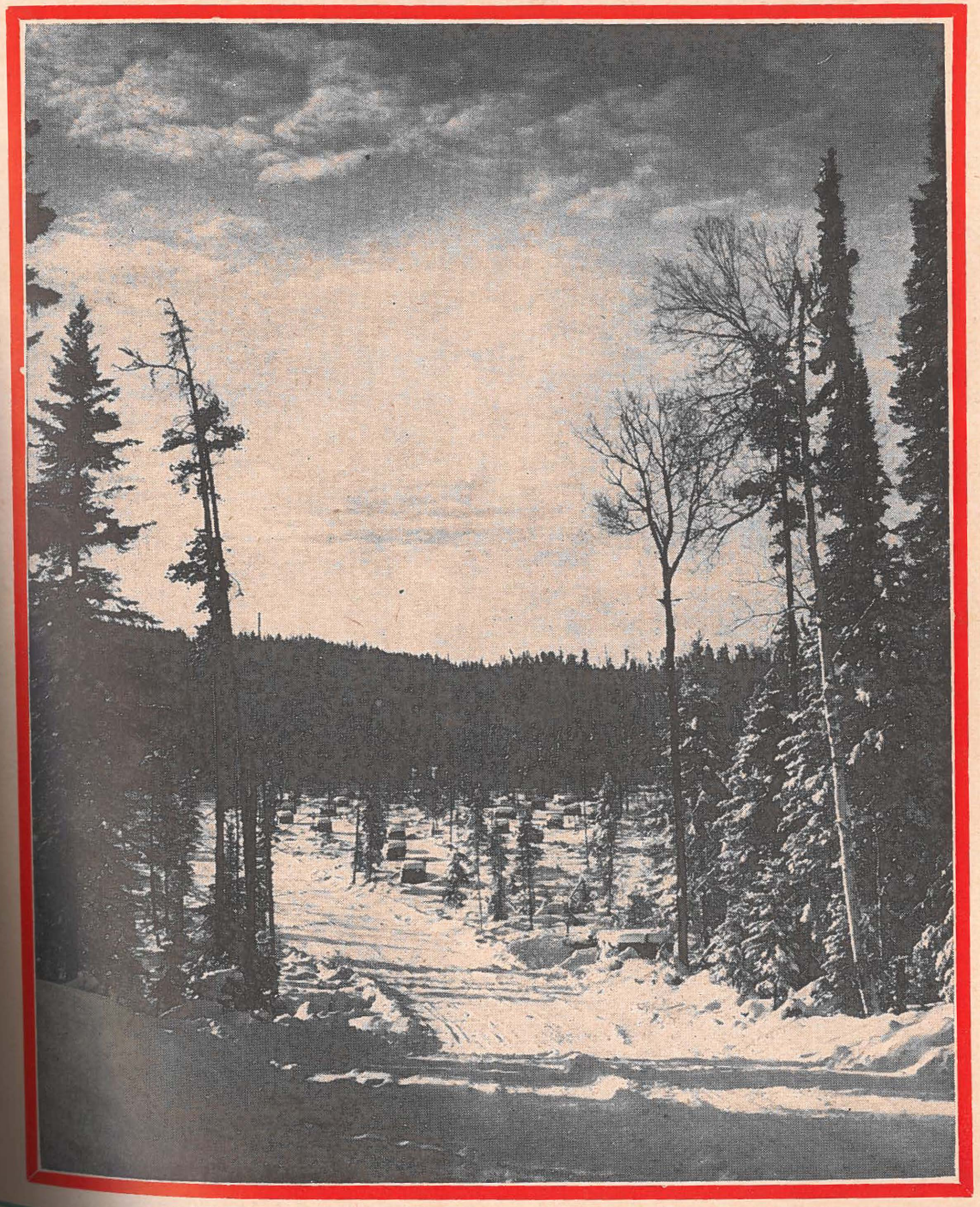
THUNDER BAY TIMBER OPERATORS ASSOCIATION

LOG BOOK

November
December
1953

VOLUME 5 PORT ARTHUR, ONTARIO No. 4



A Merry Christmas

and A Happy New Year

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

Mr. W. R. Sonley,
Marathon Paper Mills of Can.
Public Utilities Building,
PORT ARTHUR, Ontario.

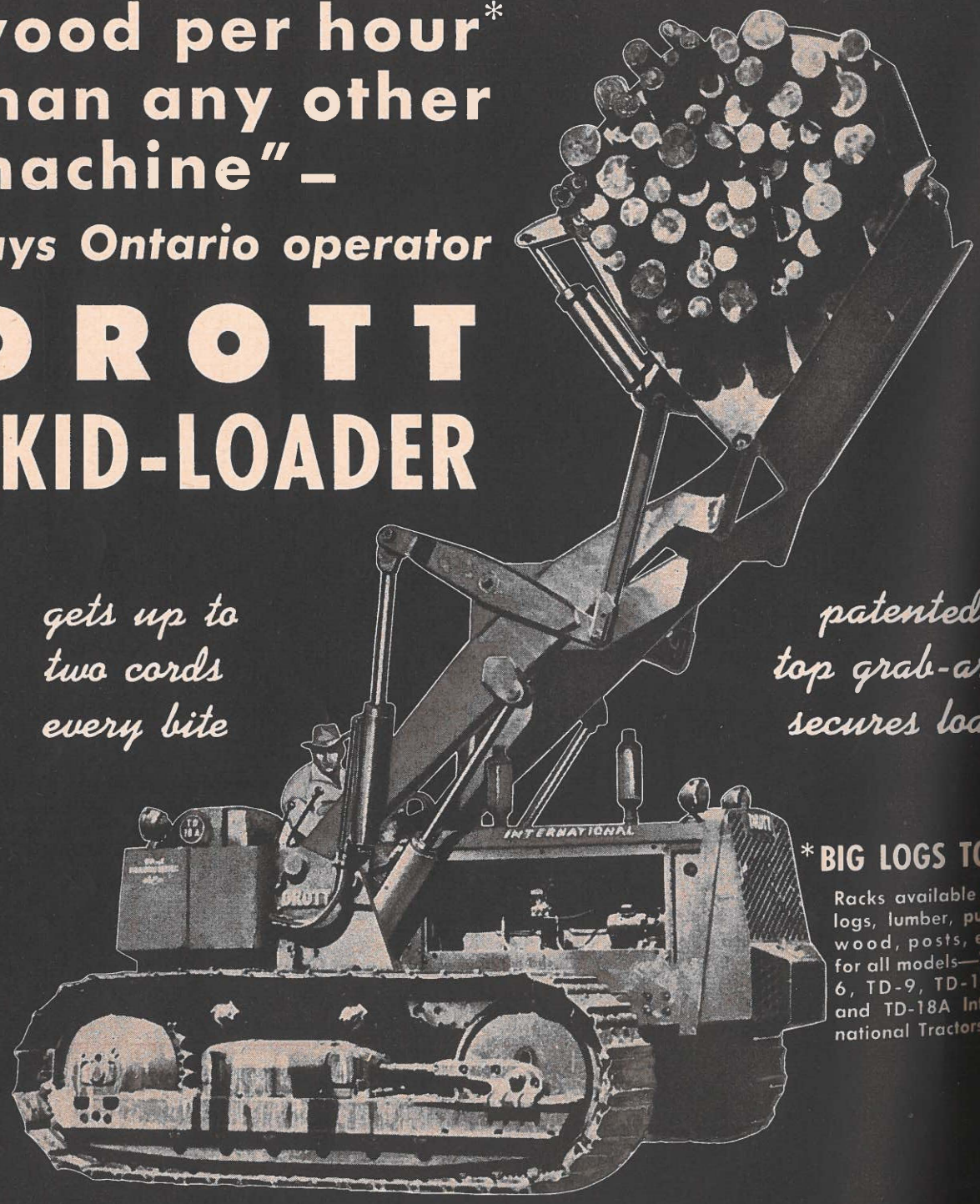
CANADA POSTAGE PAID 3c. Permit No. 16 PORT ARTHUR

QUALITY PRODUCTION WITH SAFETY

"Handles more wood per hour* than any other machine"—

says Ontario operator

DROTT SKID-LOADER



gets up to two cords every bite

patented top grab-arm secures load

***BIG LOGS TOO!**

Racks available for logs, lumber, pulpwood, posts, etc. for all models—TD-6, TD-9, TD-14A and TD-18A International Tractors.

TWIN CITY INDUSTRIAL EQUIPMENT LTD.

EXCELLENT PARTS AND SERVICE

915 MEMORIAL AVENUE PORT ARTHUR, ONTARIO DIAL 55495 - 6-7

THUNDER BAY TIMBER OPERATORS ASSOCIATION

OFFICERS:
H. H. STYFFE ..... President
A. J. AUDEN ..... Vice-President
EXECUTIVE:
A. E. BULL 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
Port Arthur, Ontario

RETURN TO FORESTRY LIBRARY
Woods Division
Marathon Corp. of Canada Ltd.

President's Message

This issue of the LOG BOOK will be in your hands as the 1953 Christmas Season approaches.

In looking over the past year, there was an appreciable drop in volume of production. However, we should always remember and be reminded that forest products and particularly pulpwood are a rapidly expended item. Paper for instance, is as rapidly and regularly consumed as the food we eat. While there can be a **lessening** of demand there can never be a serious lack of demand.

It is our feeling that we can look forward to the Spring of 1954 with renewed confidence for a year of healthy production. The prime problem of this Northwestern Ontario industry is to compete price-wise with other areas. It is incumbent on both labour and management that cost be kept to a point where our products can find a sale on the competitive market that exists today.

With these few remarks, we wish one and all a Very Merry Christmas and a Prosperous New Year.

H. H. "Bert" Styffe

South's Pulpwood Cut Sets New Record

For the third time, the south's pulpwood harvest topped all previous records in 1952, and this year volume cutting continues.

Last year the total cut was 14,564,800 cords, nearly 4 per cent more than in 1951 and 17 per cent greater than in 1950. The greatest drain was on the pine stands with more than 12,782,600 cords being cut. Hardwood made up 1,691,000 cords of the total, and dead chestnut accounted for only 91,100 cords. Although the tremendous drain on pine stands continues, hardwood cordage was up 17 per cent over 1951, indicating a trend toward greater utilization of the South's excellent hardwood stands. Pine cutting was up 3 per cent and chestnut cordage was down 46%.

Since total U.S. pulpwood production in 1952 was 25,045,000 cords, the south supplied 58 per cent of all the pulpwood cut in this country. All southern states except Arkansas, Tennessee and Oklahoma produced more than 1,000,000 cords of pulpwood each. The heaviest cut was in Georgia with 2,513,000 cords being harvested. Mississippi was second with 1,864,000 cords and Alabama third with 1,582,000. Thirty-nine counties, distributed throughout the region, had cuts of more than 60,000 cords each.

At the beginning of this year, there are 63 pulp mills in the South, with a total capacity of 26,865 tons of pulp per day. Six new mills are now in operation with an estimated capacity of 2,360 tons daily.

CORRECTION

On Page 4 of the September-October LOG BOOK, in the article "Artificial Regeneration on Limits of the LongLac Pulp and Paper Company" by E. R. Humphries, a typographical error occurred on line 5.

The number of trees planted in the last three years should have read "1,000,000 spruce and pine seedlings.

Honourary Life Membership Presented to Malcolm Cochran, Certificates Presented to McAdam and Campbell

At a General Meeting of the Thunder Bay Timber Operators' Association held in Port Arthur, Malcolm Cochran, formerly manager of the Hammermill Paper Company and a member of the executive of the Association for many years was presented with an Honourary Life Membership in the Association and a suitable gift. Mr. D. A. Clark made the presentation on behalf of the group.

Mr. George MacAdam, Forest Fire Specialist, Geraldton District, Deparatment of Lands and Forests, and Mr. H. Ken Campbell of the Marathon Paper Mills of Canada Limited were presented with certificates for their part in making the film "Fighting Forest Fires in Northwestern Ontario." The certificates were presented by Mr. J. F. Sharpe, Chief, Division of Timber Management, Department of Lands and Forests, Toronto, on behalf of the Hon. Welland S. Gemmell, Minister of Lands and Forests, who was confined to hospital.

Name of Association To Be Changed

Effective January 1, 1954, the name of the Thunder Bay Timber Operators' Association is to be changed to the NORTHWESTERN ONTARIO TIMBER OPERATORS' ASSOCIATION.

The original name was adopted during war time when Thunder Bay was a region of the War Labour Board. At the end of the war and since that time, many companies from other parts of Northwestern Ontario have joined the Association and today the Association represents operators in the area from the Algoma Central Railway west to the Manitoba boundary. Accordingly, the meeting went on record that the name be changed.

Where Do Raw Products Go?

Of the forest products produced in Northwestern Ontario, the majority are processed to some degree in Northwestern Ontario.

The majority of poles go to Hydro or to the telephone companies and are generally treated in Northwestern Ontario. The mining timber produced goes to local mines, the ties to the railways and the logs for lumber are generally sawn in the vicinity where they are cut.

In Northwestern Ontario, there are approximately 372 sawmills; 252 of less than 5,000 f. b. m. per day capacity; 89 from 5,000 to 30,000 f. b. m. per day capacity; and 31 over 30,000 f. b. m. per day capacity.

There are in Northwestern Ontario 11 pulp and paper mills: one at Marathon, one at Terrace Bay, one at Nipigon, one at Red Rock, 2 in Fort William, 2 in Port Arthur, one at Dryden, one at Kenora and one at Fort Frances.

These mills employ approximately 5,000 employees.

Spruce - Fir Wind Loss

By G. K. Seed

The spruce - fir forests are of major commercial importance as a source of raw material for the pulp and paper and the lumber industries. The principal species are white spruce, black spruce and balsam fir. A common silvical feature to each is a shallow rooting habit. Both spruce and fir are generally considered very susceptible to windthrow. In addition, balsam fir is susceptible to butt rot making it especially subject to windbreakage.

Forest management (the operation of a biological resource at a profit) may be divided into three types—protective management, extensive management and intensive management. The former is the prevailing practice in Canada today. The commercially desireable species are clear cut. The forest is protected from fire, insects and disease as much as possible at a minimum expenditure. Extensive management goes somewhat further in that clear cutting is replaced by partial cutting. It is the in-between phase from protective management to intensive management. Intensive management probably will not be practiced until one full rotation has passed. At that time timber holdings will be reduced in size so that the area will supply only the needs of the mill concerned. Utilization of wood may be more for its chemical properties than for its physical properties. The logging and the cutting system will vary with each forest stand and will give the maximum capitalized value for each area.

At this time Canadian forest management is progressing into the extensive type. Forms of partial cutting to insure natural regeneration will become more and more common. The opening up of stands will subject the residual trees more than ever to the force of the wind. Man cannot control the wind but he can control the type of cutting on the various sites and the size and volume per acre of residual trees. Accordingly a study was conducted adjacent to the Red Lake Highway to determine the extent and variability of wind loss to residual spruce and fir and to indicate the characteristics of individual trees, stands or sites correlated with wind loss. Thirty six one-fifth acre plots were located in spruce-fir stands that had been cut over from one to seven years. From 13 to 77% of the original stand remained after cutting.

Disregarding wind velocity and the characteristics of individual trees, the following factors may affect the amount of wind loss: the density of the original stand, the amount cut, the amount of spruce and fir in the residual stand, the uniformity of cutting in the surrounding area, the time since cutting, the topographic location and edaphic conditions. The relationship of wind loss to any one factor may be confounded by others and a great many plots would be necessary to take various combinations of factors into consideration. Nevertheless, the results expressed as an average with a measure of deviation or as a specific trend give some indication of what is happening to the residual spruce and fir.

The study indicated that the amount of wind loss of residual spruce and fir increased with time but that the rate of loss declined markedly after more than two summer seasons of exposure. Future studies should be carried out in stands with three or more seasons of exposure.

The average wind loss was 20 per cent of the r idual spruce and fir basal area with a standard dev ion of 17 per cent. On the upland the average was 26 per cent and on the lowland 18 per cent w standard deviations of 24 and 12 per cent respective The difference is not statistically significant.

Approximately one-half of the fir and one-quar of the spruce wind loss was due to breakage which g erally occurred in trees weakened by rot.

On the upland, windthrown trees usually had sided root systems caused by rock obstructing root velopment. On lowlands, the deeper, finer textur soils appeared to offer poor mechanical stability esp ially when wet.

The amount of wind loss of both spruce and was found to be related to the height of trees. percentage of wind loss increased in trees from 20 about 45 feet, declined in trees from 45 to 55 and thereafter increased rapidly. The relation of loss to height contains both an age and a degree suppression relationship. The smaller sized trees w less than 40 years old and were free of rot. In addi they were protected by larger trees. Trees from 3 45 feet tall were about 80 years old and were suppr ed and intermediate trees. Many of these were fected with rot. Their root syshems were poorly de oped. They were very susceptible to windthrow windbreakage. Trees from 45 to 55 feet in hei were codominant and dominant trees. Their root tems were well developed and the number of rot fected trees was small. They were best suited to sist windthrow and breakage. Trees greater than feet in height were mostly over 80 years of age. T decrepit condition made them highly susceptible wind loss.

