THUNDER BAY TIMBER OPERATORS ASSOCIATION

LOG BOOK

September
October
1953

VOLUME 5 — PORT ARTHUR, ONTARIO — No. 3

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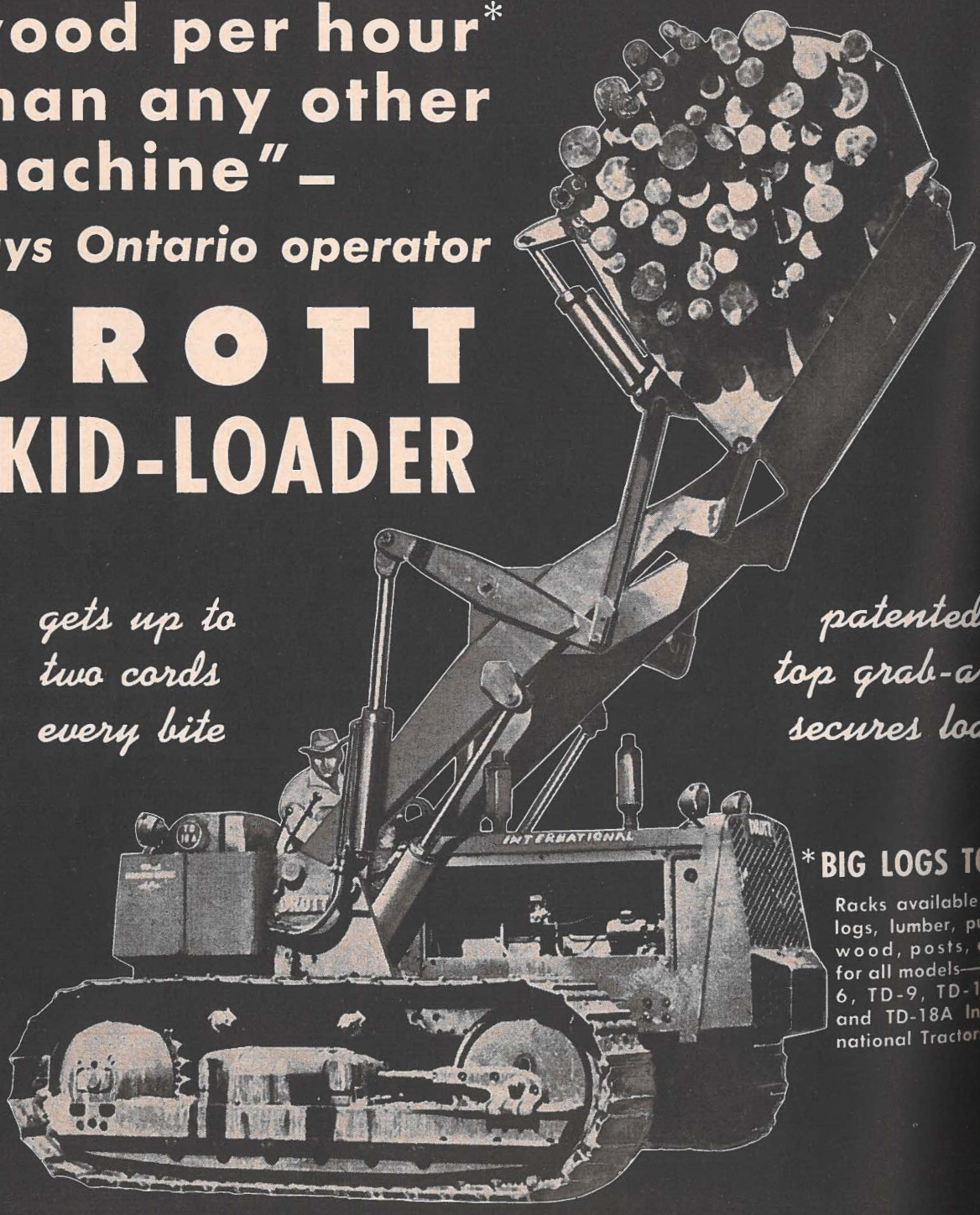
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Published by
THE THUNDER BAY TIMBER OPERATORS' ASSOCIATION

Edited by
T. S. JONES

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Port Arthur, Ontario

President's Message

The Association has noted with regret over the last few years the changes which have taken place amongst our senior and top personnel. It is felt that tribute should now be paid to those who have succeeded to these top positions.

Foremost amongst the changes have been the following:

P. V. LeMay—succeeds Paul Klinestiver as Woodlands Manager for Marathon Paper Mills.

J. H. Godden—succeeds Bruce Southon as Woods Manager for the Great Lakes Paper Company.

A. M. Jones—succeeds Julian Merrill as Woods Manager for St. Lawrence Corporation at Nipigon.

C. W. Roark—succeeds James Ryan as Woods Manager, Kenora Division, Ontario-Minnesota Pulp & Paper Company.

R. I. Young—succeeds Malcolm Cochran as Woods Manager for Hammermill Canadian.

Each of these men brings a wide variety of experience and ability to their new jobs, and, while they have all succeeded very able men, the respective companies are fortunate in having such capable men as these to fill in the vacancies in management posts.

The lot of the Woods Manager is not an easy one and it seems the position becomes more arduous as the years go by.

Our message to these men is brief — we congratulate you on the work you have done.

We believe the Association of Operators continues to be fortunate in the type of men who are the heads of Woods Departments and we know the Association will be the richer for the active participation of these men in the affairs of our Industry and Association.

