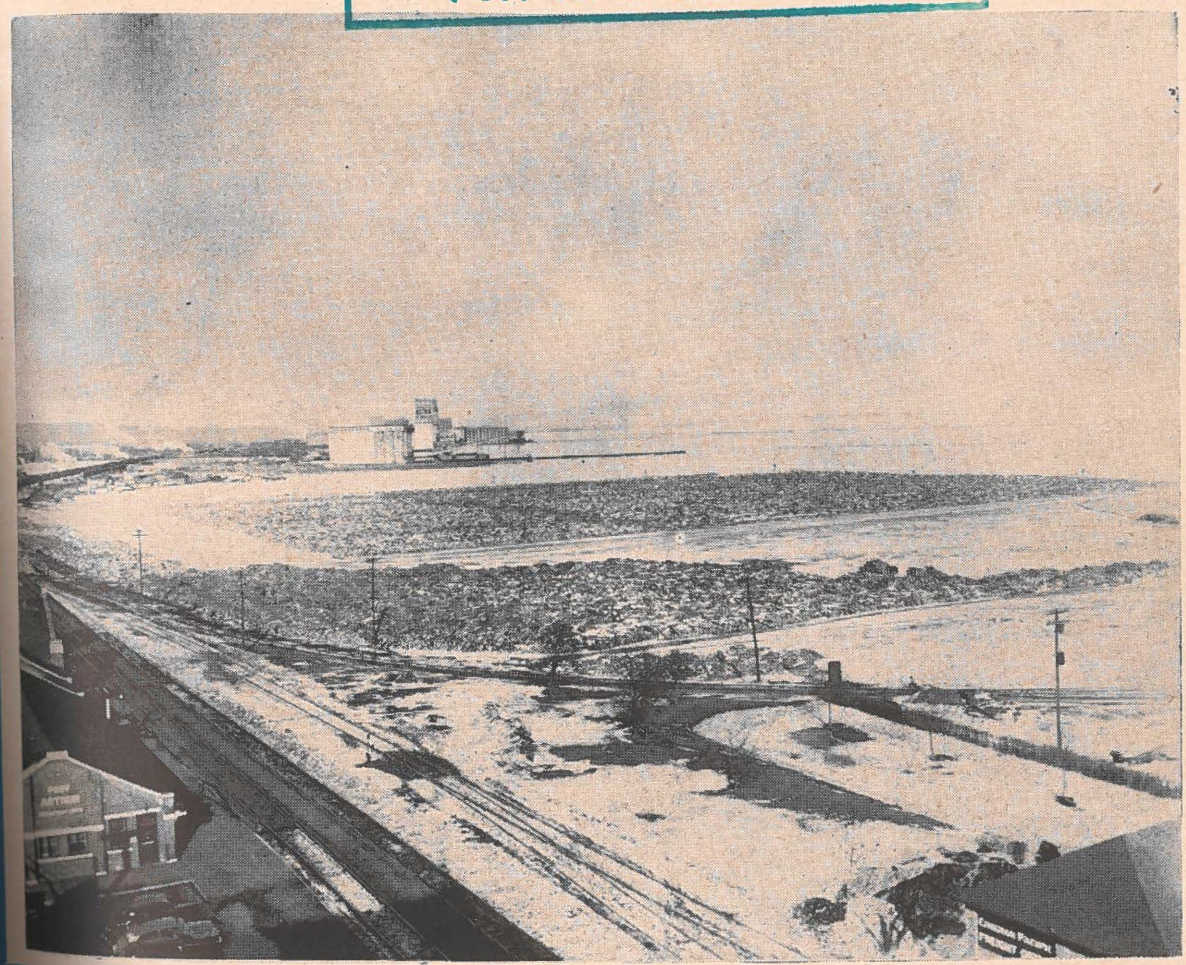
NORTHWESTERN ONTARIO TIMBER OPERATORS' ASSOCIATION

LOG BOOK

MARCH
APRIL
1954

VOLUME 5 PORT ARTHUR, ONTARIO No. 6

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Port Arthur, Ontario



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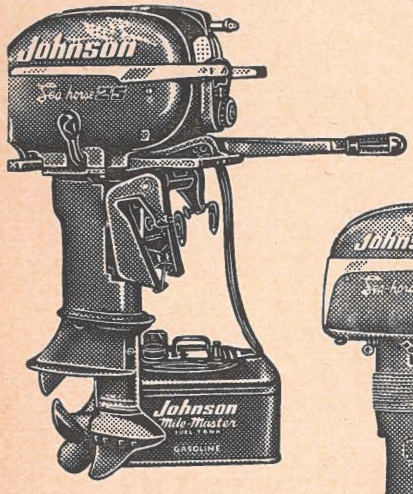
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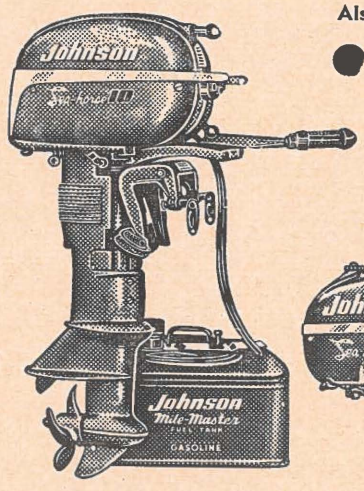
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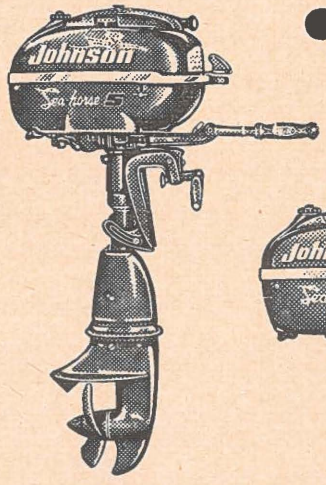
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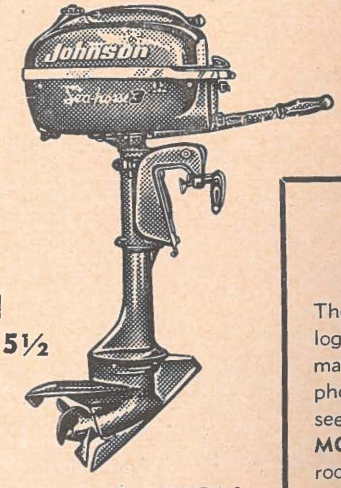
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Published by
Northwestern Ontario Timber Operators' Association

Edited by
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President's Message

This March-April issue of the LOG BOOK marks the ending of the 1953-54 season and the start of the 1954-55 season.

We had a fairly good year in 1953-54. Production was a little higher than the previous season and more men were employed. It's too early to know the overall "picture" for the coming logging year but I predict it will be as good as last year and, perhaps a little better.

At this time, I request all operators to give some thought and make some plans for the 1954 forest fire season. Woods operators in Northwestern Ontario know the results of an active forest fire prevention campaign. We must not relax our efforts but redouble them.

Let's do everything possible to ensure that our woods operations and woods workers are not responsible for any fires in 1954.

H.H. "Bert" Styffe,
President

Important Meetings

April 20th, 1954 — Annual Meeting of the Lumbermen's Safety Association, North Bay, Ontario.

April 22nd and 23rd — Canadian Forestry Association sponsor conference in Ottawa on "Policy For Canada's Renewable National Resources," Chateau Laurier, Ottawa, Canada.

April 30th — Annual Meeting Northwestern Ontario Section, Canadian Institute of Forestry, Port Arthur, Ontario.

May 17th to 24th — Forest Conservation Week in Canada.

Copies of "Guide" Still Available

Copies of "Guide to Foremanship and Logging Camp Operation" by L. M. Lein are still available from the Northwestern Ontario Timber Operators' Association, 3 Tomlinson Building, Port Arthur, Ontario.

These are being sold at 25c each and are highly recommended to be given to junior supervisors and other young men who are "coming along" in the industry.

D. C. Everest To Speak at Annual Meeting of Northwestern Ontario Section, C. I. F.

Officers of the Northwestern Ontario Section, Canadian Institute of Forestry, announced that the Annual Meeting of this branch will be held April 30th in Port Arthur, Ontario.
Mr. D. C. Everest, Chairman of the Board, Marathon Paper Mills Corporation, will be guest speaker.

C. B. Davis Addresses Port Arthur Rotary Club

Mr. C. B. Davis, Woodlands Vice-President of the Abitibi Power and Paper Company Limited and president of the Ontario Forest Industries Association addressed the Port Arthur Rotary Club on the subject "Labour, Human and Public Relations" recently.

Speaking of the woods industry, Mr. Davis told the service club: "I can't think of anything this industry has not been accused of concerning the management of the forests in its charge"

"It has been accused from many platforms and in many papers of wantonly destroying the forest through over-cutting, failure to plant a tree for each tree cut; abusing its employees; having far more forest than it needs; closing the forests to its rightful owners, to you and me, the public; and on and on ad infinitum."

"To date," he continued, "the industry has not done much to get across to the public the facts and so long as it fails to do so, there will be many more damning speeches made and words written."

"Information on the credit side of the industry," he said, "which could be easily proven, included:

That the forests are of more vital importance to the industry than to anyone else because they furnish the very lifeblood of the mills, and therefore must be protected and sustained forever."

That the forest were not being overcut, they are being undercut."

Forest laboratories, plantations nurseries and operating treatments near the Lakehead and elsewhere are being used to try to determine whether the forest can do a better job than man in the matter of regeneration."

The industry does not as a whole have more forest than it needs. Each ton of paper produced daily here, for example, requires an investment of $175,000 in plant and facilities," the speaker said. "Such an enormous investment needs long term security and the fact is, a constant battle must be waged against fire, insects and disease to ensure our forests will provide the continuous supplies needed."

Employees in the industry, at the Lakehead and across the province, were among the highest paid and best cared for in the world today."

The industry does not close the forest to you and me — it cannot. It can close a road it has built at its own expense so that life and property, including the forest, may be protected."

"Good human relations", Mr. Davis concluded, "require that these things be told to, and shown to the public, in a clear and interesting way, so that real support to honest effort might be forthcoming."

"It doesn't matter whether one talks about labor relations, public relations, or human relations, the things that really count are integrity, sincerity and performance. If one has these things, good relations must follow."