The amount of wind loss in each diameter c of residual spruce and fir varied. For trees eight ches and under the average loss was less than 20 cent compared to approximately 30 per cent for lar trees.

In conclusion it appears that residual spruce fir cannot be completely relied upon to furnish full cuts. The relationship to height indicates that partial cutting system is introduced, cutting should done from below and the windfirm codominant dominant trees left. Care must be taken during fing to prevent injuries to residual trees which provide infection courts for rot.

The first of a series of articles by members the Canadian Institute of Forestry, Lake of the Woods Section.

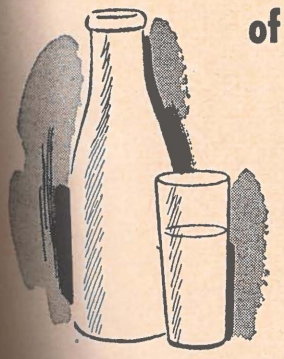
QUICK CANADIAN QUIZ

1. In the U.S. the density of population is 50 persons per square mile. What is it in Canada?
2. What is the name of the reindeer in its wild state?
3. What river in Canada has a depth of 800 feet?
4. What percentage of Canada's forest resources stand on publicly owned Crown lands?
5. What is, and where would you find a beluga?
6. What one industry uses one third of all electric power generated?

(Answers on Page 17)

Why Borden's Trumilk is the Ideal Milk for your Camp

1. All the food value of fresh whole milk!



TRUMILK is a powdered whole milk which includes *all* the cream, all the protein and other nutritional value of finest fresh, whole fluid milk!

2. Costs as low as 55¢ a gallon!



Yes, here's delicious whole milk, ready to use *anytime* for as low as 55c a gallon . . . a real saving on your milk bill, especially where large quantities are used. Further saving: there's *no waste* . . . you make up *only* as much as you need *when* you need it!

3. Double-vacuum-sealed for camp use!



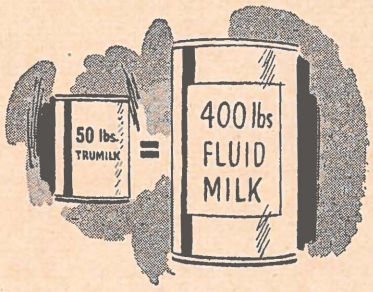
Heavily protected with an outer plywood drum, the inner vacuum-sealed metal container protects freshness of Trumilk *indefinitely!* Also has inner friction-top cover to protect contents after seal is broken.

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



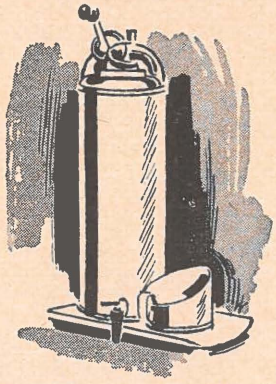
Just add TRUMILK to cold water, mix, and in a jiffy, you have milk ready for drinking. TRUMILK is excellent, too, in soups, puddings, and all baked goods. Can be mixed dry with dry ingredients for cooking convenience.

5. Easy handling—less weight—no freezing!



TRUMILK (whole milk powder) is only ⅛ the weight of fluid milk. This cuts transportation costs to the minimum ...makes handling easier. Under seal, TRUMILK keeps perfectly in summer heat or below zero weather . . . indefinitely.

6. Fluid whole milk in a jiffy!



Now you can mix TRUMILK in any quantity with Borden's new effort-saving hand-mixer. It's a 3-in-1 mixer: (1) mixes (2) stores (3) dispenses. Mixers available *at cost* in 5 gal. and 2½ gal. capacity. Order 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, LTD., 130 Water Street, Vancouver, B.C.

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

McKENZIE, STEPHENSON LIMITED, 345 Higgins Ave., Winnipeg, Manitoba

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



The Lakehead Forestry Library

By D. M. Fisher

You may have read that a forestry library has gotten underway in Port Arthur and wondered: how, why and where?

The recognition of the need and the request for a library came from a group of foresters in the Thunder Bay area. They felt that long-term planning and a well-informed woods industry must depend to a large extent on printed material. The nearest adequate forestry libraries are in Ottawa and Toronto — too far away to do this area much good.

The foresters, headed by N. F. Lyon, Department of Lands and Forests; J. H. Godden, Great Lakes Paper Company Limited; Ken Hearnden, Abitibi; H. O. Kantola, Newaygo; and G. R. Sonley, Marathon; sought and received the co-operation of the provincial government. The Research Council of Ontario, directed by J. O. Wilhelm, entered the picture, much as it did in the Heron Bay project. Professor Wilhelm arranged for an annual grant of $5,000 from Research Council funds. This grant is to run for five years. The Department of Education offered the use of the library at their Lakehead Technical Institute with the understanding that the librarian appointed would also look after their collection. The Department of Lands and Forests, through R. N. Johnston, Head of Research, undertook to hire the librarian and to counsel the project.

The Institute owns a small nucleus of half-a-hundred books on forestry and allied fields. This is used for the two-year technical course in forestry. On this base is being built a library which, simply stated, will have three objectives. It will be (1) a general forestry library of interest and use to anyone in the forest field from camp cookee to company president, and to the general public; (2) a collection of books, reports, and magazines covering specialized fields of forestry in enough detail to enable foresters to follow up research methods and data on matters such as seeding, planting, increment and photographic surveys, sustained yield, etc.; (3) a collecting and central agency for the results of research carried out in Northwestern Ontario.

It takes a long time to build up a library. By next spring we hope to have ready and in use several hundred recent books, about a thousand pamphlets and reports from government and association sources, and files of twenty-five or thirty magazines. A committee of four has been appointed to select material for the library. They are George Sonley, Marathon; John Campbell, forestry master at the Institute; Frank Lyon of the Department of Lands and Forests; and the librarian.

The toughest problem ahead is to see that th library is widely used. How to make material availab to men in the bush? How to let them know what w have,

First, we are prepared to mail to interested peop of the area,books, pamphlets or magazines from o stock for loan periods varying from two weeks to month. We will pay the postage one way. We poi out that "book-post" is far cheaper than "letter-post"

Second, we are making up a mailing list of fores ers, wood managers, etc. to whom we will send acces ion lists at regular intervals. These lists will note a the material we acquire as it is acquired. We welcom anyone to the privilege of this list. If you spot an thing specific that you would like to see, drop us card. If there is any subject you would like to follo up, let us know and we will hunt up any articles or re ports that cover it.

In recent years, libraries throughout North Ame ica have built up inter-library loans. Thus the smalle library can call on the resources of the bigger libraries We can borrow, and have received promises of co-ope ation, from the best forestry libraries in Canada and th U.S.A. If the material we borrow is pertinent enoug to be permanently valuable to us, we plan to copy photographically for our files before sending the lo back.

We must wind up with an appeal to readers of th LOG BOOK. Use the library! Call on it whenever yo want information or reading of any kind. A sma group of enthusiasts have obtained the library; back their work by using it. The adlress is: Forest Libra 100 North Cumberland Street, Port Arthur, Ontario.

CHEMICAL TREATMENT OF ASPEN BY LONGLA PULP AND PAPER COMPANY

In the period July 9 to July 29, 1953 an estimat 720 cords of trembling aspen were treated by girdli the standing trees and painting the girdle with "debo ing compound", a commercial chemical obtained fro the Chipman Chemical Company.

Two crews of 5 men each, both under one supe visor, were used. The individual crew consisted of men girdling and 1 applynig the chemical.

The treated trees showed signs of death within days to 2 weeks of the application of the chemical, are now dead. As far as can be ascertained, the b has not tightened on these trees, though none of th trees has been cut and there has been no attempt peel them.

ORDER YOUR WINTER 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

CHEMICAL TREATMENT OF TREES

In the September-October issue of the LOG BOOK, a report was made by Mr. Howard Hicks, Woods Superintendent of the Northern Paper Mills Limited, on the experience of chemically treated trees.

Mr. Hicks has been kind enough to forward additional information as follows:

"From this season's experience we now find that by taking extreme care to girdle these trees at stump height really pays dividends. We also find, in our present peeling operations, we have gained by the application of slightly more chemical than was applied last year.

We have had men peeling since the middle of September in timber which was treated in July of this year. Having taken the precautions mentioned in the previous paragraph we can truthfully say that we have had exceptionally good results this season, in that this wood is being peeled as easily this fall as sap-peeled. These men will continue to peel until the bark is frozen.

May we point out that our experiments here at Hansen have been in black spruce only. However, this chemical can be used in poplar and birch also.

SCALING COURSE OF INSTRUCTION — CAMP 20 BLACK STURGEON CONCESSION OF GREAT LAKES PAPER COMPANY LIMITED

By W. B. M. Clarke

Timber Management Division, Dept. of Lands and Forests

On October 23rd a formal scalers examination was held at Camp 20 to determine whether fifty-two candidates assimilated sufficient knowledge to qualify them as fully licensed scalers in the Province of Ontario.

Jim Peden, Supervisor of Scaling in the Geraldton District, was Chairman of the Board of Examiners; with Cleve MacKay, Scaling Supervisor in Kenora; Leo Sullivan, Assistant Scaling Supervisor in Kapuskasing; and Bill Hall, Port Arthur, District Check Scaler, assisting.

These men handle collectively the work of lecturing and instructing in the basic fundamentals of scaling and they also give the field instruction necessary to train the men to measure logs and make correct deductions for defect.

The measurement of stacked pulpwood, cubed wood and board foot measure in both Doyle and Ontario rule is taught. The measurement of boom, pole, fence timber and ties is covered by this course.

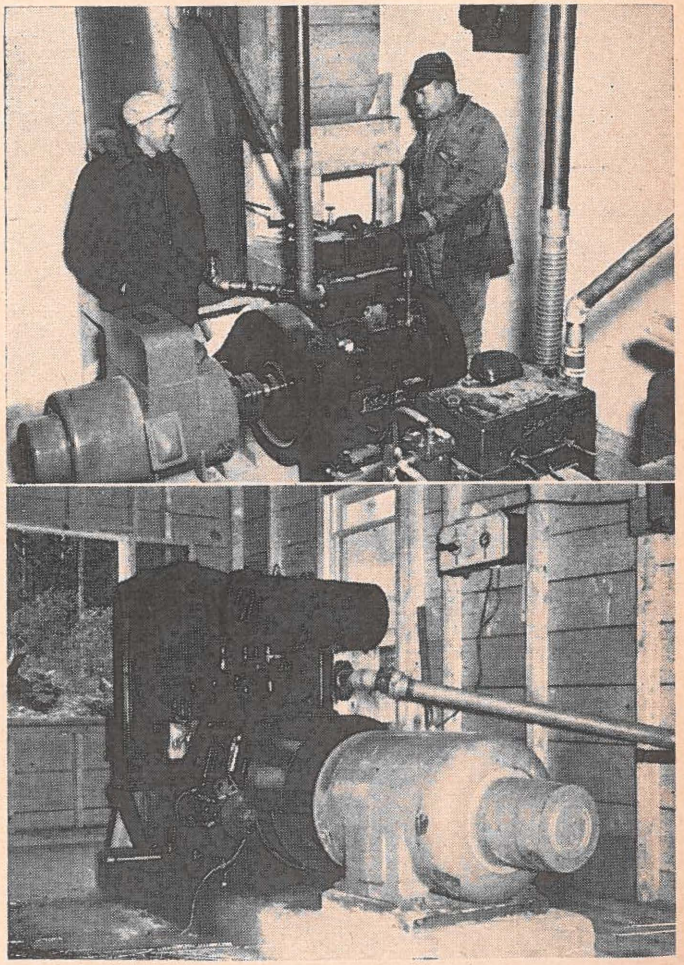
As the Ontario Log Rule is being used more extensively, the sawlog instruction stresses this rule in place of the Doyle Rule.

The Crown Timber Act, 1952 forms an integral part of the course and the relationship of forest management to scaling duties is stressed for it is increasingly apparent that a scaler's duties will embrace many of the aspects of management based on his intimate contact with the operations in general and the basic material being utilized in particular.

The late Mr. J. D. Pennock, as Supervisor of Scaling for the Province of Ontario, contributed a sound and uniform basis to the practice of scaling in this Province and it is the intention of the Ontario Department of Lands and Forests to carry on the scaling practice under the able direction of District Scaling Supervisors throughout the Province. These men as the Senior Scaling personnel, will directly direct and supervise scaling activities through their District Foresters.

Lister

Low Cost Power



for railroad signalling

The C.N.R. operate a number of Russel-Hipwell generating sets in Northern Ontario to provide electric power for their Centralized Traffic Control . . . a system which speeds up train movements, reduces operating expenses and allows more utilization of track facilities.

Sub stations at Oba, Fire River and Elsas each house an installation comprising two 16 h.p. Lister diesels direct connected to 7.5 k.w., 115 volt, 60 cycle generators. One R-H generator control panel is provided consisting of an automatic voltage regulator, manual transfer switch, field rheostat, ammeter and voltmeter. Lister diesels for this C.T.C. system provide 75% of the power required. Working 24 hours daily, these engines are economical to operate . . . using only half a gallon of fuel oil per hour.

for logging camps

Away in the bush at Sloat Lake . . . . . about 40 miles from Edmundston, N.B., the Fraser Companies Ltd. operate a Russel-Hipwell generating set for camp lighting. This unit comprises a 30 h.p. Lister diesel engine driving a 20 k.w. 115 volt generator. Fuel consumption is just over one gallon per hour.

RUSSEL-HIPWELL ENGINES LIMITED

235 BAY STREET PORT ARTHUR

Much Improvement Work Undertaken This Year

In addition to the normal work of producing pulpwood (peeled and rough), logs, ties, poles, lumber, etc., cruising, mapping, general maintenance of camps, dams, roads, etc., considerable improvement work has been undertaken by the majority of companies in Northwestern Ontario in preparation for woods operations this Fall and in the years to come.

The LOG BOOK made a brief spot check on work carried out by a number of companies in Northwestern Ontario and reports as follows:

Ontario-Minnesota Pulp and Paper Company Limited
Fort Frances Division
Lake of the Woods Concession:
5 miles permanent road bulldozed, 2½ miles gravelled.
Manitou Concession:
7 miles permanent road bulldozed.
Camp M-403 under construction.
Seine Concession:
4 family dwellings built at Camp S-113.
Re-gravelling 10 miles of tote roads.
6 miles of gravel road being built.
Resaw being added to Finlayson Sawmill.

Kenora Division

1. A family unit camp under construction at Hillock Lake, 11 miles off the Fort Frances Highway, and about 38 miles from Kenora, consist of dwellings for 25 families and bunkhouse and cookery to handle 10 to 15 single men if and when required.
2. Six miles of all-weather road under construction from Red Lake Road into the Aerobus Lake area. Six miles of all-weather road into the Dryberry Lake area from Hillock Lake.
3. Two old dams on Dryberry Lake being completely renewed and dam on Berry Lake being repaired to handle all pulpwood cut in the Dryberry Lake area.
4. Planing mill and resaw installed at the Patricia Sawmill.

J. A. Mathieu Limited, Rainy Lake, Ontario
Improved 20 miles of old roads and built 10 miles of new roads.

Jan Timber and Contracting Ltd., Dryden, Ontario
Improvements to depots.
Roads improved — main road gravelled and graded 6 miles.
Repairs to sluice.

Dryden Paper Company Limited, Dryden

1. New all-weather road from Sunstrum Road to Route Bay on Lac Seul.
2. Pulpwood holding ground at Dinorwic improved by pile driving.
3. Pulpwood holding ground in Van Horne Township improved by pile driving.
4. New sawmill constructed at Dryden, Ontario.

Patricia Lumber Company Ltd., Sioux Lookout, Ont.
Depot camp rebuilt.
5 miles all-weather road constructed.
6 miles winter haul road constructed.
Limit improvements: Location of future roads.