We wish you every success and God-speed in your efforts to keep your companies and this Industry in the leading position we now hold as the number one Industry in Northwestern Ontario.

We take this opportunity too, of saying something of our fire season. This has been a bad season in most areas but we have been most fortunate in having a good record. There is only a month or so to go so let us not relax. Keep the balance of the season free from fires.

H. H. "Bert" Styffe

SPECIAL ISSUE OF LOG BOOK

A special issue of the LOG BOOK was published in September, and distributed to owners of private land who sell forest products to pulp and paper mills, etc. in Northwestern Ontario. The purpose of this bulletin was to tell the story of how Dr. W. P.Hogarth, a medical doctor of Fort William, Ontario developed a tree planter in Northwestern Ontario, and, in addition, to give woodlot owners some points to think about in developing their woodlots.

COPY OF FOREST FIRE FILM BOUGHT BY AUSTRALIAN FIRM

Little did Association officers realize that 28 prints of the film "Fighting Forest Fires in Northwestern Ontario" would be sold when this project was started. The latest order is from the A. P. M. Forest Proprietary Limited, South Melbourne, S.C., Australia.

It certainly is a small world and we are pleased to know that people in Australia may benefit from forest fire fighting techniques employed in Northwestern Ontario.

PROJECT RC—17

This research program sponsored by the Ontario Paper Company and the Abitibi Power and Paper Company, the Ontario Department of Lands and Forests, the Research Council of Ontario, Faculty of Forestry University of Toronto, Forestry Branch of the Federal Department of Resources and Development and the Pulp and Paper Research Institute of Canada, has been widely reported in the press and in the BUSH NEWS.

The purpose of the immediate program — part of a long range, long term plan — is to increase and create conditions which favour the natural reproduction of spruce on the mixed wood slopes of the Lakehead region. This project is taking place on the limits of the Ontario Paper Company at Heron Bay.

SUCCESSFUL WOODS COMPANY PICNICS HELD

The Marathon Paper Mills of Canada Limited held a very successful employees' picnic at Caramat and Stevens under the auspices of the Recreation Association.

In August, the LongLac Pulp and Paper Company held their Second Annual Employees' Day, Dance and Picnic and both events were very successful.

There were two interesting highlights at the LongLac picnic. The log sawing contest was followed by the crowd with interest with Roland Beaulieu emerging winner with the best average time for three cuts.

The following statement should be carefully noted by all Supervisory Personnel interested in Forest Protection — and this includes all supervisory personnel.

"Spectators were kept on the move during fire hose laying contests in which crews from various camps went through the procedure of laying a defined length of fire hose and watering down the hose line area during the process and finally filling large barrels set up on the recreation field. The crew from Camp 47 were undisputed winners in this event."

Editor's Note — One way to practice fire crews and arouse interest of all concerned. If a company picnic or other event is held, it is an excellent place for the boys that have to put the time in training to fight forest fires to show the results of this training.

QUICK CANADIAN QUIZ

1. Considered as part of the Great Lakes Waterway, where is the source of the St. Lawrence River?
2. In 1901 there were 271,201 Canadians over 65 years of age. How many were in this age group in 1951?
3. From what sources does the federal unemployment insurance fund draw its revenues?
4. Are most Canadian furs taken from wild life, or ranch raised?
5. On the average, what province has the largest families?

(Answers on Page 18)

Artificial Regeneration on Limits of LongLac Pulp and Paper Company Limited

By E. R. Humphreys

The principle of the regeneration programme is that the cut-over land must be reforested to a new crop of desireable species. To attain this objective, Long-Lac Pulp and Paper Company have, during the past 3 years, planted more than 9,000,000 spruce and pine seedlings, scattered cone-bearing jack-pine branches over more than 2,000 acres of cut-over, conducted extensive research in artificial and natural regeneration, laid out seed blocks, scuffled before logging and always emphasized the protection of advanced growth during logging operations. Last but not least, a course on Conservation has been given to LongLac school children, to prepare the citizens of tomorrow. The future programme will be considerably greater. Beginning in 1953, 1,000,000 seedlings will be planted annually and about 3,000 acres will be brushed, as well as the continuation of the other methods. In 1955, the LongLac nursery will produce its first 2-2 spruce stock at the rate of 1,000,000 seedlings per year. Research will be continued and extended to improve upon the present artificial methods. New methods and tools for planting will be introduced, as well as new systems of organization.

It becomes necessary to employ artificial means when nature fails to do the job for us. Nature fails because one or more of the following conditions are absent:

(1) Suitable seed bed
(2) Seed or source of seed
(3) Desireable species.

Suitable seed bed and seed must be present to produce a new timber crop. It is often the absence of these two conditions that causes failure. It is usually these two conditions which govern the artificial method to be employed. Site controls the species but seed and seed bed control method.

Where seed is present and seed bed lacking, whether it be duff, moisture, heat, shade, plant competition or any other factor, it becomes a problem of producing a suitable seed bed. Conversely, if the seed bed is suitable and seed is lacking, it becomes a problem of establishing the seed. These simple facts can be verified by examining a cut-over and noting the increasing number of natural seedlings within seeding distance of the surrounding timber, where seed must obviously be present in a suitable seed bed.

