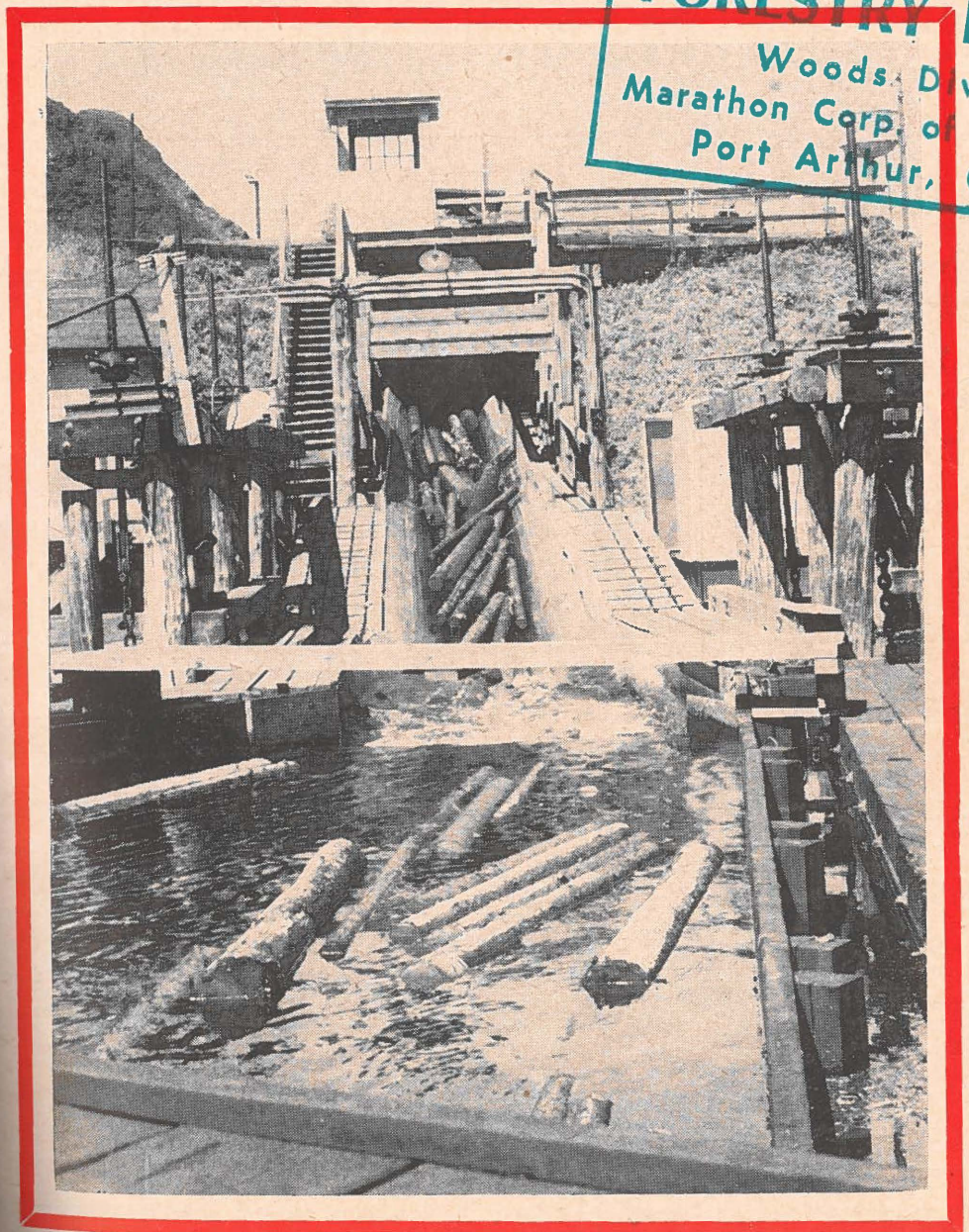
THUNDER BAY TIMBER OPERATORS ASSOCIATION

# LOG BOOK

MARCH
APRIL
1953

VOLUME 4 PORT ARTHUR, ONTARIO No. 6

RETURN TO
FORESTRY LIBRARY
Woods Division
Marathon Corp. of Canada Ltd.
Port Arthur, Ontario



QUALITY PRODUCTION WITH SAFETY

Mr. G. R. Sonley
Public Utilities Building,
Marathon Paper Mills of Can.
PORT ARTHUR, Ont.

CANADA POSTAGE PAID 3c. Permit No. 16 PORT ARTHUR

*Introducing:*

# PERKINS

**LOW COST DIESEL UNITS INDUSTRIAL and MARINE**

DUTY FREE **BRITISH MARINE DIESEL ENGINES**

## SAVE AS MUCH AS 1/2

•

MODEL S6M
WITH 2.1 REDUCTION
ON DISPLAY
AT OUR PLANT

•

## ATTENTION TRUCK OWNERS

A NEW DIESEL ENGINE CAN BE INSTALLED IN YOUR TRUCK AT LOW COST —— CUTTING YOUR FUEL CONSUMPTION IN HALF.

EXAMPLE —— A LOCAL TRUCKER OPERATING TWO TRUCKS, ONE GAS, ONE DIESEL AND MAKING THREE TRIPS A DAY EACH TO NIPIGON AND BACK USED

GAS TRUCK — PER TRIP $6.40 — TOTAL $19.20
DIESEL TRUCK — PER TRIP $2.40 — TOTAL $7.20

SAVING IN FUEL . . . . . $12.00

## Advantages:

No Gas-Fire Risk . . . Low-Priced Volatile Fuel . . . Greater Cruising Range . . . Light Weight Instant Cold Starting . . . No Electrical Ignition . . . Low Running Costs . . . Maximum Reliability . . . Minimum Space.

RAPID PARTS SERVICE

PHONE, WRITE OR WIRE FOR FULL INFORMATION; OR VISIT

## TWIN CITY INDUSTRIAL EQUIPMENT LTD.

LOGGING — INDUSTRIAL — CONSTRUCTION — MUNICIPAL and MINING EQUIPMENT

OFFICES AND SHOPS - 915 MEMORIAL AVE. PORT ARTHUR, ONTARIO

# THUNDER BAY TIMBER OPERATORS ASSOCIATION

**OFFICERS:**

H. H. STYFFE ..... President

A. J. AUDEN ..... Vice-President

**EXECUTIVE:**

A. F. BUELL M. COCHRAN J. H. GODDEN
A. M. JONES P. V. LEMAY H. S. MOSHER

Secretary-Manager, T. S. JONES

Published by
THE THUNDER BAY TIMBER OPERATORS' ASSOCIATION

Edited by
T. S. JONES


RETURN TO
FORESTRY LIBRARY
Woods Division
Marathon Corp. of Canada Ltd.
Port Arthur, Ontario

## President's Message

## AT WILL WE SEE IN '53?

Last year there were many fears expressed about hardships we were likely to encounter as a result the reduced production plans of most of the operg companies. From this corner it was predicted that e would be "Plenty to do in '52" in spite of the ced timber cuts.

By and large everyone has come through the year out too much difficulty and most of the available ur was actively employed in some phase of timber k. While the numbers employed were considerably w last year — about half, we understand — there no effort made to bring in outside woods labour the result that the local supply of labour was no e than enough to do the work offered.

What will we see in '53? It is not generally good ctise to lead with your chin. However, I am prepared redict that 1953 will be as near a normal year as fluctuating industry can expect. By the last half is year the woods inventories should be sufficiently uced to the point where Companies will be required e concerned about their supply for 1954. There is reason to believe or assume that the general level usiness will be any worse than it has been during past 18 months. As a matter of fact, the degree of construction, and the trend of business levels gen- indicate a sound year ahead. Demand for news , sulphite pulps, and most other pulps should be fairly constant and high level. Lumber demand will firm if not brisk.

This message is in no way the prediction of boom as such as we experienced in 1948, 1950, and 1951, honeymoon period is defenitely over) but rather a ction of what we might call, for want of a better a normal year.

H. H. "Bert" Styffe.

## W MAPS AVAILABLE

The following new maps are now available from Department of Lands and Forests, Parliament Build- Toronto:

Map 23A —on scale of 8 miles to the inch, cov- the District of Thunder Bay.

Haileybury sheet No. 31 M/SW — on a scale of to the inch, covering the area from Latitude 0' to 47°30' and Longitude 79°20' to 80°00'.

Jellicoe Sheet 42 E/NW.

Steel Lake 42 E/SE.

## FORESTERS ATTENTION!
## NORTHWESTERN ONTARIO SECTION, C.I.F.
## ANNUAL MEETING TO BE HELD APRIL 14th, 1953

Notices have been issued to all members of the Northwestern Ontario Section, Canadian Institute of Forestry, that the Annual Meeting will be held April 14th, 1953, in Port Arthur, Ontario.

The Program Committee is under the Chairmanship of Mr. Norm Kissick and an interesting program is being lined up. In addition to the business part of the meeting it is planned to allow time for members to renew old acquaintances and to take part in informal "bull-sessions."

**FORESTERS** — REMEMBER THE DATE,
APRIL 14th, 1953

THE PLACE: PORT ARTHUR, ONTARIO.

Further notices will come direct to you from your C.I.F. Secretary, Mr. H. O. Kantola.

## FOREST FIRE COLOURED TALKIE FILM PRODUCED

A fifteen-minute coloured talkie film (16 mm.) entitled "Fighting Forest Fires in Northwestern Ontario" has been produced by the Thunder Bay Timber Operators' Association in co-operation with the Department of Lands and Forests Geraldton District.

The purpose of this film is to give woods workers and others who might be called on to fight a fire a picture and a description of how to fight a forest fire. This picture was made to be shown in fifteen minutes so it can be a part of the regular movie show throughout the summer season.

This film is not designed to replace training with forest fire fighting equipment but should supplement training. By showing in the camps on the regular movie schedule operators will ensure that men who have been hired since the last movie showing (labour turnover) will see the picture and, by repeatedly showing to employees how to fight a forest fire, the men will have the sequence and principles of forest fire fighting constantly before them. Repetitive showing will pay dividends.