Great Lakes Paper Company Ltd., Fort William, Ontario
Black Sturgeon Concession:
Camps:
Moved portable buildings from Camp 25 to new camp site 39 and built eight new portable buildings.
Camp 18 — addition— four portable barns and one portable barn boss shack.
Built three new houses (4 rooms and bath) at Camp 1 Depot.
Roads:

New road from Camp 18 to Abigogami Watershed	5.5 miles
One 28' span bridge across Leckie Creek	
New road from High Portage Camp to High Falls	4.5 miles
Complete road from Camp 30 to Camp 31	4.0 miles
Total	14.0 miles
Improve present road to High Portage	2.5 miles
Widen and straighten road from Sturge Lake to Albert Lake	4.7 miles
Total	7.2 miles

General maintenance on all present roads and bridges
Dam and River Improvements:
General dam repairs on present dams.
New side pier at Twin Rapids, Black Sturgeon River.
Martin-Gull Lake Limit:
Roads—Complete the following roads:

To Norway Lake	0.5 miles
To Long Lake	1.5 miles
To Lorne Lake	1.5 miles
Total	3.5 miles

Other Improvements — Complete jackladder and holding ground at Scotch Lake.
Dog River Concession:
Camps:
11 additional portable buildings to complete Camp 23
11 additional portable buildings to complete Camp 23
10 additional portable buildings to complete Camp 23
Build two new houses (4 rooms and bath) at Depot Camp 226.
Build one new garage at Depot Camp 226.
Roads:

Complete all-weather gravelled road to Camp 231	3 miles
Complete all-weather gravelled road to Camp 233	3 miles
Total	6 miles

One 28' span bridge across Dog River.
General maintenance on all present roads.
Valora-English River Concession:
Camps:
10 additional portable buildings to complete Camp 31
1 new house (4 rooms and bath) at Depot Camp Valora
Roads:

New all-weather gravelled road to Camp 319	4.5 miles
Build up present winter road to all weather truck road from Valora to Camp 300	3.0 miles
Improve wagon road to truck road from main road at Camp 309 to Barrel Lake	0.5 miles
Total	8.0 miles

General road repairs from Ignace to Valora 48 miles
River Improvements:
Rebuild 2 piers at Umfreville.
Build 2 new piers at Jarvis Lake.

Abitibi Power and Paper Company Limited
Port Arthur Division:
New school at Auden.
2 new houses at Auden.
9 houses on Wolf River moved 22 miles to new location

(Continued on Page 9)

new Eynon panel camp (150 men) — Camp 227.
Eynon camp enlarged from 150 to 210 men
nd converted to Headquarters for Provincial District
Camp 226.)
8.5 miles of all-weather road completed, 6 miles
raded and ditched.
Wolf Lake Dam renewed.
Umfreville Railway Spur extended.
New railway spur near Raith for Experimental Forest.

St. Lawrence Corporation Limited, Nipigon, Ontario

Camp Improvements:
Water System installed in one additional camp.
Three older camps wired for electricity.
Beardmore Depot yard extended.

Roads:
13 miles of new permanent all-weather road, plus
10 miles of improved all-weather road.
Approximately 12 miles of all-weather cutter transport
road in camp areas.

River Improvements:
Cleaning of 16 miles of new river, placing of glance
booms, etc.
Cutting and preparing tow booms for first drive on
8 mile long lake.
Maintenance and annual replacement of booms on
Lake Nipigon and Lake Helen.
Other improvements — Flowage clearing on one lake.

Northern Forest Products Limited

Improvements being made at Camp #36 which will be
turned into a permanent camp. The camp is being
equipped with hot and cold running water and insul-
ation.
Road improvements commenced August 15 and grav-
elling of part of the Black Sturgeon haul road and the
gravelling of approximately 6 miles of main bush road
commenced at that time. As cutting progresses, there will be approximately six miles of new haul road to be built to a new landing on Black Sturgeon Lake.

Marathon Paper Mills of Canada Limited., Port Arthur

Pic Limit:
Roads improved— 4 miles Klinestiver Highway.
Roads constructed— 15 miles main road.
River improvements— Sweepers cleared from White Otter. Debris from mud slides cleared from Lower Pic.
Miscellaneous improvements—
New Woodlands office, Marathon.
Two new residences built (Camp 12).
Mobile slasher developed, constructed, and successful.
All residences at Caramat and Stevens improved with new linoleum flooring.

High Falls Timber Company Limited, Fort William

Stuart Location:
Roads improved— 2.50 miles.
New roads built— 1.00 mile.
Landing places enlarged and improved— 5000 sq. yds.

Newaygo Timber Company Limited

Mosher Division:
Completion of building project at Mosher, Ontario.
Constructed additional 10 miles of all-weather road.
Completed portable camp buildings.
Double track 1,200 feet of loading spur for pulpwood loading, and clearing.
Completed construction of semi-portable sawmill.

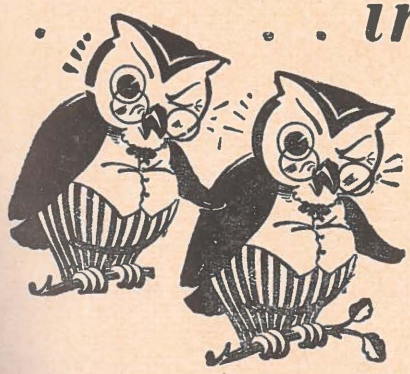
Mead Division:
Re-built laundry, dry room and steam bath destroyed by fire in spring.

Magnet Point Division:
Moved portable camps across Otter Cove, distance of

(Continued on Page 26)

Genuine FORD PARTS and ACCESSORIES

"Best . . . . . in the Long Run!"



Gibson Motors Limited carry the largest stock of Genuine Ford Parts and Accessories 'twixt Toronto and Winnipeg.

For your convenience, Gibson Motors Limited maintain a speedy shipping department. All orders are given prompt attention so that you will not be subject to costly lay-up. You can depend on Gibson Motors Limited for Service—Plus!

FORT ARTHUR **GIBSON MOTORS LIMITED** **FORT WILLIAM**

Authorized Ford Dealer — Thunder Bay District

Northwestern Ontario Branch (Woods), Ontario Pulp & Paper Makers' Safety Association Fall Field Meeting Held.

The Ontario Pulp & Paper Makers' Safety Association, Northwestern Ontario Woods Branch held its Fall Field Meeting at the St. Lawrence Corporation headquarters in Beardmore, Ontario.

A visit to the cutting operations at St. Lawrence Camp No. 93 to observe cutters in action and to discuss any unsafe practices seen during the visit was unfortunately rained out and the morning occupied by discussion on safety codes.

The safety film that is being made by the Association "Safe Cutting and Piling" is nearing completion and the first run of this film was shown to those present. The first draft of the commentary was read and after some amendments, was accepted.

Mr. Ken Campbell of the Marathon Paper Mills of Canada Limited spoke on "Visual Aids in Safety Training" and Mr. Bert Rushton, Visual Education Director, with the Lumbermen's Safety Association, outlined the Lumbermen's Safety Association's plans for movies, posters and other visual training aids.

Mr. Campbell's paper on "Visual Aids in Safety Training" is reprinted elsewhere in this issue.
Training" is reprinted elsewhere on this page.

Northwestern Ontario Represented At National Safety Congress, Chicago

Northwestern Ontario was well represented at the National Safety Congress held in Chicago, October 19 to 23rd.

Mr. A. E. Minor, Safety Supervisor of the Kenora Division of the Ontario-Minnesota Pulp and Paper Company Limited, was General Chairman of the Pulp and Paper Section of the Congress.

Also in attendance were Fred T. Morrish, Safety Supervisor, Ontario-Minnesota Pulp and Paper Company Limited, Fort Frances Division along with Mr. Bob McMillan and Mr. Robert Potts, Logging Superintendents. Mr. Wally Lockhart, Safety Supervisor, represented the LongLac Pulp and Paper Company Limited and Mr. D. H. Roy, Safety Supervisor Woods, represented the Spruce Falls Power and Paper Company Limited. Mr. T. S. Jones, Manager, Thunder Bay Timber Operators' Association and Mr. D. B. Chant, Secretary-Engineer, Ontario Pulp and Paper Makers' Safety Association were also in attendance.

Mr. T. S. Jones took part in a panel with the subject "Protective Equipment for the Woods Worker." Other members of the panel were:

H. H. Jefferson, Training Officer, American Pulpwood Association.

Mr. Byron M. Oyster, Safety Engineer, Weyerhauser Timber Company, Tacoma, Washington.

Mr. David W. Sowers, Jr.; Research Forester; Wood Dept., West Virginia Pulp and Paper Company, Hancock, M.D.

Thomas Thompson, Logging Foreman, Tomahawk Timber Company, Ely, Minnesota.

There were over 12,000 registrations at this Congress which covers safety in every industrial line. Manufacturers' displays of the latest equipment were very interesting and the subject of safety received considerable "going over".

VISUAL AIDS IN SAFETY TRAINING

By Ken Campbell

WHAT

Visual aids are all of those visual devices which enable people to more clearly grasp ideas. Modern display advertising has made great use of visual aids in getting its many stories across. In safety training on woods operations, the following visual devices may be used:

1. Motion Pictures
2. Posters
3. Slides or film strips
4. Signs
5. Diagrams and charts
6. 3-D models (static or animated)
7. Displays
8. Outline cards (handouts)
9. Skits or plays
10. Puppets.

WHY

A skyrocket will impress a vice-president, a bull-cook, a cutter and a truck driver whether they can read or write any language at all. A picture or other visual aid may get across an idea without words or make clear a method with a few simple sentences.

In the woods now are many workers who have difficulty speaking or understanding English, to satisfactorily converse with all the men in a given camp it may be necessary to speak six or eight different languages. This is the most immediate reason for greater use of visual aid materials. Of course of consistent value is the fact that ideas can be more rapidly appreciated by everyone when explained by a good picture or model.

HOW

Visual aids are tools — they cannot be expected to do a job alone, they must be used in conjunction with a specific program. For example, the instructions of the strip-boss and the kind of work being done. It is good psychology to be positive with visual aids. Saying "Please use our sidewalks" will usually achieve better results than "Keep off the Grass".

Every month national advertisers spend much money in publishing fresh advertisements in our magazines — we can take the hint and guard against any poster or sign becoming a part of the background. Posters should be removed after a reasonable time and replaced with a different one; models and displays should be changed or freshened; signs should be kept painted and in good repair.

The visual aids program should be a part of the basic safety program. The tools available may very well "get across" an idea that was difficult to understand otherwise.

WHO

Some one interested person should co-ordinate the visual aid materials. Perhaps the Safety Supervisor could handle this chore and use the particular aid for the job he wishes to do.

It is of increasing value to have some specialization in the visual aids, some member of the staff who can create or originate suitable aids could supply the needs of an operation (or area) thus leaving the operations people free of this activity so they could concentrate on the use of "custom made" visual aids. Such co-ordination would also tend to make available to all the good ideas of a few.

(Continued on the Next Page)

Safety Suggestions From The Quebec Pulp And Paper Safety Association Inc.

Heavy Supporting Belt for Tractor Operators

A suggestion has been received that wide supporting belts, similar to those worn by motorcyclists might be a help to tractor drivers who become very fatigued owing the vibration and roughness of the ride which they take during the day. Consequently, the Association procured a belt and gave it to one of our member companies for trial.

The following has been reported by the tractor operator who used the belt:-

Advantages: The belt gives a much needed support and prevents back-ache and fatigue after a long day on the tractor.

Disadvantages: When it is very hot it is inclined to irritate the skin and cause a skin rash due to the lack of air circulation.

Suggestions: It is suggested that the belt should be made with a number of holes in it or made of a cool, strong, porous material such as nylon mesh, something which would not absorb perspiration and that would not be too costly for the operator.

It is to be noted that while the above mentioned driver did not use the belt for four or five days during intense heat, he started wearing it again as soon as the weather became cooler and has been wearing it ever since. He is apparently convinced that it relieves strain and increases his comfort on the job. Needless to say a man who is tired and uncomfortable is more likely to be more subject to an accident and we, therefore, recommend the above idea in the interest of accident prevention.

———o———

VISUAL AIDS IN SAFETY TRAINING

(Continued from Page 10)

HOW MUCH

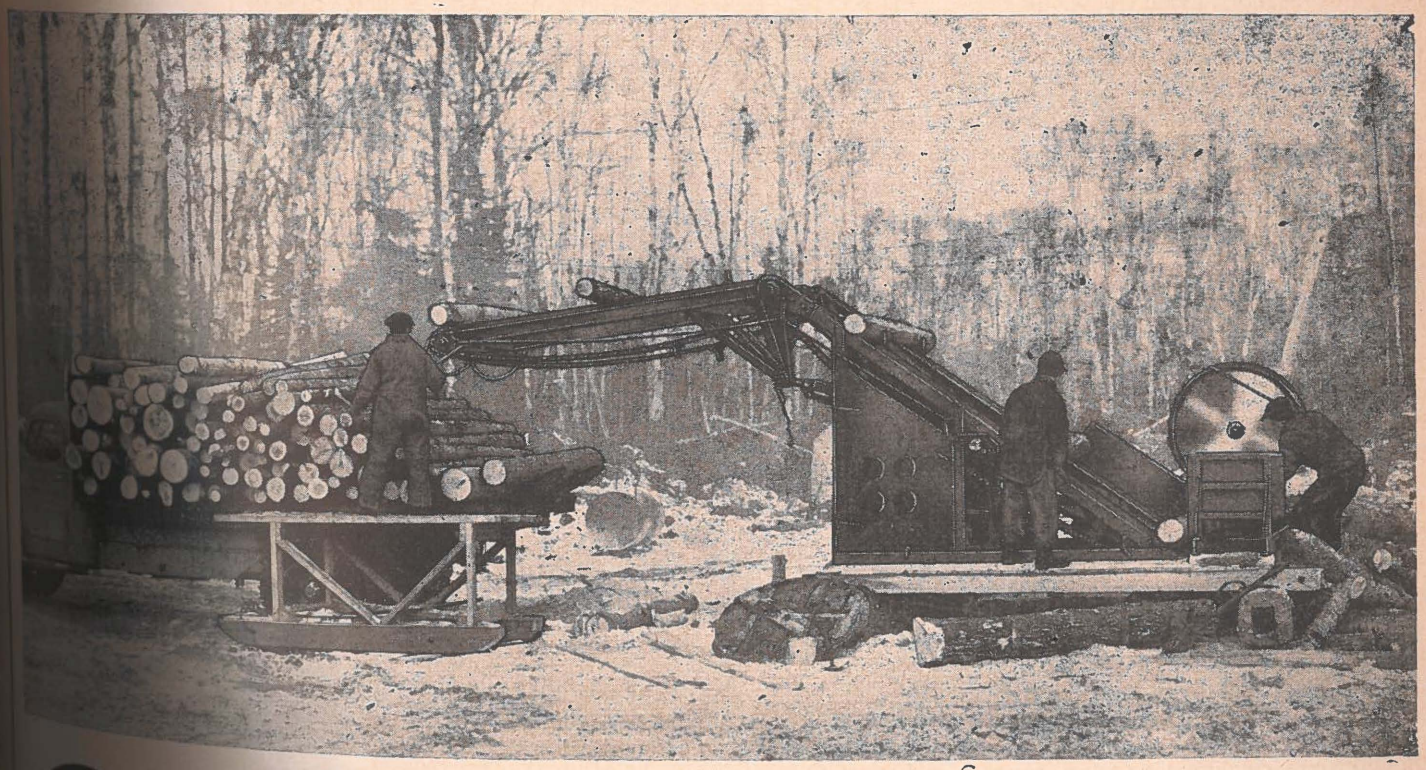
Visual aids, like most other tools and devices are less costly per unit when a number of units are produced. Posters, for example, require an artist to draw them whether a hundred or a thousand copies are required. Similarly, a motion picture has a set production cost no matter how many prints are finally made.

To reduce the cost of visual aids, some measure of co-operation would enable several operations to use the same or duplicate units. Even commercial processors are inclined to give good rates when a volume of work is assured.

SO WHAT

Everyone uses visual aids to a greater or lesser degree. The best use of these important tools is handicapped to some extent by the lack of familiarity with their use. All employees are now conditioned to looking at pictures — we could use this conditioning to effectly help in selling safe working practices.

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

Fire Safety In Lumber Camps

By J. E. Ritchie, B. A. Sc., P. Eng.
Deputy Fire Marhal

Fire in a camp may spread to disastrous proportions in the forest. A fire which originates in the forest may wipe out the camp and interrupt operations. In either case both the operators and the employees suffer a loss. Almost all such fires are preventable by the observance of simple precautions. If by mischance a fire does occur, prompt and proper use of fire fighting equipment is likely to knock it out or at least limit it to more reasonable bounds. Fire prevention and fire protection are both worthwhile for all concerned.

PLANNING

Advance planning is essential to ultimate satisfaction. For example, the location of a camp site may have an important bearing on its safety from destruction by fire. If the camp site and the area immediately surrounding it are cleared of duff and combustible litter down to mineral soil the hazard of incipient smouldering fires will have been very materially relieved. Spacing of the buildings instead of crowding them together affords an opportunity of confining any accidental fire to the building of origin. This is of considerable importance in view of the materials of construction normally employed. Accessibility of water for fire fighting purposes is another factor that should not be overlooked. It is well to remember that it is of no value for that purpose unless it can be conveniently reached and applied on a fire.