In drafting the regeneration programme for the years to come, it is essential to know how much and what species of natural stocking will be present in five, ten, fifteen or more years after logging. A regeneration cruise supplies this information, so that over a period of years a pattern can be found which will indicate the type and quantity of artificial aid that will be required for a given site and forest cover type. Most of the highland cut-overs on the LongLac limit, that result from past logging operations that have not stressed regeneration as it is stressed today, have not reproduced satisfactorily to desireable species. Natural regeneration of these areas is being supplemented by planting and brush scattering. Since this work will eventually be required on all future highland sites, why not do it as soon as possible after the logging operation?

In the practice of Forestry, artificial and natural regeneration becomes part of the logging plan. The artificial means will be known before logging operation begins. For instance, where poplar is logged from a site which would support spruce, a more desirable species, it is necessary to plant 2-2 spruce as soon as possible after the haul, in order to establish spruce on that site. If the planting programme is delayed for many years, it becomes virtually impossible to establish spruce in competition with dense poplar sucker growth. Another example may be seen in operations where jack pine is the major species. The site may be regenerated to jack pine by scattering cone-bearing branches over exposed mineral soil. However, should this work be delayed for only a few years most of the seed will be decayed or released in the brush pile. Obviously this work should be done as closely as possible behind the haul.

A broad outline of the possible artificial methods that may apply to the various forest cover types is as follows.

In the areas of sand plains and jack pine forest type, of which there is a considerable quantity, scarifying of duff by hand or other means, to expose mineral soil and placing cone-bearing branches thereon proves to be an effective method of re-establishing the pine. Logically, the fresher the cones the more efficient the operation as viability and quantity of seed is increased and labour cost is decreased. Hence the need of working closely behind the haul. Also, it is a method which can be utilized from May through Octobe,r when other methods, such as planting, may be seasonal. Where seed is not available in old cut-overs, it may be feasible to truck in fresh brush from an adjacent cutting operation.

In the spruce flats, where duff is not too thick a planting programme may be planned.

In a mixed wood type of poplar and jack pine where the poplar is not cut, branch scattering may be successful. The limiting factors here are the possible competition from poplar sucker growth and the amount of sun penetrating the residual canopy as being insufficient to open the cones and later support the ingerant pine. In this instance the advantage of fresh cones may be gained as these require less heat to open than do three or four year old cones. If the shade is too great, it is necessary to plant 2-2 spruce. Should the poplar be logged, it is possible that the sucker growth would be too dense to enable jack pine to become established. In this case, planting of 2-2 spruce seems to be the most promising answer.

In a mixed wood type of spruce and poplar, the only answer appears to be a spruce planting programme.

In a hardwood type on a site which would support spruce and if it is desireable to establish spruce, then the species must be planted, preferably as 2-2 stock.

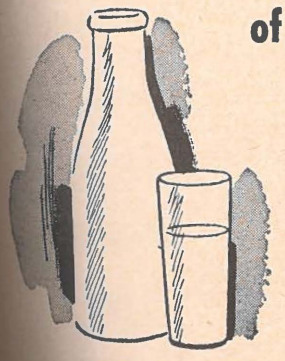
Planting operations are organized along the following lines. It is true that tree planting requires more than a strong back and a weak mind, for here is the ground work for one hundred years of forest growth. it cannot be corrected after it is done incorrectly. It is just as easy to plant a tree correctly as incorrectly.

New men receive their instructions in the [illegible] the following essentials of planting being emphasized:

(Continued on Page 24)

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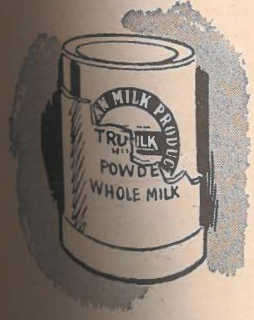
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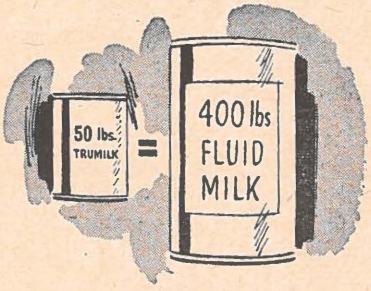
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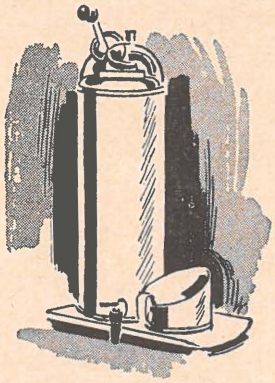
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Workmen's Compensation Board Rehabilitation Centre at Malton, Ontario



Injured bushworkers at the Workmen's Compensation Board Rehabilitation Centre at Malton, shown preparing themselves for return to their work. This is part of the occupational therapy treatment for which the Centre is so famous.

In the wake of Canada's industrial revolution, with its ever-increasing mechanization, production and labour force, a pool of injured and handicapped workmen is inevitably created despite improved safety and accident prevention measures.

Approximately 10 per cent of all medical aid and compensable cases representing all industries in Ontario reported to the Workmen's Compensation Board in 1952 were injured on the job in the woodland industries. In 1947, the Board established a Rehabilitation Centre at Malton, 15 miles west of Toronto. It has proved to be the Province's answer to the problem of how to lessen time lost and disability arising from injuries to workmen injured on the job.

Of the 3,900 patients admitted to the Rehabilitation Centre in 1952, many were employees of woods operations. As a result, Northwestern Ontario names like: Heron Bay, Marathon, Ogoki Lake, Port Arthur, LongLac and Fort William; Fort Frances, Kenora and Dryden are familiar to the staff at this unique treatment centre.