Actors in the film are employees of the Department of Lands and Forests Geraldton District. The Technical Director was Mr. G. D. MacAdam, Forest Fire Specialist of the Department of Lands and Forests Geraldton District. The film was produced under the direction of the Forest Protection Committee of the Thunder Bay Timber Operators' Association and Mr. Ken Campbell of the Marathon Paper Mills of Canada Limited was the photographer and producer.

Prints of this film are being sold to member companies in Northwestern Ontario, to the Department of Lands and Forests and are available to any interested organization or company.

## QUICK CANADIAN QUIZ

1. Our highest mountain is in what province or territory?
2. Is Hudson Bay fresh or salt water?
3. What manufacturing industry leads all others in number of employees and total salaries and wages paid?
4. In what year did we harvest our greatest wheat crop?
5. Ship-to-shore radio telephone was first introduced where and when?

(Answers on Page 23)

# Cutting Practices

**By G. W. Cameron**

The statement has been made before and will no doubt be repeated many times in the future, that good cutting practices are a major part of forestry.

It will be generally realized that the term "cuting practices" encompasses several very broad subjects dealing with the harvesting of the forests. However, in this article we shall endeavor to look at cutting practices in relation to the cutter and his everyday job, and point out how he may, by sticking to a few simple rules, do his part in creating good as opposed to bad, cutting practice.

The term itself is a very old one but it is one which from year to year takes on new and varied meaning. For instance in our own country during the seige of the Ottawa Valley for pine timber, the term no doubt existed, but in those days the emphasis would be on size and quality of timber. Today when we have a little more knowledge of the potentialities and also the limitations of our forest, the emphasis is on complete practical utilization of our forests and modernization of the cutting steps in line with advances taken in industry.

The following observations are common knowledge to all woods personnel who endeavor to impress upon the cutters the advantages of adhering whenever possible to these rules. In the carrying out of these regulations there are benefits to all concerned; the cutter the company and of course the owners of the woodlands, the Canadian public.

There are possibly seven main rules which all control men try to teach and like all rules which have evolved from years of observation and practice, they have a sound basis. It might be wise to herewith list some of these rules followed by a short explanation as to why they are sound.

**1. Stump Heights**

All trees must be cut as near ground level as possible and not more than four inches above the commencement of root swell.

The reasons for this regulation are fairly obvious. The largest diameter of the tree is naturally at the base and consequently considerable wood volume is left on the ground in the form of high stumps, wherever this bad practice is tolerated.

As for the cutter, the back stretch entailed in cuting low stumps pays big dividends in his pocket book for it is those butt logs which make the pile grow.

**2. Top Diameters**

A statement which control men get tired of repeating and no doubt cutters get tired of hearing is "Watch those tops".

In striving for complete practical utilization of the tree, no tops over four inches in diameter must be left in the slash.

**3. Limbing**

All limbs and stubs must be cut off flush with the bolt.

This is a tedious and time-consuming job for the cutter, particularly in open grown stands. However, it is only right that if a cutter is being paid for a cord pile of wood he should produce a full measure and not a pile which is loose due to a filler of stubs and branches. In addition these stubs create complications in the mill which require additional expenditure to rectify.

**4. Piling**

Piles should be tight, neat, well braced and cl of the ground on skids. All timbers used in the co struction of pile bottoms and braces should be c sticks or from unmerchantable species.

The main advantage resulting from a well b pile becomes apparent during the haul.

**5. Proper Length**

The pulpwood sticks should be cut as close to specified length as is possible. This may be read done by making use of a measuring stick or a s frame of known length.

Improper length is usually the result of carel ness and is a constant source of trouble. For instan extra long sticks may get hung up and cause delays the loading. The extra wood in such sticks is usu waste if the bolts are slashed at the mill. If the st are too short it means additional work for the cut for it requires more pieces of short wood to make cord.

**6. Saving Small Trees**

We all know by now that a forest must have so care and attention if it is to continue producing th ever-needed pulpwood used by the industry. When cut over an area we must take steps to aasure that abundance of seedlings are present which will insu a forest crop in perpetuity.

Fortunately, nature usually provides this you crop to replace the old. However, the cutter can h in this forest perpetuation by avoiding the needless struction of seedlings growing in the area in which is working.

**7. Safety First**

Needless to say, we cannot practice good cut unless we also practice safety on the job.

Most accidents result from poor tools and ca lessness. If a cutter is always on the alert and ensu that his tools are in good condition, lost time due accidents can be cut to a minimum.

The cutter who follows the general rules out above not only greatly benefits himself but also a large part towards guaranteeing that the pulp business continues as one of Canada's most impo industries.

Largely as a result of the advances taken in ern science, the pulp and paper industry in Canada throughout the world is reaching an era in which must prove that as a raw material, wood fibre is su ior to any substitute which may be introduced only must it be superior in quality but it must be to compete with any substitute on an economic ba in other words, it must be cheap. This latter req is largely a concern of the men to whom this ar is addressed, that is, the woods personnel.

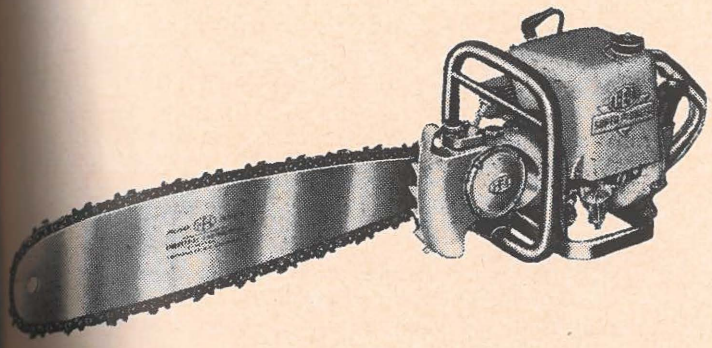
There must be a continued readily acce source of this raw product in the form of trees in the individual tree must be cut to a minimum must be taken so that all species will be utilize the wood must be harvested in an efficient and omical manner.

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

# *The Biggest One-Man Money Maker in the Woods Today . . .*

*The*

## '52 Super Pioneer

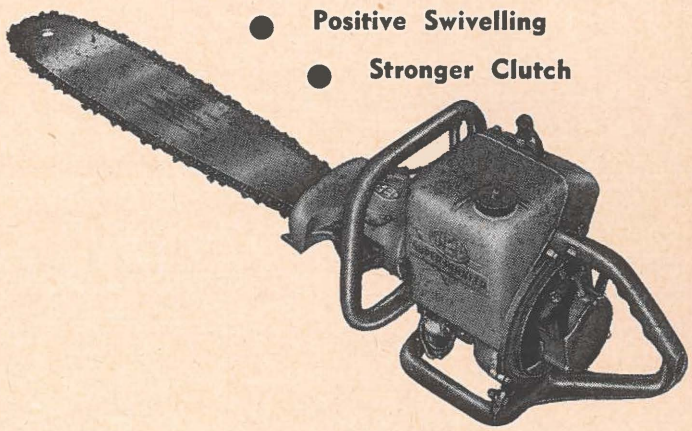


## It Cuts MORE FASTER EASIER

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

## New Engineering Excellence

- Kick Proof Starter
- Reinforced Piston
- Improved Carburetion
- Positive Swivelling
- Stronger Clutch



## Always Dependable

You'll find the same dependability in the '52 SUPER PIONEER that has been associated with the I. E. L. name over the years. You can be assured of longer, more reliable service. It's this policy of COMPLETE DEPENDABILITY that has given the I. E. L. name its well-founded and famous reputation.

For two-man operation with the same year-round endurance try the '52 SUPER TWIN . . . TWIN CYLINDERS — SMOOTH AS "A SIX". Weighs less than 55 lbs. Carries and handles with ease. The lightest twin cylinder saw today.

I·E·L Power CHAIN SAWS

Sold and Serviced by:

## TWIN CITY INDUSTRIAL EQUIPMENT LTD.

915 MEMORIAL AVENUE — — — PORT ARTHUR, ONTARIO

# The Forest Tent Caterpillar in North-western Onta

W. L. SIPPELL

Forest Insect Laboratory, Sault Ste. Marie, Ont.

In recent years, many of the forests of Ontario have been plagued by incalculable numbers of caterpillars which have denuded thousands of square miles of broad-leaved stands. This insect which has become so infamous with the general public, and particularly with persons in the woods during the spring and early summer, is commonly referred to as the forest tent caterpillar, and more technically as **Malacosoma disstria** Hbn.

Records of its occurrence in extreme numbers date back to at least 1843, and since that time, outbreaks have occurred periodically at roughly 10 to 14 year intervals in parts of northern Ontario. Data on previous outbreaks are meagre and it is therefore difficult to compare the extent of present and past outbreaks. However, trembling aspen, the main host tree of the forest tent caterpillar, has become more abundant in recent years and it is reasonable to assume that the present outbreak is one of the largest of its kind on record. In 1952, an area of approximately 100,000 square miles in Ontario was affected by medium to heavy infestation.

Two factors minimize the damage caused by forest tent caterpillars; firstly, completely denuded trees refoliate by mid-summer, and secondly, most host trees can withstand three or four consecutive years of attack (twig killing or even top killing occurs but only a very small percentage of trees die as a direct result of insect attack).

It is the general purpose of this paper to briefly review the history of the present outbreak in northwestern Ontario, to forecast generally infestation intensities in 1953, and finally, to point out the factors which will be responsible for its eventual termination.

## History of the Present Outbreak in Northwestern Ontario

As early as 1948, collections of the forest tent caterpillar were made at widely-scattered points in northwestern Ontario. However, damage was limited to only partial defoliation of trembling aspen trees. In 1949, the numbers of caterpillars increased to such a degree in the vicinities of Dryden and Sioux Lookout and north of Lac Seul that numerous trees were completely stripped. In 1950, this infestation increased considerably in size and a series of small localized infestations occurred north of the international boundary between Rainy Lake and Lake Superior. In 1951, these infestations merged and extended to the south and east to include the entire eastern half of the Fort Frances and Kenora forest districts, the southern portion of the Sioux Lookout District south and east of Lac Seul, and more than 3,000 square miles of the Port Arthur District. This tremendous infestation joined an infestation of somewhat parallel development in the State of Minnesota. By 1952, the infestation had increased t the area shown on the accompanying map. Me heavy infestations occurred as far west as easter itoba and east to Lake Nipigon. The area of inf shown in Minnesota is based on information r from the Office of the State Entomologist, S Minnesota. In 1952, the infestation in areas i since 1949 was somewhat less severe.