Life, as well as property, is at stake and smoke and noxious gases are the principle death dealers. Except for flash fires in grease, oil and similar flammable materials, probably not more than 10 per cent of those who lose their lives in fires are harmed by actual flame until after they have been overcome by smoke or superheated air or toxic gases such as carbon monoxide and cetrain other products of combustion. Heat, smoke and gases spread rapidly, particularly upward, unless confined or retarded by proper enclosures and cut-offs. Avenues of egress should be adequate in number and location and protected from invasion by smoke. During the darkness of night hours when the occupants of a building are asleep and detection of a fire may be delayed, the requirements for safe exit exceed the demands of daylight hours.

Assuming that the site has been well chosen and prepared and that adjacent buildings are to be separated by distances at least equal to their combined overall heights, let us consider the construction and lay-out in more detail. The kitchen, where sudden grease fires are likely to occur, the dining hall, bunk houses and any other buildings or rooms where the men sleep or congregate in considerable numbers should have at least two well separated means of escape which are never locked against exit travel. A door locked against egress travel would be worse than no alternate exit at all. Some of the the worst fire tragedies on record have been a result of obstructed avenues of egress.

HEATING INSTALLATIONS

The installation of heating and cooking equipment is of sufficient concern to warrant special attention. For the greater part, the precautions to be observed are as follows:

(a) Do not use broken and burnt-out equipment.
(b) Keep the pipes and flues free of abnormal deposits of soot, so as to eliminate the dangers of pipe and chimney fires.
(c) Protect combustible floors under heating and cooking equipment.
(d) Protect dangerously exposed combustible walls and ceilings from the heating units and pipes with sheet metal or equivalent incombustible baffle plates.
(e) Do not course ordinary smoke-pipes through attics nor use them in lieu of proper chimneys.
(f) Dispose of hot ashes in a safe place and do not set the container on a wood floor unless it is raised off the floor by legs or feet.

Chimneys: It is recognized that due to the usual locations and temporary nature of the camps, a demand for brick or masonry chimneys would give rise to some misgivings in many instances. However, they would be good insurance against loss by fire, but there are substantial and well-insulated patented chimneys which have been approved by the fire underwriters for limited use, as in camp buildings. They are probably just as safe as a brick chimney under these circumstances if they are installed in accordance with the manufacturers' instructions. The cost would also be less and they can be dismantled and re-assembled without much trouble or additional expense. Only such chimneys as have been subjected to appropriate tests and approved by a nationally recognized approvals authority should be accepted. If brick or masonry chimneys are erected they should be supported on independent foundations in the ground and not on wood shelves or brackets which may ultimately settle under the weight as the wood dries out. A spark arrester on a chimney is good insurance against the escape of burning brands and consequent fires on roofs or in dry tinder.

Transfer of Heat: Ventilation is a most important factor in protecting floors, ceilings, walls from heating units—ventilation between the unit and the construction to be protected. Some materials such as cement and iron conduct heat very readily and if the heat is pocketed or confined so that it cannot be dissipated by air currents the temperature will rise to the danger point. Wood that has been exposed to higher than normal temperatures intermittently, or over an extended period of time is gradually changed in chemical properties and may ultimately reach a pyrophoric state where it will start to burn considerably below the normal ignition temperature.

In one instance recorded in Ontario a large restaurant range rested on a 12 inch concrete slab with supporting timbers underneath. Heat repeatedly conducted through the concrete charred the timbers and they finally broke out in flame. That is a typical example of many fires of similar origin.

The design and construction of a heating or cooking unit determines what the insulating and protecting requirements should be. These units deteriorate with use and they sometimes become just as hazardous as others that had a lesser degree of fire-safety built into them in the first place. It is a good policy to "play safe" and make allowances for such deterioration.

Floor Protection: When stoves or ranges are set up on legs so as to allow free cross-ventilation under

(Continued on the Following Page

FIRE SAFETY IN LUMBER CAMPS

(Continued from Page 12)

neath, it is sometimes sufficient to cover the floor with a sheet of metal to reflect some of the heat and to protect the floor from live coals. When the radiated heat is likely to result in abnormally high temperatures and in all cases where no open air space is provided, the stove or range should be set on a base of hollow tile so laid as to provide cross-ventilation and covered with sheet metal to protect it from damage and facilitate cleaning. With large ranges it is often necessary to lay a base of two coures of tile to give cross-ventilation in two directions. In any case the floor should be protected against live coals that fall accidentally from the door or ash pit.

Wall and Ceiling Protection: Metal attached directly to a combustible surface does not offer a very high measure of protection. The heat is conducted through it and the back of the metal becomes as hot as the exposed surface. The heat behind the metal is trapped there and consequently the temperature of the combustible construction increases until it is ready to glow and break into flame when it reaches open air. If the separation between a stove, range or smokepipe and a wall or ceiling is not adequate for safety the condition can be vastly improved by supporting or suspending in the intervening space a sheet of metal or other incombustible material, leaving a separation of about two inches between the sheet and the wall or ceiling to be protected. Metal spools or ferrules may be used to maintain the separation. On walls the metal sheets should be raised a few inches clear of the floor to induce good air circulation. On ceilings the space should be open on all sides for increased cooling effect.

FIRE PROTECTION

Any lumber camp is under a continual threat of fire because of the nature of the construction and surroundings. All fires are small in their beginning and can be controlled if dealt with soon enough with the appropriate equipment. For general fire extinguishing purposes water and chemical solutions in water are the most effective and most convenient. Special chemical extinguishants are necessary to deal with special hazards for which water is not suitable, such as fires involving live electrical equipment, grease and flammable liquids. In certain bush conditions a spade may be as effective as anything.

Fire depends upon a combination of three things, — a burnable fuel, a supply of oxygen (air) and heat. Remove one of them and a fire cannot occur or continue. Fires may be extinguished in three ways: (a) by cooling the material below the ignition temperature, (b) by shutting off the amount of oxygen necessary to support combustion and (c) remove the fuel, or by a combination of these methods.

Water and soda-acid solutions are effective chiefly because of their cooling properties, the heat being used up in transforming the water into steam and gases. Foam solutions act much like water on ordinary fires and on oil fires the foam floats, forming a mat over the burning surface and smothering the fire. Vaporizing liquids, such as carbon tetrachloride and chlorobromomethane, have some cooling effect but their principle value lies in the dense non-flammable vapors and gases which displace the surrounding air to a point where the fire is smothered for lack of oxygen. Carbon dioxide gas is non-combustible and smothers fire

(Continued on Page 19)

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

Directory of Key Personnel . . .

The woods industry is a large one—the largest in Northwestern Ontario. Because of its geographical size, the necessity to either battle or use the weather and other factors, supervision is much more difficult than in other industries.

This industry is directed by men who know their jobs: foresters, technicians, and men of experience. Here is a Directory of Key Personnel in the woods industry in Northwestern Ontario. Good Luck To You All.

ONTARIO-MINNESOTA PULP AND PAPER COMPANY LIMITED

Woods Production Manager— G. A. Potts

KENORA LOGGING DIVISION

Kenora

General Supt., Woods— C. W. Roark
Supervisor, Lumber Sales— H. W. Forstrom
Towing and Storage Supervisor— F. Elders
Sluice Foreman— K. Roos
Pulpwood Buyer— R. MacDonnell
Stores Supervisor— C. W. Clark

Patricia Area:
Headquarters, Camp Robinson, Ontario

Camp P-200
Logging Supt.— J. T. Sniezek
Ass't Logging Supt.— G. K. Seed
Shop Foreman— J. Tairney
Camp Clerks— P. E. Rush, A. McMahon, J. Pearson
Audit Clerk— D. McDaid
Check Scaler— A. Livingstone
Ass't Safety Supervisor— H. J. Bennett
Ass't Foreman, Sawmill— H. Kemp
Camp Foreman— K. Thinglestad

Camp P-206
Camp Foreman— A. Carlson
Scaler— H. Berglund

Camp P-207
Camp Foreman— N. O. Laroche
Ass't Camp Foreman— S. Gadus
Scaler— K. Storey
Camp Clerk— A. Adam

Camp P-208
Camp Foreman— F. Black
Ass't Camp Foreman— A. Fortin, J. Shiska, W. Rigey
Camp Clerk— H. Luby

Camp P-209
Scaler, Storage Yard— J. H. Allen

Lake of the Woods Area:

Camp L-311
Ass't Logging Supt.— R. A. McMillan
Ass't Foreman— J. H. Gordon
Ass't Camp Foreman—F. Kozel
Camp Clerk— J. W. Hogg

Camp L-314
Camp Foreman— A. E. Coak
Camp Clerk— H. James

FORT FRANCES DIVISION:

General Supt., Woods— S. N. Golder
Logging Supt.—R. J. Potts
Purchasing Agent— H. G. Rivers
Ass't Logging Supt.— B. E. Seppala
Logging Engineer— R. W. McLennan
Ass't Forester— G. J. Garner
Ass't Forester— L. S. Paterson
Storage Yard Supt.—W. H. Kirk
Master Mechanic, Logging— J. H. Langtry
Stores Supervisor, Logging— W. E. Shelfantook
Camp Foreman, Construction— C. W. Anderson
Camp Clerk Supervisor— R. J. Hukins
Tug Boat Captain— Wm. Martin
Warehouse Clerk— H. E. Brown
Head Scaler, Woods— C. B. Douglas
Safety Assistant— W. Maslanka
Pulpwood Buyer— G. B. Cox
Ass't Pulpwood Buyer— E. A. Langstaff

Lake of the Woods Area, Fort Frances:

Camp L-309— K. Conlon, Foreman-Clerk

Manitou Area, Fort Frances:

Camp M-402:
Foreman— J. Moore
Clerk— D. McKelvie
Scaler— F. Ball

Camp M-403:
Foreman— F. Martin
Ass't Foremen— H. Holmes, S. Hamilton
Clerk— L. Arason

Seine River Area, Atikokan, Ontario:

Camp S-105:
Foreman— I. Salgren
Clerk— D. Gill
Scaler— P. Tutkaluk

Camp S-109:
Foreman— W. Lanigan
Clerk— R. McTaggart

Camp S-110:
Foreman— I. Salgren

Camp S-112:
Foreman— M. Haslestad
Clerk— L. Woodbury
Scaler— J. Plumridge

Camp S-113:
Foreman— J. Gorup
Clerk— R. Tighe

DRYDEN PAPER COMPANY LIMITED

Dryden, Ontario

Woods Manager — Norman McMillan
General Logging Supt. — William E. Cuff
Supt. North Division— Fred Morton
Supt. East Division— George Franklin
Trucking Foreman— Charles Hodgkinson
Trucking Foreman— Ted Humeniuk
Rafting Foreman— Axel Lindquist
Garage Foreman, Trucks— Thos. Sanderson
Garage Foreman, Tractors and Cranes— Ernie Hampe
Chief Forester— Robert Bunney
Forester— John E. White
Chief Scaler— Wm. G. Faulkner
Sawmill Foreman— Bert Keller
Camp 33 Foreman— Brian Barber
Clerk— Dick Neale
Camp 34 Foreman— Charles Latimer
Ass't Foreman— Martin Hampe
Landing Camp Foreman— Geo. Hohn
Clerk— Grant Buchanan
Camp 32 Foreman— Archie Sherrard
Camp 27 Foreman— John McArthur
Clerk— Wm. Beatty

HAMMERMILL PAPER COMPANY

Woods Manager— R. I. Young
Logging Sup't — Fred Alexander
Forest Engineer — D. L. Hagar
Pulpwood Buyer and Scaler — Vern McKay
Depot Clerk, Ycliff — John Lukacin
Marine Superintendent — George Neill
Dock Foreman — William Russell

OSCAR STYFFE LIMITED

Pres. and General Manager— John Styffe
Manager Woods Operations— Bert Styffe
Manager, Marine, Rafting and Loading— Roy Styffe
Supt. Hudson and Umfreville Operations— Paul Petterson
Supt. Thunder Bay Dist. Limit Operations— Dan Healey
Company Representative and Scaler— Allan Bishop and Fred Milenko
Chief Mechanical Superv'r— Wm. Hankkio
Foreman and Scaler, Umfreville and Port Arthur— Norman Pederson
Foreman, Silver Islet— Martti Niemi
Clerk Silver Islet— H. Danielson
Foreman, Hudson— Nils Berg
Clerk, Hudson— Roy Spooner
Supply Clerk— Melvin Maki
Woods Auditor— W. Browness
Rafting Supt.— James Gerow
Manager, Planer Mill and Lumber Yard— Tom Pickering
Lumber & Wood Purchases— A. Mendelio
Lumber & Pulpwood Acc't'g— A. Saxberg
Woods Records— Joe Lychek
Personnel— G. Longworth

CHUKUNI LUMBER COMPANY

Manager— H. McCallum

PEARSON & ENGBLOM

Fort Frances, Ontario

ABITIBI POWER & PAPER COMPANY LIMITED

LAKEHEAD WOODLANDS DIVISION:

Woods Manager — A. J. Auden
Ass't Woods Manager — F. L. Stevens
Office Manager — C. Southern
General Logging Supt. — G. Withenshaw
Control Supt. — F. S. Hick
Construction Supt. — T. C. Armstrong
Forester — K. W. Hearnden
Mechanical Supt. — O. A. Zepik
Marine Transport Supt.— D. Rody
Supply Supt. — W. G. Dafoe
Warehouse Foreman — George West
Personnel and Labour Relations Supt. A. Walterson
Millpond Supt.— G. Miller
Chief Scaler — W. J. Hughes
Check Scalers — G. Hubbard, W. Koski, L. Malmborg
Clerk Supervsors — R. Halme, J. Moran, R. Munsie

AUDEN DISTRICT:

District Logging Supt. — A. V. Pingree
Ass't Supts. — K. Crowhurst, B. Vickers, R. Wilson
Road Foreman — A. Reid
Depot Foreman — A. Wragge
Depot Clerk — A. J. Dufresne
Warehouse Foreman — J. Andrews
Paymaster — C. Hogan
Master Mechanic — J. McLeod

Camp	Foreman or Contractor	Clerk
8a	E. Litteck	A. Borkowski
9a	A. Sohlman	
11	A. Rotmark	
20	J. Brisard	
24a	B. Nelson	T. E. Atchie
30	W. Salo	M. Chew
32	F. Sinclair	L. Eyolfson
33	D. McKinnon	R. Portwood
34	G. Nordstrom	H. Kolhonen
35	K. Lahti	N. Daly
37	E. Hadley	

PROVINCIAL DISTRICT:

District Logging Supt. — J. A. McLeod
Assistant Supt. — E. Ayer
Mechanic Foreman — M. Valotaire

Camp	Foreman or Contractor	Clerk
226	E. Bertelson	W. Emack and R. M. Cameron
227	K. Ratz	E. Peterson

WESTERN DISTRICT:

District Dogging Supt. — H. W. Davidson
Assistant Supt. — T. M. Lockhart
Master Mechanic — I. Manners

Camp	Foreman or Contractor	Clerk
110	F. Bowman	
118	J. Heino	G. Sellers
146	G. Kalinka	
147	O. Salo	M. Sutton
149	F. Westerberg	G. Hayes

EXPERIMENTAL FOREST:
Superintendent— G. Breckenridge
Forester — L. Vidlak
Clerk — K. Campbell

NIPIGON RIVER DRIVE:
Superintendent in charge — I. Mutch
River Foremen — R. Matchett, H. Hill
G. Flett, R. Tweedie
Clerk — M. J. Grace

THE GREAT LAKES PAPER COMPANY LTD.
Woodlands Division, Fort William

Woodlands Manager— J. H. Godden
General Logging Supt— D. E. Graham
Chief Scaler— J. C. Leslie Murphy
Chief of Surveys— P. J. Ward
Woods Office Manager— W. E. Madge
Treasury Department— K. A. Miners
Master Mechanic, Woods— Albert Sideen
Tug Shore Captain— A. Van Natto
Personnel Supt., Woods— John Currie
Office Clerk— R. C. McMullin
Ass't Purchasing Agent— S. S. Orstad
Office Clerk— Oliver Lammi
Treasury Department— C. R. Caddo
Scaling Clerk— G. Lalonde
Chief Field Auditor— M. A. Harnden
Office Clerk— B. C. Brady
Field Auditor— C. H. Greer
Truck Driver— George Weller
Supervisor of Woodlots— J. G. Caulkins
Garage Foreman— Jos. B. Dutli
Purchasing Clerk— R. T. Greer
Cruising— Carl Hagstrom, M. A. Fraser
Office Clerk— W. Nightingale
Check Scaler— Ken Mason
Logging Engineer— R. S. Young
Employment Agent— W. S. Delaney
Dist. Supervising Clerk— W. W. McCallum
Office Clerk— J. A. Lindgren
Warehouse Supt.— J. W. Stenback
Warehouseman— S. R. Tees
Garage Parts Clerk— Alfred Fournier
Engineering, Woods— Ernest Steinhoff
Field Audit— Wm. Storozuk
Office Clerk— John P. Flynn
Check Scaler— Thomas Kelly
Field Audit— Malcolm McLure
Office Clerk— Victor Maloney
R. J. McKinnon
Mrs. L. Sundstrom
J. Sutherland
Office Clerk— J. B. F. Dupuis,
E. G. Reguly
John Presunka
Safetyman— George Muir
Watchman— Kusti Maki
Engineering— Jack Michels
Warehouse Clerk— T. V. Reivonen
Cruising— Fred Shreeve
District Supt.— J. P. Healey
Garage Clerk— Eugene Wakewich
Photographer— J. Thompson