The Contribution of Aerial Photography to Forest Management

By K. W. Hearnden

"Forest Management" is, indeed, a popular subject for discussion and writing these days, not only for the governmental and industrial agencies which are expected to do something about it, but also for the public which is reminded periodically by legislators, individuals and special groups that our forest lands must be scientifically operated for perpetual yield. Concepts of the manner in which this art should or will be practiced range from the popular "plant a tree for every one cut" to the equally impracticable "select and mark every tree to be cut." Foresters, whose job it is to study and develop economical methods of logging which will ensure maximum growth and reproduction of our forests are working on these problems and while they are not always in agreement as to methods, it is accepted that whatever we do in the woods should be guided by long term forest management plans. These plans, under which most timber companies are now operating, indicate the total volume of wood which may be cut annually and in perpetuity on a given concession or block. They are based, chiefly, upon timber inventories which show, for any given area, the acreage occupied by softwood, mixed wood and hardwood stands, by age classes, and the volumes, by species, which they now contain. It will be appreciated that the task of securing all this basic information, particularly when several thousand square miles of woodlands are involved, as is common in Northwestern Ontario, could be a long and costly one if a thorough job is to be done. This was the case, until recent years, when survey parties spent many months travelling the limits, systematically cris-crossing large areas at regular intervals, mapping lakes and rivers and sampling the stands encountered. A good deal of time was spent, inevitably, in crossing unproductive areas, burns, muskegs and unmerchantable stands which would have been avoided if possible. In recent years, however, this picture has been changed, radically, by the advent of aerial photography.

A pioneer in the use of aerial photographs in conjunction with forest surveys was Roland Craig, Chief of Surveys for the Forestry Branch of the Dominion Government. In 1926 he was able to obtain the services of the RCAF in photographing areas in Manitoba for which a forestry inventory was required. While the oblique photography provided was not altogether suitable, he was able to group the stands on the photographs, eliminating poor stands and waste areas which required no examination by the survey parties. As a result the survey was completed in two years, rather than the estimated 6 to 10 which would have been spent without the aid of aerial photographs. By 1930 H. E. Seeley, of the Dominion Forest Service, had carried his research in the use of aerial photographs to the stage at which he had developed methods for the measurement of tree heights on both oblique and vertical aerial photographs, and of using tree heights to estimate volumes of wood in stands. Shortly after this he perfected the first satisfactory instrument for transferring forestry detail from aerial the photographs to base maps.

Better cameras, films and photographic interpretation methods were developed during the war and values which had never been attainable before were being derived from aerial photographs.

In 1946 the Department of Lands and Forests of Ontario embarked upon an immense project, the well known forest resources inventory. If it had been economically possible to support a survey of this scale 30 years ago, it would have been impractical, nevertheless because of the many years of field work which would have been required—so many, perhaps, that the inventory would have been out of date by the time it was completed. The decision of officials in the Department to use aerial photography in the inventory of the Ontario was well taken and greatly reduced the time required to complete the project. By 1948 most of Northwestern Ontario had been photographed and 4 inches to 1 mile vertical aerial coverage of large areas could be secured for inventory purposes.

Timber companies holding woodlands under lease from the Crown are required to submit inventory estimates and type maps covering the areas held to the Department of Lands and Forests, and to prepare long term forest management plans showing, in some detail usually for a 100 year period, where logging will be conducted, what volume will be cut annually, the locations of main access roads, camps, dams, and the other developments. There are definite limits to the amount of time and money which can be spent on stock-taking and general planning. The industry was therefore quick to adopt measures which gave promise of economically obtained, satisfactory results and developed methods for securing the maximum of information from the aerial photographs with a minimum of time spent by survey parties in the field. Thanks to the efforts of Seeley and other investigators it is now possible to complete a forest inventory for as large an area as 10,000 square miles in little more than one year.

The picture of forest areas that is now available through aerial photographs enables the forester to plan operations for many years ahead, to establish the locations of future logging areas, and to select the best locations for main access roads and camps. The value of this planning to any company will be obvious, for the day has passed when camps could be located at random in what seemed to be endless areas of good timber drained by rivers and lakes offering economical transport of the annual cut to the mill.

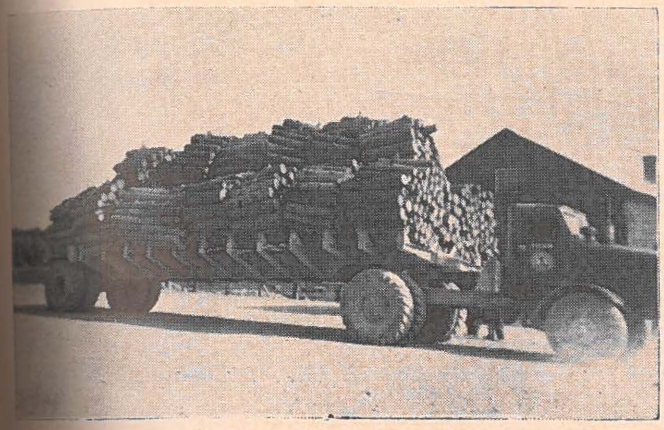
Aerial photography is now taking an increasingly important place in the annual and short term planning of woodlands operations and development. The degree to which aerial photographs are used in completing detailed operational surveys varies considerably from company to company in Northwestern Ontario. The majority prefer to carry on with intensive, systematic surveys usually involving cruise lines spaced at 660 feet intervals on which sampling is done by means of plots or continuous tally. In this case the aerial photographs are used only to assist in the location of forest type boundaries, to provide information as to waste areas which need not be sampled and as to topographical features which will be recorded on the base maps.

Although the scale of aerial photography now available to most companies, i.e., 1,320 feet per inch, is not as large as could be desired for operating cruising and volume estimation, a few companies have made definite efforts to reduce tthe amount of "leg-work" and costs, which must be expected when detailed inform-

(Continued on Page 16)

Available for Experiment

Euclid Tractor and Semi-Trailer



The Tractor is powered with a 275 H.P. "Cummins" Diesel Motor. Trailer is 40 feet long and 12 feet wide. Trailer can be modified for different length pulpwood and logs for various operations — load capacity 50 tons.

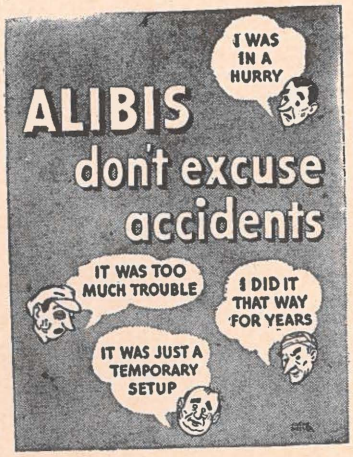


Designed especially by Euclid for G. H. Godsall Equipment Ltd. in an effort to obtain a unit suitable for the Pulp and Paper industry in Canada on long hauling on all-weather road direct from bush operations to mill site.

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PORT ARTHUR, ONTARIO



ANNUAL MEETING

Northwestern Ontario Woods Branch, Ontario Pulp and Paper Makers' Safety Association

The Annual Meeting of the Ontario Pulp & Paper Makers' Safety Association, Northwestern Ontario Woods Branch, was held in Port Arthur on February 25, 1954. Mr. A. L. K. Switzer, Assistant Manager, Woodlands, LongLac Pulp and Paper Company Limited, was elected Chairman. Other officers elected were:

Honourary Chairman — P. V. LeMay
Past Chairman — G. K. Eoll
Vice-Chairman — R. A. Hallonquist
Secretary — A. Walterson
Executive Member — T. S. Jones

At this meeting the film "Safe Cutting and Piling" which was made under the auspices of this Branch with the approval and financial assistance of the parent body was shown. This is a 16mm. colored talkie and should be of great assistance in showing new employees safe methods of cutting and piling. It will also bring out for old employees the common hazards encountered in this phase of the woods operation.

New Films To Be Made

The Association has undertaken to produce two more films in 1954 and the first one will be on River Driving.

It was recommended to the parent Association that the following be appointed as a Film Production Committee:
H. K. Campbell, G. K. Eoll, L. M. Lein, John Currie T. S. Jones and F. L. Stevens along with Mr. D. B Chant, Secretary-Engineer and a representative from Class 1.

Safety Code

This subject which had been studied at a previous meeting held in Fort Frances, Ontario, was again studied during the morning session. Several recommendations were made in respect to proper care and use of various hand tools as well as suggestions to cover axe injuries and injuries caused by rolling or sliding logs. This study is to be continued at the next meeting.

Address by Dr. S. J. Navin

Dr. S. J. Navin, Resident doctor at the Marathon Paper Mills of Canada operations at Caramat, addressed the group on his impressions of safety in the woods gathered from his seven and one-half years' experience. This excellent address was appreciated by all present.

Safe Clothing

A poll was made of the member companies to find out the various reactions to the use of safe clothing in the woods.

Several companies indicated that it is their intention to make it compulsory for all employees to wear hard has, safety clothing and buoyant clothing where applicable.

It is the considered opinion of the Safety Association that the use of safety clothing will prevent many accidents and also cut down on the severity of those that do happen. It is to be hoped that the co-operation of all concerned will be given to this very active effort to prevent and cut down the severity of injuries.

Abitibi Sault Ste. Marie Division Wins Trophy

The Abitibi Power and Paper Company Limited Sault Ste. Marie Division, which operates at Regent Ontario, won the 1953 Ontario Pulp & Paper Makers Safety Association Award for woods operations.

Congratulations to Woods Manager Max MacLagan and members of his staff for their leadership to the employees of the Sault Ste. Marie Division in taking part in the safety program which achieved the excellent record in 1953.

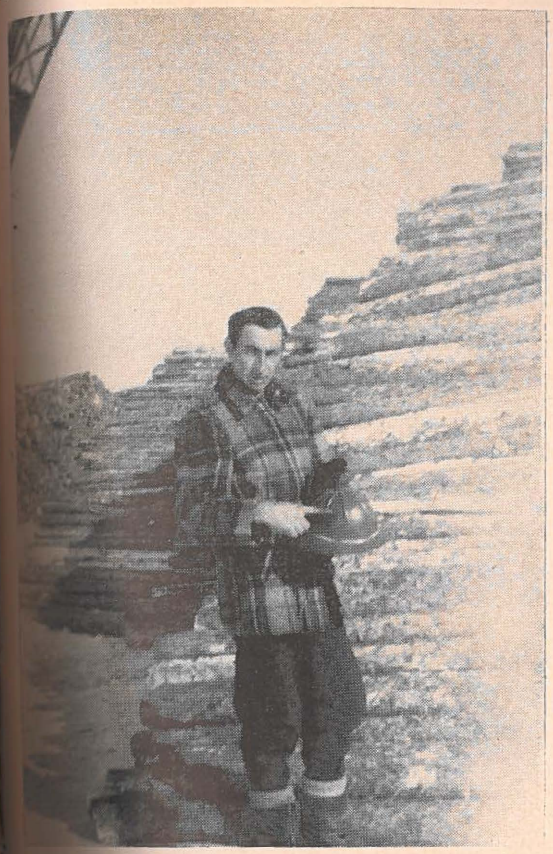
(Additional Safety News on Page 20)

ORDER YOUR REQUIREMENTS NOW . . .

