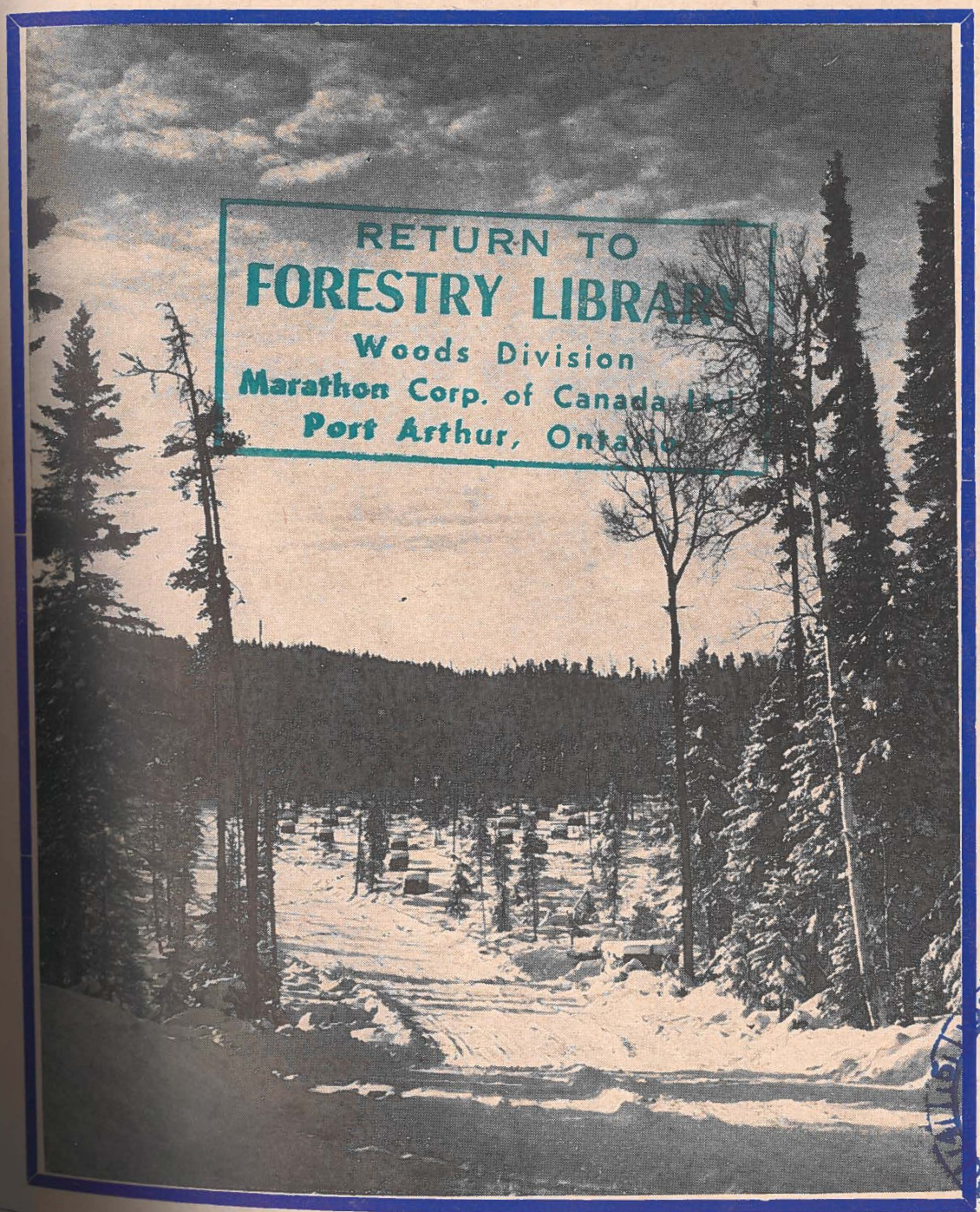
THUNDER BAY TIMBER OPERATORS ASSOCIATION

LOG BOOK

JANUARY
FEBRUARY
1952

VOLUME 3 — PORT ARTHUR, ONTARIO — No. 5

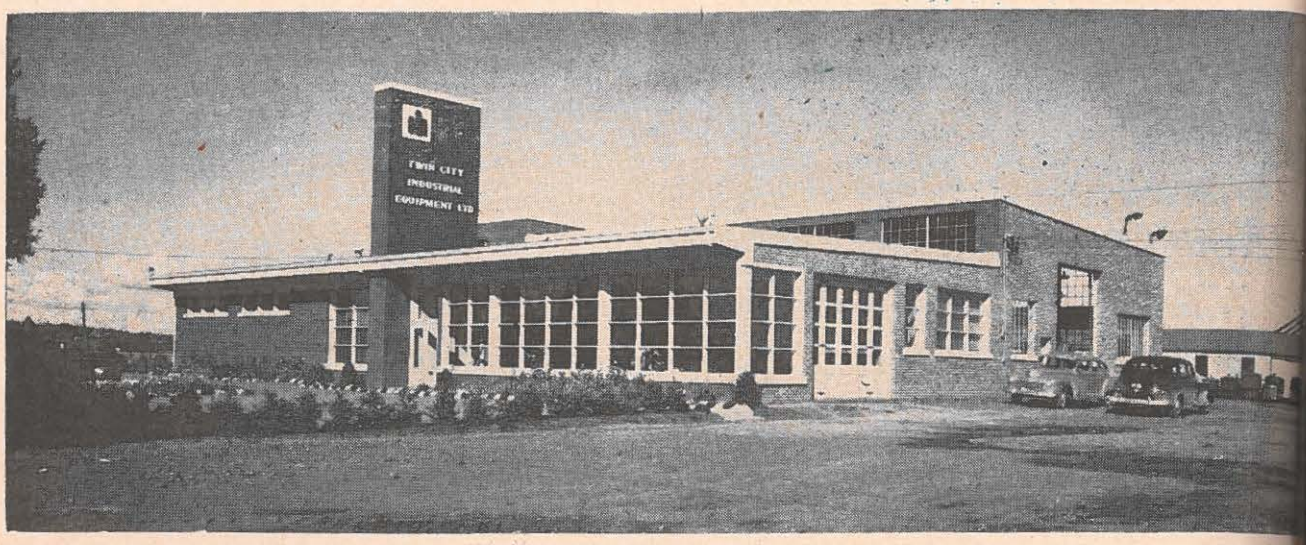


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Every cord is embedded in rubber. The strength of the steel-cord casing is such that 4 plies of steel cords replace the 14, 16 or 20 plies in textile tires.

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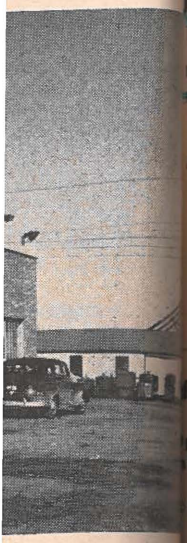
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Published by

THE THUNDER BAY TIMBER OPERATORS' ASSOCIATION

Edited by

T. S. JONES



ident's Message

pening Address of President H. H. "Bert" Styffe at the l Meetng of the Thunder Bay Timber Operators' Association Port Arthur, Ontario.

men:

Once again we are gathered at our Annual Meeting to s operating and administrative problems that we have in on. These meetings are always beneficial and this one, I will be no exception.

I'd like to start out by drawing your attention to a subject know all of you watch very closely and one which may or break an operation if not given proper attention. I re- f course, to the weather and I would have you cast your ries back to this time last year and remember the early snowfall that fell before the swamps were frozen; then the ary cold spell that went below zero so many degrees that verage thermometer in the bush couldn't record it; then arly mild spell followed at last, thank goodness, by a cold that, with a few exceptions enabled everyone to get the out of the bush. And then, followed our rainy spring summer which was excellent for preventing fires but made ting difficult.

They say "everyone talks about the weather but nobody anytning about it." This is not true. The logger does mething about it. He plans for the worst and pnofits when better. The hazards caused by rain, snow, wind and cold watched closely and work is planned in advance so that ad- ge can be taken of favourable weather and this includes some and some cold weather. If we didn't watch the weather of us here would be in busines very long.

Each company represented here has, I know, completed lopment plans for their limits. Besides developing and com- g working plans for the government, plans which are to re that the woodlands are operated towards a sustained yield with the purpose of maintaining our forests in perpetuity, ovements to camps, dams and roads have been made. To ze the size of this industry, one has only to look at a map starting with the general area of the Algoma Central Railway working west to the Manitoba boundary, one can visualize the woods industry means to towns and cities like Hearst, Lac, Armstrong, Nakina, Geraldton. Beardmore, Nipigon, Lakehead, Sioux Lookout, Hudson, Dryden, Kenora, Fort Fran- and Rainy River.

Besides these cities and towns listed, depot camps of var- companies are "on the map" to stay and are growing rapidly year — Camp McIntosh, Vermilion Bay, Flanders, Atikokan, ffe, Savanne, Dog River, Black Sturgeon, Auden, Kowkash, mar, Stevens, Hillsport, Neys, Savant Lake, Umfreville, Clark- Valora, Reba, Linko, Martin, Heron Bay, Hemlo, Regan. ber, Mead, Hansen, Ripco, Calstock, and Palmquist, are now mon place names to the Post Office, to wholesale distributors other businesses and to the woodsworkers.