## Forecast for 1953

The forecasts of infestation ratings for 19 based on a survey of the average number of egg-c per tree at various points throughout the region points and the appropriate ratings appear on the a panying map. The most pronounced increases in western Ontario are expected in the vicinity o Nipigon and between this lake and the new infe in the eastern part of the Geraldton District cluster counts taken southwest of Lake Nipigon fall of 1952 were as high as 450 per tree. Us average of 175 eggs per cluster, an estimate of 7 caterpillars per tree can be made for the spring o On the other hand, further reductions in the nu of caterpillars are forecast in areas infested since especially in the vicinity of Ignace in the Kenora trict and in Quetico Park in the Fort Frances Dis

## Biological Control of the Forest Tent Caterpillar

The three main agents of biological contro parasites, diseases and predators. The effect of pillar is being studied at the Forest Insect Labora Sault Ste. Marie. Where infestations have persiste a number of years, parasties have been found to acc for the death of a large proportion of the insect their cocoon stage. In 1952, more than 95 per ce the caterpillars were prevented from reaching the or egg-laying stage by these parasites in many pa the Province. It is unfortunate, however, that at three years are required for parasites to reproduc sufficient numbers to effect a high level of contr some areas. a polyhedral virus disease and a fu disease (**Empusa** sp.) have reduced the numbers of pillars to a low level. Insect predators, of which th is probably one of the more important, cause s degrees of caterpillar mortality; while birds and mammals must also be included as enemies of the tent caterpillar.

Control of this insect in small areas and a dwellings by the use of chemical sprays is quite ible; however, large-scale chemical control measu presently impractical. Information regarding the use of chemical sprays may be obtained by d enquiries to the Forest Biology Rangers at the district offices of the Department of Lands and

Recent studies have shown that biological factors cause sharp declines in the number of cat lars in areas where the infestation has persis three or four years. A decline in infestation in parts of northwestern Ontario in 1953 and the outbreak should be terminated in two or three

## THWESTERN ONTARIO COMMITTEE ON ORDINATED RESEARCH MEETING

A meeting of the local members of this committee held on February 25, 1953, to review the general st research program for the area.

Careful consideration and discussion led to the wing Statement of Aims:

"To encourage co-ordination of effort and foster peration in Northwestern Ontario forest research to review general research needs in the area."

The aims of the committee will be implemented by following methods:

1. By the establishment of a clearing house in the of a technical library for the collection and dis- nation of information relevant to existing and osed district research.

2. By the collection and summarization annually, subsequent circulation, information from all agencies inent to completed, active and proposed research ects.

3. By the promotion of meetings between agencies ning action on similar projects or studies for discussion and standardization purposes.

It may be stated that positive progress has been made under sections 1, 2 and 3 through:

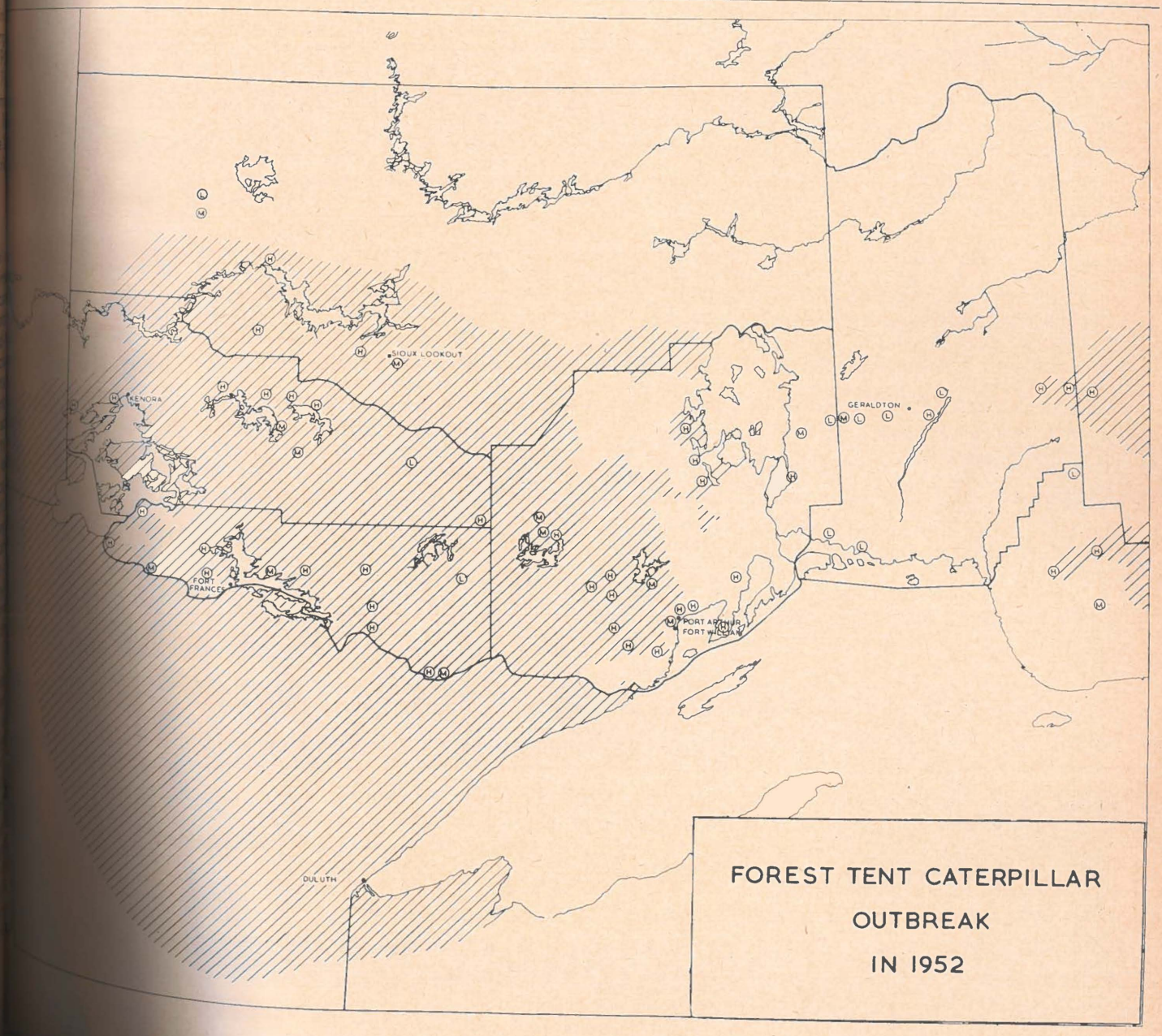
(a) Arrangements which have been made to secure the services of a librarian.

(b) The summarization of research projects undertaken locally in 1952 and those proposed for 1953 for subsequent distribution.

(c) Arrangements which have been made for a 10-day course on the classification of sites to be given by Mr. Angus Hills in late May or early June. It is hoped that this move will provide a common base for the comparison of results accruing from research projects.

## COST OF VACATIONS WITH PAY BOOKS INCREASED

Due to the increased cost of administration, printing, etc., the Ontario Industry and Labour Board has found it necessary to increase the cost of the vacation-with-pay stamp books from 25c to 35c to partially cover the total expenditure of the vacation-with-pay stamp credit system.



# Jack Ladder Haul-Up

**By C. J. Carter**

Water transportation of pulpwood from the cutting operations to the Mill still remains the cheapest and most economical of all methods. In order to take full advantage of the economy, manufacturers must avail themselves of a flexible and sturdy haul-up or jack-ladder system. At the present time most companies have developed jackladders for this purpose which are more or less self operative. It must be realized that certain modifications are necessary depending upon such factors as pond size and location, quantity and size of wood to be handled, time of year operation, etc. bue generally speaking the basic principles of operation are the same. Regardless of whether the logs come up sidewise or on end, whether fed to an indoor or outdoor slasher, with or without a hot pond, or whether selective sorting occurs out of the water it is felt a typical haul-up description will furnish the reader with an idea of the problems encountered. For this reason the jackladder of The Great Lakes Paper Co. Ltd. operations at Fort William, Ontario will be outlined briefly.

This unit consists of a floating wooden approach flume coupled with an all metal welded box structure supported on pile groups to which circulators are attached to draw the water with its load of wood to the moving chains. The original structure was manually fed and hence certain adjustments had to be carried out. A retaining wall running back and up from the river surface approximately 100 feet horizontally and 12 to 15 feet vertically on an angle of about 18° to allow railway tracks and a truck road to pass over the conveyor had been built some years previously and this had to be raised 42 inches at the river end with a gradual recession to its original line at a point just north of the existing roadway. In order to accomplish this change parts of the retaining wall had to be strengthened with uprights and spreaders, road deck raised, and in a couple of instances spreaders elevated so that the entire conveyor trough could be jacked up on the stringers along its entire length and posts added to maintain this new position.

Simultaneously, with this work a contractor was brought in to drive the piling to hold the metal box, flume and booms. For the metal box portion, individual piles in triangular groups of three were placed at predetermined positions and fastened together by waling in line and in groups top and bottom. At the same time the pile clusters for the flume were driven, pulled together and wrapped with cable.

Once the piling was finished the metal box brought over from Port Arthur. This box was fated from plate and angle iron with suitable stiff and reinforcements at the required stations and tained provisions for chain guides, walkways, c housing attachments, etc. Without any of the equipment, the box weighed upwards of 28 tons since the Diesel crane with outriggers was not ca of lifting this load with the flat boom that wou required to place it into the water, the decision reached to float it over. Bulkheads were placed a the circular openings and at the open end, caulked the unit placed in the water. Then on a calm ing it was lashed to the side of a Company tug brought over in a little over two hours. Some iculty was experienced with a leaking bulkhead with the service of a small gas pump it finally a without mishap.

Next, the supporting beams were lowered position so that the box could be floated into and beams attached securely to it. At the same the ends of the beams were secured to the cap resting on the rails on top of the piling by mea threaded rods and boom chain. At this point co erable work had to be done on the middle of the Such work included fastening chain guides throug the entire box length, adding extra side brackets putting in tail sprockets and bearings. Hand in with this was the work on the circulator housing gates to prevent short-circuiting of the water, the itioning and lining up of the circulators, and the on sheaves and motor support fabrication. Finally circulator housings were slipped into place on the of the box, the buffer plates fastened to the and a new log-lugger chain threaded over the structure. Now the box could be lowered into correct position with regards to the water level.