Before 1947, the centre was operated as an active treatment hospital by the Department of Veterans' Affairs. Prior to that it was an aircrew training station operated by the RCAF. Today, it has an international reputation as a model physical medicine treatment centre. This is borne out by the many groups who travel from all over the world each year to study its operation.

Patients are referred to the centre by their attending physicians or surgeons for medical treatment. Ambulance service is maintained for patients from active hospitals in Toronto and neighboring towns. For those coming from outlying districts, rail transportation is arranged by the Board. Occasionally, when necessary, injured workmen from remote parts of the Province have been flown by the Board to areas where the required treatment is available.

During the necessary treatment time, patients live in. There is accommodation for 191 hospital patients and 327 ambulant clinic patients who do not r further hospital nursing care. These 518 injured men receive their full treatment and maintenance the normal benefits to which they are entitled the Workmen's Compensation Act, without c o them.

When patients are admitted to the centre, d are assigned to their cases. They examine the pa and prescribe a course of treatment. This progra physical treatment is designed to prevent genera sical deconditioning and to permit early ambula This treatment is carried out by a rehabilitation te In the hospital, this team consists of three full physicians, eight physio-therapists, four occupat therapists, two remedial gymnasts, a rehabilitation icer, 17 nurses, 10 nursing assistants, 12 ward a 12 orderlies and the administrative staff.

Patients are admitted to one of the eight wa Each ward accommodates 23 injured workmen. patient is required to join in general ward exer twice daily, for 20 minutes, under the direct supe ion of physiotherapists. In addition, an individual gram is given to maintain or increase functional ab by the use of physical measures. The occupati therapists visit the patient and after discussing a wo ing program with him, design one that will afford as short a time as possible, as full functional use possible of the affected member. Each nurse ha thorough knowledge of the procedure being used is able to assist greatly by encouraging a patient to forth his maximum effort. The nurse with her pl ant capable manner renders assistance of inestima value by keeping abreast of the psychological and turbing personal problems of patients. These bec evident to her as the treatment days carry along.

To fulfill the concept of reconstructive medic one of the centre's rehabilitation officers talks the problems of work and the future with the pati He obtains a work history and background from the pa ient, then discusses the case with the physician

(Continued on Page 7)



A remedial gymnast at the Workmen's Compensation Board Rehabilitation Centre at Malton supervises an injured workman while he learns to walk properly once again. The good work done at this Centre is responsible for rehabilitating thousands of injured workmen to industry every year.

e. As early as possible, the rehabilitation officer tains the patient's ability to return to his usual or if some feature will result in permanent im- ent requiring a change of job, or vocational train-

As soon as ambulation is agreed upon, the patient group classes under the remedial gymnast's dir- n. These classes include early walking instruct- where patients learn crutch and cane walking, classes graded to patients' capabilities, graded and knee classes and arm and shoulder groups. intensive and comprehensive series is carefully rvised.

The clinic accommodates 327 patients in wards containing 23 beds. Clinic patients have a six- treatment day from 8:30 a.m. to 11:30 a.m. and 1 to 4 in the afternoon. The treatment pavilion out half a city block from sleeping quarters. Staff this section is comprised of 5 full-time physicians a consulting orthopaedic specialist. There are 16 upational therapists, 12 physiotherapists, 6 remedial nasts and 3 rehabilitation officers.

The physicians are responsible for prescribing tment divided into light, intermediate and heavy grams. In the light program, emphasis is placed individual physical therapeutic and occupational apeutic measures within the patient's capabilities. progress occurs, the treatment regime is stepped up the intermediate, after medical advice. The patient then given less individual treatment in the form of cialized exercise, heat, massage, electrical stimu- ion, and emphasis is placed on a program to increase er and functional use. In the intermediate, advan- occupational therapy procedures and graded group s activities are given under the remedial gymnast.

When it is felt the patient has reached his maxi- um under treatment, his ability to return to his job tested. In this final stage the patient has a work sessment test if residual disability remains. If it is ought he is capable of returning to his former occu- ation the patient is given a work test.

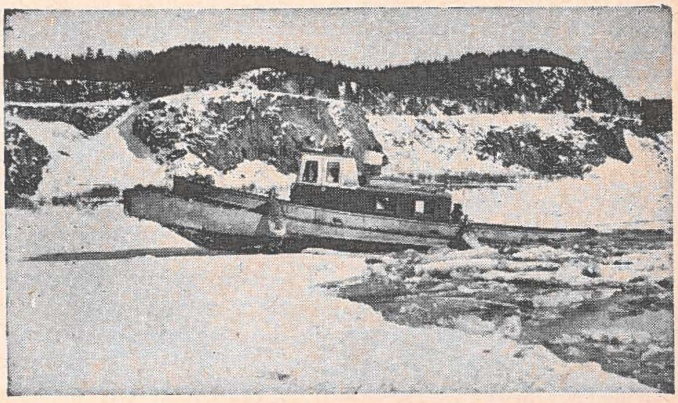
(Continued on Page 22)



An occupational therapist at the Workmen's Compensation Board Rehabilitation Centre shows an injured workman how to get the most benefit out of his treatment. Hand injuries are common, and treatment received can determine whether or not an injured workman will ever return to work. In this respect, the WCB Centre has built up an enviable record.