Production of forest products is what we here all live by I am happy to state that this past cutting season has produced factory results. The production of pulpwood, logs for lum- ties and poles, etc., has increased over last year and, while were short of men during the Spring and Summer season, the ement of Western labour to the camps in late November fill- the camps. It is estimated that approximately 60% of the ck employees came to Northwestern Ontario in the Fall from Prairie Provinces and Quebec. Home addresses of employees r Canada from coast to coast. To help the labour situation, companies entered into agreements with the Dominion De- rtment of Labour and the Department of Immigration and app-

(Continued on Page 5)

Cover Picture — Courtesy of "THE LINK"

GRATIFYING RESULTS FROM COMMUNITY CHEST AND BOND DRIVE

Port Arthur Community Chest

In proof of the fact that woodsworkers are more and more taking their place in social and community life is their response to charitable and other appeals that they are asked to support from time to time.

A good example is the recent Community Chest Drive in the Lakehead area.

Here are the results of the camp canvass:

Ontario Paper Company Limited	$865.10
Marathon Paper Mills of Canada Limited	709.25
Abitibi Power & Paper Co. Ltd.	401.42
Brompton Pulp & Paper Co. Ltd.	222.50
Nipigon Lake Timber Company Ltd.	208.00
Hammermill Paper Company	171.00
Newaygo Timber Company Limited	170.65
Northern Forest Products Ltd.	106.00
Oscar Styffe Limited	102.50
Eric Hadley	50.00
	$3,006.42

This drive was started off with a personal donation from Mr. A. V. Cooper and the support of the Lumber & Sawmill Workers' Union, Carpenters and Joiners of America, and the assistance of union organizers, camp stewards, as well as company personnel assisting, especially the clerks, is very much appreciated by Community Chest officials.

THANK YOU ALL!

1951 Canada Savings Loan Drive

Mr. Ralph Bird stated that the highlight of the Canada Savings Loan Drive was the sales in bushcamps which increased by 100 percent over previous campaigns.

The LongLac Pulp & Paper Company Limited conducted a canvass in 1950 to determine whether bonds could be sold successfully to labour which in many cases was fluid and transient. 178 lumberjacks purchased $62,500.00 worth of bonds — 69% of which made all the payments.

In the recent 1951 drive an all-out was conducted by the LongLac Pulp & Paper Company Limited and the Marathon Paper Mills of Canada Limited. $160,000.00 sales were recorded.

"Taking into account the good that can be accomplished by stabilizing this labour and bettering its position, I feel a real effort should be made by all our operators to further this campaign in the woods," Mr. Bird concluded.

Let's all work on this next drive! A savings program for woodsworkers such as this is as much a good thing for him as it is for any other citizen.

QUESTIONS

1. What Canadian tree grows 300 feet high?
2. Which are our "Twin Cities"?
3. In what province do sawmills have a greater production than in the nine other provinces combined?
4. Only who in the federal government may introduce a bill involving the spending of money?
5. Which two Canadian cities make up the world's greatest grain port?
6. Why do beavers build dams?

(Answers on Page 21)

Report to Foresters

By C. J. Campbell

Now that 1951 has come to a close, perhaps we should look back on the activity of our section of the Canadian Institute of Forestry. I think it is fair to say that, in view of the fact that we are an association of professional men, our progress was not in any way commensurate with our obligations to Forestry. However, in many ways, we had a good year.

By our constitution, the Canadian Institute of Forestry is an association whose purpose is to further good forestry practices. If we view the technological advance of our profession, locally or Dominion wide, we can be proud of our achievements. In Northwestern Ontario the Forest Industries, through building logging roads, have opened up great stretches of otherwise waste areas. They have given, and are giving, employment to a great many people. The Forest Industry of this area is a major contributor not only to our local economy but to the economy of Canada. We can cite great forward strides in several other branches of Forestry such as Fire Protection, Forest Management, Forest Biology, Entomology, Pathology, etc. Even though some of these branches are very young in development, there is obvious evidence of progress which promises advantageous application in the very near future. These are technological advances. Is this Forestry in its entirety?

Our chosen way of life is a democratic one. We are privileged to elect our governments and by so doing we determine policy affecting our welfare. If we will not accept this responsibility, democracy will vanish. Today we are living in a highly specialized world where many fields of endeavour have become very complex and require those with highly specialized training to accept definite responsibilities. Foresters must be prepared to mould forest policies into this complex national community of democracy in such a way that they will function in harmony. Without guidance, no politician, or group of politicians, can claim to do this work properly. However, if the guidance is not forthcoming, they have no alternative but to do their best. Our profession is not accepting its responsibilities. We sacrifice too severely the progressive development of forestry for the consummation of forest technology.

Twenty years from now we will have new and different Forest policies regulating the treatment of our Forest Industries. Are we interested in what these policies might be? If we are, then we must make our association strong so that it will be heard — so that foresters will determine these policies. During the past three years, we have sent only one recommendation to the Minister of Lands and Forests.

Within the past year I have had several discussions with younger members of our section concerning the status of our association. Are we a professional association? Very definitely; the requirements of admission to full membership is evidence of that. As yet we have no provincial charter, but the wheels are in motion.

Within our section, our problem is not to build up membership but to build active membership. Based on past observations this, I believe, can be accomplished in three ways, (1) by taking every opportunity to acquire good speakers on forestry topics, (2) by having more out-of-town meetings such as that held at Longlac, (3) by raising the plane of our annual meetings. In order to give you meetings of this nature, your executive requires the full cooperation of every member and forest enterprise. It would be much appreciated members would assist in securing speakers, and companies would volunteer to be hosts to out- meetings as LongLac Pulp and Paper Company

We must have bigger and better annual m Not that we should necessarily pattern ourselv the local Medical Association or the Engineerin ciation, but I do believe that some of the colour annual meetings should be brought into ours meetings should be supported to the extent could invite and entertain representatives of oth essional associations. In this way we would make our existence.

In 1951 we had seven meetings which we well attended. We were most fortunate in hav top-rate speakers as Mr. Gilmore and Mr. C addition, thanks to Ollie Kantola, we were with a showing of films on forestry practices in (spiced up somewhat with a few pictures of t nastics of the famous Finnish steam bath). Even these were very successful meetings, we must hat to LongLac Pulp and Paper Company for p an excellent out-of-town meeting. More of t a must.

In the field of education, the C.I.F. contri the planning and organizing of a tree planting with the students and School Board of Slate Since the response of all parties concerned encouraging, a similar project should be under this year's executive.

Last but not least our section has contrib articles on forestry to the **LOG BOOK.** We are tunate to have such a splendid opportunity to ideas in this widely circulated publication.

In 1952 I predict with confidence a much ed year for our section. With such men as Pa President and Ken Hearnden, Vice-President look forward to many enjoyable and interesting ings. However, we must ever bear in mind th cannot hold your section together without the ation of every member. I congratulate Paul and being elected to the respective positions, and th bership as a whole on their choice.

I would like to take this oportunity to tha member of the 1951 executive for the excellent rendered. It has been an honor and a pleasure as chairman of your splendid organization.

(One of a series of articles by members of the Nor Ontario Section, Canadian Institute of Forestry).

INTERESTED IN BARK REMOVAL METHODS AND MACHINES?

At the suggestion of the "Research Co- Committee on the Utilization of Mill Waste wood" a report entitled "Bark Removal Meth Machines" by G. E. Bell and P. E. Martin of the ment of Resources and Development, Forestry Forest Products Laboratories Division, was prep distributed.

This is an interesting report and anyone in this subject should write for a copy.

DENT'S MESSAGE

(Continued from Page 3)

tely 2,000 new Canadians, both immigrants and D.P.'s were employment. Without these, this industry's position today have been precarious. It must be remembered that many of mmigrants and D.P.'s are persons skilled in other trades and s soon as they have fulfilled their obligations to the gov- t, will leave this industry and be assimilated in their own So, the problem of finding a steady production force is fore us. The only reason the camps are full at this mo- s that more men from the Prairie farms came to the camps previous years largely because harvesting of the grain crop mpered by bad weather and some of the crop is still on lds. Latest returns show over 15,400 men working for companies and this is probably an all time high. The at the change-over in our industry from the cutting to the requires less men is a problem that has to be faced every nd for this reason there is now some temporary unemploy- among the more recent immigrants that were working in dustry. This is of concern to us all and our members are the situation well in hand.

A problem to all operators is the unnecessary movement n from camp to camp and from company to company. This g studied by all concerned and it is hoped that, even if not ally overcome, the movement will be lessened. Right now uation becomes apparent because, with the camps full, these ers" cannot always get a job as readily as when there is a e of labour and hence there appears an unemployment pro-

While there are differences in terrain and timber, most ny accommodations, meals, etc., are similar and my advice woodsworker is to settle down and stay on the job.