Before the box was lowered the V-shaped wo flume, which was of heavy creosoted timber cons tion comprising bulkheads, side booms, diagonal ing, walkways and completely cribbed bottom and floor that varied in depth from the mouth to the stricted discharge position, was towed over from Northern Wood Preservers plant at Port Arthur. plates were fastened to the small end of this and an air-water filled hose added to give a water

(Continued on the Following Page)





**Whatever You Plan To Paint . . .**

**ROOM — BUILDING — BOAT — MACHINERY . . . .**

**or just a chair . . . Let MARSHALL-WELLS Quality Paints give you a better Paint Job!**

**THERE'S A SPECIAL MARSHALL-WELLS FINISH FOR EVERY PAINT NEED.**

**For Full Particulars Write, Wire or Phone**

**MARSHALL-WELLS** PORT ARTHUR

## CKLADDER HAUL-UP

ere it joined the box.

After the box was lowered, the flume was pulled t against it, ballast added to sink the flume to the er depth and both box and flume secured in pos- n by a series of turnbuckles. Finally the transition ween the old jack-ladder was completed and once ms were positioned, the structure was ready for op- tion.

For operating, wood is allowed to drop into the d area feeding the wooden flume mouth. Here a ll specially constructed pond boat crowds the wood the flume by a combination of pushing and manip- ion of a tail boom. At this point the circulators ch are in reality large propellors, draw the water m the mouth of the flume into the metal box and nce through the slotted holes in the chain guides d discharge it downstream in the current direction. e the circulators are in operation, the water veloc- created is of sufficient intensity to draw the wood the box with it where the dogs on the chain catch d carry the wood away to the next stage of process- The operator is able to control the amount of d being taken up the jackladder by controlling the culators. Also, since the wooden flume floats on the er it automatically adjusts itself to changing water ations resulting from winds, etc.

This is only a very brief outline of one particular kladder haul-up but it is hoped that this has been sufficient scope to enable the reader to visualize the eration, realize the problems encountered, and see important part this one particular phase plays in overall manufacturing picture.

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

—o—

## COVER PICTURE:

**SHOWS VIEW OF JACK LADDER FROM MOUTH OF WOODEN FLUME.**

## NEW SITE BOOKLET

The Classification and Evaluation of Site for For- y is the subject and title of a new booklet released the Ontario Department of Lands and Forests. The hor is G. A. Hills, of the Research Division at ple.

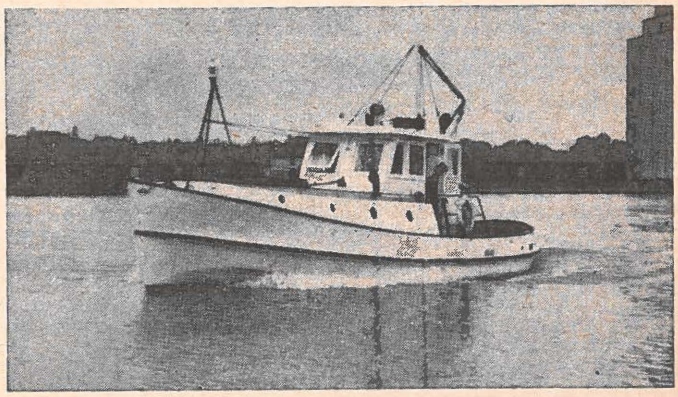
Site classification is required in forestry by the ntist, the administrator and the practioner. Without orest management is truly at a loss. It provides the est scientist with the essential means for describing outdoor laboratory in which he conducts his exper- ents. It provides the forest administrator with a satis- tory yardstick for measuring the potentialities of his for growing forest crops.

Foresters throughout the world have long been int- ested in site classification. Many different approaches e been made to this problem. In some cases the est stands only have been evaluated. In others, n characteristics of the environment, such as orm, soil, herbaceous plants, have been rated. present report presents a workable system of site lication.

Write to the Research Division, Ontario Depart- of Lands and Forests for a copy of the report.

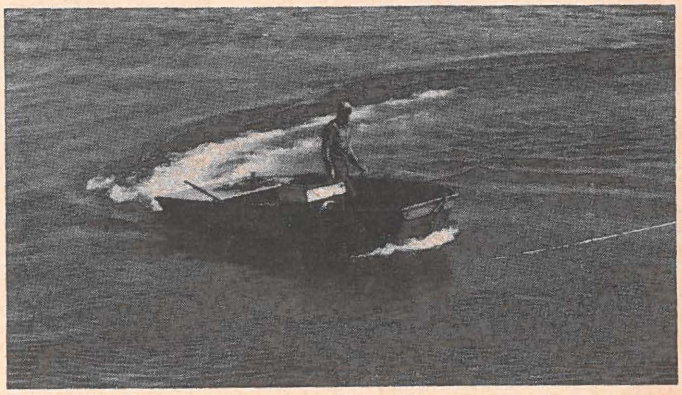

# STEELCRAFT

## BOATS WITH A PURPOSE



**No. 1—FISHERIES RESEARCH VESSEL**

For investigations on Lake Winnipeg, the Steelcraft vessel "Cottus" was designed and built for operation under rigorous weather conditions and for close shore work, far from her home port. She is 45' with 13' beam and 50" draft. Power is a 105 hp Cummins diesel.



**No. 2—HICKEY LOGGING BOAT**

To work around booms of logs lying in the shallow waters around Manitoulin Island, is the main task of this Steelcraft. Its length is 18' and draft only 15". It can ferry about 10 men . . . jump boom sticks . . . and is a most versatile piece of equipment for logging work.

**LEADERS IN BUILDING RUGGED STEEL BOATS**

STEELCRAFT

RUSSEL-HIPWELL ENGINES LIMITED

Halifax Montreal Owen Sound, Ontario Toronto Port Arthur

**When thou buildest a new house: then thou shalt make a battlement for thy roof that thou bring not blood upon thy house if any man fall from thence.**

**Deuteronomy, Chapter 22, V. 8.**

**Safety is no new thing. The first recorded accident prevention regulation — quoted from the Bible — is still logical to-day as it was in the near east over two thousand years ago when people had flat roofs serving as an outdoor room. The curious will notice too, that the admonition places responsibility on the same shoulders as it does today — on those of the owner or in our words "The management."**

## LUMBERMEN'S SAFETY ASSOCIATION HOLD OPERATORS AND CAMP MEETINGS IN THE HEARST AREA

The Class I operators in the Hearst area gathered together in February at a meeting sponsored by the Lumbermen's Safety Association. The Chairman of the meeting was Mr. K. Moland of the Newaygo Timber Company and the meeting was attended by approximately fifty representatives of operators in the Hearst A.C.R. area.

Mr. G R. Potts, Inspector, Lumbermen's Safety Association Northwestern District, Mr. C. McDonald, Inspector, Northern District and Mr. D. C. George, Inspector, North Bay District, addressed the meeting on Lumbermen's Safety Association business.

Dr Sadovsky made some remarks on his experiences as a medical doctor administering to Workmen's Compensation patients and Mr. Frank Denison, district representative of the Workmen's Compensation Board, dealt with some aspects of the Workmen's Compensation Act.

Mr. T S. Jones, Serretary-Manager, Thunder Bay Timber Operators' Association, was guest speaker of the evening. Mr. Jones dealt with an address given by Mr. E E. Sparrow, Chairman of the Workmen's Compensation Board of Ontario at a joint meeting held a few days prior in Port Arthur, and also outlined the responsibility of safety work from supervisors to the woods employee. He urged all to take advantage of the visit of the Lumbermen's Safety Association Inspector in this area and to co-operate with him and after his visit to carry out the safety work discussed.

The next fifteen days after the meeting Mr. D. C. George and Mr. G. R. Potts visited depots and camps in the area. Motion pictures on safety practices and the administering of first aid in the woods were shown. Over 1200 workmen attended these meetings and the co-operation on all levels was very gratifying to the Lumbermen's Safety Association Inspectors.

—o—

## WORKMEN'S COMPENSATION ASSESSMENT RATES SET FOR 1953

The following table shows the adjusted rate for 1952 and the provisional rate for 1953.

| Group | Adjusted Rate 1952 | Provisional Rate 1953 |
|---|---|---|
| 010 | 3.75 | 5.00 |
| 011 | 3.75 | 4.00 |
| 013 | 2.50 | 3.00 |
| 020 | .60 | .80 |
| 022 | 2.50 | 3.00 |

## JOINT SAFETY MEETING HELD OF NORTHWESTERN ONTARIO OPERATORS

The Lumbermen's Safety Association, Northwest District and the Northwestern Ontario (Woods) Br Ontario Pulp & Paper Makers' Safety Association, a joint meeting with the Lumbermen's Safety Ass tion acting as host for the day.

The sessions were conducted in four separate as follows:

A — The Joint morning session,
B — Separate business sessions by associations
C — Joint afternoon session, and
D — Joint dinner meeting.

Mr. John Currie, Chairman of the Northwest Ontario (Woods) Branch, O.P. & P.M.S.A., acted Chairman for the joint business sessions and Mr. J. Styffe, Chairman of the Northwestern Ontario Dis of the Lumbermen's Safety Association, acted as Ch man for the dinner meeting.

The following officers of the Lumbermen's Saf Association were in attendance:

Mr W. McNutt, President.
Mr. H. S. Mosher, Vice President.
Dr. W S. Barnhart, Secretary-Manager.

In addition Mr. Roy Potts and Mr. D. C. Geo Inspectors of the Lumbermen's Safety Association w present.

Mr. D. B. Chant, Secretary-Engineer of the Ont Pulp & Paper Makers' Safety Association represented officers, and special guests included Mr. E. E. Spar Chairman, Workmen's Compensation Board; Mr. F. Denison, Northwestern Ontario representative of Workmen's Compensation Board and Mr. J. M. K Ontario Department of Labour.

Details of this meeting have been sent to concerned.