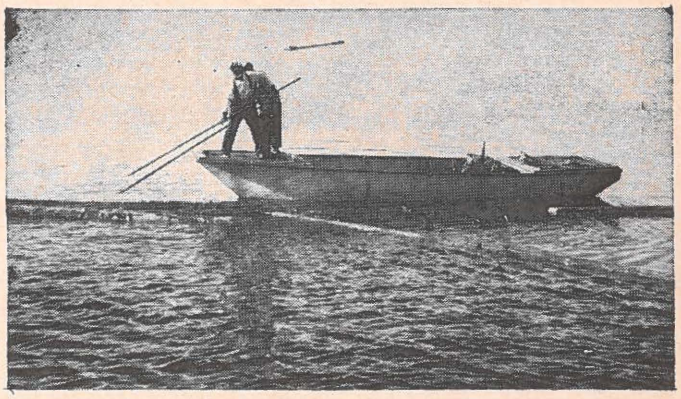
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FORESTERS STUDY WOODLOT MANAGEMENT

"Farm Woodlot Management — Why and How" was the subject of a well attended field meeting of the Northwestern Ontario Section, Canadian Institute of Forestry, Tuesday afternoon and evening. Held at the farm woodlot of G. Sonley on the Onion Lake Road, Gorham Township, the meeting attracted some 27 foresters and guests, including representatives of the Ontario Department of Agriculture, Department of Education, Department of Lands and Forests, Ontario Hydro, and of local industries. Mr. Robert Young, Chairman of the Northwestern Ontario Section of the Canadian Institute of Forestry, was in charge of the programme, which included an inspection of the property during the afternoon, and in the evening a round-table discussion of problems relating to the management of a farm woodlot and the marketing of its products.

Mr. R. J. Prettie, of Northern Wood Preservers, led off the evening session with an informal talk on the markets available locally to the owner of a farm woodlot. He prefaced his remarks with the observation that a farm woodlot, carefully managed, can be a good investment for the future while supplying income for the present — somewhat akin to a bond from which a coupon can be clipped periodically. Markets, he pointed out, determine the products for which the woodlot can be managed. Each has definite specifications as to the species, size and other physical features which it will accept. These must be met if the market is to be entered.

Prices paid for woodlot products are the result of two forces, he stated. Indirectly, they are dependent on the prices prevailing for the finished product in its major marketing area. More directly, they are dependent on competition from buyers at the local level. For some products, e.g., sawlogs, the competition is between buyers of the same class of material. For all products there is the competition between different classes of material; for example, between poles and lumber or ties and pulpwood. Here at the Lakehead competition is generally strong and no one buyer has a real monopoly.

The aim of both the buyer of woodlot products and the woodlot owner must be to create a ready and steady market free of violent fluctuations in demand or supply, or in price. Only in this way can the concept of the forest as a bond be maintained.

Some of the problems faced by a woodlot owner were pointed by Mr. Sonley, both during the afternoon field trip and at the evening discussion. These included such varied problems as Christmas tree vandalism, whereby trees 6 - 7 inches in diameter and 30 - 50 feet tall were cut down to get a 5-foot tree from the top; animal grazing, and choice of species to plant.

The question of "what have you got?" raised the problem of a forest inventory to determine how much should be removed periodically to keep the forest growing at its fastest rate.

The nature of the soil determined the species of trees which should be favoured in the present stand or planted in any programme of reforestation. Where more than one species is suitable, the choice will rest on the type of market the owner wishes to enter. Some rapid growing species will yield more cellulose per acre per year, and hence would be favoured if pulpwood was the end product sought. Others will have high value as poles or piling, and still others have multiple uses.

Mr. Norman Harrison, Agricultural Representative for this area, considered the interdependence ... riculture and forestry. He noted an increasing ... on the part of farmers in the financial and oth... efits from farm woodlots and shelterbelts and ... foresters to help farm organizations to answe... lems related to farm woodlot management. H... some hints on steps to improve poor soils f... production.

Increasing the emphasis on conservati... woodlot management in the schools was cons... Mr. Steele, Public School Inspector for the Port ... area, noted that this was a relatively new thing ... yet not too well defined. He pointed out the ... River and O'Connor school projects of the Ca... Institute of Forestry as possible indications of ... proceed. Mr. Addison, Regional Forester of the ... ario Department of Lands and Forests, noted t... the Sault Ste. Marie area foresters have offere... use of their section library to teachers for use i... paring lessons in conservation.

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EST INSECT LABORATORY REPORTS ON CT COLLECTIONS

In June 1953 there were 2,382 collections con- ing a total of 3,252 insects samples received at the oratory.

In July 1953, there were 3,369 collections con- ing a total of 4,112 insect samples.

Reports on the Forest Tent Caterpillar, Spruce dworm and the larch sawfly are reprinted below:

Forest Tent Caterpillar (Malacosoma disstria)

A forest tent caterpillar infestation map for 1953 ed on ground and aerial surveys is included in this ort. A few minor changes in infestation boundaries cribed in the June monthly summary may be noted reference to this map.

Extensive surveys of egg band densities will be e in September, 1953. These will provide a basis forecasting the severity and extent of infestations 1954.

Spruce Budworm (Choristoneura fumiferana)

In general, spruce budworm infestations in North- Ontario in 1953 maintained a level of intensity ual to or exceeding that of 1952, and showed varying egrees of extension.

The approximate boundaries of the Kenora-Sioux ckout infestation now extend from west of Red Lake stward, north of Trout Lake to Birch Lake, southeast- rd to Sturgeon and Sowden Lakes, thence west to pestone Lake and Big Island in Lake of the Woods d north through Oneman Lake. This encompasses tensions in 1953 to the southeast at Sturgeon and wden Lakes north of Ignace, and to the south at rmy and Pipestone Lakes and at Big Island in Lake the Woods.