Our new Wholesale Hardware warehouse is modernly equipped to serve the Logging, Lumbering and Mining Industries; the Retail Stores; Plumbing, Heating and Building Contractors in Northwestern Ontario.

COCHRANE HARDWARE (PORT ARTHUR) LIMITED

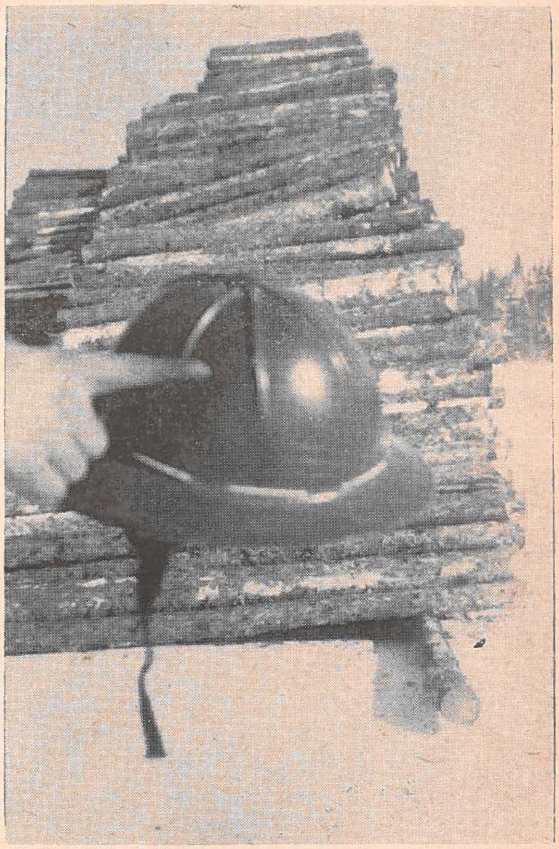
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Hat Saves Life?

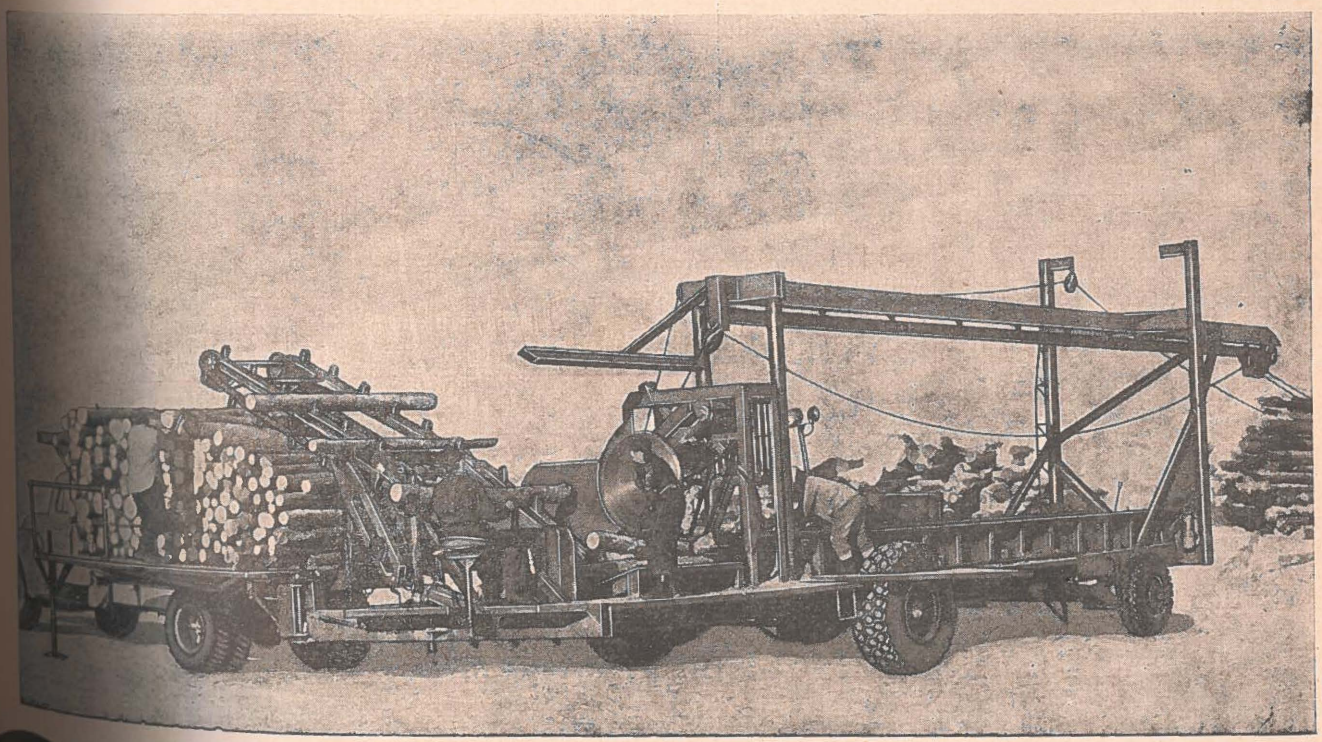
Here's the story—

Mr. Norbert Lafontaine, an employee of the Newaygo Timber Company Limited, Mosher, Ontario, a sling-man unloading pulpwood with the steam crane crew, was standing a short distance from the crane with his view slightly obstructed by steam from the crane, and as the cable slings were pulled free from the bundle of pulpwood being dropped, they snapped back hitting him on the head and bruising his nose slightly. The safety hat was knocked off his head by the force of the blow and took a chip out of the hat. It is apparent that the blow was fairly severe and without the safety hat, likely a serious injury would have resulted. The employee himself is certain of this and has become a real booster for the safety hat.



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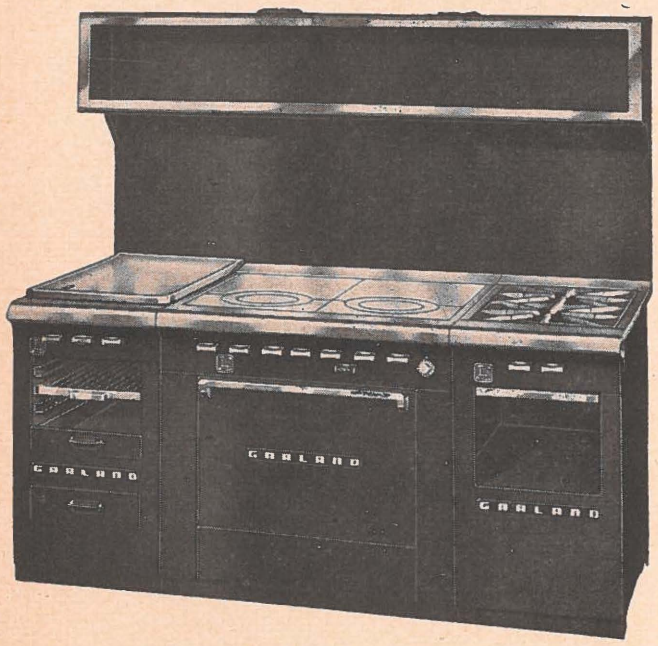
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This is an excellent Heavy Duty Unit with Hot Top, Griddle, 2 open burners and 1 Automatic Oven . . . Ideal for 50 - 70 man camp . . . . . Any combination of griddles, Hot Top Sections, Multiple Automatic Ovens available to suit your needs.

For Timber Camps, large or small — a size for every need.

The savings and efficiency of a camp or catering operation using Automatic Propane is phenomenal

As an example—

A 100-men camp operator usually enjoys savings in excess of $100 per month. Fuel costs are ¾ to 1¼ cents per meal.

Let us show you some of the performance records.

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- FULLY AUTOMATIC OVENS
- FAST AND EFFICIENT AND ABOVE ALL — ECONOMY
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Kenora Board of Trade Visits Mando Bush Operations

A tour of Mando Camps 311 and 314 of the Ontario-Minnesota Pulp & Paper Company Limited, Kenora Woods Division, was made recently by members of the Kenora Board of Trade. E. E. Crandall, resident manager; Emmitt Anderson, plant superintendent; C. W. Roark, Woods operation superintendent; A. E. Minor, Safety Supervisor; and E. L. Carter, office manager, acted as hosts.

T. A. O'Flaherty, President of the Board of Trade, expressed appreciation of the Company's courtesy in seeing the operations first hand.

A newspaper account of the trip ended as follows:

"It's a pity more citizens could not view these extensive bush operations, which gives some 600 men annual jobs in harvesting the lumber crops for the Kenora paper mill."

Lake of the Woods Section, C. I. F. Meeting at Mando Camp L-309

The program for the meeting was arranged by S. N. Golder of Fort Frances, Ontario.

A tour of Camp L-309 operations conducted by camp foreman, K. Conlon, showing skidding and loading techniques proved to be of great interest to all attending.

A committee consisting of Lou Ringham of Kenora and William Cleavely of Fort Frances was set up to investigate the various avenues of accomplishing the importance of bringing forestry and forestry techniques into the public eye.

B. Seppala discussed bush road development in the region.

LAKE OF THE WOODS SECTION, CANADIAN INSTITUTE OF FORESTRY ELECTS OFFICERS

At a recent meeting of the Lake of the Woods Section, Canadian Institute of Forestry, held in Dryden, the following officers for 1954-55 were elected:

Chairman — Graham A. Cox, Kenora
Vice-Chairman — Carl V. Pochailo, Kenora
Secretary — James R. Keddie, Kenora
Councillors — Noel Golder, Fort Frances
Lou Ringham, Kenora
Robert Bunney, Dryden

A committee was appointed to draft a series of articels on general forestry practice to be submitted to local papers for publication.

