in view of abnormal conditions generally the users of these kinds of papers appear to be satisfied that the mills are not asking too much. Tissue plants are running away behind in orders and have business enough on hand to keep them going for the next four months even if no more orders were placed with them. The jobbers report that business is good and the demand for all lines of paper keeps up well. There has been an advance on “B” manilla but other lines of wrappings and kraft remain unchanged.

Ground wood pulp is in strong requisition and many inquiries for the commodity can not be bought filled. The price now quoted at the mill is from twenty-eight dollars up and some deliveries in Wisconsin and other states have brought as high as thirty-five dollars. Easy

bleaching sulphite is now sold at one hundred and twenty dollars at the mill and some large business has been placed at this figure. Sulphate pulp is quoted at one hundred and twenty dollars at the mill and is going higher all the time. Very little is being offered. [364]

In the rag and paper stock market manilla, krafts, whites and mixed papers are all in strong demand and there is a good business being done. The market for cotton and roofing rags is rather quiet. The outlook for fall trade at firm prices is most promising.

There has been an increase of a cent a pound on all natural, bleached and half bleached grease proof. Genuine vegetable parchment is now quoted from twenty to twenty-five cents. It is likely that the latter will be made in Ontario before very long. Since the war broke out and certain mills turned their attention to making specialties and former brands of paper that have been imported, the manufacturers of these are not sorry that they took the step. Their goods now have achieved a fixed place in the favor of customers.

Board of all kinds has taken a jump of about fifteen per cent. and the mills are a way behind in their orders. The following prices will prevail until the end of the year and are based on the minimum quantity of car load lots—grey folding pulp board $100; folding pulp $90; pulp non bending $80; pulp non bending lined on side $90; filled board plain $80; filled board lined one side $85; filled board (chip mills) $78; jute, chip, straw and straw chip $70; same lined one side $75.

The following are the Toronto prices:

Paper.

News (rolls) $3.00 up, at mill, in carload lots.
News (sheets), $3.25 and higher for small lots, at mill, in carload lots.
Book papers (carload), No. 3, $7.00.
Book papers (ton lots), No. 3, 7.00c to 8.00c.
Book papers (carload), No. 2, 8.50c to 9.00c.
Book papers (ton lots), No. 2, 8.75c to 9.50c.
Book papers (carload), No. 1, 9.00c to 9.75c.
Book papers (ton lots), No. 1, 9.25c to 10.00c.
Sulphite bonds, 11 cents up.
Writings, 9 cents up.

Grey Browns	$3.75 to $4.25
Fibre	$6.50 to $7.50
Manila, No. 1	$7.00 to $8.00
Manila, B.	$5.00 to $6.00
Unglazed Kraft	$8.50 to $9.50
Glazed Kraft	$9.00 to 10.00
Tissues, bleached	$1.60 to $2.30
Tissues, (manila or white sulphite)	$1.20 to $1.60
Tissues, cap.	80c to $1.15
Natural, greaseproof	13c to 18c
Half Bleached Greaseproof	15c to 19c
Bleached greaseproof	17c to 21c
Genuine Vegetable Parchment	22c to 25c
Drug papers, whites and tints	9c to 12c
Paper bags, Manila	30% discount.
Paper bags, kraft	15% discount.
Confectionery bags	15% discount.

Pulp.

	F.O.B. Mill.
Ground woodpulp	$31.00 to $32.00
Easy Bleaching Sulphite	6c
Sulphite, news grade	5c to 5½c
Sulphite (bleached)	8c to 8½c
Sulphate	6c

Paper Stock

No. 1 hard shavings	$4.00
No. 1 soft white shavings	$3.50
No. 1 mixed shavings	80c

White blanks	$1.35
Heavy ledger stock	$2.35
No. 1 book stock	$1.57½
No. 1 Manila envelope cuttings	$2.20
No. 1 print Manilas	$1.25
Folded news	77½
Over issues	77½
No. 1 clean mixed paper	65c
Old white cotton	$4.65
Thirds and blue	$2.75
No. 1 white shirt cuttings	$7.25
Black overall cuttings	$2.75
New light flannelettes	$5.50
Ordinary satinets and flock	$2.00
Tailor Rags	$1.90

MONTREAL MARKETS.

Book—News—Writing and Posters.

Roll News, $3.00 for carloads proportionate increase on small lots.

Sheet News, $3.25 carloads, $3.50 up small lots.

No. 1 Book, 7.50 to 8.25.

No. 2 Book S.C., 6.50 in large quantities; 7.25 in small quantities.

No. 3 Book F.M., 6.00 in large quantities; 6.75 in small quantities.

Writings, 6.95 to 10.

Writing Manila, 6.95.

Cover papers, 11 to 14½c, according to colors wanted.

Colored Poster, 6½ to 7½c.

An extra charge of 10c per 100 lbs. will be made when Book Papers are packed in frames, and 15c per 100 lbs. when packed in cases.

Wrapping Papers.

The following are the new prices on wrappings, effective immediately:

	Car lots.	1-ton lots.	Small lots.
Beaver, Brown wrap 100 lbs.	4.00	4.25	4.60
No. 2 Manila (present stock) 100 lbs.	4.00	4.25	4.60
Samson B., 100 lbs.	5.25	5.60	6.00
No. Manila, Invincible Fibre, 100 lbs.	5.50	5.85	6.25
Fibre lighter than basis 24×36—40, down to 24×36—30, 5 per cent. extra. This is in addition to the usual extra.			
White Wray, Cleaver, 100 lb.	3.40	3.65	3.90

DYES AND EYE FATIGUE.

The shortage of dyestuffs since the war has led to newsprint and some other papers being made of “natural” darker shade of color, and the Madison laboratory has been investigating the question of whether this darker color produces any additional eye strain or eye fatigue. The investigations show that it does not. This is in line with the generally-held opinion previously that eye fatigue would be even less where paper was not brilliantly white, on account of the lessened contrast between the ink and paper.

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