In the Port Arthur District, heavy infestation per- ted on balsam fir on Sibley and Black Bay peninsulas. The Disraili-Sturge-Little Sturge spruce budworm infestation, subsisting principally on mature white spruce, remained heavy and an incipient infestation extended eastward as far as Shillabeer Lake. The infestations east of the town of Nipigon in the Port Arthur District and north of Pays Plat in the Geraldton District merged to form a medium to heavy infestation from Rossport north to the Gravel River and west to Nipigon. The current year's growth of both white spruce and balsam fir were defoliated.

Light infestation of spruce budworm occurred from Sibley Peninsula in roughly a 10-mile band along Black Bay to the town of Nipigon and north into Ledger Township.

In the Kapuskasing District, preliminary mapping of the infestation centered in Rogers and Studholme townships showed extension at least to the north and west of the boundaries mapped in 1952. The heaviest feeding was observed on white spruce.

In the Cochrane District, the spruce budworm infestation south of Smooth Rock Falls increased both in size and in intensity. Medium to heavy infestation persisted from Haggart Township south to Kirkland Township on surviving mature balsam-fir and on balsam-fir reproduction.

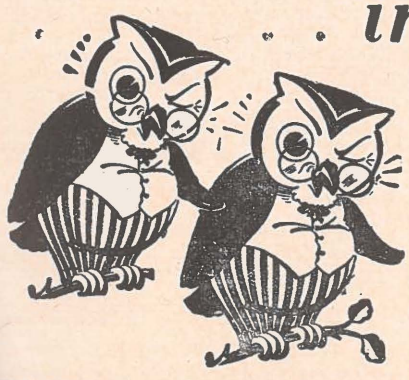
The light infestation in woodlots south of Pembroke in the Pembroke District and the small infestation in Charlotteville Township in the Lake Erie District reported in 1952 showed marked declines.

Larch Sawfly (Pristiphora erichsonii)

This sawfly continued to cause serious defoliation in the Western and Mid-western forest regions and in the Kapuskasing District in 1953. At this early date, almost complete defoliation of larch trees has been reported in some areas. Preliminary reports also reveal an increased abundance of larch sawfly in most other forest districts in Northern Ontario in 1953.

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LUMBERMEN'S SAFETY ASSOCIATION HOLD OPERATORS' MEETING IN THE FORT FRANCES AREA

The Class 1 operators of the Fort Frances-Kenora area gathered at the Rainy Lake Hotel, Fort Frances, on Tuesday, July 21st, 1953 for a meeting sponsored by the Lumbermen's Safety Association. The chairman was Mr. John Styffe of Oscar Styffe Limited, Port Arthur, and the meeting was attended by some 47 members.

Dr. W. S. Barnhart of Ottawa, secretary-manager of the Lumbermen's Safety Association; Mr. D. C. George, Chief Field Representative of the Lumbermen's Safety Association; and Mr. G. R. Potts, Field Representative, Northwestern District, Lumbermen's Safety Association; addressed the meeting on Association business.

Mr. F. B. Denison, District Representative, Workmen's Compensation Board, Fort William, and one of the speakers, dealt with the Workmen's Compensation Act and the great advance in benefits granted over the years since the Act's inception in 1915.

Mr. John Styffe, chairman of the Northwestern District Accident Prevention Committee, gave a very interesting talk on an organizational plan suggested by the said committee for use by all operators.

Mr. Paradis, Assistant General Manager, Ontario-Minnesota Pulp & Paper Company Ltd. spoke. briefly on accident prevention work and Mr. J. A. Mathieu, President, J. A. Mathieu Limited, Rainy Lake, gave a short talk on the way his firm had handled their safety work over the years and it might be well to mention here that J. A. Mathieu accident record in Class 1 over the past 15 years is the best in the Province in both saw milling and heavy logging.

Mr. George Potts, Woods Production Manager, Ontario-Minnesota Pulp & Paper Company Limited was the guest speaker of the evenoing. A copy of Mr. Potts' address is reprinted below.

To round off the evening, motion pictures on the administering of first-aid to the injured and the conservation of wild life were shown.

ADDRESS GIVEN BY MR. GEORGE POTTS ONTARIO MINNESOTA PULP & PAPER CO. LTD.

"Firstly, gentlemen, I would like to express my pleasure at again having an opportunity to meet with you and renew acquaintances, and discuss some of our common problems. I also appreciate being asked to speak to you today. I have had the opportunity on previous occasions to hear others talk and express their viewpoints, and I do want to assure you that I always come away from a meeting of this kind with a new and refreshed look on our everyday **problems.** We are, I think, all a little prone to assume all is well, and these meetings sometimes have a very jarring effect on our ideas.

What I have to say is not new. I am not going to attempt to inject a new approach to bettering our present accident experience. I would much prefer to relate to you how I look at the problem and I think many of you will agree if we can come up with a good job done here, we will have gone a long way in decreasing the number of injuries to our woods employees.

Not too long ago the accepted plan of operation was to open our camps in early Fall — cut as trees into pulpwood, tie bolts, sawlogs, posts, pole as we could up until the break-up in the sprin then call it quits 'til we started again the next We, of course, had our driving and towing to do in-between period but not too much concern w here. We kept our key men around and they good job in getting the raw product to the m safely tucked away in storage nearby.