Production costs took another steep jump in 1951. Ef- April 1, crown dues were increased sharply — in some 100% — by the government. In addition to this, wages increased twice in 1951 — first, effective April 1, 1951, a tary interim increase of 7% was granted and secondly, after nnual negotiations in August, an increase effective September was granted resulting in a 12% increase in wages with the remaining the same. Thus, increases of over 20% were ed including other benefits.

The settlement of wage rates by negotiations must be a s of satisfaction to all concerned.

Other costs such as board, lodging, machinery and equip- have increased since last year and the increase in freight is another serious item to operators who move approximately 000 cords of wood by rail.

Operators in Northwestern Ontario must compete with other of Canada and the U. S. which are able to process forest uct at a lower cost than we can, being closer to markets. erican mills are also for this same reason able to use species ood including hardwood grown in their own localities.

We were happy to have over one hundred members of the dlands Section, C.P.P.A. meet in Northwestern Ontario last The meeting was held at the LongLac Pulp and Paper Comp- Limited limits and the Marathon Paper Mills of Canada Ltd. at Caramat. The fact that the C.P.P.A. come periodically orthwestern Ontario for field meetings is indicative of the that woods operators in Northwestern Ontario are progressive that new ways of getting the raw material from the stump are continually tried out and, in many cases, are successful.

All companies are continually experimenting but I would to mention that the Marathon high lead yarder and slasher op- ion; the LongLac operations using different types of mechan- equipment; the Ontario Paper Company sloop operations and Ontario-Minnesota Pulp & Paper Company tractor and arch op- ions are all being watched with interest. Trailer hauls are sing and soon most wood will move on rubber.

The use of power chain saws is increasing and particularly the Heron Bay and Hearst areas are being used in large num- by cutters. The use of these and increasing cut and skid rations are taking more and more "bull-work" out of logging.

Besides the production from Crown lands, many thousands cords of farmers' and settlers' wood and a great deal of lumber purchased annually from farmers and settlers throughout North- ern Ontario. The production of forest products by these people ey is a vital part of their living. This past year saw a sizable rease — 25¢ to 30% — in the price per cord for this wood. ected with produce from their farms, the production of forest ers in many cases means a year-round occupation for farmers settlers. In addition, of course, many farmers and their hor- and, in some cases, tractors work in the camps during the ter or in their off-season.

The attention of these farmers and settlers was drawn to t that they may apply to the Department of Lands and For- Thunder Bay Nursery for trees for reforestation, windbreaks some projects. These trees are given **FREE** and it is hoped that the farmers will take advantage of this government service and insure that their tree crop is developed and where necessary kept up by means of reforestation for their sons and grand-sons.

Forest fires are still the greatest hazard in the woods and loss from fires — not only destruction of mature timber but loss of young growth — is something which, while it may never be stopped altogether (we cannot control lightning) can certainly be cut down. This Association in co-operation with the Department of Lands and Forests officials has taken the lead in preaching fire prevention to the employees of the industry and in urging all operators to have camp crews organized and trained to fight fires.

In 1951, out of 342 fires, 18 fires were as a result of woods operations. This would indicate that the prevention work carried on by operators is not in vain. In addition, the fires that did occur were held to a very small acreage and this speaks highly of the organizing and training of the Department of Lands and Forests and the operators in getting the fires out while they were small.

Insects are another hazard that must be coped with and, in this respect, operators and their employees co-operated by sending samples of insects found to the Insect Laboratory at Sault Ste. Marie.

This Association and companies support the Lakehead Technical Institute and we are happy to co-operate with the forestry instructors in arranging visits to operations by students, supplying guest lecturers, and, in addition, we have, for each of the past three years, given a $200.00 bursary to a selected student.

I would, at this time, like to pay tribute to our woodsworkers as individual citizens. Each year they are more and more taking their place in the social as well as economic life of Northwestern Ontario. Their support to the Community Chest and other drives, their purchase of Canadian Government bonds and their help at Christmas time to needy families as reported in the press, are all indicative of the type of men working in the woods. Ministers of the Gospel, the Shantymen's Association visit the camps and are well received. In some of the depot areas, community clubs have been organized and sports and other recreations are taking their place in the development of the life in the woods. I am also happy to note that Ludovic Cyr, who won the Canadian Buck-Sawing Championship at Montreal last year is still working for the Ontario Paper Company at Heron Bay. I hope Ludovic or someone else from Northwestern Ontario will win again.

While referring to our employees, I would just like to mention in passing that great emphasis is being placed on safety in the woods. The number of accidents in the woods must be cut down and with the co-operation of the employees, management and the safety associations, I feel certain that accidents should and will be prevented.

And what of 1952 and the future?

Despite all the progress and development that has been made we, being human, are still not perfect — we make mistakes —we have plenty of room for continued improvement. There are so many variables besides the weather — the Korean war, the European situation, all have a bearing on our future.

The demand for pulpwood seems to have tapered off a bit and the future is not too clear. Stockpiles at the mills are reaching normal levels and we all know that any decrease in demand for end products means an immediate curtailment of forest products required. This is unfortunate but understandable and we all hope that the demand continues.

If the demand continues our industry will no doubt need all the men it can get in the woods next Spring and Summer and if war industries grow then we may face a shortage of labour throughout the year. This picture should clarify this Spring and we will have to make plans then to meet the problems.

In closing, I would like to again this year state my feelings towards our industry. I stated in my Annual Report last year that a **new era** in woods operations had been born and that we are now growing up in that new era. We have progressed during the year — management plans and operating plans are being made on a long term basis; gradually more species are being utilized. (This is one subject - utilization of species - about which we all hope the Research Institute will soon develop methods of using all species grown in Northwestern Ontario); our employees are receiving good wages negotiated annually with the woods union. our depots are becoming more permanent, our camps have more and more facilities for better living, our road systems, dams, and other improvements are being extended annually. Our industry is the backbone of this part of Ontario and I am proud to be a part of it and to be President of this Association. Because we operate mostly on Crown Lands, we operators and our industry seem to be fair game for public criticism. This is all very natural and not objected to but, I do believe that, if our critics would take into consideration the advances in the past ten years, visit and study the operations as

(Continued on Page 14)

Radio-telephones are a part of the woods communication system of many companies and this article sh be of interest to many Log Book readers.

"V.H.F. -- F.M. -- R.T."

By D. H. Leitch

What is all that about?

A new advertising slogan or a radio station?

Not just one, but many radio stations!

We thought you might be interested in a brief explanation of some radio terms that are coming into common business usage. Radio is daily becoming more important to business because of its ability to increase efficiency and reduce costs. These two factors are certainly important to any business, as they cannot be ignored if a business is to prosper or even maintain its standing.

How can radio help my business?

That question cannot be answered quickly, as your requirements must be examined and some check made to see what radio can do, its cost and just where the value applies to your needs. A field radio engineer can give these answers only after discussing your problem on its own merits

You are of course familiar with your own business terms, but some knowledge of radio language may be of help to you.

Here are a few common terms with plain-language explanations:

Transmitter — The units required to change battery or house electricity into a form that will permit it to radiate to a distant point. The transmitter comprises the:

Power section — to make use of batteries or building electricity supply.

Modulator — to permit voice conversati

Oscillator — to permit use on the a frequency (to avoid interference).

Amplifier — to increase the power and the transmitter.

Antenna — to connect the Transmitte Antenna proper so that the energy wil from one point and be picked up at a dist

Microphone — the part you speak into.

Receiver — The units required to pick u radiated from a transmitter and convert it into music, etc. The receiver comprises the follow

Power section — as for transmitter.

Receiver — to convert radio energy into

Loudspeaker — the part that produces t

Antenna — This is the item that: (a) c transmitter to radiate energy to a distant poi enables the receiver to pick up energy comin distant transmitter.

Control units — The actual items used b erator. (Many modern radio systems have only trol units at the operating position with the T and Receiver at a point close to the antenna.

Frequency — All radiotelephone units m ate on a frequency assigned to them by the D of Transport Radio Division at Ottawa. Your frequency can be considered as a private number and each system should be on its own so that systems will not interfere with each o very important that the maker of the equipme and builds it for maximum frequency stability sure that it operates on only the frequency it is for, not only at first but for months or years a

Sensitivity — The more sensitive a recei greater is its ability to receive form long dista sitivity must be built in at the factory and t must be such that this ability is retained periods without attention.

Propagation — A term commonly used i tion with the movement of radio energy from to another. It also concerns antenna height designs, type of country, season of year, ass quency, and other technical factors.

A radiotelephone system usually involve two stations. They may both be at fixed loc they may both be mobile i.e., cars, boats, aircra cycles, trucks, coach or even carried by one p system may comprise several combinations of For certain applications, it may be necessary for automatic repeater units, if long ranges country is involved, but these factors require time for explanation here. However, a few te be explained.