Valora, Ontario:
District Supt.— Glen V. Calhoun
District Logging Engineer— G. W. Cameron
Cruising— E. J. Ward
Foreman, H.Q.— A. L. MacKenzie
Dist. Supervising Clerk— E. R. Dubeau
Paymaster— C. A. McClelland
Foreman Camp 312— Jos. Kutzner
Foreman Camp 315—August Erickson
Clerks— Adolph Kurvits, Arvo J. Hill

Jack Sturgeon:
General Foreman— Charles H. Dolan
Dist. Supervising Clerk— Wm. J. Bouchey
Ass't General Foreman— Maurice J. Helie
Foreman Camp 30— M. Lukach

Warehouse Clerk— Arvo Matson
Paymaster— E. R. Plater
Clerks— Waino Poutanen, T. O. Olmstead
Robert Sutherland, Carl Mossa
Emile Lemire, Leonard Clewes
District Mechanic— A. J. Hamm
Dist. Logging Engineer— M. R. McKay
Foreman Camp 24— Torger Dale
Foreman Camp 32— Thomas McClelland
Foreman Camp 29— Phillip N. Elder
Strip Boss— Louis Favretto
Foreman Camp 18— W. G. Simpson
Contractor Camp 23— Eugene Lasn

Dog River, Ontario:
District Supt.— Kenneth Porter
Dist. Supervising Clerk— Onni J. Korpela
Dist. Logging Engineer— G. Cameron Bell
Paymaster— Howard C. Garbutt
Foreman Camp 231— Eugent Larocque
Foreman Camp 229— Hans Maki
Clerks— Sulo Hakala, Allan Leeyus
Warehouse Clerk— A. J. Beagley
Foreman Camp 232— J. C. Bocking
District Mechanic— Les Kontunen
Clerk— Henry Schilke

Martin, Ontario:
District Supt.— H. S. Beattie
Clerk— H. S. Jackson
District Mechanic— Wm. Honkanen

NIPIGON LAKE TIMBER COMPANY

Woods Supt.— Col. R. H. Bliss
Camp Auditor— P. J. Ukrainec
Personnel— J. A. M. Whaley
Check Scaler— P. J. Lalonde

Nipigon:
Superintendent— F. C. Brown
Clerk— W. Briveau
Rafting Foreman— R. McMenemy

Gull Bay:
Foreman, J. Bruce; Clerk, H. Taisey

Beardmore:
Superintendent— W. Colling
Clerk— R. Garrett
Scalers— A. Cheetham, H. Williamson

Kowkash:
Superintendent— R. B. Grogan
Clerk— A. E. Turja
Stores— J. Palm
Strip Boss— J. Kackis
Scalers— W. J. Ingram, A. Cardinal
M. Cote

Savant Lake:
Foreman, A. Watkus; Clerk, W. McKenzie

ST. LAWRENCE CORPORATION LIMITED
Woodlands Department

Woodlands Head Office, Nipigon, Ontario:
Woodlands Manager— A. M. Jones
Ass't Woodlands Manager— D. R. Stevens
Woodlands Chief Accountant—
W. H. McKinley
Ass't Wodlands Chief Accountant—
F. H. Polnicky
Chief Forester— E. A. Smith
Foresters—W. Moore, F. Walker
Employment Supervisor— R. A. Hallonquist
Control Clerk— W. Schulz
Field Auditor— O, Santala
General Accounting— W. E. Leskinen
Towing and Rafting Supervisor—
T. Peterson

Woodlands Depot Office, Beardmore, Ont.
General Logging Supt.— L. M. Lein
Dist. Logging Supt.— W. D. Sainsbury
Dist. Logging Supt.— A. A. Boyle
Dist. Logging Supt.— M. E. Wilson
Ass't Dist. Logging Supt.— R. J. McLeod
Ass't Dist. Logging Supt.— J. A. Usher
Control Supt.— D. E. Pickard
Towing and Rafting Supervisor— John Ahl
Chief Storekeeper— W. T. Baker
Chief Warehouse Clerk— V. May
Chief Scaler— C. E. McInnis
Chief Clerk— J. Katajamaki
Ass't Chief Clerk— V. Kennedy
Cost Clerk— N. Kozak
Paymaster— E. Doyle
Field Auditor— R. Leskinen
Field Auditor— C. Korpi
Depot Clerk— T. H. Finnen
Operating Supt.'s Clerk— A. Lappalainen
Employment Clerk— J. G. Poirier
Chief Fire Ranger— N. Nylund
Safety Inspector— A. L. MacDonald
Machine Shop Foreman— R. Clerihew
Machine Shop Clerk— R. Pifko

Camp 17, Beardmore:
Henri Poirier, Contractor; C. Laboe, Clerk

Camp 47, Beardmore:
Ernest Kivi, Contractor; A. O. Forester, Clerk

Camp 51, Beardmore:
R. L. Tansley & Sons Ltd. (Tom Tansley),
Contractor;
J. Harding, Clerk; P. Poirier, Ass't Clerk
K. Gerrie, Ass't Clerk

Camp 63, Beardmore:
Oja & Korkola Ltd., (Elmer Korkola),
Contractor;
Anton Wainio, Clerk

Camp 88, Beardmore:
Oja & Korkola Ltd., (Elmer Korkola),
Contractor;
E. Mekkonen, Clerk

Camp 89, Beardmore:
Jos. Grenier, Contractor; H. Grube, Clerk

Camp 90, Beardmore:
A. Hotte, Contractor; D. Hornblower, Clerk

Camp 92, Beardmore:
E. M. (Sam) Hughes, Contractor;
Chas. Hewett, Clerk

Camp 93, Beardmore:
Frank Makinen, Contractor; J. Kenna, Clerk

Camp 94, Beardmore:
A. MacDonald, Contractor;
Ernest Seppala, Clerk

Camp 95, Beardmore:
John Moschuk, Contractor;
M. Bradley, Clerk; John Cameron, Ass't Clerk

Camp 7, Nipigon:
Gus. Pearson, Foreman; Wm. Foster, Clerk

LONGLAC PULP AND PAPER COMPANY LIMITED

Woodlands Dpartment — LongLac, Ontario
Woodlands Manager— A. F. Buell
Ass't Wood's Manager— A. L. K. Switzeer
Logging Supt.— G. L. Puttock
Fire Protection Supervisor—W. R. Cooke
Scaling Foreman— W. L. Chapman
Check Scaler— Harold Machida
Scale Record Clerk— Fred Lemieux
Office Manager— A. G. Galloway
Cost Accountant— R. G. Green
Paymaster— B. Feldbruegge
Cost Clerk— J. Noble
Ass't Cost Clerk— K. Eaton
Camp Ledger Clerk— T. Tweedie
Camp Auditor— T. Velanoff
Headquarters Clerk— Endel Tooming
Camp Clerk (LLS)— John Cervenak
Ass't Personnel Mgr.— J. E. C. Pringle
Personnel Clerk— Max Ezewski
Hiring Clerk— R. Desaulniers
Safety Supervisor— W. Lockhart
Statistical Clerk— J. F. Clarke
Stores Supt.— W. B. Mills
Head Stock Clerk— K. Graham
Warehouse Foreman— M. Dusk
Stockman— R. Bird, G. Jones,
K. Burgess, G. Matthews
Plant Supt.— J. C. Day
Townsite Supt.—D. C. Yule
Yard Foreman— Norman C. Skinner
Plant Budget Clerk— Carl Weckworth
Chief Mechanic— William Loponen
Shop Clerk— W. Ahlgren

(Continued on the Next Page)

Chief Electrician— Geln Munro
Townsite Serviceman— Walter Dutka
Maintenance Foreman— Ernest Bredin

Lake and River Drive:
Drive Supt.— R. B. Loughlan
Lake Drive Foreman— Tauno Loponen
River Drive Foreman— Matt Lucier
Rafting Foreman— William Olson

Engineering Office, LongLac:
Chief Forester— E. R. Sexsmith
Forester— J. A. McMahon
Regeneration Forester— E. R. Humphreys
Draughtsman— R. L. Beach
Surveyor— C. D. Royce
Road Supt.— J. T. Dorland
Road Const. Foreman— Don Penna
Forester (Photogrammetry) D. W. McGregor
Draughtsman— T. J. Onski
Road Surveyor— Cliff Hartley

KENOGAMI DISTRICT OPERATIONS:

LongLac
District Supt.— Austin Ste. Croix

Camp 43:
Camp Foreman— Tom Ballantyne
Ass't Camp Foreman— Sandy Kuzik
Camp Clerk— Ray Matson
Ass't Camp Foreman— Albert Braumanus

Camp 46:
Camp Foreman— Eino Heino
Ass't Camp Foreman— Ed. Olson
Camp Clerk— Howard Gregoire

Camp 54:
Camp Foreman— Isaac Mackie
Ass't Camp Foreman— Cecil Nurse
Camp Clerk— Harry Kireto

East Highway Area and Camp 47:
District Supt.— Hugh Renaud

Camp 35:
Camp Foreman— James Reeves
Ass't Sawmill Foreman— Curwen Unsworth
Ass't Camp Foreman— Hugo Seppalainen
Camp Clerk— Nichol Williamson
Ass't Camp Clerk— Donald W. Thompson

Camp 38:
Camp Foreman— Leon Pond
Ass't Camp Foreman— Robert Lavoie
Camp Clerk— Mike Elchuk

Camp 40:
Camp Foreman— Walter Drews
Ass't Camp Foreman— Peter Boardman
Camp Clerk— Charles Shulist

Camp 47:
Camp Foreman— Paul Thors
Ass't Camp Foreman—Mike Tracey
Ass't Camp Foreman— Angus McPherson
Camp Clerk— Colin MacDonald

GERALDTON AREA, LongLac:

District Supt.— Kenneth McCron

Camp 48:
Camp Foreman— William Dawidowich
Ass't Camp Foreman— Zoel Pelletier
Camp Clerk— John Oja

Camp 49:
Camp Foreman— Stanley Dodds
Ass't Camp Foreman— James J. Murphy
Camp Clerk— Eino Pudas

LONGLAC SAWMILL, LongLac:

Mill Supt.— W. S. Carlson
Mill Foreman— Clifford Poole
Sawmill Yard Foreman— Roland Caron
Clerk— Robert Ferguson
Lumber Grader— Bert Wichern
Sawyer— Joseph McCoy
Chief Mechanic— Don Pentney
Millwright— Pete Olson
Stationary Engineer— Eric Hokanson

Lucien Massicotte, Camp Foreman, at present in the Fort William Sanitorium.

Geraldton:
Hiring Clerk— George Broder
Scaler— Nick Nakano

NEWAYGO TIMBER COMPANY, LIMITED
THUNDER BAY DISTRICT

PORT ARTHUR DIVISION, Port Arthur, Ont.
Vice-President and Manager—H. S. Mosher
Secretary and Office Mgr.— H. W Mutch
Purchasing Agent — M. R. Coghlan
Chief Forester & Cutting Supervisor— Jens Finstad
Cost Accountant — W. E. Esse
Camp Auditor — D. W. Gillies
Supervisor of Land Records—G. T. Harvie
Purchasing Department — W. T. McNeill
Employment Department—W. R. Johnston
Employment Department — James Karpik
Forester — Stan White
Cruise & Layout Dept. — Con Parks
Cruise & Layout Dept. — Frank Moran
Captain "Tug Rocket" — Arthur Harpell
Engineer "Tug Rocket" — Roy Hedman
Rafting Foreman — Bert Krouse

CLARKDON LOGGING DIVISION:

Clarkdon, Ontario
Divisional Superintendent — Louis Johnson
Chief Clerk — Eric Holm
Rafting Foreman — Wheaton Bradish
Warehouse Clerk — W. Oinonen

MAGNET POINT LOGGING DIVISION:

Port Arthur, Ontario
Foreman — Jack Kozystko
Clerk — Martin Molund

PRINCE & JARVIS LOGGING DIVISION:

R. R. #3, Fort William, Ontario
Superintendent-Forester — H. O. Kantola
Clerk — Neil Maki

ALGOMA & COCHRANE DISTRICTS:

Hearst, Ontario
General District Logging Superintendent— Ken Moland

MEAD LOGGING DIVISION:

Mead, Ontario
Divisional Supt. — A. R. Wiley
Chief Clerk — M. A. Cameron
Payroll Clerk — W. Sachowsky
Clerk — Waino Halme
Yard Foreman — Tom Kaarianen
Camp Foreman — Max Phair
Clerk — Edward Kruger
Scaler — Wm. Young
Divisional Mechanic — George Litke

HEARST LOGGING DIVISION:

Hearst, Ontario
Divisional Supt.— Harry Tapper
Chief Clerk— Herb Wade
Clerk— Mauno Jansson
Foreman— Einar Mickelson

MOSHER LOGGING DIVISION:

Hearst, Ontario
Divisional Superintendent — Wally Olafson
Chief Clerk — N. Melnychuk
Payroll Clerk — Bill Tetley
Foreman — John Vukelich
Clerk — Louis Souter
Road Foreman — Albert Chamberlain
Scaler — George Achilles
Divisional Mechanic — E. Beger

PATRICIA LUMBER COMPANY LTD.
Sioux Lookout, Ontario

Woods Manager — E. Farlinger
Foremen — F. Watson, R. Burstahler, W. Stasishin, L. Stepanic
Clerks — J. Goyman, Geo. Pawlenko K. Bayly, Geo. Sands

J. F. THOMSON, TIMBER CONTRACTOR
Port Arthur, Ontario

Professional Engineer — R. M. Thomson
Superintendent — K. T. Ehn
Shabaqua: Foreman — W. Rothenburger

NORTHERN FOREST PRODUCTS, LIMITED
PORT ARTHUR, ONTARIO

Head Office:
Woods Manager— F. Hedley
Woods Engineer — H. Kalz
Accountant — Ray Johnson
Pole & Lumber Buyer — Gord. Krysanowski
Purchasing — Norman Antrobus

Reba Division:
Foreman Contractor — T. J. Haapala

Black Sturgeon Division:
Foreman — W. B. McCabe
Scaler — O. Kuusela
Clerk — Louis Nymark
Log Scaler — W. Sinnemaki

Armstrong Division:
Contractor — John Siipola
Foreman O. Laine
Clerk — A. Boyce

NORTHERN PAPER MILLS LIMITED
Hansen, Ontario

Woods Superintendent— Howard Hicks
Camp 14 Foreman—Lauri Niemi
Camp 2 Foreman—Helgi Nelson
Accountant— Eino A. Jarvi
Depot Clerk— Pat. Lagrange
Clerk Camp 2 — Webster Tilson
Clerk Camp 14 — —Laura Waino
Forester — Lorne Dell
Loading Supt.— Albert R. Morton.
Warehouse & Purchasing— B. Pickersgill
General Foreman— Laruent Campeau
Wood Buyer— Phil. Farley
Clerk— Armand Michaud

THE ONTARIO PAPER COMPANY LIMITED

Plant Manager— W. I. Turner
General Supt. — T. Summers
Plant Accountant —F. E. Doyle
Plant Supt. — G. Mills
Logging Engineer — D. C. Horncastle
Logging Engineer— D. L. Carter
Plant Forester — R. W B. Thomson
Chief Scaler — F. R. M. Smith
Chief Electrician — L. Hogue
Master Mechanic — J. Lemoyne
Chief Fire Ranger — E. C. Little
Chief Woods Clerk — S. L. Lord
Industrial Relations — G. Binette
Medical — Dr. W. N. Turpel
Safety Inspector — R. MacKinnon

Black River District:
District Supt. — G. A. Genge
Forester — I. D. Bird
General Foreman— M. Thibault
Camp 44 Foreman — J. Antoniuk
Clerk — C. B. Thompson
Camp 50 Foreman — K. D. Greaves
Clerk — S. J. Juniper
Clerk — M. Faubert
Camp 51 Contractor — A. Omichinski
Clerk — P. C. Fraser
Camp 57 Foreman — W. Schure
Clerk — Y. Hiramatsu

Little Pic District:
Forester — I. M. Cran

DRIFTWOOD LANDS & TIMBER LIMITED

Delray, C.N.R.:
Woods Superintendent— Alfred Allie
Chief Clerk and Paymaster— G. A. Hambley
Camp Foreman— Eskil Chadore
Camp Clerk— George Ibey
Scalers— Cliff Davidson, Wm. von Borcke

Peterbell, C.N.R.:
Chief Scaler— J. H. Priddle
Scaler— Gerald King
Ass't Scaler— Morley King
Alvin Trivers