This method, like many other things, has no appeared in most operations and we now find our operating, if maybe on a smaller basis, but on a tinuous twelve-month plan. We also find that our companies following the selective cutting pl operation and with a plan also that requires y not only cut pulpwood or sawlogs or tie bolts, b at the same time that we have more units of jo plan and supervise.

It is true that our personnel is building u where we now have a greater number of our empl with us for the full year rather than a part of it on

With this condition we are also moving along progress and find that our operations are now very ly mechanized. I doubt if the horse will ever disa completely but he is certainly being pushed out o picture.

What does all this mean? How can we best the problem? Our momentum has speeded up had to, in order to keep pace with mechanization

I do not think we need to look for too many approaches to our safety problems. I think we to bear down a lot more on our presently accepte liefs and make sure our plan of action is one that tinues to tick.

What is safety? It has numerous interpreta depending upon, of course, how you wish to them. In our particular field, accident preven there are several interpretations, all of which po the same direction.

SAFETY CAN BE——

"A condition of freedom from danger or hazard

IT CAN BE ——

"A quality of being devoid of whatever exposes to danger or harm,"

IT CAN ALSO BE ——

"A keeping of oneself or others safe from danger of accident or disease."

Presuming we agree with these thoughts and have no reason to think we shouldn't, let us try apply a few principles.

We want our employees to work for us as from injury as possible. We therefore, suppl make available tried appliances and principles to bat the danger. We could outfit any given emp with enough safety gadgets now on the market it would be utterly impossible for him to harm in any way. There is, though, one drawback and it is this. If we clothed him in all of these he would be so attired he could not possibly would be like putting him in a straight-jacket pecting him to run a race.

We should therefore only supply enough gadgets as are deemed practical to allow him to tinue his day's work in a normal manner without ing him to tire or lose the effort of his various es. Of course, all men would not dress alike.

(Continued on Page 20)

ETY ASSOCIATION 1953 ANNUAL ORTS PUBLISHED

Annual Reports of the Ontario Pulp and Paper ers' Safety Association and the Lumbermen's Safe- ssociation were published recently.

The Annual Report of the Ontario Pulp and Paper ers' Safety Association shows that there were 13 his in 1952, 2,515 disabling injuries and 1,504 r injuries requiring medical aid only. This total compared with the man-days exposure of 9,070, resulted in a frequency rate for disabling ies of 80.9 and the medical aid frequency rate of

The 1952 is above the ten-year average but shows nsiderable improvement over the 1951 operations.

The Lumbermen's Safety Association reports that e are 5,738 accidents in Class 1 in Ontario, broken n as follows:

4,913 — bruises, cuts, etc.
21 — deaths
338 — major fractures
302 — minor fractures
54 — herniae
110 — other majors

his total

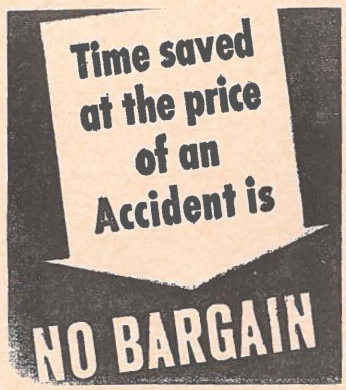
4 — deaths
72 — major fractures
69 — minor fractures
21 — herniae
26 — other majors
1,509 — bruises, etc., etc.

1,701 occurred in Northwestern Ontario.

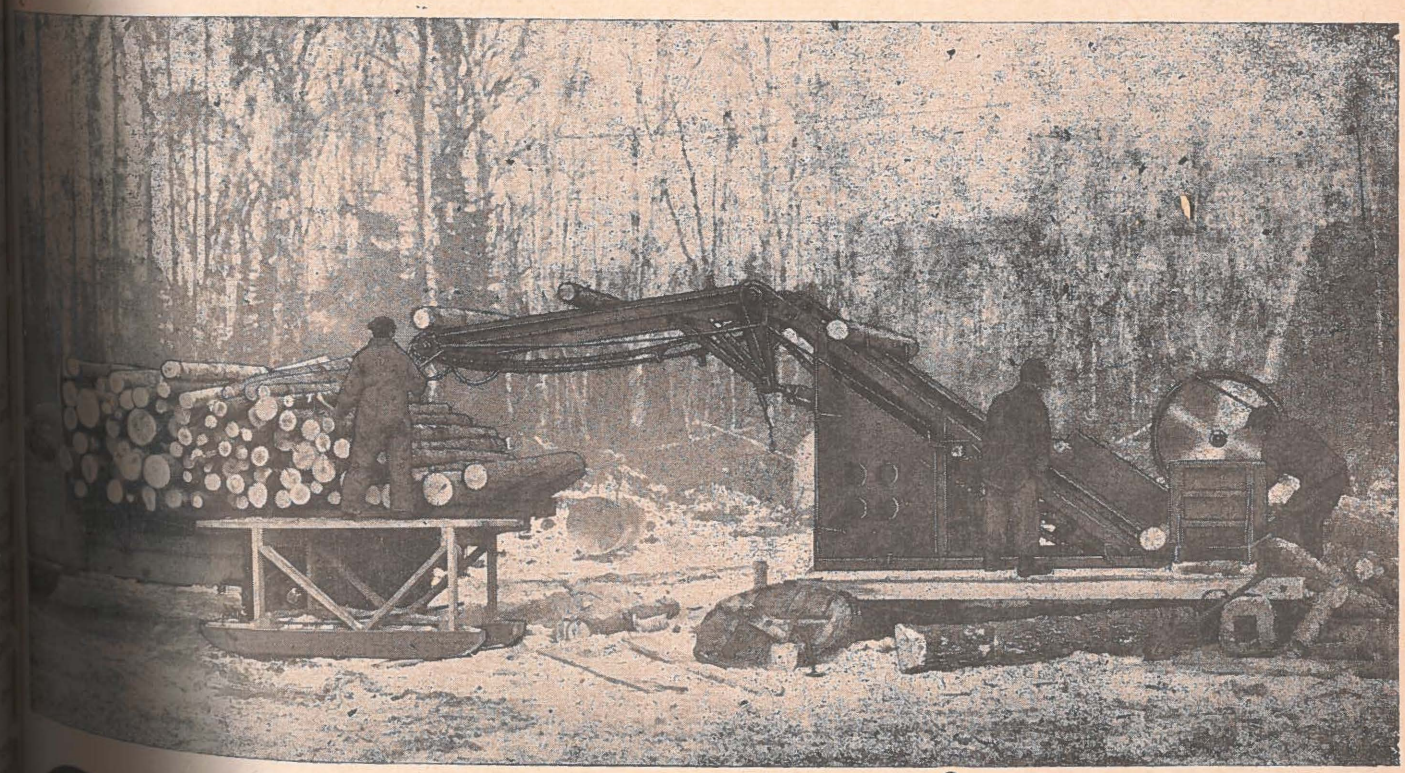
PEELING CAMP HAS EXCELLENT ACCIDENT RECORD.