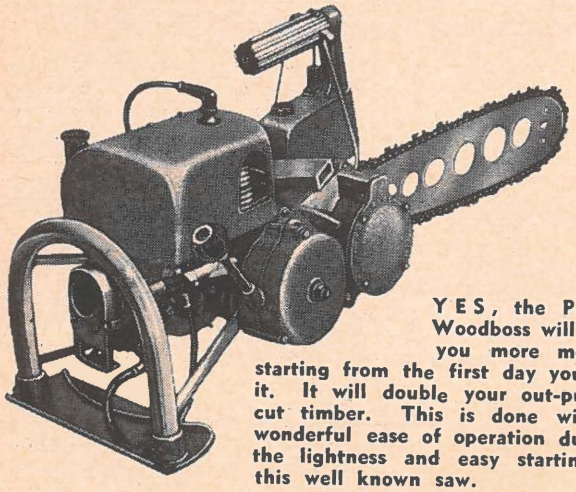
Micro-wave — A range of extremely high cies, usually used for automatic unattended tions for circuits where the traffic is very he

Relay or repeater stations — Fixed sta to pass along or "relay" messages, in cases distance is too great for a direct circuit.

(Continued on Page 7)

PM WOODBOSS

. . . Earns More Money!



YES, the P. M. Woodboss will earn you more money, starting from the first day you use it. It will double your out-put of cut timber. This is done with a wonderful ease of operation due to the lightness and easy starting of this well known saw.

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Other P. M. Offices in Orillia, Ont., Quebec, P. Q., Montreal, P. Q., and Regional Distributors across Canada.

F. — F.M. — R.T."

(Continued from Page 6)

Unattended — Equipment that operates by itself, ut an operator in attendance.

Telemetering and Supervisory — Equipment used ntrol, from a distance, other pieces of equipment, as pumps, signals, transformers, etc. This term in- s both the control of items and such matters as g meters, guages, levels, etc.

And now, what about V.H.F. — F.M. — R.T.??

VHF refers to Very High Frequencies, a group of encies used for radio circuits.

FM refers to Frequency Modulation, a type of radio t that has important advantages concerning lack ise and freedom from interference.

RT refers to radiotelephone — a form of telephone ce using radio rather than wires, between each user.

Obviously a single article cannot cover all phases dio but it is important to remember that radio may a place in your organization. The way to find out discuss your system of doing business with a comp- t radio sales engineer or talk to someone in the or allied type of business where radio is being used.

It is safe to say that any business organization that loys any form of transportation or does business at ral locations should consider radio. If a radio system increase your organization efficiency, save time o or machine or improve safety factors, it is some- g you should have.

Prayer for Peace

By George Mills

Ontario Paper Company Plant Superintendent at Heron Bay

O Blessed Babe of Bethlehem,
When angels at Thy birth
Proclaimed a Savior born for men,
His Kingdom, Heaven and earth,
How little did the wise men know
Who journeyed to Thee long ago
We now would plead, as prayed they then
For "Peace on earth, goodwill to men!"

O Holy Man of Galilee
Who stilled the angry wave
Exhorting those who sailed with Thee
"Have faith, fear not, be brave,"
Instill in us the faith, dear Lord
Which they accepted at Thy Word.
Bend pride and hatred to Thy will
Command all nations, "Peace, be still!"

O Christ who died on Calvary
That mankind might be free,
Who humbly wept where Lazarus lay
And walked in dark Gethsemane;
O may we Lord, from Thee beget
The faith and humbleness, to set
That corner stone of Heaven's great plan
"The Blessed Brotherhood of Man." .....

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The Bleaching of Chemical Pulp

by Roy Smith

The process of bleaching in the pulp and paper industry might be considered as a method of purifying the pulp that is blown from the digesters. In the latter, wood chips and acid or alkali solutions are mixed together, heated by means of steam and cooked until the binding material or lignin as it is known is sufficiently dissolved to permit the cellulose fibres in the chips to become separated. The cooking process, however, does not completely remove all the impurities from the pulp fibres, as carrying this step too far might seriously damage the fibre itself. In the case of newsgrade pulps these impurities are of little consequence. After the removal of dirt, knots and uncooked fibre bundles by screening, the pulp may be used directly for the manufacture of newsprint. Where a high grade pulp of good white colour is desired for book paper, specialty pulp or for dissolving pulps, further treatment by bleaching is required.

During the past twenty-five years, remarkable progress has been made in the chemical pulp bleaching industry. We find new and improved bleaching equipment appearing in the market, more effective pulp bleaching agents and continual development of the techniques of multi-stage bleaching.

Bleaching systems vary from mill to mill. They may be of the older type batch systems or completely continuous, the modern trend, or possibly a combination of both. Many of the older mills still use a two stage system using calcium hypochlorite as the bleaching agent. The latter is usually prepared from quick lime and chlorine gas. The quick lime is slaked with water and chlorine gas is bubbled through it until it is of correct strength. The sludge is allowed to settle and the clear liquor is drawn off for bleaching.

The sequence is a continuous high density stage of bleaching, a fresh water wash, followed by a batch bleaching at low density in horizontal tile line tank of special shape known as bellmers. The raw pulp after selective washing and screening is held in storage tanks from which it is pumped as a fibre suspension in water to a regulator. Here its consistency is controlled to a desired point by increasing or reducing the amount of water added. The regulated stock as it is called is usually 1-2 percent pulp. As part of the first stage the regulated pulp stock is passed over a thickner to withdraw sufficient water to bring the pulp up to 15-20 per cent air dry. A typical thickener consists of a cylinder, covered with a fine mesh wire and rotates in a vat containing the pulp. As the cylinder rotates water from the pulp drains through the wire while the pulp clings to it thus forming a mat. Press rolls aid in squeezing more water cut of the pulp and the latter is fed into the shredder as a continuous mat. A predetermined amount of bleaching liquor and live steam is added to the pulp as it enters the mixer and high density tower. This is a tile lined cylindrical tank, fitted with an adjustable gate and an agitator at the bottom. By keeping the level of the pulp in the tower high and correctly regulating the amount of bleaching liquor and steam, 90 per cent or more of the bleaching can be done in this stage alone. The coloured impurities and the other foreign material are acted upon by the liquor and are converted to colourless materials. These can be later washed out. This leaves the pure white fibre or cellulose. On passing from the tower the pulp is diluted with water and pumped to a washer equipped with sprays. Similar to a thickener except there are no press rolls, th removes the greatest portion of the impurities out of the pulp. In addition it thickens up somewhat in preparation for the second or lo stage performed in the bellmers. These are tile lined tanks built so that the pulp stock ca in constant movement by means of a screw type

Bleaching liquor and steam again are add pulp to bring it to the final desired degree ness. The bleach plant operator determines taking samples of the pulp from time to time pares them with previous batches which he k correct. When he is sure the colour is white e discharges the bellmer of stock by means of a valve. To check the operator's judgment of c to obtain a record of the brightness of the pulp is tested on an instrument known as a brightne The pulp is again washed as before to rid it of and a small amount of sulphurous acid is adde destroy any excess of bleaching liquor that have been washed out. The acid aids in mainta original colour of the bleached pulp. While th of bleaching is still in extensive use, it po number of disadvantages. Among the more are: high chlorine consumption to get good co calcium hypochlorite alone is used as the agent, high steam consumption and a rathe action of the bleaching liquor on the pulp fi

With the advent of pure chlorine gas as a agent and caustic soda as an extraction treatm with the development of new equipment, ma above difficulties were greatly reduced. In mos mills the pulp is first treated with chlorine ga or mixed with water, either in a continuous mixer. At present it is usually carried out at ity. The chlorine gas acts upon the lignin str does not attack the fibre to any great extent action is quite rapid with the pulp taking on colour. Considerable hydrochloric acid is formed chlorination with the result that a washing ste as described previously. As all of the chlorina is not soluble in water some of it remains in after washing. A weak solution of caustic soda loyed to remove this in the next stage and in aids materially in dirt removal. A high den similar to that mentioned earlier is utilized extraction, with steam as the source of heat. pulp is subjected to a washing after the alkali and is now ready for the final step, the de of the pulp's brightness.

Calcium hypochlorite bleaching liquor is reagent and most frequently it is a batch trea low density. However, high density continuous can be employed where control has been strict the previous stages.

Of course the number of stages and the s use are numerous and depend a great deal type of pulp that is ultimately desired. For the of sulphite pulps, three stages are usually while sulphate or alkaline pulps require anywh five to ten stages. All systems, however, w one or more of the following:

(Continued on Page 9)

BLEACHING OF CHEMICAL PULP

(Continued from Page 8)

(1) chlorination
(2) alkali extraction
(3) hypochlorite treatment

There may also be more than one stage of the same ment.

It is of interest to note some of the possible bleach- gents of the future. Two very promising chemicals e present time are sodium chlorite, a solid, and ne dioxide, a reddish coloured gas. Their applica- in the industry is still quite limited because of high cost. Their principal advantages lie in the hat they will readily bleach pulp to high brightness ut injury to the fibre.

(One of a series of articles by members of the Mid-West Branch, Technical Section, C.P.P.A.)

ERE IS THE CENTRE OF THE WORLD?