Detsul, C.N.R.:
Watchman— Ernest Lindgren

MARATHON PAPER MILLS OF CANADA LIMITED

Port Arthur Offices:
Woods Manager— Mr. P. V. LeMay
Personnel Manager— Mr. G. K. Eoll
Chief Forester— Mr. G. R. Sonley
Employment Supervisor— Mr. G. Pipher
Controller— Mr. C. E. Lee
Purchasing Agent— Mr. B. Midgley
Research Forester— Mr. N. L. Kissick
Personnel Officer— Mr. Ken Campbell

Coxmat Offices, Divisional:
Ass't Woods Manager— W. E. Mair
Divisional Engineer— A. H. C. Carson
Chief Fire Inspector— Sol Cowan
Resident Physician— Dr. S. J. Navin
Chief Warehouseman— Al. Christie
District Mechanic— Fred Brady
Depot Clerk— G. P. Tuffy
Clerk— A. A. Mantyla
District Supt.— J. Gowan
Divisional Forester— W. D. Harkness
Depot Foreman— H. Hopkins

Operational, Camp 51:
Compartment Supervisor— E. Kauhanen
Production Foreman— M. Tateishi
Clerk— J. D. Malloy

Camp 53:
Compartment Supervisor— T. Bosvik
Production Foreman— J. Essery
" " A. E. Smith
Clerk— Rene Rioux

Stevens Offices, Divisional:
Field Supervisor, Acctg. & Admin. — J. A. Clairmont
District Supt.— E. A. Lunam
Ass't District Supt.— N. Husak
Chief Mechanic— O. E. Olson
District Mechanic— K. A. Karlstedt
Depot Clerk— N. E. Karlstedt
Auditor— G. O. Adams
Clerk— D. W. Davidson
Chief Electrician— C. Christie
Depot Foreman— E. Lafave

Operational, Camp 24:
Compartment Supervisor— John Larson
Production Foreman— D. Mason
" " E. Martin
Clerk— R. J. Mousseau

Camp 5:
Compartment Supervisor— C. Carlson
Production Foreman— V. Mepham
" " R. Eady
Clerk— Ivan Pelot

Camp 12:
Compartment Supervisor— R. Brown
Production Foreman— P. Rodwick
" " J. D. Stone
" " G. Richards
Clerk— A. R. White

Hillsport Offices:
Compartment Supervisor— J. Jamieson
Production Foreman— K. E. Lynch
" " M. Hoshino
Clerk— A. A. Patterson

Marathon (Woods) Offices:
District Supt.— M. Johnson
Forest Ranger— Wm. Eden
Depot Clerk— H. B. Lawson
Foremen— Pete Demach; D. W. Graham

Nagagami Division; Hearst, Ontario:
Operations Manager— G. D. McNab
Controller and Purchasing Agent— E. J. LaJambe
Superintendent— P. Turcotte
Chief Clerk— J. Sorokan
Ledger Keeper— R. Selin
Paymaster— G. Bissonnette
Warehouseman— P. Robertson
Storekeeper— F. Duschense
Mechanic— J. Veilleux
Scaler— K. Schwantz
Foreman— N. Magnusson
Cruiser— A. Ysenbaert
Sawmill Contractor— W. Lallier

Hornepayne, Ontario:
Superintendent— C. Powell
Superintendent— G. Dempsey
Travelling Clerk— E. Dupre
Warehouseman— J. Eaton
Forester— D. True
Mechanic— L. Morin
Chief Fire Ranger— G. Jornson
Lumber Grader and Shipper— C. Nillson
Chief Scaler— E. Dolph
Foreman— C. H. McNab
Safety Supervisor— D. Haggerty
Trucker— D. J. McNab
Sawmill Contractor— O. Haavaldsrud
Sawmill Contractor— E. Levesque

RIPCO TIMBER COMPANY LIMITED
Ripco, Ontario, Canada

Head Office:
Vice-President— A. Provencher
Accountant— J. M. Boutin
Ass't Accountant— Leo E. Leivo
General Foreman— Lucien Riopel

Camp 5:
Foreman— Bertrand Diamond
Clerk— Lionel Bastarache

ARROW TIMBER COMPANY LIMITED
Calstock, via Hearst, Ontario

General Manager— R. V. Perry
Secretary-Treasurer— J. Wood
Camp Accountant— A. Groulx
Store Manager— J. A. Bois
Scaler— A. Lehoux
Contractor— P. Rekola
Contractor— L. Gagne

HIGH FALLS TIMBER COMPANY LTD.

Manager— John Anderson
Agent— Hugo Upitis
Contractor— John Pogenbergs

Y. W. NELSON
Port Arthur, Ontario

ABITIBI POWER & PAPER COMPANY LIMITED
SAULT STE. MARIE DIVISION

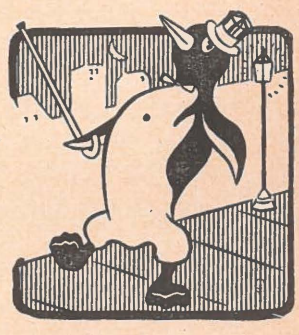
DIVISIONAL OFFICE — Sault Ste. Marie:
Woods Manager— M. MacLaggan
Ass't Woods Manager— E. E. Grainger
Supt. Scaling & Control— J. S. Foulds
Divisional Forester — B. J. Smith
Ass't District Supt. — Lee Fletcher
Forester — Len Oliphant
Marine Supt. — Capt. J. W. Alexander
Mechanical Supt. — W. C. Fleming
Supply Supt. — F. W. Niemi
Woods Accountant — B. S. Blanchard
Ass't Woods Accountant — G. H. Pitt
Personnel & Labour Relations Sup't —F. W. Stevens

Regan Area:
General Logging Sup't — R. A. Kenshol
District Supt. — O. A. Waluk
Ass't District Supt. — I. S. Palmer
Ass't District Sup't — W. R. Boville
Improvements Supt. — G. E. Ball
Mechanic Foreman — William Taskinen
Camp Clerk Supervisor — J. L. Baskerville
Depot Clerk — W. A. Koski
Paymaster — D. J. Steele
Warehouseman — J. E. Hall
Parts Clerk — Edwin Townsend
Foreman — Lauri Tahti
Clerk — Thomas Lyon
Foreman — F. Larocque
Clerk — O. Rajala
Foreman — Evert Aho
Clerk — C. W. Coulter
Foreman — C. Lampi
Clerk — J. W. Mills
Foreman — Harold Hayward
Clerk — D. A. Leith
Foreman — T. Lefebvre
Clerk — F. R. Hatheway
Haul Foreman — W. Beer
Check Scaler — J. B. Kelly

ANSWERS to QUICK CANADIAN QUIZ

1. Less than 4 persons per square mile.
2. Caribou.
3. The Saguenay.
4. 90 per cent.
5. A beluga is the white whale, found in Hudson Bay.
6. Pulp and Paper.

"NOW Is the time to think of this year's HEATING"



Yes—Now is the time to get full information about the New 1953 Coleman Oil Space Heaters. They're really NEW with Fuel Saving features! Ask about Canada's new forced air heating— Coleman Blend-Air Furnaces— Information without obligation at . . .

Marshall-Wells --- Distributors for Coleman

Why Logging Chances Are Necessary

By R. S. Young

Foremen and strip bosses often wonder why definite logging chances are laid out, and why cutting has to be confined to the approved chances.

There are a great many reasons, some due to Government regulations, and some due to Company policy. A few of the more important reasons will be discussed briefly.

First, let us have a quick look at a few of the sections of The Crown Timber Act of the Province of Ontario. All operators in Ontario who cut on Crown Lands must abide by the rules laid down by the Act, or pay the penalties, or even have their cutting rights cancelled.

Section 12 of the Crown Timber Act, 1952, reads as follows: "No licensee shall commence cutting operations in any year until the Minister has approved in writing the area in which the cutting operations are to be carried on in that year". Section 23—(1) reads as follows: "Every licensee shall furnish to the Minister at least sixty days before cutting operations commence in each year, but not later than the 15th day of June, an annual plan for the cutting operations to be conducted by him during the twelve month period commencing on the first day of April in that year". Section 23 —(3) reads "Cutting operations in each year shall be conducted in accordance with the approved annual plan". Section 46—(1) reads as follows: "Every person who commences cutting operations without the approval of the Minister under Section 12 or who carries on any cutting operations beyond the limits of the area approved by the Minister under Section 12 shall be liable to a penalty of not less than twice and not more than five times the amount of the Crown charges on the timber so cut".

In accordance with the regulations, logging chances are laid out for each camp, estimates of the kind and quantity of timber on the ground are compiled, and the maps and other information is submitted to the Department of Lands and Forests. This data is examined by the staff of the Department, and the areas are approved, the necessary permits are made out and forwarded by the Department to the operator, who cannot start cutting until the permits are received, and he must cut only on the areas that have been examined and approved.

From the Company angle, there are many reasons why definite logging chances are necessary.

Most companies have spent considerable time and money drawing up detailed plans of operations, including the areas to be cut, for several years in advance. Such plans are necessary in order to develop the most efficient and economical plan for roads, river improvements and camp layouts. The amounts and species of wood to be delivered each year must also be considered.

Sometimes a foreman or walking boss may not fully understand the plans, and may decide to make a change, that he thinks is an improvement. Sometimes he may be right, but more likely he will be wrong, as he may have overlooked some very important point, and if he changes the plan it may cost his Company a lot more money in the long run.

Wood from one camp may be more expensive than wood from another camp or wood from one part of the area to be cut from a camp may be more expensive than wood from another part of the same camp's cutting area. It is poor business to cut all cheap wood one year and all expensive wood another year, so to keep the cost of wood going to the mill each year fairly uniform, it is usually Company policy to lay out the cut so that high cost wood from one camp is cut at the same time that cheaper wood is being cut from another camp.

Most companies make more or less detailed estimates as to what the wood is going to cost, before cutting starts. After the job is completed, actual costs are compared to the estimates. If a different area was cut than was estimated, then comparisons of costs at the end of the season will not be possible.

A timber cruise is usually made to estimate the amount of standing timber. Occasionally the cruise may be made several years before the wood is cut. After the wood is cut, a comparison is made between the amount of timber estimated and the amount actually cut. If cutting was not confined to the logging chances as it was laid out, accurate comparisons cannot be made, and errors in the cruise cannot be corrected.

These are a few of the reasons why definite logging chances have to be laid out, and why cutting has to be confined to the approved logging chance.

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

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

Fire Safety In Lumber Camps

(Continued from Page 13)

by displacing the surrounding air. Dry chemical (powder) creates carbon dioxide gas in the presence of heat and some powder residue continues to give of carbon dioxide which tends to prevent re-ignition.

Extinguishers: Five-gallon water pump tanks are suitable for general purposes. They have a hand pump installed as an integral part of the unit and can project a jet of water a distance of 30 to 35 feet. They need only be replenished with water to keep them in operation for any length of time. At least one in each camp building would serve a very good purpose. An alternative would be a rack of several water pails kept filled, but they could not reach areas that would be accessible to the pump tanks and would be less effective in fighting outside fires in duff and litter of the forest floor. Unless a source of water is close at hand, barrels of water should be maintained in the camp area.

In the kitchen some provision should be made to deal with grease fires, in addition to the pump tanks or water pails. Foam-type extinguishers of 2½ gallon capacity are sometimes used but dry chemical extinguishers of 4 pounds capacity or more and carbon dioxide extinguishers are quicker in their extinguishing action. Another essential accessory is an asbestos or flame-proofed woollen blanket to throw over a grease fire and help smother it. These blankets are also useful in smothering flame in the clothing of a person who has become involved in a fire. These same types of extinguishing agents are suitable and necessary in areas where oils and other flammable liquids are kept on the premise.

Pumps: Portable hand extinguishers are not sufficient if a fire gains appreciable proportions. Water in larger quantities is required. That means a source of supply close at hand and a means of applying it to a fire. Usually portable pumps of the forestry type and a complement of forestry hose will fill the bill reasonably well, but where the buildings are larger than usual or are congested, larger pumps may be necessary. Whatever pumping equipment is provided should be set up where it and the fire hose can be put into operation without delay. They should be checked regularly and kept in a really serviceable condition at all seasons and in all sorts of weather.

Training: Equipment is of value only insofar as personnel can make proper use of it. All staff and employees should be instructed in the operation and use of the types of extinguishers on hand and some person should be designated to check the equipment regularly and ensure that it is always in its proper place and ready for use. Adoption of this policy will result in a fire-safety consciousness on the part of all concerned. Unless fire equipment can be properly used in an emergency the money invested in it is practically wasted.

FIRE PREVENTION

Fire protection is necessary to take care of situations that arise from accident and human ignorance, neglect and failure. Of even greater importance is the fire prevention factor. It is the line of first defence and the safest assurance against loss of life or property. Constant vigilance is the price of safety. It involves not only provision of the necessary facilities and equipment to forestall fire but also a healthy mental attitude toward fire-safety, nurtured by evident planning and forethought.

The elements of fire prevention are very simple. Probably if they were more complex and technical, they would receive more attention. Observance of the following practices will almost eliminate the probability of outbreaks of fire:

(a) Put pipe ashes, cigarette butts and bunrt matches in incombustible receptacles provided for the purpose.

(b) Never discard a match, cigarette or cigar or empty a pipe where a coal or spark could possibly set a fire.

(c) Set camp fires on mineral soil and be sure they are out before leaving them unattended.

(d) Do not leave grease unattended on a hot range or stove and keep suitable fire extinguishing equipment conveniently at hand.

(e) Keep supplies of oil and other flammable liquids in a separate storage used for no other purpose and well removed from the other buildings.

(f) Do not smoke in bed or when there is any danger of falling asleep.

(h) Remove ashes and coals from heating equipment to a safe pit made for the purpose.

(g) When disposing of cigarette butts and other smoking materials, do not mix them with sweepings or other refuse.

(i) Do not leave greasy or oily rags and waste lying around where they can heat spontaneously. Either spread them out to the air or keep them in a tightly closed metal container, unless they are burned or buried immediately after being used.

(j) Re-fuel oil lamps outside and in daylight hours only.

(k) Do not handle or transfer gasoline inside a building and avoid all possibility of its vapors coming in contact with the slightest flame or spark. Do not smoke in the presence of gasoline vapors or near where the liquid is being exposed to the atmosphere.

Most fires start from failure on the part of someone to observe the precautions that are listed above. Other precautions will suggest themselves from day to day of those who make a practice of "thinking" safety. If everyone accepts his share of the general responsibility there will be little likelihood of being called on to fight a fire, with all the risks that are involved.

Services of the Community Programmes Branch

It has been said:-

"What we do with our working hours determines what we have,
What we do with our leisure time determines what we are."

No matter what the work, it had to be learned. This may have taken years and there may be much to learn yet but nevertheless we learned our job. We didn't inherit our skills, they weren't given to us, we learned them. This we easily recognize, but we not always recognize that we, too, have to learn how to use our spare time.

The person who night after night finds himself with nothng to do; no place to go; who complains that the "place is dead" is probably one who has never learned how to use his spare time. Likewise, the person who has always something to do, is interested in a whole host of things, who is up and doing, who comlains that there is "too much going on" is one who has learned how to use his spare time.

(Continued on Page 24)

The Sixth Term In Technical Forestry Now Underway At L. T. I.

By C. J. Campbell

To start the 1953-54 session in the Lakehead Technical Institute Technical Forestry course seven students enrolled in first year and four in the second year. In addition to those enrolled in the Technical Forestry course there is one student taking University Forestry and one student taking Forest Engineering. It is interesting to note that of the seven students in first year Technical Forestry, just one man is from Northern Ontario. Six of the men have come to us from Southern and Central Ontario. Although it is encouraging to learn that our course has gained wide recognition it is not attracting enough local men.

The field training for these men is following much the same pattern as in the past. During the last two weeks in September and the first week of October, the students were given field instruction in cruising, cutting wood, and improvement cutting on the L.T.I. Forest Area. As the students take a great interest in this type of training and appear to benefit from it very much, we are anxious to develop facilities that will enable us to expand this phase of training.

In the interval October 6 to October 23 inclusive the four second year men attended the pulpwood and sawlog scaling course conducted by the Department of Lands and Forests. These men inform me that is was an excellent course. They feel that it was entirely worthwhile and commented on the high quality of instruction. On behalf of the Technical Foresters I wish to thank those men with the Department of Lands and Forests for including us in the course.

Next week Mr. J. W. Haggerty; Mr. D. M. Fisher, Forest Librarian; and the four second year Technical Forestry students will be visiting woodlands operations as guests of the Great Lakes Paper Company Limited, the Ontario-Minnesota Pulp and Paper Company Limited and the Dryden Paper Company Limited.

We are again indebted to these companies for tending this privilege to us.