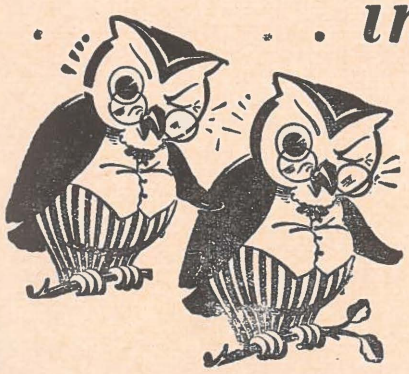
ADVERTISERS' NEWS

A new 150-horsepower 4 - wheel tractor has been announced by Caterpillar Tractor Company. The new tractor, the DW15, is powered by a Cat 6 - cylinder D326 Diesel Engine, producing 150 hp at 1800 rpm with 5⅛" bore and stroke.

For further information see the Powell Equipment Company Limited of Port Arthur.

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PORT ARTHUR GIBSON MOTORS LIMITED FORT WILLIAM

Authorized Ford Dealer — Thunder Bay District

Last Year's 1953 Score

Number of Fires By Month

	Fort Frances	Kenora	Sioux Lookout	Port Arthur	Geraldton	White River	Kaspuskasing	Northwestern Ontario Total	Province of Ontario Total
March	—	—	—	—	—	—	—	—	1
April	5	13	3	7	3	1	—	32	119
May	15	48	14	36	11	3	—	127	373
June	—	4	2	1	—	4	1	12	104
July	4	8	4	6	1	3	—	26	148
August	5	9	8	6	10	17	10	65	453
September	2	2	1	—	1	4	1	11	107
October	3	6	1	3	—	1	3	17	121
November	—	—	—	—	—	1	—	1	94
TOTAL	34	90	33	59	26	34	15	291	1520

Causes of Fires

Settlers	9	7	3	11	—	—	1	31	92
Campers	8	23	9	14	8	3	4	69	388
Smokers	11	14	3	7	—	5	1	41	279
Prospectors	—	—	—	—	—	—	—	—	1
Incendiary	—	3	—	—	—	—	—	3	19
Logging	—	1	—	4	1	1	—	7	24
Mining	—	—	—	—	—	—	—	—	2
Railway	—	18	5	15	9	6	4	57	188
Road Construction	—	1	—	1	1	—	—	3	13
Lightning	3	12	6	6	7	16	4	54	357
Miscellaneous	2	11	5	1	—	3	1	23	143
Unknown	1	—	2	—	—	—	—	3	14
TOTAL	34	90	33	59	26	34	15	291	1520

Means of Detection

Rangers	9	10	7	10	1	3	1	41	122
Towers	2	35	3	17	—	8	3	68	528
Air Patrol	13	14	7	5	7	8	3	57	216
Public	10	31	16	27	18	15	8	125	654
TOTAL	34	90	33	59	26	34	15	291	1520

Acreage Burnt

Total Acreage Burnt	11,343	326	189	7,795	282	109	50	20,094	58,809
Acreage Burnt by Logging Operations	—	.06	—	4½	2 sq. ft.	1	—	5½	810

Coming!
Coming!
Coming!

The 1954 Fire Season Let's Better Last Year's Score!

Before looking into the coming "attraction" and going into the details of what YOU, YOU and YOU must do to prevent forest fires, and keep those that do start down to a minimum acreage, it is best that we review the past season.

In Northwestern Ontario in 1951, there were 16 fires attributed to logging operations out of a total of 326. In 1952, there were 10 out of 423 and in 1953, there were 7 fires attributed to logging operations out of a total of 291.

Our record is improving. Every effort must be made to improve our record until we reach our objectives which are:

NO FIRES STARTED BY WOODSWORKERS.

A FIRE-FIGHTING PLAN FOR EACH AREA.

FIRE CREWS ORGANIZED— TRAINED AND READY.

QUICK ACTION TO PUT OUT FIRES.

Check the causes of these fires attributed to logging operations and ensure that they do not happen in your operations:

1953

Kenora District — 1 — Caused by smoker on a small pulpwood operation. .06 acres.

Port Arthur District — 4 — Three burning sawdust piles after snow melted, no damage. One probably employee smoking in cutting area. 3¼ acres cut-over land.

Geraldton District — 1 — Employee smoking, put out by another employee, 2 square feet damaged.

White River District — 1 — Believed caused by smokers, 1 acre.

1952

Kenora District— 1 lunch fire
2 employees smoking.

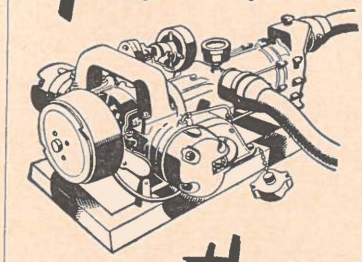
Sioux Lookout District— 3 burning sawdust piles.

Port Arthur District— 1 employee smoking.

Geraldton District— 2 faulty truck exhaust.

Kapuskasing District— 1 discarded cigarette.

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Sioux Lookout District— 5
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- 1 put ashes from cook stove in bath house
- 1 overheated stove in bath house
- 1 smoking by boat crew.

Port Arthur District— 1 smoking

Geraldton District— 1 lost cutter lighting signal fire.

Kapuskasing District—
- 1 smoker on speeder
- 1 camp contractor crew stove
- 1 brush burning around camp site
- 1 broken muffler on truck.

White River — 3— 2 smoking
1 lunch fire.

The Power Saw As An Accident Hazard

By W. Lockhart

Power saws have created a new method of cutting pulpwood with a machine that is both helpful and potentially dangerous to the operator. Within the last three years large numbers of them have been purchased and used by woods workers who were unskilled in their use and safe handling. The woods worker was left almost entirely on his own to learn about them and the result has shown in accidents of varying severity. It is now obvious that proper training and due caution can do much to eliminate accidents in which power saws are the agency involved.

Cuts are probably the most prevalent type of power saw injury and are generally severe due to the ragged laceration caused by the chipper type chain. Cuts can occur before the saw is taken to the woods if proper care is not exercised in conditioning and sharpening the chain. Once in use in the woods the power saw is only as safe as the operator. Experience has shown that the greatest danger of cuts lies in the operator moving around the immediate cutting area and "gunning the motor" which causes the chain to speed up. (Most saws are equipped with a clutch which slips when the motor is idling and this safety feature is lost when the motor is speeded up.) An operator runs the risk of very serious injury should he trip and fall while the chain is revolving rapidly.

Starting the power saw is a dangerous phase. The saw should never be placed on the knee or on a log when starting. It should be held firmly on the ground to lessen the danger of the saw falling or slipping around.

Falling objects create a very dangerous hazard to power saw operators. Experience has shown that an operator is in danger from objects falling on him when the saw is running due to his hearing ability being reduced. Windy days increase this hazard, particularly in mixed wood areas where poplar tops are apt to snap off. No power saw operator should work under dead, dry or leaning trees. He should fell them first so that he may safely turn his back on them.

Burns from hot motor parts and the possibility of gasoline fires create a hazard but these injuries can be eliminated by careful handling and by installing a separate power saw building in a camp where saws and gasoline can be stored and conditioned. No person should be allowed to run a power saw or work on a power saw in a dormitory and certainly no gasoline should be stored there.

Some injuries are caused by the operator falling when carrying the saw with the result that the saw falls on top of the man or the man falls on top of the saw. There is bound to be controversy over the proper way to carry the power saw but prevention of accidents of this nature depends entirely on the man.

Where men are transported to work by truck every care should be taken to place power saws in the truck in such a way that they do not become tripping hazards and will allow free movement for the men getting on and off. Saws should be placed on the deck until the man is safely on the truck or on the ground.

Branching trees or clearing brush with a power saw is poor practice and may cause serious eye injuries. Small twigs, etc. will jam in the chain and fly back, perhaps striking the operator in the face. No good operator will continue to jam his chain this way and therefore this is not a major problem.

Notching with a power saw is a common practice and is not dangerous if the notch is properly made through ⅓ of the trunk. The felling cut should be made evenly and it is up to the operator to move out of danger in case of twisting breaks or kick backs. There is a natural tendency to save the saw in these cases but reasonable insurance rates can free an operator of this worry.

The experience of Power Saw injuries at LongLac Pulp and Paper Company Limited, Woodlands has been as follows:

Year 1952

Case #1—Workman was bucking logs during a windy day. A poplar top broke off behind him and he failed to hear it snap because of the noise of the motor. The top fell on him fracturing his spine and causing paralysis from the waist down.

Case #2—Workman was bucking logs and a spruce tree behind him that was leaning over fell on him crushing his skull and causing death.

Case #3—Workman was walking with the saw running and the chain in motion. He tripped and fell causing the cutting chain to go between his legs causing severe lacerations.

Case #4—Workman was making a felling cut. The saw caught as the tree twisted and then the bias swung around inflicting a severe gash in the calf of his leg.

Year 1953

Case #1—Workman and partner were cutting up windfall timber. The saw jammed and the injured man tried to pry up the log with a piece of poplar limb. The pry broke as the saw came free and the injured man spun around falling on his back on the cutting chain.

Case #2—Workman was felling a tree which hung up. He attempted to butt the tree again and while the saw was in motion the tree fell causing the cutting chain to come in contact with his forearm.

Case #3—Workman was felling a tree which twisted on the stump causing the power saw to swing around and inflict a severe gash on his left leg.

To assist in a safety training program the manufacturer should issue a small booklet on the safe handling of the power saw incorporating pictures in the booklet. The dealer should also impress the purchaser with the importance of safety and the dangers involved in poor handling of the saw. This would create a system of safety continuity right from the manufacturer down to the woods operation.

The One-M

Power saws are here to stay! The number being is estimated that there are approximately one thou saw, while giving a higher production and more ea and accident.

The LongLac Pulp and Paper Company Limited h of the LOG BOOK the two articles on these pag

Power Saw

increased greatly during the past few years and it use in Northwestern Ontario. The use of the power man day, also introduces two new hazards, — fire

power saws on their operations and at the request prepared on the basis of experience to date.

The Power Saw As A Fire Hazard Problem

By W. R. Cooke

Over the past two years there have appeared in the various trade journals several studies of power saw fires, their cause and their prevention. This article endeavours to present only a basic outline of the present fire control policy on the LongLac Pulp and Paper Company's limits.