The center of the world for the average person is ot you can indicate by holding a finger over the er of his head. A smart boss understands this and the best effort out of his subordinates by helping to feel more proud of themselves. He treats them mportant individuals and helps them to feel that best effort will be important to the company. This e essence of good leadership. The other way, of se, is to drive people, and many bosses try it . . .

CENSUS REPORTS NORTHWESTERN ONTARIO POPULATION UP

Ontario population as of June 1951 when the National census was taken was 4,562,354 according to the Dominion Bureau of Statistics. The population has increased 20% since 1941.

Here's the story on Northwestern Ontario centers of population.

	1951	1941
Kenora District	38,884	33,372
Rainy River District	21,776	19,132
Thunder Bay District	104,323	85,200
	164,983	137,704

WE'RE GROWING!

Preliminary count on population of Canada as recorded in census last June is 13,893,208, increase of 20.7 percent from 1941. Total includes Newfoundland for first time and, not counting that, increase in other nine provinces of 17.6%. Fastest growing province was B.C., up 41%.

"Men occasionally stumble over the truth, but most of them pick themselves up and hurry off as if nothing had happened."

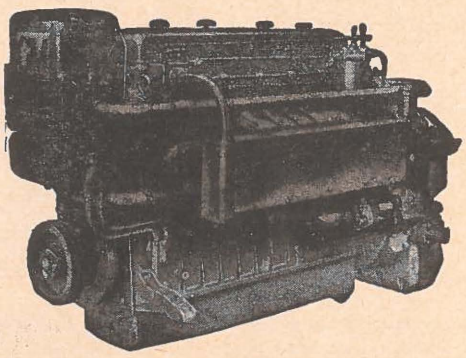
"You cannot make a new world out of people who don't care, nor can you do it with people who care but don't do anything about it."

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Fort Willi

O-M Bush Radio Network Ties in with Civil Defence Work

Minnesota and Ontario Paper Company's FM Radio network, spreading over its logging operations in northern Minnesota and Ontario, proved as a valuable aid in the harvesting of trees, has now been made available to serve in the defense of Canada and the United States.

Mando's high frequency radio system, long known in the Rainy River country for its humanitarian usefulness, has been incorporated into the Civil Defense organization of Minnesota and has been formally offered to Ontario authorities. Bushmen, whose normal pursuit is the harvesting of pulpwood, are now volunteering to serve on a proposed international Civil Defense team.

Far out in the wilderness, loggers can scan the skies and quickly report by radio, the appearance of any aircraft over their remote areas. These warnings can be rapidly flashed over the forest to tall steel towers located at International Falls, Minn., and Fort Frances and Kenora, Ontario. They can then be relayed to a filter center at Minneapolis. As each report of approaching planes reaches the center, the formation is tracked. If such warnings should involve identification of enemy craft, fast jet planes would immediately be dispatched to intercept them.

Meanwhile, other cities of the Midwest would be alerted. Col. E. B. Miller, Minnesota Civil Defense director, said that such a warning may reduce casualties by 50 per cent in the event of an attack from the north on cities of the Midwest and the East.

Last month during a state-wide aircraft warning exercise, three Mando spotters reported a flight of three Navy Corsair planes. The reports came in from Camp 29 and Camp 3. The woodsmen's reports enabled the Minneapolis filter center to "easily track the visiting planes with considerable accuracy," a civil defense leader said afterwards.

R. N. Douglas, Mando Personnel Relations Officer at its International Falls, Minn., plant and Falls civil defense director, reported that the test was a complete success. The spotter plan still is subject to approval of Canadian Defense authorities. However, the Minnesota branch is already established as part of the state-wide ground observer system for reporting the approach of hostile aircraft. The Minnesota network includes a 250-watt station at the International Falls plant and eight 60-watt units in Mando logging camps and forestry establishments in two northern Minnesota counties. Thirteen other radio installations extend 100 miles north of the Canadian border, including towers at Fort Frances and Kenora, Ontario, home of Mando's Canadian paper mills.

Besides the network's use in Civil Defense ular logging operations, the system has been render service in all sorts of emergencies rang forest fires to removing someone's inflamed a

Because Kenora's transmitter maintains with more camps in extremely remote regions western Ontario, the radio log is filled by both ous and heart rending entries. Brown-haired, b 18-year-old Helen Ziolkoski, Mando radio op Kenora, is one of those on the receiving end

(Continued on Page 11)



LOGGING BY RADIO — George Potts, woods manag Frances, uses Mando's portable FM transmitter during operation. Mando's FM network is not only used in its logging operations, but it has been used for all sorts of cies that arise suddenly during logging drives. An injur no longer fears painful overland trips to civilization. logging operations of today, a call over Mando's FM bring a mercy plane to the site of the accident. In the injured man is safe in the hospital.

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BUSH RADIO NETWORK S IN WITH CIVIL DEFENCE

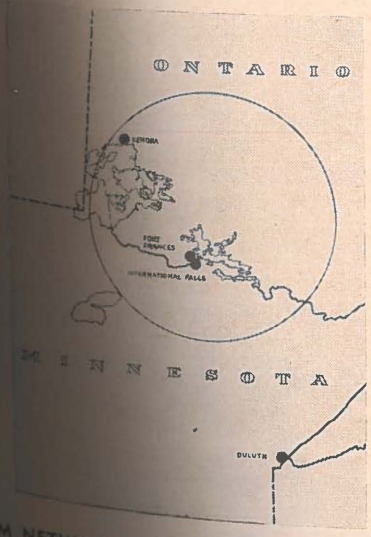
(Continued from Page 10)

ted pleas that come over the airwaves from deep in Ontario forests. It is from her log that most of the wing incidents were lifted.

An "emergency" with a humorous twist was a dis- ed appeal from a sleepless logger. "Please send a that doesn't snore," he said. Another entry proved a tragedy was averted, thanks to the quickness of FM radio. Nearly 100 miles from Kenora, the small of a Mando woodsman reached for a bottle in the dicine cabinet and swiftly swallowed a handful of white pills. They were sleeping tablets. The boy soon unconscious and medical care was imperative. ora was contacted by radio and the advice of the tor was secured. In a short time, thanks to the advice he physician, the boy was on the road to recovery.

Another time, a group of men became stranded on ny island; rising waters would soon engulf the island. Mando lake boat, also equipped with radio, was dis- ched to the scene. Radio proved to be the margin in fe and death race.

One day on Trail Lake, in the rough Patricia Limits a, 90 miles from Kenora, a woodsworker received a nful and serious back injury. A radio call to Kenora brought a physician to the mike, who gave pain-relieving advice. Meanwhile, a train was halted at Vermilion Bay, a few miles from Trail Lake. The injured man was loaded into a truck and driven to the waiting train where he was loaded aboard. Within a few hours he was in a Kenora hospital. All this in a matter of hours, rather than, as in the past, a matter of days.



ANDO'S FM NETWORK — Here is a drawing showing Mando's ... radio network's area in relation to the Minnesota-Ontario bor- ... Notice that the network extends well into Northern Minn- ... and approximately 150 miles north from the Canadian- ... States border.

Radio frequency joins with the magic of modern aviation in bringing rapid assistance to the men of Mando lumber camps. Helen's log reports that during a spring breakup, when roads were impassable, a worker at a camp on John Lake in the Lake of the Woods area suffered a desperate appendix attack. The man faced death if Mando's FM radio hadn't come to the rescue. The Kenora radio station was called and arrangements were rapidly completed for the flight of a float-equipped airplane bearing a doctor for the dying man. Soon the doctor was at the camp and preparing him for the trip back to Kenora. Alerted by the Kenora operator, the hospital was ready for the woodsman. The man lived, thanks to FM radio.

As rugged as some of these lumberjacks are, they don't cotton to modern gadgets such as airplanes. One logger refused to fly back to Kenora after his hand had been crushed by a falling tree. The station operator at Kenora had dispatched the plane after learning of the injury. However, the plane waited over night and by next morning the pain from the injured hand had overcome all fear of flying. The woodsman was soon in a Kenora hospital, receiving skilled medical care.

Some time ago the Kenora radio aided in the capture of would-be auto thieves. Here's how it happened:

During the day, a car had been stolen at Fort Frances, Ontario, on the Minnesota and Ontario border and mill officials at the city offered Mando radio facilities to police authorities. Using FM radio Kenora was informed that the stolen car was headed in their direction. Soon Mando logging camps all along the route were alerted and began reporting passage of the stolen vehicle. Provincial police set up road blocks that led to the capture of the two teen-age thieves.

The Minnesota and Ontario Paper Company does much of its tree harvesting in remote, nearly roadless forests of Ontario and northern Minnesota. This area, especially the areas in northwestern Ontario, is largely an uninhabited wilderness dotted with thousands of lakes and cut by twisting rivers. Roads are few and telephone lines even fewer. The winters are long and sub-zero cold.

(Continued on Page 21)

SAFETY NEWS

QUALITY PRODUCTION WITH SAFETY

Safety on Dryden Paper's Woods Operations

By Norman McMillan

When Mr. Eoll requested that I give a short talk on "Safety on Dryden Paper's Operations", I really wish I could turn the clock back to 1949. That year our accident frequency record was good; in 1950 it was only fair; and to date this year we are getting dangerously close to the bottom of the list.