The highlight of the meeting was an address Mr. E. E. Sparrow, Chairman, Workmen's Compensa Board. In his address, Mr. Sparrow announced an crease in compensation rates for woods operations made some pertinent remarks about the amalgamat of the two woods safety associations. He also made s remarks about the place of trade associations when c sidering financing accident costs.

Mr. Sparrow's address was given wide distribu to companies in Northwestern Ontario.

—o—

## NEW OFFICERS ELECTED BY SAFETY ASSOCIATIONS

At the business session of Class II Woods Bran Mr. P. V. LeMay was elected honorary Chairman, M K. G. Eoll was elected Chairman and Mr. K. E. Sm was elected Secretary of the Branch for the year 195 54.

In the Lumbermen's Safety Association busine session, the following Northwestern Ontario Comm was elected:

J. Styffe—Chairman
H. Mutch
R. I. Young
T. S. Jones
F. Hedley
Frank Thomson

## TY CONSCIOUSNESS

**John Styffe, Chairman**
**Accident Prevention Committee, Class 1**

Mr. John Styffe presented some very interesting ses on 220 accidents reported by five member anies giving the type of accident, the type of entailed, piece work or hourly, the racial extract- old or new employees, repeaters, cost of individual and the causes of accidents by types. Mr. Styffe a suggestion that top managements take an im- ate inventory of this problem of accident frequen- Reducing frequency can be achieved through the d of safety consciousness starting with top man- ent who must be sold first and work down the line e camp level.

Mr. Styffe referred to an article written by Mr. Bergestad which reported that the same problem ed in woods operations in Norway and that in the egian Forestry Trade Schools part of the curric- is devoted to the teaching of safe practices. Mr. e pointed out what appeared to be the main causes ccidents: 1. Bad use of an axe; 2. Bad lifting; oor footing. Our accident frequency rates would educed sharply if we could overcome the problems ciated with these items.

The accidents reviewed in the 220 cases were:

| | |
|---|---|
| Sprains — Body | 28 |
| Sprains — Arms and Legs | 9 |
| Fractures — Arms and Legs | 6 |
| Fractures — Others | 1 |
| Lacerations — Body | 18 |
| Lacerations — Arms and Legs | 74 |
| Bruises — Body | 33 |
| Bruises — Arms and Legs | 43 |
| Burns | 1 |
| Sun-stroke and Frost-bite | 2 |
| Concussion | 1 |
| Eye Inflammation | 2 |
| Total | 220 |

## ECK YOUR DRIVE ACCIDENT EVENTION MEASURES NOW!

**The Quebec Pulp & Paper Safety Association Inc. e issued the following report to their members Let in Ontario examine our experiences.**

During the past five years no less than 62 men e lost their lives during the drive on logging oper- ns in the Province of Quebec.

For this reason it is suggested that all companies uld have a Safety meeting for their drive foremen fore the season starts and discuss the hazards which be encountered and methods to be used to elimin- them. To provide a basis for discussion you will a summary of the fatal accidents which occurred these operations during the past five years.

It will be noticed that a large proportion of these cidents can be attributed to one of the following

1. Failure to wear a life-preserver when working on or near swift or rough water. In this connection one member company reports that the lives of two men were saved owing the the fact that they were wearing "Lifeguard" preservers.
2. Workmen failing to obey an order.
3. Foolhardiness or carelessness by the men probably as the lack of supervision or control on the part of the foreman.
4. Foremen failing to warn their men of the dangers involved in a particular job and what they should do in a case of emergency.
5. Smoking in a gasoline-driven boat. Some years ago nine men were drowned in one accident due to the boat catching fire as a result of a match being thrown in the bilge water.

Each stream and river has its own particular problems or danger spots and it is the duty of the foremen to think of a solution and to place reliable men with full instructions at these points. For example: One Company, on whose operations there is a very dangerous rapids, proposes to rope any man who has to work on a jam at the head of this rapid and will have several men on store who can pull him to safety in case of emergency.

**Summary of Fatal Drive Accidents 1947 - 52**

| CAUSE | No. of Accidents |
|---|---|
| Boats Upsetting | 31 |
| Canoes Upsetting | 7 |
| Men falling from boats | 6 |
| Rollways collapsing and throwing men into water | 3 |
| Workmen fell into deep water from boom | 3 |
| Workmen fell into deep water from shore | 3 |
| Failure to obey an order to come ashore | 2 |
| Log jam suddenly giving away | 2 |
| Gasoline boat catching fire | 1 |
| Fell from foot-bridge tilted by log jam | 1 |
| Slipped from sluiceway, loosening drop in dam | 1 |
| Breaking out rollway, log rolled over workman | 1 |
| Hit by branch broken by wind | 1 |
| | 62 |


**West Gate Packers Limited**

•

NORTHWESTERN ONTARIO'S
ONLY INDEPENDENTLY OPERATED
MEAT PACKING PLANT

•

COMPLETE FACILITIES
FOR SUPPLYING ALL TIMBER CAMPS

•

*Try "West Gate" brand on your next order.*

185 South Court Street, Port Arthur, Ontario

Phone 5-6546

# BEST IN 45 YEAR

***The Most Complete Line of Trucks in Canada... Built a***




R-110 Pickup

R-120 Panel

RM-120 Metro

R-180 Dump

R-160 Stake

RC-160 Cab-Forward

## Logging, Mining, e a
## Truck User
## With the Finest - mic
## INTERNATIONOT

By service and quality, ro... Since
Ltd. have been the leade... Bid.
grade of trucks, cars an... pl
service we have striven t... in de

NASH and PACKARD FR
FIRE TIR

For Sales and S

# S. J. Hill S

RED RIVER ROAD
PORT ARTHUR
Dial 5-5488

EAL

Built as an Build 'Em





LD-400 Series

LFD-300 Logger

LCD-405
Cab-Over-Engine

R-200 Series

R-190 Series

SG

ining, e and Commercial

User 26 Years

nest -- mical -- Dependable

ATION OTOR TRUCKS

nd quality, ro Since 1927 S. J. Hill & Sons
een the leader eld. By carrying only the best
ucks, cars and — plus the extensive repair
ave striven to in dependability at all times.

CKARD FRUEHAUF TRAILERS
FIR TIRES

ales and Service See

Hill Sons Ltd.

STREET and CAMERON
FORT WILLIAM
Dial 3-6457

ROAD
UR
38

# Aerial Timber Mapping

**By H. H. Parsons, B. Sc. F.**

A few general remarks relating to this specialized phase of forest inventory are submitted.

The governing factor or foundation for the best possible results in this type of aerial reconnaisance, resolves itself into an accurate base map. As the Department of Lands and Forests has completed its photographic coverage of most of the Province, these essential base maps are now available and curtail the flying hours, used in the forest cover examination, to a minimum

With lakes, rivers, roads or other topographic detail accurately located, forest types can be delimited and accurately tied in to these features, which assist materially in the value of the results obtained.

From an elevation of from 3000 to 4000 feet, the area is flown and the forest types located in detail and classified on the prepared base map. Sawlog material is separated by species from pulpwood; mature timber from advance potential approaching merchantability, or second growth and immature stands are delimited and tagged with a 10 - 15 year age spread by species. Waste aeras are also accurately located and classified. Type maps are completed to any desired scale, with 20 chains to the inch; or 4 inches to the mile, constituting the scale most frequently used.

On completion of the project, a linen tracing is submitted to serve as a permanent record; a negative or vandyke, a linen backed blue lined print, colored in oils and surfaced and a report on the area examined. The coloured map at a glance indicates the entire story of the timbered tract. Mature soft wood as sawtimber or pulpwood is confined to one color. Mature mixed woods are represented by another color; second growth by a third with burns and productive non-operable forest land in still another; swamps, rock, water or non-productive areas similarly indicated.

At the scale of 20 chains to the inch; a six mile township (36 square miles) can be completed in from 4 to 5 hours flying at a cost of from $30.00 to $35.00 per hour. At 40 chains three hours are required and at a mile to an inch 2 hours are necessary to complete a similar area with hourly flying costs as above, exclusive of ferry to the scene of the operations.

To complete a detailed type map of a 1000 square mile tract at 20 chains to the inch, the overall average costs should not exceed $8.4 per square mile. A 500 square mile tract at the same scale should be a trifle over half this amount; while a parcel of 100 square miles might run as high as $15.00 per square mile. At smaller scales less flying hours result, fees are less and a general substantial reduction all across the board.

In Ontario particularly with some 2400 hours spent over the past seven years in this type of aerial inventory, this method of analysis has become increasingly popular and its results should not be relegated to the rearguard in comparison with aerial photography and stereoscopic analysis. There is a distinct field for both and each possesses advantages not supplied by the other. For instance, aerial sketching can never provide the dimension supplied by a stereoscope so important in road locations and other topographic detail. Photography on the other hand will not for some time least provide the color, the various intensities of w are so necessary in species, age class and quality id ification.

One of the main attributes of aerial timber m ping lies in the time element involved which red the cost of the operation to but a fraction of the of other methods of reconnaisance.

Much of this work of late years has supplied first phase of the preparation of Management Operating Plans and in conjunction with ground in ories. The former contributing a qualitative anal the latter a quantitative analysis. With a compl aerial type map, strips can readily be confined to represented types for ground sampling and as a re field work can be curtailed to a minimum and provide the basis for an accurate inventory.

Type maps of 20 chains to the inch have be playing an increasing role with many of the larger log licensees and some few of the pulp concessiona as control maps. The types have been checking satisfactorily over the new base map detail now pro ed and save considerable time in previously expen effort, in the locating of various conditions of me antability and the delimiting of contemplated cut areas where types with areas of as low as two acres recorded.





**Reduce costs! Increase safety!**

Many of Canada's largest timber operators are reducing costs and increasing safety with Rogers Majestic Mobile Radiophone. A small investment in radio telephone equipment returns big dividends in increased production. Built to withstand the most rugged treatment it has been test-proven in the toughest terrain for reliability, efficiency, economy and simplicity.

*write or phone*
**ROGERS MAJESTIC ELECTRONICS LIMITED**

TORONTO · MONTREAL
HALIFAX · WINNIPEG · VANCOUVER

**ROGERS MAJESTIC**
*Communications Equipment*

**LICATIONS RECEIVED FROM LAKE STATES REST EXPERIMENT STATION, U.S. DEPARTMENT AGRICULTURE FOREST SERVICE, PAUL, MINNESOTA**

381 — Logging Damage to Reproduction Under Swamp Black Spruce.