During the 1953 fire season there were a maximum of 175 power saws operating in the woods at LongLac. With these saws must come a definite and characteristic fire hazard.

The problem was first tackled at the Company's annual fire school early in May 1953. Several types of small (pocket size) fire extinguishers were subjected to test at this time. A special meeting of bush personnel was then arranged and the subject in general was thoroughly discussed by superintendents, foremen and strip bosses on the job. Extinguishers were again tested and a satisfactory design decided upon. A set of regulations for the safe operation of power saws was drawn up. It was borne in mind that these rules had to be brief and practical as they were for distribution to the saw operators.

After further discussion it was concluded that each power saw operator must carry with him at all times, one fire extinguisher of the designated type. Should this be carried in the pocket, on the belt, on the saw, or merely be kept near the saw? An extinguisher of sufficient size to be of any practical value was too bulky to be carried in the pocket. A cutter does not want any obstruction or hindrance strapped to his belt. Should the saw catch fire it would be impractical to have the extinguisher attached thereto. Thus it was decided that the extinguisher had to be kept separate from the machines and the operator but within a reasonable distance of the saw at all times. The type of unit finally decided upon was the simple tin can variety. Size 3½" x 5"; weight 1 lb.; contents carbon tetrachloride charged with a propellant. The unit is inexpensive and once used the container is discarded.

It should here be noted that the shovel is undoubtedly the most efficient fire extinguisher on the market. There are shovels in fire caches distributed throughout the cutting areas. It is felt that it is an impossition to ask the power saw operator to carry a shovel with him at all times. The Company's views in this regard however are subject to change.

The following set of rules was drawn up and distributed:

1. A fire extinguisher of designated type to be kept within 50 feet of the saw at all times.
2. Refuel saw on spot cleared to bare ground—e.g. skidding trails.
3. Permit hot saws to cool 2 or 3 minutes before refuelling.
4. Avoid spilling gas; use funnel or can with saftey pouring spout.
5. Do not smoke when refuelling.
6. Do not start saw within 10 feet of refuelling place.
7. Do not leave saw idling when unattended.
8. Set hot saw on log, stump, or bare ground. Not in dry duff or slash.
9. Keep saw clean of sawdust and inflammable material.
10. Clean carbon from muffler and cylinder ports at least once a week.
11. Check saw every morning for defective wiring, leaking gas, and general repair.

Saws were periodically checked in the bush by supervisory staff. Defective saws were banned until brought up to standard. Operators were obliged to fit their saws with the latest and best type mufflers on the market. Where a safe muffler was not available for a specific saw, screen mesh was used as an auxiliary spark arrestor. Any saws that could not be rendered comparatively safe were banned from the bush. Cutters were invariably most co-operative. These men would rather cut wood than fight fire.

Camp vans were stocked with fire extinguishers to be sold to saw operators at a reasonable price. Camp clerks were supplied with mimeographed power saw regulations. Camp foremen were advised that operators must be in possession of both these items.

As is often the case, the burden of enforcement falls on the shoulders of the Camp Foreman and his Strip Boss. The Company has endeavoured to keep its rules and regulations down to a minimum and to instigate only such regulations as are enforceable. There is much to learn and there is room for improvement. It is now felt however, that with constant and intelligent supervision, the power saw fire hazard can be appreciably reduced.



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L. T. I. Forestry Field Trips

By C. J. Campbell

Again this year the Staff of the Forestry faculty and the second year Technical Foresters enjoyed the privilege of visiting company operations to the west and east of the Lakehead. The trips were planned to give the party an opportunity to examine a broad diversification of logging methods.

During the Fall, cutting operations and some hauling operations were visited on Great Lakes Paper Company limits, Dog River concession; Ontario-Minnesota Pulp and Paper Company limits, Patricia concession and Dryden Paper Company limits, Dryden, Ontario.

As guests of Great Lakes Paper Company the group were afforded the opportunity to see methods of road construction; new ideas in the building of camp structures; loading and unloading methods used in the transportation of wood; water transport methods and landings.

As guests of Ontario-Minnesota Pulp and Paper Company at Camp Robinson, Red Lake Road: logging methods; sawmill facilities; landings; plantations and camp administration and organization were studied.

With Dryden Paper Company the students enjoyed seeing: a Gyppo operation in progress; construction of new roads; new camp construction; methods of water transport and finally organized trip through the Dryden Paper Mill where the rough pulp log was followed through to the finished paper product.

To study various hauling and wood yarding techniques the party travelled to the eastern portion of Northwestern Ontario the week of February 8th.

With LongLac Pulp and Paper Company, methods of logging which featured the use of 'the Swing-dinglie' proved very interesting. Transportation methods which featured the tractor-trailer haul; new camp and road construction; off-season landings; camp organization, recreation facilities and regeneration problems and practices were some of the highlights of the trip.

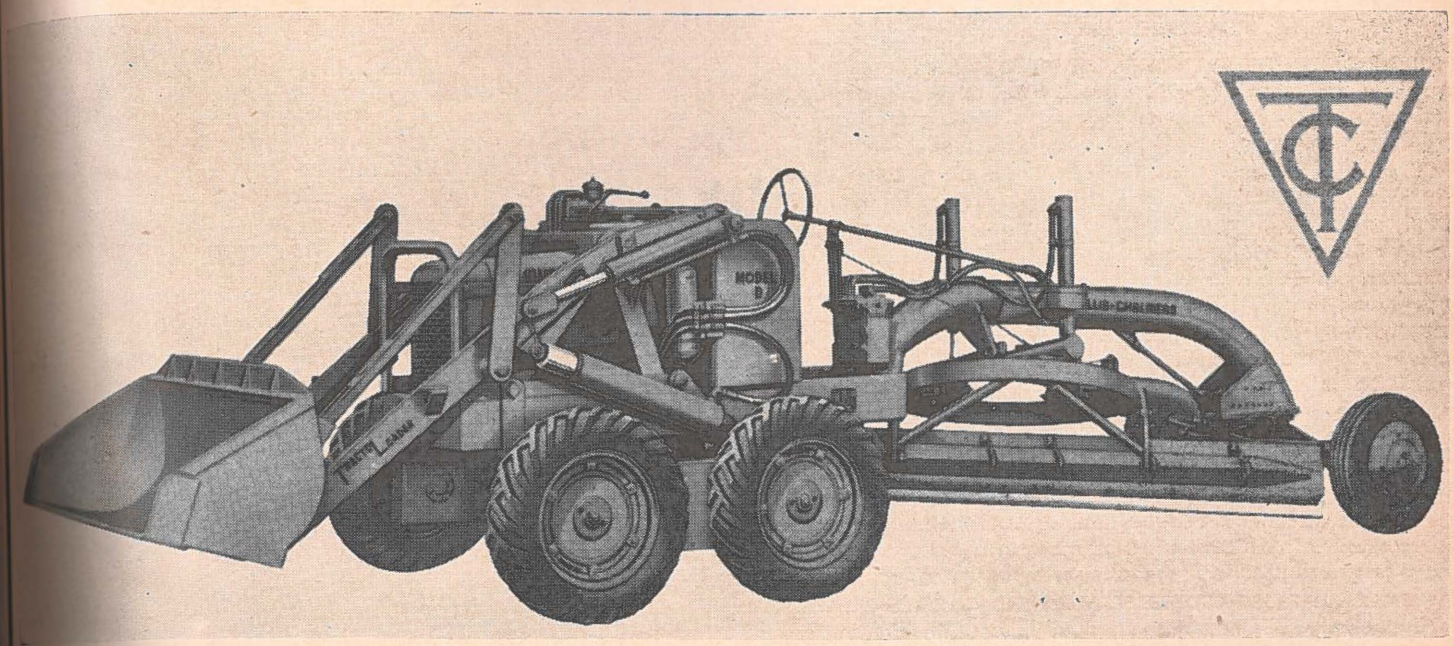
The visit to Marathon Paper Mills of Canada Limited operations afforded an excellent chance to see a fully mechanized logging operation in progress. Mobile slashers; a self-propelled high lead yarder under construction; high lead yarding of both bundle and tree length in operation; new camp layout and construction and a visit to various maintenance shops gave the students a complete picture of modern logging.

A short visit to Nipigon Lake Timber Company was highlighted by a good view of the truck-sleigh haul operation. Landings were also visited where the methods of organization and loading of landings was demonstrated.

Mr. D. M. Fisher, forestry librarian for Northwestern Ontario, accompanied the group. He is grateful for receiving the opportunity to observe forestry work in progress at the Lakehead and to meet the foresters in the field where he can discover their library reference needs.

When we first began making these trips 5 years ago the emphasis was on studying methods of logging. Although logging still dominates, opportunities to study forest silviculture experiments are rapidly increasing. Practically every company visited showed the party

(Continued on Page 16)



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THE CONTRIBUTION OF AERIAL PHOTOGRAPHY TO FOREST MANAGEMENT

(Continued from Page 4)

tion on every merchantable stand in a logging chance or on a watershed is required. Experience acquired during the past 5 years indicates that accurate operating base maps can be prepared in the office from photographs to show timber types, significant ridges, pitch-offs, drains and other topographic features, in advance of field work. If an experienced interpreter does this work it has been found possible to select the merchantable stands for which estimates are required and to eliminate those which appear to be unmerchantable, with satisfactory results becoming apparent as the field work progresses. Under this system it is not necessary to grid an area with systematically located lines or plots. The cruiser locates his lines in a random manner so that the maximum number of merchantable stands are sampled. The percentage of area sampled on any logging chance is low, ridiculously low it seems, to any conservative timber cruiser, often amounting to about one half of one percent, but the accuracy of the "new-fangled method" is shown when the scaled volumes cut on areas compared with the cruise estimates.

This is but a foretaste of things to come, however. methods are now being perfected whereby a complete accurate volume estimate, by species, may be derived entirely from aerial photographs by experienced interpreters. The scale of photography used for this purpose must be considerably larger than 1,320 feet per inch and of the best quality. The only ground work required will be to check such operating factors as cull, swamping, bottom and to provide information required by the operator. To many this will seem akin to visionary predictions of rocket trips to the moon and points beyond and perhaps like Buck Rogers, to be confined to the comic strips. There is every indication, however, that "aerial photographic cruising" will become possible considerably before man is able to flit about in outer space and that the timber cruiser will be able to swap his calipers, compass, chain and snow shoes for a stereoscope, some aerial photographs and simple instruments, within a few years. (This will be yet another contribution of forest aerial photography to the continuing need for economy and accuracy in the planning of woodlands development and management.)