I have studied our 1951 accident record to find a reason for this mounting accident rate and here are some figures which were uncovered:

No lost time accidents	15
Accidents involving lost time less than 7 days	25
Accidents involving lost time in excess of 7 days	75
TOTAL ACCIDENTS	115

Seventy-seven (77) of these accidents were incurred by steady employees, and thirty-eight of them were incurred by short-term workers.

Here is a list of the more common types of accidents:

Axe cuts on feet and legs	16
Injured and wrenched backs	16
Injured and broken legs	15
Bruised and broken toes and feet	13
Bruised and broken fingers and hands	11

I have compared the above types with our 1950 accident record and found that the frequency rate of each type of accident has not changed to any extent.

The foregoing figures give a pretty good picture of what has happened and indicate to some extent why it has happened, and we believe we can eliminate a good many of our accidents next year.

Now, gentlemen, I am going to outline some of the things we are doing at the present time to eliminate accidents:

We have a safety supervisor who co-ordinates all the different phases of our safety program, and who collects new ideas which will make our employees more safety conscious. One of his duties is to lecture periodically to employees at each of our camps, pointing out ways and means of preventing accidents. At the same time he tries to instill in the minds of our employees that the victim of the accident suffers the most.

Insofar as the labour situation permits, we screen employees before hiring. We have always found that the good wage-earner is usually a man who is not a victim of accidents. For this reason, a man with a good previous earning record has preference over others when applying for a job. When a man comes to us first time we look him over for any physical di which would be harmful to his efficiency in the We also prefer young men. Most bush jobs young men with good reflexes. We also look who have a good attitude on life; not the ones lieve the world owes them a living. Experienc invaluable asset to a woods employee, and the has worked in the woods since boyhood probabl how to take care of himself while working.

After hiring, we try to place the men in for which he is most suited. This duty, of cour mainly on the shoulders of the foreman, and considerable tact and patience on the part of b ties.

Our camp foremen try to have an experienc ter show an inexperienced cutter how to fell t rectly, pointing out such safety measures as leaning trees well past centre, and never sawi completely free at the stump. The cutter is t plan his cut to avoid unnecessary carrying, th ing strained muscles. It is the foreman's duty the men out of dry and faulty timber on ex windy days. The cutters are constantly urged their axes and saws sharpened, not only to incre production, but as a safety measure as well. roads are built through stands, containing dry the dead trees are cut ahead of the bulldozer. have a guard over the operator.

To this point in my talk, I have dealt o men and supervisors, and have said nothing tools with which the men work. It has always policy of our Company to supply our men w machinery and we have always insisted that ou crews keep this machinery in good working or have got to the point where all wood loading i is now done by machines. I am happy to say has lessened our frequency rate on sore back roon and wood hook cuts on this particular pha operations. Our crane operators check all lifting periodically and discard any that are dangerous The brakes on our trucks are kept in first class ion and bad hills are sanded whenever they beco pery.

Within the last two years we have adopted and skid method of logging to a certain exte operations. We have found that this metho creased our accident rate so this season we hav well broken and quiet horses. We hope this come most of our accidents which result in thi of logging.

(Continued on next Page)

SAFETY MEETING HELD IN DRYDEN

The Fall Meeting of the Northwestern Ontario (Woods) Branch of the Ontario Pulp & Paper Makers' Safety Association was held in Dryden November 28th.

At the morning session, the safety film on SAFE LIMBING taken at the August LongLac meeting was reviewed and a committee was appointed to draw up details of shots still required such as:

clearing brush and branches,
undercutting,
differences between seasons.

The morning session concluded with Mr. C. S. Collins, President of Neill's Shoe Stores presenting an exhibit which showed how safety shoes had advanced in safety, design, comfort and style in recent years.

The afternoon session included a report by Mr. D. B. Chant, Secretary-Engineer, Ontario Pulp & Paper Makers' Safety Association; a report by T. S. Jones on the sale of camp safety boards; a report on the National Safety Council Meeting by J. Currie, a paper by Mr. N. McMillan, Woods Manager of the Dryden Paper Company Limited, entitled "Safety on Dryden Paper Woods Operations" and a paper by Mr. F. O. Soughton, Safety Supervisor, LongLac Pulp & Paper Company Limited, Terrace Bay, Ontario.

The Annual Meeting of this group will be held in Fort William in February 1952.

'ABITIBI' REPORTS WOODS SAFETY CONTEST

St. Anne is the winning Division with Camp 61 Noel Tremblay standing in top place in the division.

During November, 1951, there was a total of 186 lost-time accdents with an average of 782 man days worked per accident as compared to a total of 161 lost-time accidents with an average of 887 man days worked per accident in November, 1950.

The following camps worked over 1,000 man days without a lost-time accident during November, 1951, of which Camp 34 Port Arthur tops the list for the second consecutive month:

Camp 34	Port Arthur	3,474	man days worked
Camp 6	Iroquois Falls	2,507	" " "
Camp 61, Noel Tremblay	St. Anne	2,113	" " "
Camp 28, E. Hadley	Port Arthur	1,724	" " "
Company Camp 99	St. Anne	1,403	" " "
Camp 102, E. Fortier	St. Anne	1,219	" " "
Camp 104, J. Labrie	St. Anne	1,160	" " "
Camp 92, H. Maurice	St. Anne	1,002	" " "

Safety Toe Rubbers On Sale In Some Camps

As a part of an accident prevention program, some companies are now introducing SAFETY TOE RUBBERS in camps on a progressive basis. While these rubbers cost more than standard rubbers, at least one company is selling the SAFETY TOE RUBBERS at the standard prices.

Contrary to some opinions, the composition fiber toe that gives excellent protection will **NOT** draw cold.

It is hoped that these SAFETY TOE RUBBERS will be given a fair trial by woods employees and it is certain that the use of them will prevent many broken and bruised toes and feet.

Ask for them at the van — SAFETY TOE RUBBERS.

SAFETY ON DRYDEN PAPER'S WOODS OPERATIONS

(Continued from Page 12)

In the sawmill, we have guarded all saws and pulleys, and we keep the floors clean, especially with respect to bark, sawdust and edgings.

An outline of our safety programme would not be complete without mention of the work which our camp clerks perform. These men have taken courses in First Aid and their treatment of minor cuts and scratches has done much to keep our frequency rate of infections at a minimum. They are also men who endeavour to keep our camp employees safety conscious by displaying the safety posters where they will do the most good, and by keeping the camp safety record posted daily.

(Presented at the November Meeting in Dryden of the Northwestern Ontario (Woods Branch, Ontario Pulp & Paper Makers Safety Association.)

ACCIDENTS CAN BE CUT DOWN

The Black Sturgeon and Cameron Falls Districts, Great Lakes Paper Company Limited, stage safety competition

Here's the standings of operating camps in the Black Sturgeon District up until the end of November.

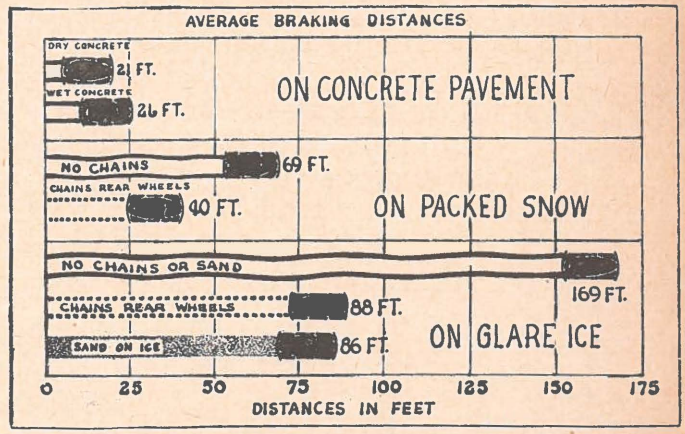
Camp No.	No. of Accidents	Man Days	Frequency Rate
32	0	1926	Perfect
28	0	1212	Perfect
20	1	998	100.2
29	2	1784	112.1
24	3	1216	246.7
23	6	2035	294.8

Camps 32 and 28 had no accidents but Camp 32 had the greater man-days worked. Camp 32, therefore, won the monthly award amounting to $50.00. The Safety and Recreation Committee will decide what use the prize money will be put to.

Such competitions are worthwhile and along with the daily reminder of the Camp Safety Board tend to keep all concerned on their toes in practising Safety First.

THIS CHART IS WORTH STUDYING

BRAKING DISTANCES ON VARIOUS ROAD SURFACES AT 20 M.P.H.



WOODLAND SECTION, C.P.P.A. MEETING AT LONG LAC AND MARATHON

Operations fully reported in the Woodlands Review Section, Pulp and Paper Magazine of Canada

One of the difficulties that your editor runs into from time to time is the necessity to not publish or hold-over items of interest because of other features. In the November-December issue the list of supervisory personnel took up considerable space and it was therefore only possible to mention the successful meeting of the Woodlands Section Field Meeting on Mechanical Hauling and Cable Yarding held on the LongLac and Marathon limits in September 1951.