382 — Cubic Content of Sawlogs in Standing Trees.

383 — Power Saw Girdling Saves Time in Timber Stand Improvement.

384 — Ten Years' Pulpwood Production in the Lake States (1942-51).

385 — Frill Girdle Tests with 2, 4, 5-T in Lower Michigan.

nical Note No. 386 — "Results of Improvement Cutting in Second-Growth Northern Hardwoods in Upper Michigan."

" No. 387 — "Deer Damage to a Jack Pine Plantation in Michigan."

" No. 388 — "Some Effects of Spacing on Jack Pine Development After 25 Years."

" No. 389 — "Comparative Height Growth of Native Conifers in Northeastern Minnesota."

" No. 390 — "Volume in Tops and Limbs of Sawlog Trees."

on Paper No. 27 — "Reproduction on Cut-Over Swamplands in the Upper Peninsula of Michigan" by Z. A. Zasada.

"JOE BEAVER" By Ed Nofziger




Forest Service, U. S. Department of Agriculture

**"That lazy brother of yours is eating us out of house and home!"**

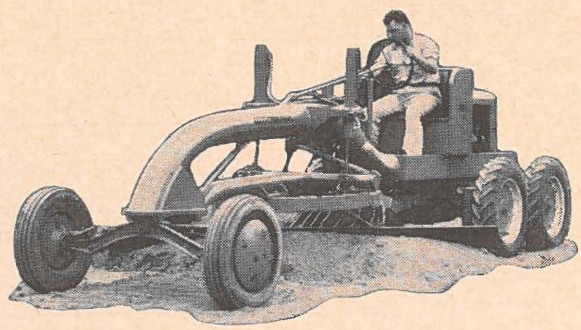

**The Low Cost ALLIS-CHALMERS Model "D"**

# MOTOR GRADER

**Is the only Motor Grader in its price range which provides these exclusive features:**

**TANDEM DRIVE! HYDRAULIC CONTROLS! ALLIS-CHALMERS ROLLAWAY MOLDBOARD! ELECTRIC STARTING AND LIGHTS!**

**Standard Attachments for a Large Variety of Jobs**



**Weight: 8500 lbs.**
**34.7 B.H.P.**
**Heavy Duty Gasoline Engine**

HEAD OFFICE
371 SUTHERLAND AVE.
WINNIPEG, MANITOBA
TEL. 594316

## Vulcan Machinery & Equipment Ltd.

SALES - SERVICE

BRANCH
145 N. CUMBERLAND ST.
PORT ARTHUR, ONT.
TEL. 42-483

# Forest Pathology in Ontario

## 4. Some Problems Related to Foliage Diseases

Man's tendency to bring about a continual change in natural forest conditions has, in many instances, resulted in an abnormal incidence of foliage diseases. Particularly this is true of those leaf diseases caused by rust fungi which require two hosts in order to complete their life cycle. In a number of cases, a forest tree acts as one of the hosts and an agricultural crop plant as the other. Examples of this type of disease are white pine blister rust which parasitises white pine trees and currant or gooseberry bushes, and cedar-apple rust which parasitises red cedar and trees of the apple family. Conditions favourable to the development of rust diseases may arise when forested areas adjoin agricultural areas. Local epidemics frequently occur when susceptible tree species are grown in the vicinity of susceptible field crops.

Usually our native foliage diseases are able to kill only small trees. By the time the tree reaches the sapling or pole stage there is little probability of mortality from leaf diseases unless they are severe enough to cause defoliation for several successive years. Damage among older trees is a reduction in growth or increment resulting from a reduction in the amount of living leaf surface.

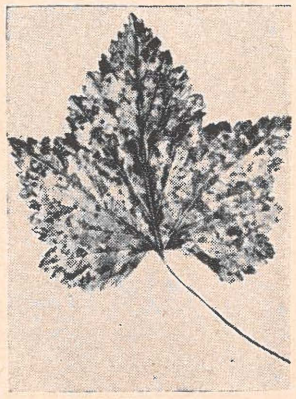
Introduced foliage diseases may do greater damage. On occasion foliage diseases have been introduced into Canada and the United States from other continents, especially from Europe, on nursery stock. Because our trees may lack all resistance to attack, some introduced diseases have proved to be very serious diseases of our native trees. On occasion these diseases have been able to exceed their ability to cause minor leaf injuries and have produced stem cankers which girdled and killed trees in short order.

In Canada and in the United States, forest practice now includes rather extensive programmes of tree breeding. The purpose of this work is to develop new strains of trees which are resistant to disease but possess a form and growth rate equal or superior to our present trees. Tree breeders must consider always that a foliage disease which has been relatively unimportant on parent trees may become of tremendous importance on hybrid trees.

The Septoria Canker of poplar is an excellent example of a native disease of minor importance on native poplars which became a destructive disease on introduced poplars and on certain hybrid poplars which lacked resistance to attack.

Some years ago some Russian poplars and some hybrid poplars, apparently evolved through crosses between cottonwood and balsam poplar, were widely propagated and distributed throughout eastern Canada and the prairie provinces. These trees were hardy, grew fast, and developed a good form under conditions usually difficult for the successful cultivation of trees. Soon after establishment, however, it was discovered that these trees became seriously affected with a canker disease which did not resemble any of the known canker diseases of poplar. After investigation it was shown that the fungus causing the disease occurred everywhere that poplar was grown in Canada and caused a leaf-spotting disease of minor importance on native poplars. On certain hybrids and introduced poplars, in addition to causing leaf injury, the fungus spread back into stems to cause cankers which soon girdled and k the trees. It was necessary to abandon the cultivation susceptible exotic species and hybrid strains.

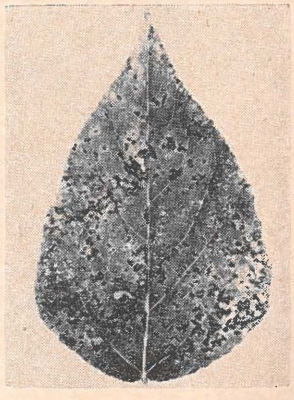
It is evident that a real danger may be encounte in introducing foreign trees and using untested str developed in tree breeding. Experience has shown t no tree breeding programme can be successful with the inclusion of a means for testing all new strains susceptibility or resistance to disease. It is essential foresters favouring the use of exotic or hybrid str should insure that they have been pre-tested thorou for disease resistance.



**1. — Leaf of black currant, heavily infected by the blister rust fungus. Spores produced in fruiting bodies in discoloured area on the underside of the leaf are able to infect and cause blister rust disease on white pine. These spores cannot infect other currant or gooseberry bushes. Photo by J. F. Robinson.**



**2. — Septoria canke young poplar tree. Infe has progressed to main and killed all parts b the girdling canker. P by J. E. Bier.**



**3. — Leaf of balsam poplar showing extensive leaf-spotting. On native poplars injury by this disease usually is confined to the leaves. Photo by J. E. Bier.**



**4. — Stem of poplar tree showing year-old canker. callus layers formed during the fourth growing lesion has complete the stem. Photo Bier.**

# "All the first grade milk I can use—for as low as 55¢ a gallon!"




**Ideal for camps!**

There's no need to let the quality of milk be a cause of dissatisfaction in your camp.

With Borden's TRUMILK, you can have really delicious, full-bodied milk all the time. TRUMILK is *whole milk* in handy powder form. Just add it to water (4 to 1), mix, and there's the rich, nourishing milk you need for cooking and drinking.

*Economical!* Weighs only ⅛th as much as fluid milk—costs less to ship. Keeps indefinitely without refrigeration. When reliquefied, costs as low as 55¢ a gallon. TRUMILK is vacuum-packed (with perfect reseal to protect contents) in 50 lb. containers.

# "Get this handy 3 in 1 mixer at cost!"



**Mixes—stores—dispenses**

Supplied in two sizes—2½ and 5 gals.

They have cut bronze gears for long wear—heavily tin-plated steel container —sanitary outlet.

Measuring scoop and mixing charts supplied free.

Order TRUMILK mixer from your nearest distributor.




## THE BORDEN COMPANY, LIMITED.

**DRY MILK DEPARTMENT, Spadina Crescent, Toronto 4, Ontario**

**THE BORDEN COMPANY, LIMITED, 407 McGill Street, Montreal, Quebec**

KIRKLAND & ROSE
130 Water Street
Vancouver, B.C.

McKENZIE, STEPHEN LIMITED
345 Higgins Ave.
Winnipeg, Manitoba

A. H. BRADBURY
13 North Wharf
Saint John, N.B.

T. A. MacNAB & CO. LIMITED
City Club Bldg., P.O. Box 785
St. John's, Nfld.

# Coming! Coming! Coming!

# 1953 Fire Season

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

The Province of Ontario on land protected under the Forest Fires Prevention Act there were 1095 fires which burnt 12,382 acres. In our area there were 412 fires which burnt 5,416 acres and, out of these 412 fires, 9 (or 2½%) burnt 650 acres or 12%.

Study Page 19, last years statistics and Page 20 for the causes of last year's logging fires.

## Let's Better Last Year's Score!

THE LAKEHEAD'S MOST COMPLETE

WELDING SUPPLY STOCK

We Represent the Two Leaders in the Welding Industry.

Lincoln Electric Co. Ltd.

GAS DRIVEN WELDERS — TRANSFORMER WELDERS — WELDING RODS
CABLE CONNECTORS — FACE SHIELDS — GOGGLES — GLOVES.

Dominion Oxygen Co. Ltd.

OXYGEN — ACETYLENE — ARGON GASES
WELDING AND CUTTING OUTFITS
WELDING RODS — FLUXES
RUBBER HOSE

Everything that the welder requires at

Northland Machinery Supply Co. Ltd.