The value of aerial photographs in enabling the selection of good main access and haul road locations is well known to all who have attempted to do this work without the assistance of photographs. On any major location project the possible savings when the search for a location is narrowed down to a few alternatives, clearly shown on the photographs, are considerable; and on construction can amount to thousands of dollars when a good location, which encounters minimum rock, grades and swamps is secured.

While certain photographic values, some of which have been described previously, can be derived only by specialists with considerable experience, there are obvious advantages appreciated by camp foremen, straw bosses and others who are directly concerned with timber cutting and delivery. The photographs give the foreman an actual picture of his logging chance and if he has a stereoscope he can locate the hills, draws, swamps and other features about which he must know when he lays out his main haul road system and so can reduce the amount of time he usually spends in scouting for suitable locations. There is no doubt that the value of aerial photographs in the woods has been established—a value which may be gauged by the declaration of one foreman: "I would hate to go into the bush without them."

It has become the policy of some timber companies to prepare cut-over maps from aerial photographs taken annually on conclusion of cutting operations by company owned equipment and personnel or secured through contract with organizations equipped to do aerial photography. Maps showing the exact location and extent of the cut-over, the location of haul roads and uncut patches of timber can be prepared from the photographs with an accuracy not attainable from any ground survey mapping, and at considerable saving in time and money.

In this brief article the value of aerial photography in some of the phases of woodlands development planning and operation has been discussed. As better photographic equipment and methods are developed, this value will increase to meet, to an even greater extent, the increasing needs for more accurate planning and economical production of forest products — both important phases of forest management.

One of a series of articles by members of the Northwestern Ontario Section, Canadian Institute of Forestry.

L. T. I. FORESTRY FIELD TRIPS

(Continued from Page 14)

or more silvicultural programs that they had underway.

On behalf of Mr. Braun, our Principal, the Forestry Staff, the Technical Foresters and myself I wish to thank these companies for this most valuable co-operation. I hope that these privileges will be extended to us again next year.



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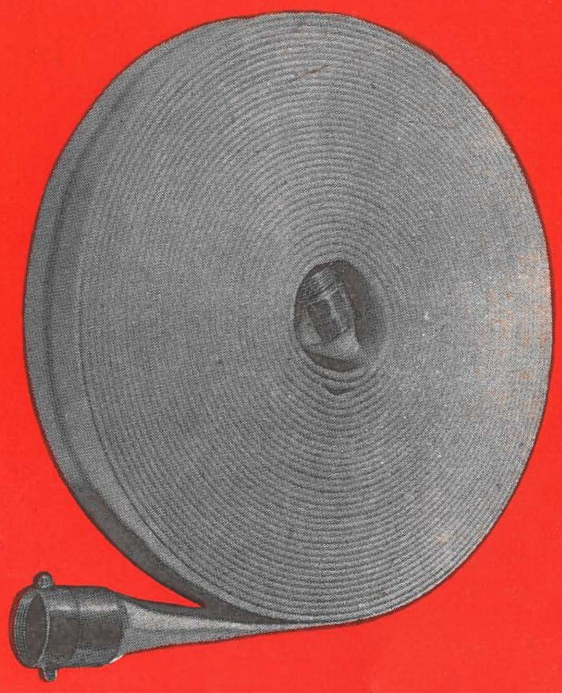
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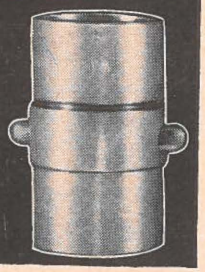
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Forest Tent Caterpillar Populations In Northwestern Ontario

By D. R. Wallace, Forest Insect Laboratory, Sault Ste. Marie, Ontario

The current outbreak of the forest tent caterpillar has been, and in some parts of Ontario continues to be, spectacular in more than one respect. The number of caterpillars increased tremendously over very large areas and was so great in many instances that after host tree stands of poplar, maple, and oak had been denuded, the caterpillars migrated in vast numbers in search of food. These migrating larvae interfered with the use of recreational areas and were generally a nuisance . Then numbers of the native fly **Sarcophaga aldrichi** Parker, an important parasite of the forest tent caterpillar, increased to such an extent that public concern recently has been centered on its abundance rather than on the prevalence of the tent caterpillar itself.

Local light forest tent caterpillar infestations were observed at a number of places in Northwestern Ontario in 1948. Even at that time an extensive outbreak appeared to be likely. In 1949 further increases in the severity of infestation and in the area affected more strongly indicated the build-up of an epidemic on a grand scale.

The major infestation area in the region in 1950 was centered south of Lac Seul, extending roughly 110 miles from east to west and 80 miles from north to south. Small pockets of heavy infestation were also prevalent in the Fort Frances District.

The 1951 infestation represented a fourfold increase in area over 1950. Trembling aspen stands in an area in excess of 20,000 square miles were heavily defoliated. Included were the south-central part of the Sioux Lookout District, the eastern half of the Kenora and Fort Frances Districts and the western third of the Port Arthur District.

Further increases in the infestation area in Northwestern Ontario were observed in 1952. Defoliation was heavy in trembling aspen stands over some 40,000 square miles as shown in Figure 1. Egg-band counts made in the Fall of 1952 indicated that population levels would remain high over much the same area in 1953.

The first ten days of May, 1953 were, however, unseasonably warm throughout Northwestern Ontario, causing trembling aspen buds to burst and the small forest tent caterpillar larvae to hatch. Then three four days of very cold weather occurred, accompanied by high winds, snow and sleet. This cold weather resulted in the destruction of the young trembling aspen foliage over large areas and at the same time killed a high proportion of the tent caterpillar larvae which had hatched. Those which survived the frost, or hatched later, starved for lack of food as re-leafing of trembling aspen did not occur until much later.

Reference to Figure 1 will show, however, that medium-to-heavy infestations materialized in certain areas, the largest of which was located around Lake of the Woods. Other infestations were present south of Armstrong near Lake Nipigon, west and south of Lake Nipigon, north of the Sibley Peninsula, and west of Port Arthur and Fort William. The continuance of severe tent caterpillar infestations in these areas seems dependent on the fact that at the onset of the cold weather the development of the trembling aspen foliage and hatching of tent caterpillar larvae were not as far advanced there as they were in the central part of the region. Even though heavy defoliation occurred in stands throughout the resulting 1953 infestation the number of forest tent caterpillar larvae was much lower than had been expected. In mid-slmmer parasites caused further reductions in population levels.

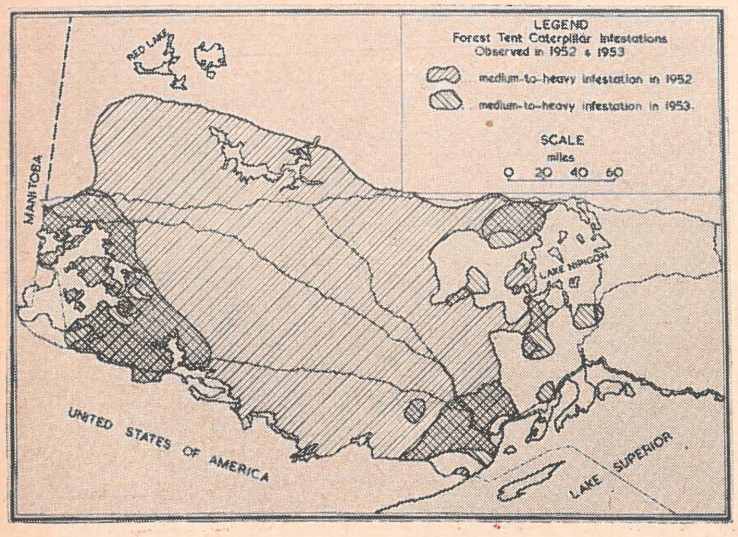
Thus the forest tent caterpillar outbreak was brought to a sudden and premature end in 1953 by adverse weather conditions over large areas of Northwestern Ontario. The heavy infestations persisting affected trembling aspen stands throughout some 7,000 square miles, about 1/6 the area involved in 1952. Throughout the remaining 7,000 square miles of severe infestation the cold weather has probably hastened the decline of the outbreak.

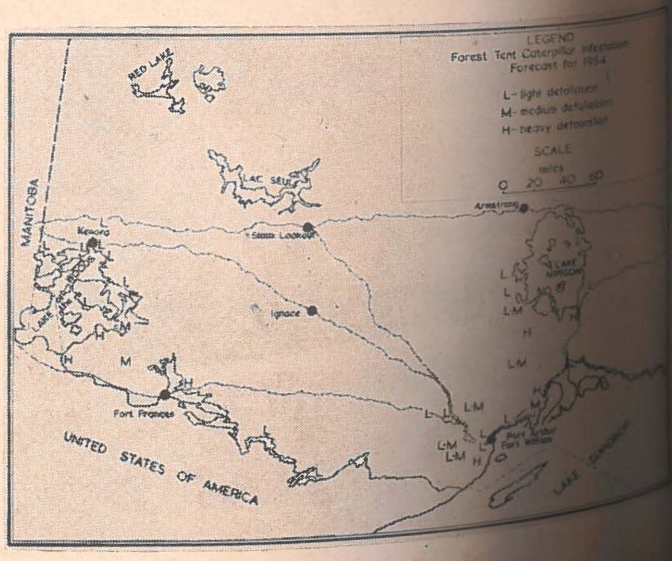
Forecast for 1954—

Egg-band counts made in poplar stands throughout Northwestern Ontario in the Fall of 1953 indicate that the forest tent caterpillar will again be present in 1954 in noticeable numbers in several areas unless some unforeseeable catastrophe occurs.

Infestations will be confined to much the same areas as were heavily infested in 1953 (Figure 1).