Papers prepared and delivered by men of the field force were fully reported in the November-December Pulp & Paper Magazine of Canada but for the record and because we're proud of our talent and our progress in Northwestern Ontario, here's a list of the papers and authors:

Mechanical Logging at LongLac by W. S. Carlson.

Drott Loading and Truck Hauling of 16-foot Wood on the Operation of Abitibi Power & Paper Company Limited, Port Arthur Woods Division by G. Withenshaw.

Construction and Layout of Marathon Camps by A. H. C. Carson.

Forestry Aspects of Mechanical Logging at Marathon by W. D. Harkness.

Latest Mechanical Developments on Marathon's Operations by E. O. Olson.

Mechanical Slashing of Pulpwood at Marathon by E. A. Lunam.

High Lead Yarding in Bundles by N. Husak.

Use of Spar Trees at Marathon by D. P. Hamilton

High Lead Yarding in Tree Lengths by M. Tateshi.

If you haven't already done so, READ THESE PAPERS!

HUMAN RELATIONS

For those of us who believe the world is essentially a hostile place, experience has a curious way of fulfilling our expectations. People with chips on their shoulders are more likely to find other people with chips on their shoulders. This is because we are constantly selecting from experience those aspects which prove our point, and also because our attitudes toward other people are likely to determine their attitudes toward us.

LAKEHEAD TECHNICAL INSTITUTE FALL TOURS OF OPERATIONS

The purpose of the tour was to acquaint the Te nical Forestry students with ways and means of logg in Northwestern Ontario. The fall utilization trip p ides a good opportunity to examine the layout of the and winter cut, road preparation for winter haul cutting operations in progress, camp construction, ca organizatoin and the general over-all field organizat for logging operations. With those companies that c duct year-round logging operations we are able to st all phases of work involved in taking the tree from stump to delivery point.

Personnel relations were of particular interest. apparent that company policies now emphasize the terment of working conditions and provision for y round employment. Propane heating units and inc facilities are no longer the exception. Electricity camps has become common place. Perhaps the encouraging progress noted was the development use of recreation halls. The recreation buildings are new but they are now being used more than forme To the surprise of everyone we found a pool table in recreation hall in a regular bush camp which had b purchased by the recreational committee of that ca

As a result of our trip we gathered ideas impressions which would never have been acquired well in the classroom.

Mr. Braun, the students and staff wish to th the Forest Industries of Northwestern Ontario and employees for their wonderful cooperation. For this trip special thanks is conveyed to the host compan Brompton Pulp and Paper Co. Ltd., LongLac Pulp Paper Co. Ltd., and Marathon Paper Mills of Can Limited.

Canada's beavers are born with a full set of te and beavers' teeth grow throughout their life to co pensate for natural wear.

PRESIDENT'S MESSAGE

(Continued from Page 5)

they are today, know the problems facing this Northwestern Ont industry and then base their conclusions on the facts, their c icism would be constructive and of benefit to all concerned.

In closing, I would like to re-iterate — we have by no mea reached perfection but substantial progress has been made think that, as a group we can be proud of our operations as are carried on today. In order to improve such operations the administration thereof is the reason we are gathered here day, at this Annual Meeting of the Thunder Bay Timber Operat Association.

H. H. "Bert" Styffe

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SILVICULTURAL LEAFLETS

The following "Silvicultural Leaflets" have recently been released by the Div. of Forest Research, Forestry Branch, Ottawa:

No. 54 — "Effect of Seedbed Treatment on White Pine Regeneration," by .K T. Logan.

Concludes, "the preparation of a seedbed by a severe burn or by removing the litter to expose mineral soil has had a very favorable influence on subsequent reproduction."

No. 55 — "Development of an Aspen — White Birch — Maple Stand Following a Splintwood Cut," by E. G. Daly.

No. 56 — "Survival of White Pine Seedlings," by V. H. Phelps.

No. 57 — "Seed Spotting in a Cut-Over Jack Pine Stand," by K. T. Logan.

Demonstrates "that seed-spotting may be successfully employed either to regenerate a jack pine stand on a clear-cut medium site-type, or to convert the area to Scots pine."

No. 58 — "Experimental Cutting in Mixedwood Stands — Green River, New Brunswick," by A. B. Vincent.

2 positive results:

(a) apparent improvement in establishment of softwood advance growth and regeneration, following girdling of hardwoods, and

(b) skidding and yarding by tractor resulted in more softwood and hardwood regeneration than following lighter seedbed disturbance resulting from horse skidding or stump cutting.

No. 59 — "Cold Soaking as a Pre-Germination Treatment for White Spruce Seed," by D. I. Crossley and L. Skov.

Concludes that cold soaking of seed for 2 gives "significantly greater germination."

C.P.P.A. Woodlands Section, News B

The CLOCK
WITH A MESSAGE



EVERY OFFICE, STORE, HOTEL, RESORT AND PU
HALL SHOULD HAVE THIS BEAUTIFUL, ACCURA
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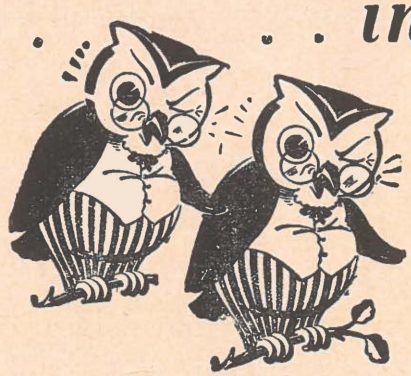
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Authorized Ford Dealer — Thunder Bay District



for year-in, year-out endurance here's the '51 SUPER-PIONEER

It's the Power Chain Saw that STAYS on the job. Time out for repairs is a thing of the past when the Super Pioneer goes into action. Its dependability will save you days and months of "down time" and countless dollars you ordinarily spend on chain saw maintenance.



For One-man Operation in Heavy Logging

- **Weighs Only 25 lbs. Without Cutting Attachments.**
- **Provides Power Enough for the Toughest Cutting Jobs.**
- **Takes Up to A 36 Inch Cutter Bar.**
- **Balanced Design — For Easy Handling and Carrying.**

For two-man operation with the same year-round endurance try the '51 SUPER TWIN . . . also made by Industrial Engineering Limited. The famous trade mark on every saw is your assurance of complete dependability, fast cutting action and top efficiency.

I·E·L Power CHAIN SAWS

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UNUSUAL USAGES OF PAPER

A newly discovered way of making laminated paper has given the aircraft industry a new base material, lighter than aluminum and stronger than steel, from which wing tips, floors, seats and even entire fuselages are now being made. Research is proceeding into shaped forms to widen the scope even further.

During the war among the many improvisations made was a method of shipping vehicles protected only by paper. An ambulance was, for example, completely and adequately wrapped in a mere 52 lbs. of paper. Paper cartons were used also to protect and preserve blood plasma and delicate instruments and gun parts. On occasions supplies had to be floated ashore and to protect them against the heavy battering of the sea and its corrosive action, special waterproof packing cases were developed that gave perfect protection, even if lying soaked for days in salt sea water. Other ingenious uses of paper kept food and other vital stores proof against heat, cold, moisture, gasses and germs.

A shortage of metal in Germany was overcome by producing a papier mache snow fence, from paper one-eighth of an inch thick and impregnated with creosote. Light, cheap and easily installed, it was reported as extremely strong and durable.

The newly invented paper, Phenolic Resin board, opens up possibilities as a material for moulding products and in the U.S. Army training bayonets and machets are being made from this new material. Fluorescent properties were incorporated into the actual structure of the paper used for maps. Printed in the normal way with ordinary inks the maps were far more serviceable than those printed with fluorescent inks, which were difficult to handle and rubbed off easily.

For the electrical industry a paper is now being produced for insulating purposes, only 0.0002 inch thick, thinner than a human hair. A new recording machine incorporates a special paper recording tape which can be permanently retained or cleaned off and used again.

Among the older uses of paper was the American experiment with Paper Board carriage wheels for trains. These put up an impressive performance travelling over 300,000 miles — also the Norwegian Church built of papier mache in 1793, which served its congregation well for many years through all types of climatical conditions. —Dixon's Paper Circular.

———o———

Only the Bank of Canada now has the right to issue paper money in Canada.

"JOE BEAVER" By ED NO



Forest Service, U.S. Dept. of Agric

"That lazy brother of yours doesn't seem to realize forests are a source of employment."

This Association publishes the Log Book two reasons:

(1) To act as a medium of exchanging information about our industry.

(2) To direct instructive and broadening articles about the woods industry to key men in the woods.

If you have any comments or constru criticism please send them to the Editor.

Please pass this copy on when you finished with it.



'COLEMAN' means low cost dependable heat

Coleman's new exclusive Fuel-Air control saves up to 25% on Oil costs! This new fuel saving development is available in most models. It's a simple device that's silent and sure in operation. Get full value out of your heating dollars — let us give you complete details on this new exclusive feature!

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Advertisers' News

KING DEMONSTRATION
HERON BAY, ONT.