203 Hardisty Street Fort William, Ontario Phone 3-7407

# Last Year's 1952 Score

## Number of Fires

| | Fort Frances | Kenora | Sioux Lookout | Port Arthur | Geraldton | Kapuskasing | TOTAL |
|---|---|---|---|---|---|---|---|
| April | 4 | 26 | 6 | 27 | 2 | 1 | 66 |
| May | 16 | 53 | 14 | 24 | 9 | 5 | 121 |
| June | 8 | 9 | 17 | 12 | 3 | 2 | 51 |
| July | 4 | 3 | 2 | — | 2 | 3 | 14 |
| August | 6 | 26 | 23 | 13 | — | — | 68 |
| September | 8 | 25 | 2 | 3 | — | — | 38 |
| October | 10 | 25 | 1 | 9 | — | — | 45 |
| November | 1 | 7 | 1 | — | — | — | 9 |
| **Total** | **57** | **174** | **66** | **88** | **16** | **11** | **412** |

## Causes of Fires

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Campers | 25 | 83 | 14 | 15 | 2 | 4 | 143 |
| Settlers | 6 | 10 | 4 | 21 | 1 | — | 42 |
| Smokers | 6 | 14 | 7 | 10 | — | 1 | 38 |
| Logging Operations | — | 2 | 3 | 1 | 2 | 1 | 9 |
| Mining Operations | — | — | — | — | — | — | — |
| Road Construction | — | 10 | — | 4 | 1 | — | 15 |
| Railways | 9 | 25 | 1 | 16 | 5 | 5 | 61 |
| Inspectors | — | — | — | — | — | — | — |
| Incendiary | 2 | 2 | — | 2 | — | — | 6 |
| Miscellaneous | 3 | 15 | 5 | 9 | 3 | — | 35 |
| Lightning | 6 | 12 | 30 | 10 | 2 | — | 60 |
| Unknown | — | 1 | 2 | — | — | — | 3 |
| **Total** | **57** | **174** | **66** | **88** | **16** | **11** | **412** |

## Acreage Burnt

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ACRES BURNT | 392.14 | 1561.43 | 1949.00 | 1035.75 | 25.25 | 453.22 | 5416.79 |
| Acres Burnt by Logging Operations | — | 40.5 | 210.5 | 12.8 | 3.00 | 384.00 | 650.80 |

## Means of Detection

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Aircraft | 23 | 79 | 31 | 46 | 10 | 5 | 194 |
| Towers | 16 | 43 | 21 | 11 | 1 | 1 | 93 |
| Ground | 12 | 38 | 3 | 15 | 5 | 4 | 77 |
| Total | 6 | 14 | 11 | 16 | — | 1 | 48 |
| | **57** | **174** | **66** | **88** | **16** | **11** | **412** |

# Causes of Logging Operation Fires in 1952

**KENORA— 2 fires caused by logging operations.**

Fire No. 21 - 12 Kenora Division — April 30th. North of north-west arm of Dryberry Lake, 40 acres. This fire evidently started from a lunch fire that had been smoldering for a month on an island in Up Lake eventually breaking out and jumped to the mainland and destroying 350 cords of stacked pulpwood. Crew and equipment from Camp L-311 assisted Department Rangers in putting out fire.

Fire No. 18 - 16 Dryden Division — May 19th. Ladysmith Township, ½ acre. This fire was started by jobbers smoking while walking through the bush. Good work by the pilot in landing fire crew in small lake north of the fire enabled crew to get to fire before reaching heavy slash. This could have been a serious fire.

**Sioux Lookout — 3 fires caued by logging operations.**

Fire No. 1 began on April 29th, 1952 at a jobber camp on the Ontario and Minnesota Limit near the Red Lake Road. This was caused by a burning sawdust pile from a portable mill, which had not been properly extinguished at the close of operations. The fire burned an area of 100 acres, however, only 2 acres of this was standing timber, the remainder being clear cut by logging in 1951 leaving a lot of slash which made suppression difficult.

Fire No. 3 began on May 4th, 1952 on a limit north of Hudson, Ontario. This fire was also caused by a burning sawdust pile from a portable mill which had not been properly extinguished. The final area of this fire was 110 acres, with 105 acres of standing timber consisting mostly of mature Jackpine with some spruce and balsam and 5 acres of clear cut by logging. A stockpile of 250 cords of spruce pulpwood and 1500 Jackpine sawlogs were also burned.

Fire No. 11 occurred on June 15th at a mill at Hudson, Ontario. This was caused by sparks from a pile of burning sawdust and slabs. The area of this fire was ½ acre and no standing timber was burned.

**Port Arthur — 1 fire caused by Logging Operations.**

Only one fire occurred in the logging areas this season, this being on the east side of Davidson Lake. The fire was investigated by the Ontario Provincial Police, and also by officials of Abitibi. It is surmised that it was caused by the carelessness of any one of three individuals who are named in the report. The Company took the necessary disciplinary action.

**Geraldton — 2 fires caused by Logging Operations.**

Both logging operation fires occurred at, or about the same time on May 22nd, 1952. The cause of the two fires was attributed to a faulty manifold on a truck by both the Ontario Provincial Police and company officials.

**Kapuskasing — 1 fire caused by Logging Operations.**

Logging operation fire caused by discarded cigarettes.

Activities of this Association do not cover the Chapleau District and we have no member companies in that district, but the causes of logging fires in the Chapleau District are interesting.




**Chapleau — 5 fires caused by Logging Operations.**

1. Burning slash. This fire was allowed to get large before control action was taken.

2. Company employee threw cigarette into b... on railway siding.

3. Wife of Company employee, when picking b... ries, failed to extinguish a cigarette.

4. Sawmill burner toppled over during a h... wind. A natural wind tunnel was formed which sc... tered the burning material for at least 200 yards. F... tunately the company had a man on patrol, and he ... able to extinguish all fires before they reached a l... size.

5. This fire was caused by a contracting log ha... who built a camp fire for warmth after his truck ... run out of gas. He failed to extinguish the fire ... leaving. Shortly after the trucker had departed, ... company scaler and bull-dozer operator drove past ... did not stop to put out the fire as they thought ... was nearly out and wouldn't get away". Fortunat... two Department employees came along in time to p... vent serious damage.

**Because of the increasing number of power-s... in use in Northwestern Ontario the following ... should be interesting:**

1. In the Cochrane District the operator cl... he started the power-saw after refueling same. It ... fired igniting gasoline that had been spilled on ... ground from this and previous fillings and although ... attempt was made to extinguish the blaze and some ... the operator's clothes were burned, the fire develo... quite rapidly and burned over an area of 212 ... before being extinguished.

2. The other fire occurred in the Trent D... and was caused by the chain saw operator laying ... saw down on a bed of pine needles and leaving ... scene. This fire was fortunately confined to ... acre area.



# introducing

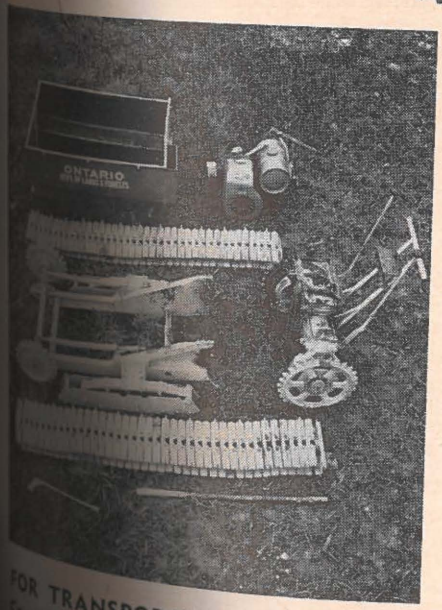
## THE VERSATILE "PACK TRACTOR"




The versatile "Pack Tractor" can be used by survey and cruising parties during all seasons and can be available to carry equipment for fire-fighting during the summer months. Ideal too, for towing sleighs loaded with equipment and supplies. When dismantled, the "Pack Tractor" can be carried in light aircraft, pick-up trucks, canoes, etc.

developed by
**RESEARCH DIVISION ONTARIO DEPARTMENT OF LANDS AND FORESTS**

to provide a vehicle to pack fire fighting equipment and supplies — which would otherwise have to be packed by men or horses.



**FOR TRANSPORTING**

Complete unit can be disassembled using only crowbar and 1 wrench in 5 minutes — re-assembled in less than 10 minutes!

Engine can be removed and taken indoors at night during extremely cold weather. The "Pack Tractor" has been thoroughly tested under all operating conditions over the past 3 years.

The "Pack Tractor" is 30" wide, 60" long and weighs 750 lbs. When disassembled — as shown at bottom left—the largest component weighs 200 lbs. Powered by a 5 h.p. air-cooled engine, the "Pack Tractor" will carry a 500 lb. load up a 90% grade. Equipped with automatic clutch and transmission.

The "Pack Tractor" travels at 4 m.p.h. —the operator walks behind the machine — the steering clutches provide easy manoeuvreability.

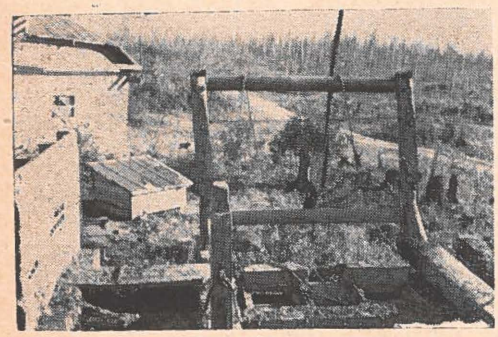
Write today for full information on the new "Pack Tractor".

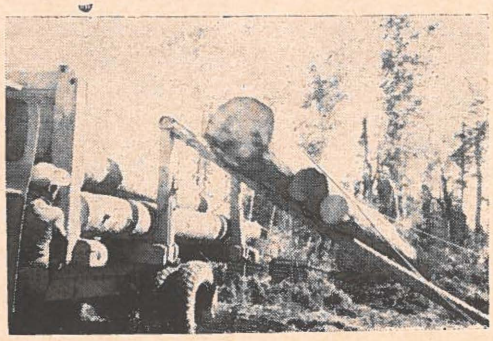
# Timberland Machines Ltd.

**MECHANIZED LOGGING SPECIALISTS**

207 SOUTH ALGOMA STREET PORT ARTHUR, ONTARIO

# The St. Onge Log Loader







After spending a great part of his life in the logging game, Albert St. Onge hit upon an idea for loading which not only speeded up the process considerably, but also took the bull out of bullwork.

Born and brought up in Bonaventure Co., Gaspe, Province of Quebec, that rugged land which Jacques Cartier first sighted on his way up the St. Lawrence, Albert started lumbering at a very youthful age and by way of Kapuskasing, etc., finally worked his way to this area.