(Continued on Page 23)





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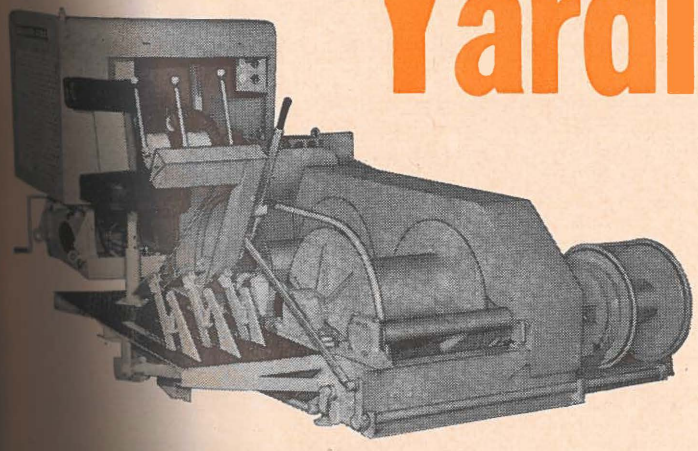
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First-Aid Training Program Well Underway

The Lumbermen's Safety Association have a very active program of first-aid training underway.

This program opened in December, 1953 with a class in Port Arthur under the direction of Mr. T. A. Love, St. John Ambulance Instructor, where 22 candidates from member companies at the Lakehead attended. Twenty-two certificates were awarded the successful candidates of this class.

Activity was shifted to the Hearst area where Mr. Everett E. Sliter, St. John Ambulance Instructor, undertook the instruction of classes organized by Mr. Roy Potts, Inspector for Northwestern Ontario, Lumbermen's Safety Association.

At the Northern Paper Mills Limited, Hansen, Ontario, 19 employees attended the afternoon first-aid class and 17 certificates were issued. In the evening class at Hansen, 24 employees attended and 21 certificates were awarded.

At the Newaygo Timber Company Limited, Mead, Ontario, 21 employees attended the evening class and 19 certificates were issued. At the Newaygo Timber Company, Mosher, Ontario, 22 employees attended and 18 certificates were issued.

At the Upper Canada Lumber Company, Boon, Ontario, 23 employees attended and 16 certificates were issued.

Thus, in the Hearst area in January and February 109 people took the first-aid training course and 91 passed the examinations.

In addition, the program is being carried out in the village of Hearst where 9 member companies will have members attend classes to be held twice weekly, and two classes are underway at the Henry Selin Forest Products operation, one at the Depot and one in the Camp.

This program of training large numbers of more or less permanent employees in first-aid is certain to produce results in prevention of accidents and when accidents do happen, having people with some knowledge of first-aid at hand ready to assist with the injured will certainly help.

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Worn Wire Rope Is A Hazard

At the Governor's Safety Conference in Olym Wash., last month one of the topics discussed "The Safe Use of Wire Rope." We think the fo ing analysis of factors which destroy wire rope wi of interest from a safety standpoint and possibl your efforts to control wire rope costs. It was pres ed to the conference by Charles Price, member of National Wire Rope Technical Board, San Francisc

1. Improper rope specifications. Imperfect size type.
2. Improper lay-out or alignment:
   Random winding
   Scrubbing on blocks
   Excessive stresses
   Poor visibility
   Improper sheave alignment.
3. Kinking.
4. Inadequate diameter of sheaves and drums.
5. Improper size of grooving.
6. Worn, cracked or broken equipment.
7. Poor splicing of fitting attachments.
8. Dragging over obstacles.
9. Rope subjected to twisting.
10. Failure to protect from rusting.
11. Overloading; impact loading.
12. Careless operations.

B. C. Lumberman,

Safety Committee Urges All Class I Operators To Take Action

As a result of the Lumbermen's Safety Associatio adopting a plan presented by the Northwestern Ontari Committee of the Lumbermen's Safety Association, th Northwestern Ontario Committee has written to eac Class 1 operator in the area requesting that they stud the plan adopted by the Association and use it as guide in setting up a safety program on their operations

The Northwestern Committee met with Northwes ern Directors, Messrs. Malcolm Cochran, Henry S. Mo her and W. Austin of Chapleau and E. E. Reeves, Se retary-Manager of the Lumbermen's Safety Association in Port Arthur recently.



lian H. Merrill Elected Chairman, Woodlands ction, Canadian Pulp & Paper Association



JULIAN H. MERRILL

Northwestern Ontario was well represented by both representatives of Woods Operators and representatives of equipment suppliers at the Annual meeting of the Woodlands Section, Canadian Pulp and Paper Association held in Montreal recently.

J. H. Merrill, formerly Woods Manager at Nipigon, Ontario and now Woods Manager of the Anglo-Canadian Pulp & Paper Mills, Quebec, was elected Chairman.

Other officers elected were:

Vice-Chairman:

H. A. Sewell, General Manager Woodlands, The Ontario Paper Co. Ltd., and Quebec North Shore Paper Co., Thorold, Ont.

Councillors:

A. H. Burk, Woods Manager, the KVP Company Ltd., Espanola.

R. R. Douglas, Chief Forester, Alaska Pine and Cellulose Ltd., Vancouver, B.C.

F. L. Flatt, Manager of Woodlands, Spruce Falls, Power and Paper Co. Ltd., Kapuskasing, Ont.

J. W. Fries, General Woods Manager, St. Lawrence Corporation Limited, Montreal, Que.

F. A. Harrison, Manager of Woodlands, Canadian International Paper Company, Montreal, Que.

P. V. LeMay, Woodlands Manager, Marathon Paper Mills of Canada, Limited, Port Arthur, Ont.

R. G. MacFarlane, Manager, Lumber and Logging Dept., Fraser Companies Limited, Edmunston, N.B.

M. MacLaggan, Divisional Woods Manager, Abitibi Power and Paper Co. Ltd., Sault Ste. Marie, Ont.

J. A. Michaud, General Woods Manager, Consolidated Paper Corporation, Ltd., Grand'Mere, Qoe.

E. K. Robinson, Vice-President, Howard Smith Paper Mills, Ltd., Montreal, Que.

Ex-Officio Councillors:

C. R. Mills, Manager, Ontario Forest Industries Association, Toronto, Ont.

Edgar Porter, Manager, Quebec Forest Industries Association, Quegec, P.Q.

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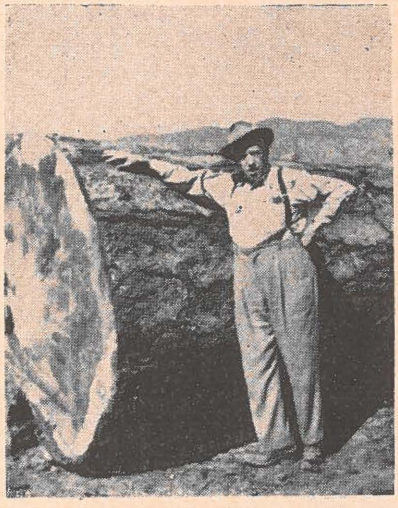
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It's a well-known fact that by far the biggest portion of industrial accidents happen because of human failures—somebody failed to do something he should have—or did something he should not have. The same cause— human failures—is responsible for most of our other problems within any organization. All of us are constantly striving to get people to do their variety of duties the way they should be done.

The technique of teaching people to do things the way you want them done is called "Human Relations Training". There are many places where such training is available, but the effectiveness of any one of them depends more on the trainer than on the material itself. In Toronto there is an organization better equipped because of the type of its training personnel to do this sort of work than any other organization we know of. It is known as the Institute of Supervisory and Personnel Development. They will put on courses for your superintendents or foremen, or other leaders, either in their own training quarters on Bloor Street, Toronto, or in your own plant. The cost is modest.

The Institute has found that the most successful method of getting ideas across is to have a group of eight people. These people discuss and arrive at their own solutions of the problems presented to them. As a result, they remember better th ematerial they have covered and they practise it more.

We believe there is an oppotrunity here for not only improving your accident prevention record, but improving the whole range of your supervisory performance. If interested, will you drop us a note, and we will put you in touch with the Institute of Supervisory and Personnel Development, and Mr. A. M. MacKinnon , its Director.



THE BULL OF THE WOODS

by Al De Wolf

16' Ponderosa Pine Log: 62" top — dated 1492. At least it has 461 annual rings.

Ponderosa Pine; dated fourteen ninety-two,
Same year Columbus crossed the ocean blue.
The two events had no connection, I hear,
Merely a coincidence in that eventful year.
The fire-scar you see ingrown in its butt
Dates back to Sitting Bull, that famous mutt,
Who sat in its shade with a dusky maid. and a cig.
And believe it or not, the maid was so hot,
That either she, or the cig. set fire to the twig,

This all happened a long time ago,
Sir Wilfred was only a kid,
When this dusky vamp turned into a tramp, and
Poor Sitting Bull blew his lid.

FOREST LIBRARY OF NORTHWESTERN ONTARIO

By D. M. Fisher, Librarian

Listed below are some recent book acquisitions. If you would care to borrow them, or books on any other topic relating to forestry, write the librarian. The library will pay postage one way on all loans. Loans are for two weeks, renewable by post card.

Baldwin, H. I.
FOREST TREE SEED OF THE NORTH TEMPERATE REGION WITH SPECIAL REFERENCE TO NORTH AMERICA.
Waltham, Mass. Chronica Botanica, 1942.
This is still the most thorough authority on structure, development, production, extraction, storage, and germination of tree seed.

Brasnett, N. V.
PLANNED MANAGEMENT OF FORESTS.
Allen & Unwin, 1953.
This book covers the development and details of European intensive management practices.

British Columbia Forestry Club
FORESTRY HANDBOOK FOR B.C.
Vancouver, U.B.C., 1953.
Despite the title, this handbook is extremely useful to woods personnel anywhere. It covers a wide field and anyone above the simplest level on either production or forestry will find it useful. It is very well-written, and not in professional jargon; further, it is easy to carry and has a plastic case.

Desch, H. E.
TIMBER: ITS STRUCTURE AND PROPERTIES.
London, Macmillan, 1953.
This is the third edition of a standard text on timber.

Edlin, H.
FORESTER'S HANDBOOK.
London, Thames & Hudson, 1953.
This handbook will interest, primarily, the professional forester who is dealing with silvicultural matters.

Food and Agriculture Organization
DIRECTORY OF FORESTRY SCHOOLS
N. Y., F. A. O., 1953
Covers curriculum, facilities and records of forestry schools in all countries, Emphasis is almost entirely on schools at a college or university level.

Guthrie, H.
FABLES FOR FORESTERS
Washington, Forestry Enterprises, 1953.
This is light reading — anecdotes by and about foresters and forests.

Harrison, J. L.
FOREST ENGINEERING; ROADS AND BRIDGES.
Edinburgh, Olive & Boyd, 1951.
Sticking closely to practical problems, this text covers the engineering side of road and bridge building. The emphasis is on permanent roads and permanent bridges.