SURVEY OF FOOT INJURIES IN WOODS OPERATIONS

By D. B. Chant, Secretary-Engineer
Ontario Pulp & Paper Makers' Safety Association

The survey was undertaken at the suggestion of the Northwestern Woods Branch of this Association for the purpose of obtaining factual information on the nature, type and exact location of foot injuries occurring in woods operations to guide member companies in their efforts at the prevention of such injuries and particularly, to assist the manufacturers of protective footwear in designing and producing new types suited to the conditions met with in the woods.

Begun in the early Summer of 1952, the study has been carried through to the end of June, 1953, thus covering a full year. A progress report was issued in November, 1952, summarizing data collected during the first three and one-half months of the survey period. The tabulations herein include that data as well as all that has since been reported.

Altogether, 681 disabling foot injuries of all kinds were reported, including 221 turned in by certain members of the Lumbermen's Safety Association operating in the Lakehead area, of which, unfortunately, some failed to give enough information to allow of accurate tabulation. The primary breakdown follows:

1.	Axe Wounds . . .	247	58	305
2.	Strains and Sprains .	36	7	43
3.	Other Foot Injuries .	177	97	274
4.	Incomplete reports .	—	59	59
		460	221	681

(Continued on Page 22)

VULCAN MACHINERY and EQUIPMENT LIMITED

PARTS — SALES — SERVICE
Rentals — Rental-Purchases

Allis-Chalmers - The Worlds Heaviest Built Tractors

G. M. Diesels - The Worlds Most Popular Motors

A Full Stock of Motors and Tractors Carried at All Times

ALSO

PRE-ENGINEERED STEEL FOR ANY BUILDING

Ingersoll-Rand Compressors
Baker Dozers
Carco Equipment
Butler Buildings
Fork Lift Trucks
Petibone Mulligan Equipment
Gar Wood Dozers
Tractomotive Equipment
T. L. Smith Limited
Richardson Snow Equipment

WE HAVE A GOOD STOCK OF USED TRACTORS ON HAND

Vulcan Machinery & Equipment Ltd.

NORTH CUMBERLAND ST. at McVicar Creek **PORT ARTHUR, ONTARIO**



VICKERS VR 180

World's Greatest Bush Tractor

Powered by Rolls Royce Diesel

Call, write or wire

G. H. Godsall Equipment Ltd.

PORT ARTHUR, ONTARIO

SURVEY OF FOOT INJURIES IN WOODS OPERATIONS

(Continued from Page 20)

Discarding the incompletely reported cases, and the 43 strains and sprains, most of which would probably have occurred regardless of the type of footwear being worn at the time, reduces the total to 579 injuries. 305 of these, or 52.6% were axe wounds. These are analyzed in Table 1.

Table 2 deals with the remaining 274 injuries made up of the following types:

Bruises	110
Crushes	26
Fractures	36
Puncture Wounds	65
Cuts (not by axes)	20
Burns and Scalds	6
Blisters	2
Frost Bites	9
Total	274

Most of the bruises, crushing injuries and fractures were due to rolling or falling bolts of wood or logs. Horses accounted for seven. Sleighs, trucks tractors and parts thereof figured in twelve others. Pulpwood hooks produced most of the puncture wounds with picaroons, peavies, pike-poles, butcher knives and upturned nails appearing in the act in several instances. Practically every type of hand-tool, other than axes, was mentioned in the story of the 20 cuts, along with snags, spike knots and broken glass.

Injuries occurred almost equally to either of the feet. Of the 579 injuries, other than strains and sprains, 294, or 50.7%, involved the right foot only; 281,or 48.5%, the left; with 2 cases where both feet were injured. Looking only at axe wounds, the right foot received 52.8% of the injuries. Perhaps the majority of axe-men favor a left-handed swing. Strains, sprains and frost bites divide evenly.

Examining the nature and distribution of the wounds more closely, it appears that one-third of the might have been materially reduced in severity, if not entirely eliminated, by wearing of footwear with hard toe-caps, since 198 of the 597 injuries involved the portion of the foot protected by such devices. The Nylon-lined protective footwear now well-along in the process of development, affords protection to areas where all but 14 of the axe wounds occurred and it is believed that not more than about 10% of all such wounds would have resulted in loss of time from work if all the men had been equipped with these rubbers. In addition, most of the puncture wounds, cuts from other causes than axes and many of the bruises and fractures, probably between 100 and 125 injuries in all would have been fended off by the protecting layer of nylon fabric.

In conclusion, we wish to record our appreciation of the fine co-operation of all those whose supplying of the special reports during the survey period made this study possible. We feel that enough useful information has thus been secured to repay the not considerable effort involved on the part of all concerned and we hope that substantial reduction in the number and severity of foot injuries of all kinds may result from its application to the betterment of suitable, safe footwear for use in woods operations.

NOTE: Tables 1 and 2 are not printed herein. Anyone wishing a copy of these tables, please write the Editor of the LOG BOOK.

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

Everyone at W. H. Marr Ltd.

Kenora and Fort William

Wish everyone everywhere

The Merriest Merry Christmas

and a

Happy and Prosperous New Year

W. H. MARR LTD.

EQUIPMENT DISTRIBUTORS THAT CAN TRUTHFULLY SAY "WE SERVICE EVERYTHING WE SELL"

400 RAILWAY STREET, KENORA — Phone 6404 **910 S. SYNDICATE AVE., FORT WILLIAM — Phone 3-3346**

The Current Spruce Budworm Outbreak In The Western Forest Region Of Ontario

Summary of Its Development During the Years 1951 - 1953.

By D. R. Wallace, Forest Insect Laboratory

At present the spruce budworm outbreak in the Sioux Lookout, Kenora and Fort Frances districts is the only major infestation of this insect in Ontario. Since 1951 the area affected has increased sharply. This report sums up conditions as of the close of the 1953 field season.

In 1951 a number of separate infestations occurred. The largest, the Lac Seul infestation, covered a large, somewhat rectangular area with Eagle Lake in the Kenora District, Cabin Lake, Sunlight Lake east of MacKenzie Bay on Lac Seul, and the north end of Little Vermilion Lake defining the general boundaries. The portion of this infestation in the Kenora District represented a significant southwestern extension. Patches of medium infestation occurred southeast of Dryden and indicated a southeastern extension of the Lac Seul infestation.

East of the northeastern corner of the Lac Seul infestation a number of irregular heavy infestations were mapped. These are referred to elsewhere in this report as the Patricia Portion infestation. Also, several small intense infestations occurred around Sioux Lookout and Hudson.

In the Kenora District the relatively new Lake of the Woods infestation increased in 1951 to the southwest, changing from a narrow band between Sioux Narrows and Kenora to a roughly rectangular area bounded by Kenora, Glass Township, Split Rock Island south of the Aulneau Peninscla, and Devonshire Township.

In 1951 heavy mortality of host trees, particularly balsam fir, was mapped in the area between the English River and Lac Seul.

In 1952, the Lac Seul, Patricia Portion, Sioux Lookout-Hudson, and Lake of the Woods infestations merged and spread southeastward.

The total area of medium to heavy infestation was about triple that mapped in 1951. The area of tree mortality also increased about threefold and was extended as a narrow arm southeastward along the Sioux Lookout- Kenora boundary.

The boundaries of budworm infestation changed but slightly in 1953, (Figure 1). Some southward extension occurred so that a very small portion of the infestation was in the Fort Frances District. The increase in area over 1952 was about fifteen hundred square miles (Table 1).

(Continued on the Following Page)

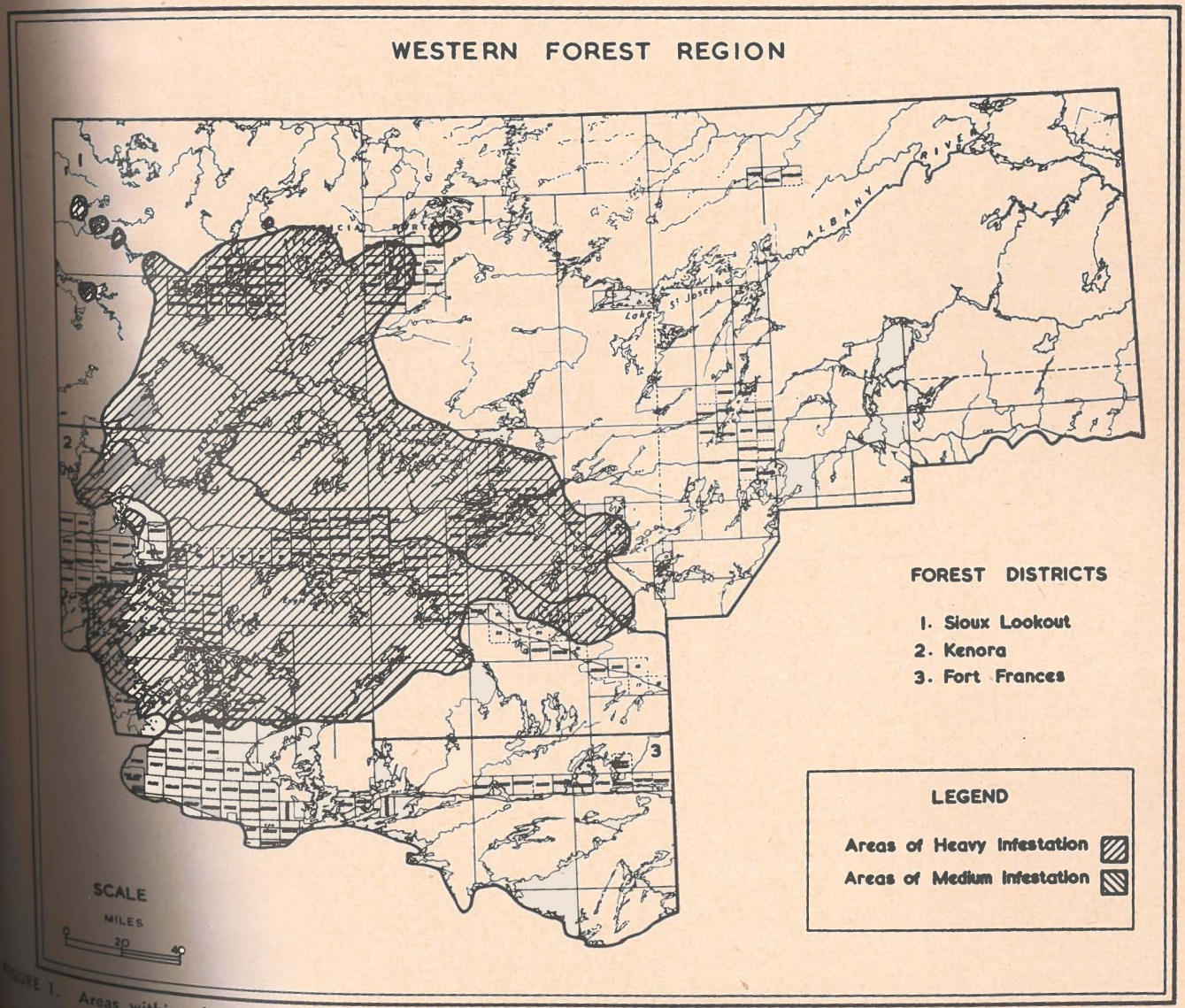


FIGURE 1. Areas within which spruce budworm infestations were determined by quantitative sampling, ground and aerial surveys in 1953.

THE CURRENT SPRUCE BUDWORM OUTBREAK IN THE WESTERN FOREST REGION OF ONTARIO

(Continued from the Preceding Page)

Likewise, extensive host tree mortality was confined to about the same area in 1953 as in 1952 (Figure 2).

Table 1 gives approximate areas of infestation and host mortality for the years 1951 - 1953.

Table 1

Area of spruce budworm infestations and host tree mortality during the period 1951 - 1953.

Year	Area of Infestation	Area of Host Mortality
1951	6,260 sq. miles	780 sq. miles
1952	14,790 sq. miles	2,130 sq. miles
1953	16,230 sq. miles	2,820 sq. miles

Although the area of infetatsion was about three times as great in 1953 as in 1951 widespread host tree mortality has not occurred because over two-thirds of the area affected severe defoliation has taken place for only two years. Generally, four to five years heavy defoliation is required to effect extensive mortality of balsam fir.

The prospects for 1954 are not yet known as the checking of over-wintering population samples cannot be carried out until later in the winter.

SERVICES OF THE COMMUNITY PROGRAMMES BRANCH

(Continued from Page 19)

Other people may help to pass away the tim only the individual himself can learn to use hi time. There are in our country many agencie places where one can turn to get help in learni use spare time. One of these is the Community grammes Branch of the Ontario Department of E ion. Its function is:-

(1) To give help to groups wishing to set up a gramme of recreation or Adult Education,

(2) To provide leadership training on an area in Drama, Puppetry, Art and Crafts, Socia creation, Sports, Parent Education,

(3) To supply texts and payment for teachers if is no school nearby — for classes in English Citizenship for New Canadians, you are in to make use of this service. To do so, ge touch with the District Office, Community grammes Branch, Department of Education, Catherine Street, Fort William, Ontario.

In 1867 there were 2,087 miles of railway in Canada there are 44,084 miles and only Russia and the United S have a greater total mileage of track.

Since 1943 Canadians have been greater users of co than of tea.