The BEST YEAST COMPANY with Mr. Jack Mc- in attendance and under the supervision of Mr. ey Dawson staged a cooking demonstration at the n Bay Cookery of the Ontario Paper Company Lim- according to the December issue of the Observation

The sumptuous display of pastries, bread, rolls, were cooked with Best Yeast by the cooks and were on display for the ladies at Heron Bay.

---

e a Tractor, Motor Graders, etc.?

The Caterpillar Tractor Company has published new aids to equipment operators.

Maintenance Guide
(Engineers - Electric Sets - Marine Engineers).

Motor Grader Operator's Guide.

Well-illustrated in diagramatic form and printed in colour each operator should read one.

Copies will be supplied on request from
Powell Equipment Company Limited
115 North Cumberland Street,
Port Arthur, Ontario.

———o———

The famous Mesabi iron ore range in the U.S. covers an area 100 miles by 3 miles; Canada's new Labrador iron discoveries extend over a known area of 225 miles by 60 miles.

* * * *

Canada's Patent Act defines an invention as any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in the same

—Quick Canadian Facts.

THE WORLD'S MOST PORTABLE SAWMILL
"Proven in the Woods"

§ SETS UP FOR SAWING IN 30 MINUTES

§ READY TO MOVE 15 MINUTES AFTER SAW STOPS

§ CAN BE TOWED BY TRUCK AT 45 M. P. H.



JACKSON LUMBER HARVESTER

A real aid to good Forestry practise, the Jackson Lumber Harvester makes selective cutting practical. A precision-built one-piece machine that requires no costly dismantling or reassembling. Only one skilled man is required. The sawyer rides the carriage and can see and control the entire operation and cut to higher yield per log, fewer mis-cuts. The Jackson Lumber Harvester manufactures accurate lumber at 5 man-hours per 1000 board feet. No slab or sawdust disposal expense. Costly loghauling virtually eliminated. Feature by feature, it actually excels mills costing 3 times as much — gives you bigger profits — the first new sawmill in 50 years!

Now used by large Lumber Companies, commercial operators, Farm-to-farm Custom Operators.

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MECHANIZED LOGGING SPECIALISTS — WOODSTOCK, ONTARIO

WOODLANDS SECTION, C.P.P.A. SUGGESTION NOTES

Here are the Suggestion Notes released by the Woodlands Section, C.P.P.A., as a result of their October contest.

(1) Fire Hazard Sign — by B. H. Fearon.
(2) Ice Loader—by A. Casey and L. D. Bertrand.
(3) Small Boom Chains—by Rene Jourdain.
(4) Truck Unloading Devices—by C. Furlatt.
(5) Snowmobile Trailer — by V. Gingras.
(6) Method of Raising Logs—by Jean Rouleau.
(7) How to Push Over A Leaning Tree — by E. W. Massicotte.

In order to encourage employees of member companies to send in their suggestions, the Woodlands Section, C.P.P.A., have available for distribution posters giving details of the contest rules for employees to take part in the suggestion note contest.

Come on Northwestern Ontario woods employees, pass out your suggestions and help loggers in other areas in Eastern Canada!

—o—

The combined area of the Great Lakes is 95,170 square miles, more than a third of the area of the Province of Alberta.

This booklet is printed on "Thrift-Coat Enamel" manufactured at Provincial Paper Limited, Port Arthur Mill, Ontario, out of wood produced in Northwestern Ontario and printed by the Consolidated Press, 137 South May Street, Fort William, Ontario.

Book Review

"CANADIAN WOODS, THEIR PROPERTIES AND USES"

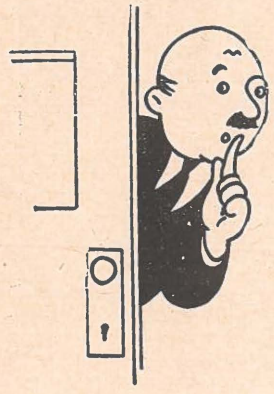
Forestry Branch, Forest Products Laboratories Division, Resources and Development, Ottawa. 367 pages 8½" illustrated. 2nd Edition, King's Printer. $3.00. Ottawa, 19

The Forestry Branch has produced two magn volumes in the past two years—first "Native T Canada." and now "Canadian Woods." No for dustry executive, forester or user of wood pr will fail to gve this fine new text a prominen on his desk.

The foreword by Dr. D. A. Macdonald, poi the years of research in wood properties and uti behind this edition. The rapid advances made use of wood; reducing industrial wastes, creati products and adding to industry payrolls and have largely come from basic research, inte applied.

To give final authoritative character to thi the Department has used signed chapters by nized specialists. Combined with good illust new tables and a select bibliography, "C Woods" is a credit to its contributors and the Branch sponsoring the publication.

A review in FOREST AND OUTDOOR magazine by Camp of the Canadian Forestry Association. The Edit mends this book to readers of the LOG BOOK.



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British Columbia.
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To create deep pools that won't freeze where they may build their homes and store their winter's food.

(Material supplied by the Editors of Quick Canadian Facts, the handbook of facts about Canada.)

BUSH RADIO NETWORK TIES IN H CIVIL DEFENSE WORK

(Continued from Page 11)

Mando needed a dependable communication system could reach all sections of this virgin land, where pulpwood is harvested and where the first step i er making begins.

FM radio answered the need.

Its voice, mightier than legendary Paul Bunyan's keeps these remote camps in constant touch with mill towns at Kenora, Fort Frances and Internationa Falls. Over invisible airwaves the countless communica- ns that direct the operations of Mando's complicated ging program pour daily. Personnel must be tran- red from camp to camp. Machines break down ar air parts are needed in a hurry. Weather forecasts m the outside world are necessary for efficient oper- ns. These are but a few of the things that spell the d for a sound communication system.

Because of the necessity of such a system, Mando installed the two 250-watt stations at Kenora and Fo Frances in 1946. Last year (1950), the International Falls mill installed a 250-watt station. During the five years since its inception, the FM network has grown so that it includes 73 sub-stations manned by well-trained operators who have served their company, their communities and their Nations with unique effectiveness.

Editor's Note

OTHER COMPANIES' NET WORKS AND "PERSONNEL" WILL BE UTILIZED

There is no doubt that the radio networks of other companies and woods personnel will be organized and tied in with the Civil Defence program in Ontario. In addition, the tower and radio network of the Department of Lands and Forests will also be used in detecting and reporting aircraft.

PRINTED REPORT OF THE MINISTER OF LANDS AND FORESTS NOW AVAILABLE

The 1951 Report of the Minister of Lands and Forests covering the activities of the Department for the period April 1st, 1949, to March 31st, 1950, is now available. Copies may be ordered from the King's Printer, Toronto, Ontario. This report should be of interest to all persons in Ontario — especially those working in or getting their livelihood from the woods.

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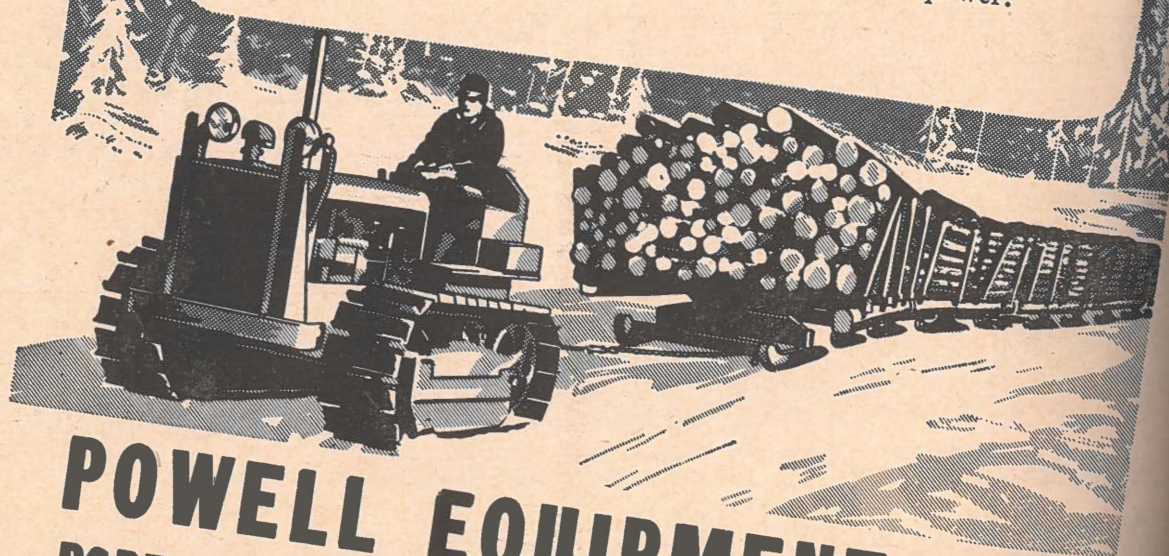
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WITH "CATERPILLAR" DIESEL POWE

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Take on bigger loads, a more profitable load, with "Caterpillar" Diesel Tractors. See us for more details on this profit power!



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