Haynes, W.
CELLULOSE; THE CHEMICAL THAT GROWS.
N. Y., Doubleday, 1953.
A readable summary of the role cellulose plays in chemistry, industry and manufacturing. There are several chapters on wood-cellulose, tis sources, extraction, and supplies.

Knuchel, Herman
PLANNING AND CONTROL IN THE MANAGED FOREST.
Edinburgh, Oliver & Boyd, 1953.
This European book is very detailed, and packed with formulae, tables, graphs, etc. It would probably interest foresters only at the top management levels.

Meyer, H. A.
FOREST MENSURATION.
State College, Pa., Penn Valley Publishers, 1953.
A new and thorough discussion and text of all forest mensuration problems. Appendix covers main log rules. Attempt has been made to satisfy two levels, the practical and the theoretical.

Silversides, C. R.
FOREST TRUCK ROADS.
Montreal, C.P.P.A.,1949.

Spurr, Stephen
FOREST INVENTORY
N. Y., Ronald Press, 1952.
This thorough review of inventory techniques has a notable part on sampling and inventory design.

Stamm, Alfred
CHEMICAL PROCESSING OF WOOD
N. Y., Chemical Publishing Co., 1953.
The object of this book is the assembling of available information on the chemical processing of wood by both conventional and new methods, to produce modified wood products, pulp products, and various derivatives. Ideal for woods personnel who want to appreciate mill problems.

Tamm, Olaf
NORTHERN CONIFEROUS FOREST SOILS
Oxford, Scrivener Press, 1950
Close analysis of all the factors that affect and determine coniferous forest soils.

Canadian Institute of Forestry Sub-Section Formed in LongLac

A meeting in LongLac in March decided to form a sub-section of the Northwestern Ontario Branch of the Canadian Institute of Forestry. This sub-section formation will enable those members who reside distantly from Port Arthur to participate more actively in Institute affairs.

An executive was elected as follows:

Chairman— E. R. Humphreys, LongLac,
Secretary-Treasurer— R. Lockhart, Geraldton
Representatives— E. J. Winters, Caramat
M. Wilson, Beardmore
R. A. Wilson, Auden.

It is proposed to hold meetings periodically during the year in the various localities that are included in the sub-section.

Mr. G. Cosens, Manager of Woodlands, Kimberly-Clark Corporation of Neenah, Wisconsin, addressed the meeting on "The Pulp and Paper Industry in the Southern States and Its effect on that Industry in Ontario." An interested audience gained much from Mr. Cosen's talk and became more aware of the competitive positions of the Southern States and Ontario in the pulp and paper industry.

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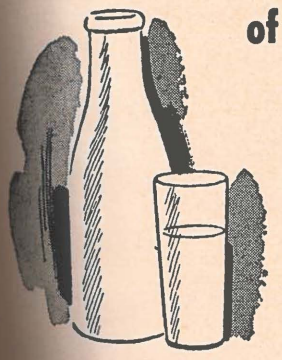
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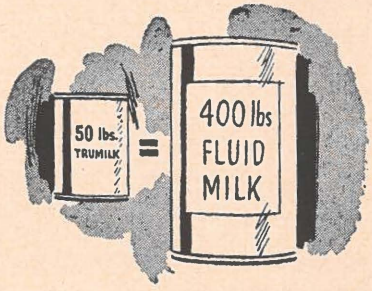
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4. For drinking, cooking and every other milk use!



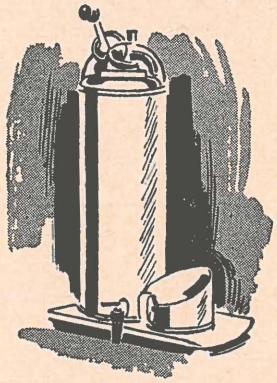
Just add TRUMILK to cold water, mix, and in a jiffy, you have milk ready for drinking. TRUMILK is excellent, too, in soups, puddings, and all baked goods. Can be mixed dry with dry ingredients for cooking convenience.

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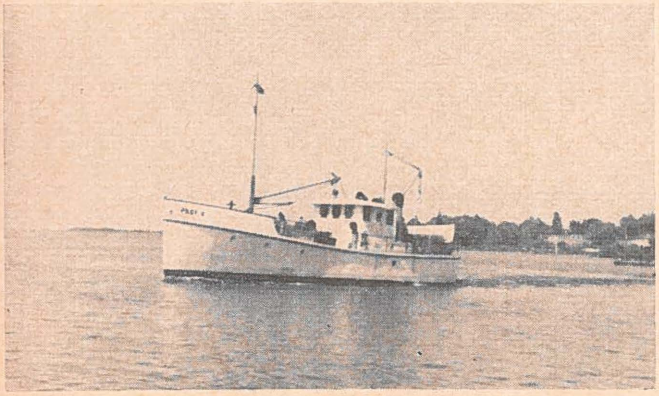
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Northwestern Ontario Research Agenda for 1954

By N. F. Lyon

The annual summary of silvicultural research projects active in 1953 and proposed for 1954 is now nearing completion and will soon be distributed to those interested. It is encouraging to note that all agencies active in silvicultural research in the past few years are maintaining a high degree of interest again this year.

One aspect of silvicultural research which has been receiving an increasing amount of interest in the past few years and again in 1954 is the field of silvicultural cuttings. An increasing number of agencies are experimenting with partial cuttings, improvement thinnings, immature stand thinnings, clear cutting in strips and patches and seed tree systems. A few worthy of mention would be the Co-operative Heron Bay project to increase white spruce reproduction on upland mixedwood sites by the Ontario Paper Company; Abitibi Power and Paper Company; the Ontario Research Council, the University of Toronto; and the federal and provincial research organizations; the partial cuttings to different degrees by the Ontario-Minnesota Pulp and Paper Company; the clear cutting in patches and strips by the Newaygo Timber Company, the LongLac Pulp and Paper Company and the Abitibi Power and Paper Company; the seed tree system with mechanical scarification by the Great Lakes Paper Company and the Department of Lands and Forests Research Division; and the white pine improvement thinning by Oscar Styffe Limited and the Department of Lands and Forests Timber Management Division. Considerable time will be spent on these continuing projects in 1954 and in addition several new systems will be established.

Another aspect which is receiving much attention is the tree planting program. In 1954 plans have been formulated to set over 1,612,000 trees through commercial plantings and experimental plantations. By comparison it is noteworthy to mention that in 1953 approximately 225,000 trees were planted out through commercial plantings in this area.

Other fields of research which will be studied this year are brush scattering, artificial seeding, growth and yield, land form mapping, site typing, regeneration surveys, brush control, plus miscellaneous statistical investigations.

Publications Received

From the Lake States Forest Experiment Station, U.S. Department of Agriculture, Forest Service, University Farm, St. Paul 1, Minnesota.

Technical Note No. 409— The Lake States Cruising Stick.

" " No. 410— Can Wisconsin Become Self-Sufficient in Pulpwood?

" " No. 411— Thinning From Above Reduces Total Yields in Medium Site Aspen.

" " No. 412— Fair 1953 Forest Tree Seed Crop in Lake States.

" " No. 413— Effect of Simulated Snowshoe Hare and Deer Damage in Some Conifers planted in the Lake States.

Station Paper No. 28, November 1953— Burning Index Ratings in Fire Control Planning.

Station Paper No. 29, December 1953— Some aspects of Managing Second Growth Woodlands in Upper Michigan.

FOREST TENT CATERPILLAR POPULATIONS IN NORTHWESTERN ONTARIO

(Continued from Page 18)

forecast is presented in Figure 2. Light defoliation is expected to occur in the northern and eastern Lake of the Woods area. West of a line joining Godson Township, near Sebaskong Bay, Lake of the Woods, and Watten Township, east of Rainy Lake, medium-to-heavy defoliation of poplar stands may be expected. Small areas of light defoliation will probably occur in the Lac la Croix and Basswood Lake areas.

In the Port Arthur District numerous small infestations will likely occur. Light defoliation may be expected in the Voltaire and Kabitotikwia lakes areas west of Lake Nipigon. South of Chief Bay, Lake Nipigon, on the Poshkokagen River light-to-medium defoliation is probable. More to the south in the Black Sturgeon Lake area poplar stands will be heavily defoliated.

East of Lake Nipigon light defoliation will occur near Beardmore and southwest in the Orient Bay area heavy defoliation is likely. A light-to-medium infestation will persist in the Leckie Lake area and in Dorion and McTavish townships medium-to-heavy infestations may be expected. Only light defoliation is probable on the Sibley Peninsula. In MacGregor Township and in the vicinity of Port Arthur and Fort William light defoliation of poplar is likely. An area of heavy infestation will probably occur in Blake Township. Light-to-medium infestation will persist in areas to the west between Fowler, Gillies, and Conacher townships.

Throughout areas not mentioned here only very small numbers of tent caterpillars will be present.

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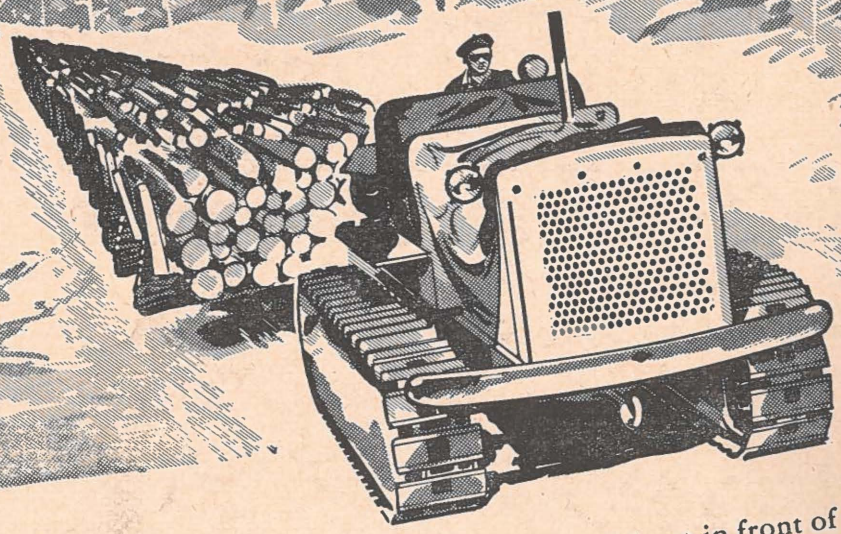
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