—Quick Canadian Fac

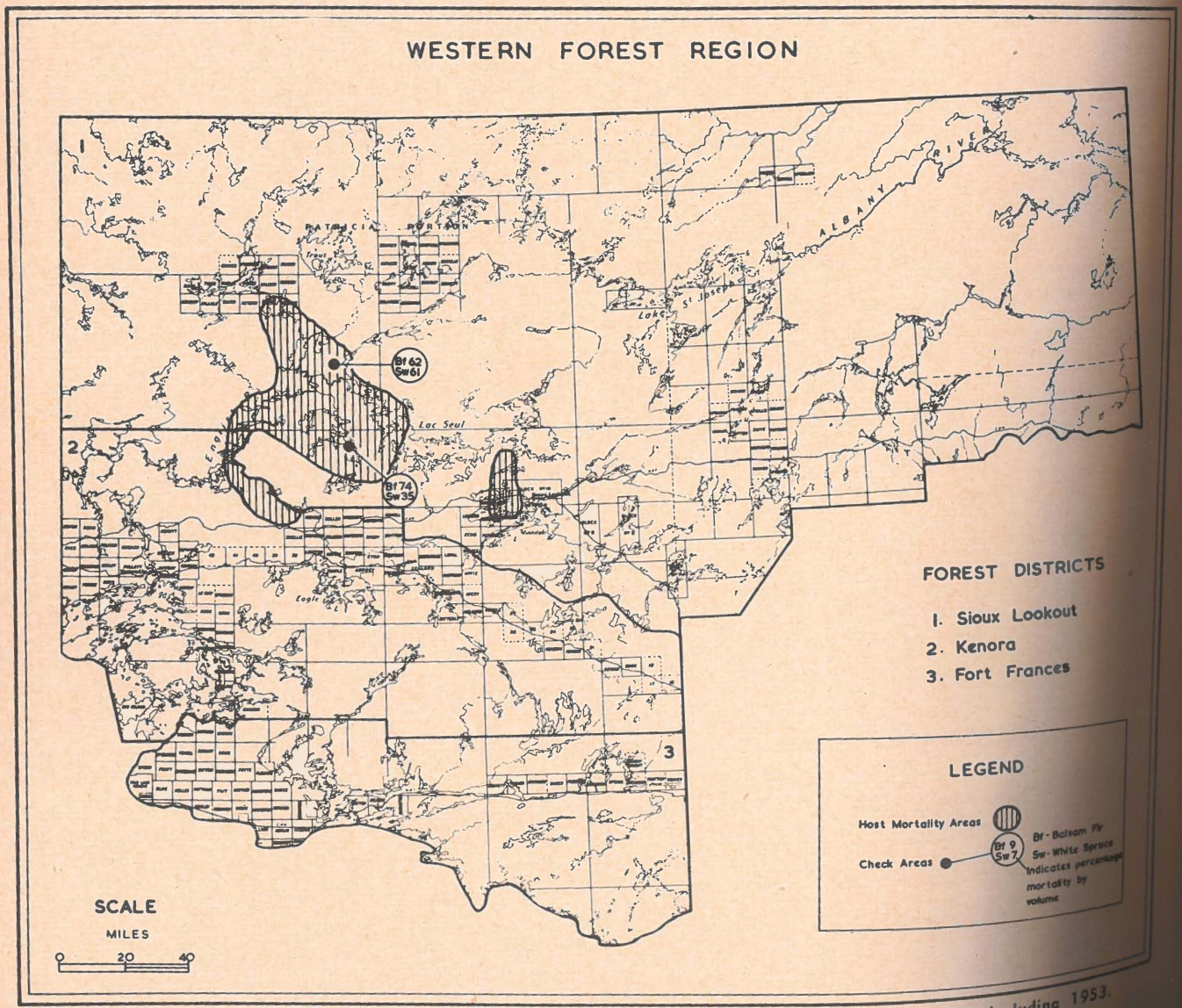
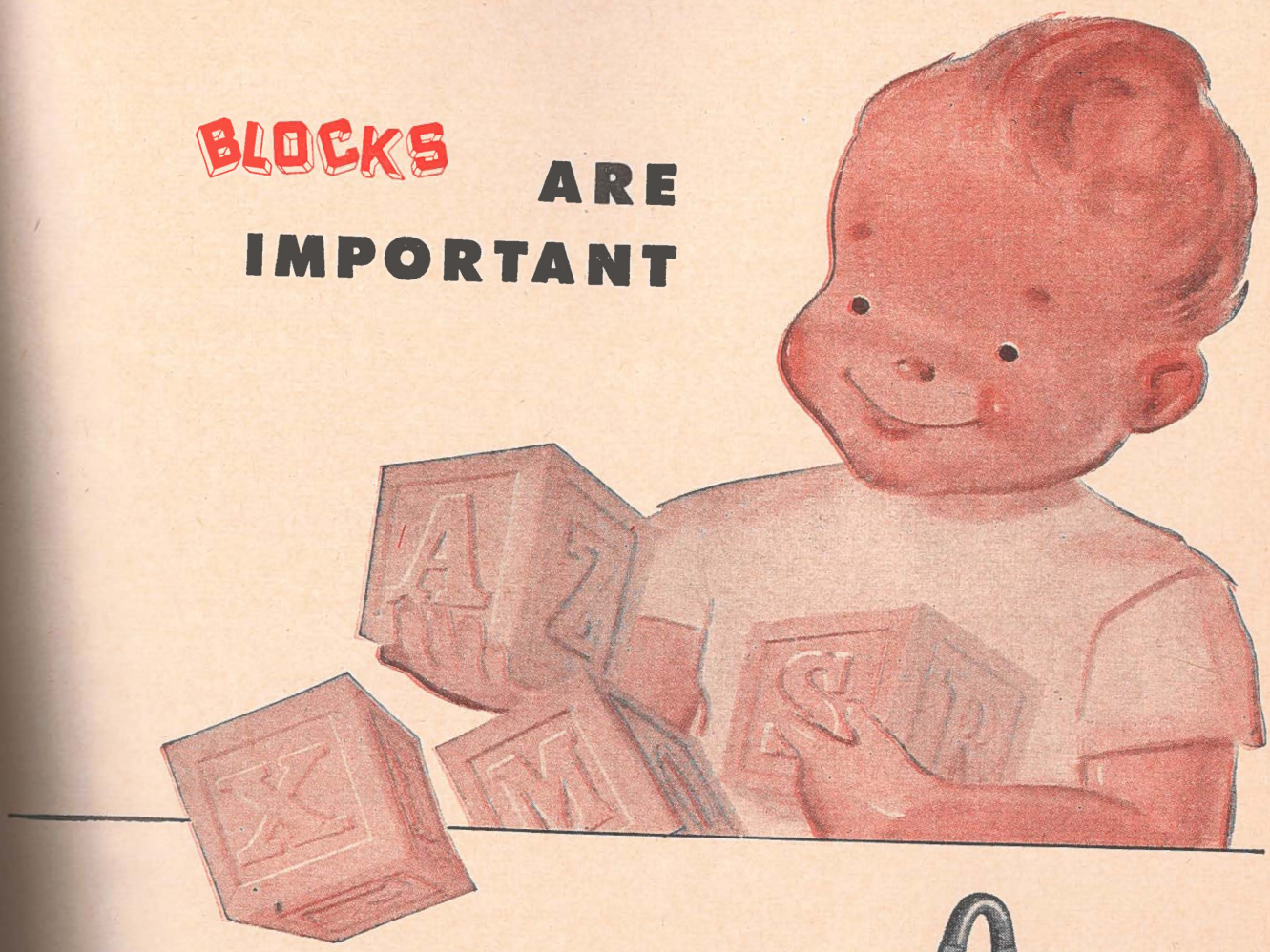


FIGURE 2. Areas of recent mortality of host stands caused by the spruce budworm up to and including 1953.

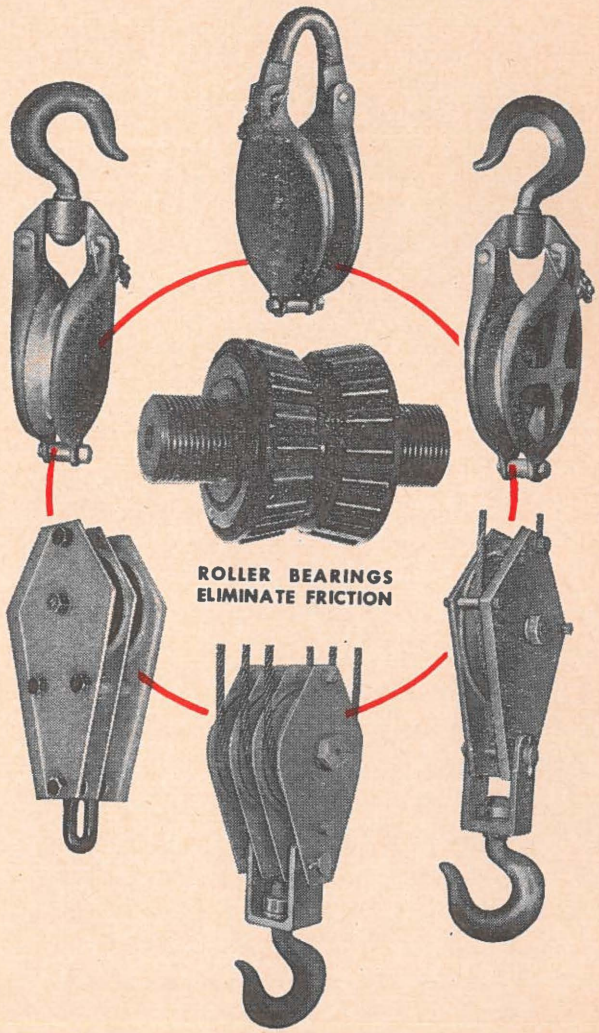
BLOCKS ARE IMPORTANT



Follow the example set by the young gentleman above who has **selected the blocks that best suit his requirements.**

Whatever **your** requirements may be, Timberland has the block that will perform the job most efficiently. All Timberland blocks are mounted on anti-friction bearings and are made from alloy steel (no cast iron is used). Sheave tracks are flame hardened and housings cup around the sheaves preventing fouling.

Let our engineering department assist you in the selection of the proper block for your job.



TIMBERLAND MACHINES
LIMITED
Port Arthur -:- Ontario

MECHANIZED LOGGING SPECIALISTS

NYLON -- THE TIRE OF THE FUTURE

TUBELESS TRUCK TIRE FORECAST

Material for this article was taken from a paper delivered by J. J. Robson, Firestone Tire & Rubber Co., at a meeting of the Society of Automotive Engineers in Vancouver.

Some ten years ago tires were prone to a great number of premature failures — heat breaks, separations, tread cracks, flex breaks and other failures. Today it is an unusual thing when a tire goes out of service because of any of these conditions which used to take such a heavy toll.

This improved tire has come in the last four or five years. Tire manufacturers do not claim thaat no trucker ever has tire trouble these days and that all the problems have been solved. An occasional failure still occurs.

The tire manufacturer is out to develop new and better materials. Some of these materials, or at least their prototypes, are already here.

New carbon blacks represent one of the big interests in the materials field. It is carbon black which gives rubber its strength, toughness and wear resistance. The role of carbon blacks has become even more prominent in the vast few years and a great amount of research, using new tools such as the electron microscope, has enabled manufacturers of this material to produce new blacks that give up to 15% greater wear.

This research is continuing at an accelerated rate and already new extremely fine particle blacks, sometimes known as super-abrasion blacks, are coming into production with promise of another big lift in tread life.

Nylon has many of the properties that it will be likely to find in the tire cord of the future. Nylon tires can be made stronger and still be thinner and cooler. Nylon has another plus—it is water resistant —where rayon is susceptible to water deterioration at a cut in the tire. Nylon presents two problems — it grows more in service, and the price of the basic cord is very high at present. Many truckers are trying Nylon to determine whether these tires justify the extra cost. At present, Nylon is a specialty cord for premium tires. Good experience on the part of truckers and a lower price for the basic cord would greatly improve its application and assure Nylon of a big place in the future tire picture.

New design and constructions offer some interesting possibilities for our tire of tomorrow.

A tubeless truck tire is an example of one of the things which may materialize. Such a tire would have the advantages of lighter weight, elimination of tube and flap — frequent causes of trouble — a measure of puncture protection when the tire picks up a nail, and the ability to mount and demount very easily.

A number of tire manufacturers are working on tubeless truck tire applications and while the subject has not reached the point of standardization by the industry, it is probable the tubeless truck tire will become a reality.

One development in the tire industry has been the tremendously expanded use of what might be called the extra-large tire — the off-highway family.

Prior to the war, these extra-large tires — size 16.00 and up — were confined to relatively slow moving earth hauling equipment. All this is changed and the extra-large tire is now in transportation service where these big tires have revolutionized material movement by making possible bigger, faster units.

A good example is a truck used on the Mes Range in Minnesota. Before the war, 15-ton truc with 14.00-25 tires were used. Today, 35-ton tru with size 16.00 and 18.00 tires are standard and 50- trucks have been produced in some quantity. At ope ations like Garrison Dam, a 40-ton unit with size 27 -33 tires was successfully employed at speeds of 35 45 mph. Some pioneering along these lines has be done here in B.C. on 16.00 tires on logging operation

This all suggests that if we consult our crys ball we will find some very interesting uses for the t tire. A few examples already built substantiate th prediction.

One of these is the famous Barc, using 36.00- tires. Another is the special dozer where the world largest tire, 48x68, is being tried. Other special lar vehicles are under development, such as a special tra on rubber, to have a gross weight of 250,000 pounds

—THE TRUCK LOGGER

MUCH IMPROVEMENT WORK UNDERTAKEN THIS YEAR

(Continued from Page 9)

1½ miles. (Empty oil drums were attached to the buil ings. They were towed across the Bay.)

Sturgeon Lake Division:

Project a canal between two inland lakes to allow sup plies to be towed to new camps, by flat-bottom scow

LongLac Pulp and Paper Company

Camp 54— Construction completed.
Camp 55— Construction completed. Approximate 20 miles of road will be completed by winter time.

Drive Improvements:

Modern accommodation for Lake drive personnel con structed at south end of Longlac Lake.
Installed a sail boom to act as a valve stop to flow w wood northward when the wind changes from north t south.

Recreation:

Improvements to all camp recreation halls underway

The Ontario Paper Co. Ltd., Heorn Bay South, Ont.

Number of new camps built— One sectional.
Improvements made to Depots— Enlarging garage Camp 50.
Roads— Improved 10 miles.
New road 10 miles, all winter.
Dams— repairs carried out to two logging dams.
Other improvements— new bark disposal plant.

Abitibi Power and Paper Company Limited Sault Ste. Marie, Ontario

(1) Moved two camps to new site. Of the ten camps eight are portable and two panel.
(2) Put siding on most of camps and painted them
(3) Five miles of new road built, or to be built, th season and three miles improved.
(4) About 8 miles of river improvements.
(5) Made some improvement on planning. Now have more information on wood sources on allowable annual cut, etc.

Northern Paper Mills Limited, Hansen, Ontario

Improvements to Depots or Camps— Usual painting general repairs, to buildings, sidewalks.
Roads— Three miles winter haul road being cut.
Other improvements— One bridge being built on win ter haul road, being constructed from timber only.

Woodlands Section, C.P.P.A. Annual Awards

Each year the Woodlands Section, with the co-operation of member companies, makes available seven awards for outstanding contributions to progress in various phases of woods operations. These awards, with two exceptions, consist of a cheque for $100 and an engraved plaque of merit. Members of the Section who are employees of member companies are eligible to compete for these awards. Recommendations for the 1953 awards must be submitted by December 31, 1953.

Students of Canadian forest schools are eligible for two of the awards, one for the best paper on mechanization, and one for the best paper on any forestry or logging subject other than mechanization. The following list details the awards:

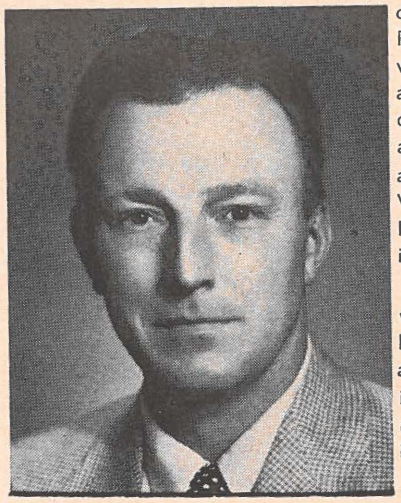
1. **The ELLWOOD WILSON AWARD**— For the most effective industrial application of the research projects instigated and carried out either by the Section (in co-operation with the Research Institute) or by a member company.
2. **J. A. BOTHWELL AWARD**— For the most meritorious work in the current year, on behalf of Forest Conservation in Canada.
3. **PRICE BROTHERS AWARD***— For the best paper of the current year on a subject other than mechanization.
4. **MECHANIZATION AWARD***— For the best paper of the current year on logging mechanization.
5. **CONSOLIDATED PAPER CORPORATION LTD. AWARD**— For the best paper on mechanical hauling, based on actual experience.
6. **SUGGESTION BOX ANNUAL AWARD**— $100 for the year's best suggestion from any employee of a member company.
7. **SUGGESTION BOX ANNUAL AWARD**— $50 for the best suggestion submitted by a **Junior Member** of the Section in the current year.

*Available to students of Canadian Forest Schools.

Appointment of Mr. D. W. Bennett Announced

Announcement of the appointment of Mr. D. W. Bennett, as an advisor on forestry problems in mechanical logging operations, has been made by W. A. Magill, Vice-President and General Manager of Timberland Machines Limited, Woodstock, Ontario.

Mr. Bennett, a native of Toronto, brings a solid background of forestry experience to the company. He graduated from the University of Toronto in 1932 with the degree of B.Sc. in Forestry and was engaged as a clerk by the Spruce Falls Power and Paper Company Limited. Mr. Bennett remained with this company until 1942, rising to the position of divisional superintendent.



From 1942 'til 1945 he was with Defence Industries Ltd., as assistant superintendent in charge of production. He was appointed to the position of assistant manager of the Woodlands Section, Canadian Pulp and Paper Association in 1945.

In his present capacity with Timberland Machines Ltd., Mr. Bennett will serve as a consultant to all forest industries interested in the modernization and mechanization of their operations.



Internationals Carry Story Of Atom Attack

A 10,000 mile, coast-to-coast journey is engaging these International trucks! They are a part of the Civil Defence Convoy, transporting the Civil Defence Exhibit to most of Canada's leading cities. The eleven-vehicle convoy includes seven International Roadliners, pulling 34-foot trailers, each of which carries a part of the multiple exhibit; also two International Travel-alls to carry convoy personnel, an International stake body to transport the large 3-ton generator required for the exhibit, and a gasoline tanker unit, mounted on an International chassis. The seven truck tractors and two Travelalls have been especially built by International Harvester and have been loaned by them to the government for the duration of the convoy. Half the exhibit drives home the reality and nature of the threat that faces Canada. The second half spells out specifically what the individual citizen can do to meet this threat, and how Civil Defence services are organized at the provincial and local levels.

THESE UNITS WERE SERVICED BY

S. J. HILL & SONS LTD.

Member of Canada's Largest Exclusive Truck Service Organization

ALSO DISTRIBUTORS FOR FRUEHAUF POLE, SEMI, LOGGING, VAN, AND CARRY-ALL TRAILERS
FIRESTONE TIRES

PORT ARTHUR
Red River Road — Phone 5-5488

FORT WILLIAM
North May at Cameron — Phone 3-6457

PILING PROFITS..

with "CATERPILLAR" Diesel Power!



BUNCHING LOGS in the woods with "Caterpillar" Diesel Tractors can heap logging profits to new highs. Pre-bunching saves time and boosts production . . . "Caterpillar" Diesel Tractors save time, money and get the work done faster.

On small helpings of power-rich, non-premium fuels, these versatile logging tools supply big pushing or pulling power for bunching. And they're built to stand up to the tough work—with highest quality materials, superior design, expert workmanship—year after year after year. Veterans with years of use behind them still turn in a trouble-free performance in the woods.

• • •

There's a full kit of "Caterpillar" and allied tools—all with the same high quality and design—for bunching or for any of the many other jobs "Caterpillar" Diesel Tractors can do. Let our logging experts show you how a "Caterpillar" Diesel Tractor on the bunching end can save you money—can pile up profits. Call or visit us today!

POWELL EQUIPMENT CO.

PORT ARTHUR **WINNIPEG**

CATERPILLAR REG. U. S. PAT. OFF.

DIESEL ENGINES · TRACTORS
MOTOR GRADERS · EARTHMOVING EQUIPMENT