His first experience at loading was by hand onto a team. While this, in his own words was alright for a man who was young and vigorous, it was strictly the brute strength and awkwardness method, and the human body would soon burn out doing that type of work. It may well have started his train of thought along lines which enabled him to devise the efficient mechanical method he is using today. He has seen and operated many other systems since then, for example, the decking line, the horse jammer, the mechanical jammer and several others.

This loader is driven by a drum. There is a power take-off from the truck transmission to a three geared (reverse, second and low) additional transmission which drives the loading drum. At the ends of the two bunks on the side receiving the load are two 5-foot posts (removable) and on the opposite side a rack seven feet high, with two metal rollers (top and bottom) six feet long, six inches in diameter on roller bearings. The drum cable has at the end a crotch line, with two 22 foot chains (with small hooks at the end) for ch the logs to be skidded onto the truck. Two skids long are run from the bunks to the ground for the part of the loading. The side posts are then place the bunks and two 16 foot skids are used to finis the top loading of the truck.

The drum cable is 125 feet long and logs ma taken from a skidway of this length with no hand ing necessary. The system is further advantageo that the skidway may be on an adverse slope and taken without any trouble, it works fast, it is eas the truck body (no heavy logs dropping three t feet down on the frame), and very mobile in that built on the truck with the only extras being the sets of skids for raising the logs up.

The loads carried here vary from 2000 f.b.m 3000 f.b.m. for the larger spruce. The system ma installed on any type of truck from a 3-ton to a 1 and even on a trailer.

The St. Onge Log Loader is protected by p and anyone interested in using same should c Mr. A. St. Onge, Marathon Paper Mills of Canada ited, Hornepayne, Ontario.

---

More men than women were employed in C as cooks at the time of the 1951 census, 19,51 and 15,663 women.

—Quick Canadian F

90 persons lost their certificates of Canadi ienship or naturalization in the 12 months up to M 31, 1952

—Quick Canadi

**ORDER YOUR SPRING 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**

**105 North Cumberland Street, Port Arthur - Dial 5-7345**



## High Stumps Waste Wood and Decrease Earnings.

### CANADIAN INVENTED PRESENT TIME SYSTEM

A Canadian engineer was the inventor of the Standard Time system in use all over the world today, it is pointed out in the new edition of **Quick Canadian Facts,** the handbook of facts about this country. Sir Sandford Fleming thought the scheme up in 1878 as a device for simplifying the chores of authors and readers of railroad time-tables. Until Fleming's scheme was adopted every district or large community in the world operated on its own local mean time and every railroad in North America had its own time system or, if they were large enough, time systems. Canada has 7 standard time zones and the difference between the most easterly, Newfoundland, and the most westerly, Yukon, is five and a half hours.

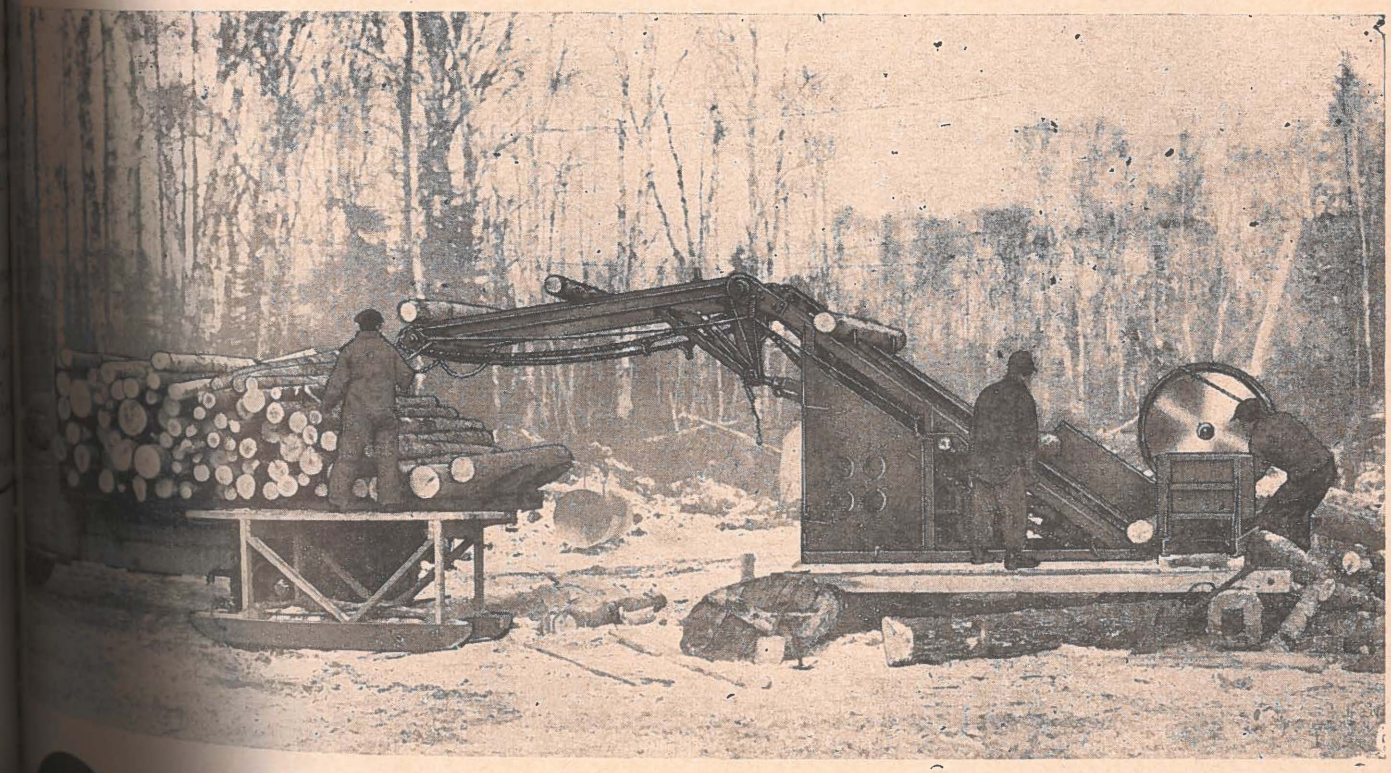
—Quick Canadian Facts.

**ANSWERS:**

1. Yukon Territory.
2. Salt water.
3. Primary textile industry.
4. 1952, 688 million bushels.
5. In early 1920 by Canadian Marconi on the west coast of Canada.


THE NORTHERN ENGINEERING & SUPPLY COMPANY LIMITED

FORT WILLIAM - ONTARIO - CANADA



NESCO

U.S. PATENT—41135-6

MODEL HS 2000 1948

CANADIAN PATENT APPLIED FOR

TREE-LENGTH SLASHER AND LOADER

**Nesco Equipment Ensures — Economical, Speedy, Continuous Operation**

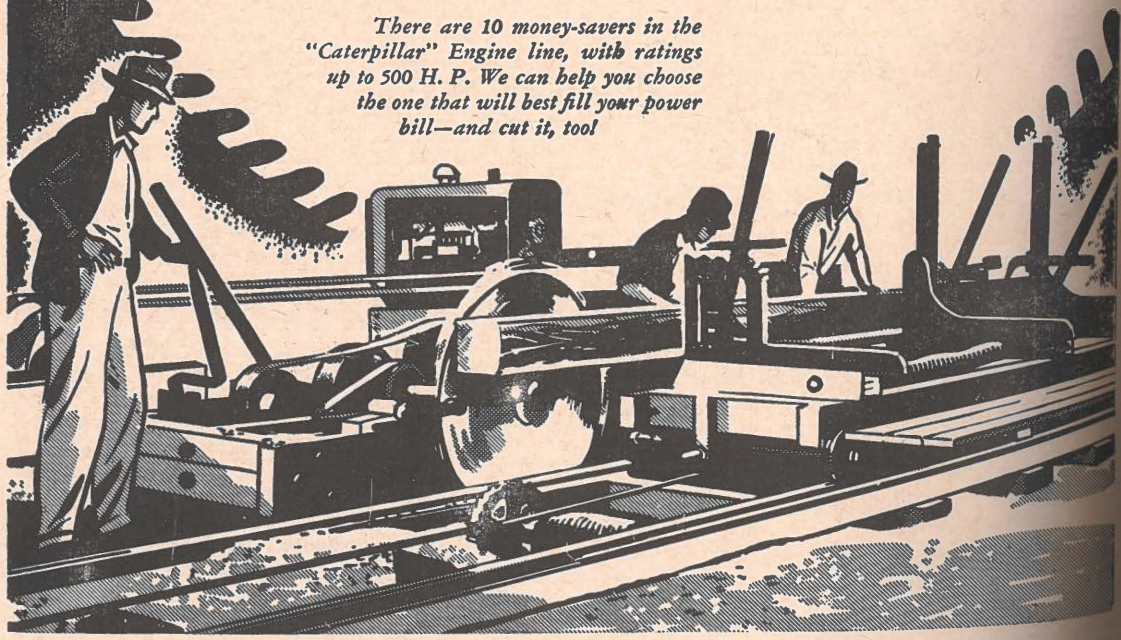
# Sawing at a Saving . . .
## with "CATERPILLAR" Diesel Power!

**Logs turn to profits** with steady sawing power furnished by a long-lived "Cat" Diesel Engine.

Cold weather or hot, you can start up in the morning and know you can run a full day without a breakdown. "Cat" Engines convert small helpings of fuel into steady sawing power. "Cat" Diesels have an unequalled lugging ability to meet changeable saw bites—it's smooth sawing all the way through.

And "Cat" Diesels keep their ability to saw full days . . . to cut fuel costs . . . to keep sawing steady for years and years. Veterans of 50—60—even 70 thousand hours are still piling up savings for their owners. Our sawmill power experts can put new savings in your sawing. Come in and talk to them about your repowering or new powering problems. Do it now!

*There are 10 money-savers in the "Caterpillar" Engine line, with ratings up to 500 H. P. We can help you choose the one that will best fill your power bill—and cut it, too!*



**POWELL EQUIPMENT CO.**

**PORT ARTHUR** **WINNIPEG**

**"CATERPILLAR" Diesel Sawmill Engines**