Newaygo Timber Company Camp 4 at Clarkdon, Ontario, have every reason to be proud of their safety record. Th camp is engaged in the cutting of 8' sap-peeled pulpwood with an average total crew of 85 employees, and worked 5,105 man days without a lost time accident. The first compensable accident was on the 66th day after the camp opened.

The foreman, Hjalmer Kotanen and clerk, Eino Kotanen helped make this record possible.



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Inspiring Fire Protection Course Held at Jellicoe

New Techniques in Fire Fighting Revealed

A fire protection course, the first of its kind in Ontario was held under the direction of the Ontario Department of Lands and Forests at Jellicoe, Ontario, in a camp owned by the St. Lawrence Corporation during the week July 20 - 25. Department of Lands and Forests officials from nineteen northern districts spread from Kenora to the Ottawa River were in attendance and, in addition, all the major timber and pulp and paper in the Province were on hand. Northwestern Ontario companies were well represented at the course and, in addition, senior officials from companies located at the Head of the Lakes were present at the demonstratino showing the use of aircraft and helicopters in fighting fires

The following subjects were covered at the course:

Fire Protection Planning —- Q. F. Hess.
Forest Fire Laws — M. Sauerbrei
Public Relations and Industry Responsibility — C. R. Mills
T. S. Jones
Fire Weather Forecasting —- Q. F. Hess.
Fire Crew Organization — J. Ruxton.
Care and Storage of Equipment — D. O'Grady & J. B. Rorke.
Hand Fire Fighting Equipment — G. McAdam.
Demonstration of Use of Hand Fire Fighting Tools—
G. McAdam.
Fire Fighting Tactics — J. Ruxton.
Safety — W. Stinson.
Demonstration of Water Bombing, Cargo Dropping,
Helicopter, etc., at Rolland Lake — J. C. Dillon.
Supervisory Training — E. Malo.
Fire Prevention — J. C. Dillon.
Mechanical Equipment — G. McAdam.
Demonstration of Mechanical Fire Fighting Equipment—
G. McAdam.
New Developments in Fire Protection — J. C. Dillon.
Map Reading and Estimating Burned Areas and Fire Damage—
M. Sauerbrei.
Fire Detection — J. C. Dillon.
Communication — C. E. Lloyd.

Mr. J. Ruxton was chairman of the meeting and Mr. T. E. Mackey, Chief of the Division of Forest Protection and his assistant Mr. J. C. Dillon attended the course.

As can be seen from the above, those in attendance at the course were given a broad and instructive picture in preventing, detecting and suppressing fires. Special emphasis was placed on pre-suppression measures, the organization of crews and care of equipment.

The demonstrations by the Department of Lands and Forests on the use of hand fire fighting tools; the mechanical fire fighting equipment; and water-bombing, cargo dropping; laying hose by helicopter; were outstanding features of the course. In particular the demonstration using aircraft and helicopter showed the many uses that may be made of both, either working in conjunction os by themselves and there was no doubt in the minds of any persons who saw the demonstration that the helicopter is going to revolutionize fire fighting. The ease with which it can get men and pumps, etc., to a fire will result in fires being tackled much more quickly than formerly and this should result in fire areas being smaller than in previous years.

Mr. T. E. Mackey, Chief of the Division of Forest Protection stated: "This is the newest and latest method of fighting fire by getting water on the fire quickly in a way that was not available to us before. It will hold small fires and has been used on hot spots on

(Continued on the Next Page)



Department's Beaver airplane dropping supplies by parachute



Department and Industry representatives attending the course.



HELICOPTER LAYING HOSE LINE.

PACK TRACTOR IN ACTION



INSPIRING FIRE PROTECTION COURSE HELD AT JELLICOE

(Continued from Page 12)

large fires to keep them from spreading until ground crews can reach them."

Aircraft dropped test cargo including a portable power pump with complete success using distinctive orange and white 11 foot parachutes and dropping both on land and water through special 18 inch diameter hatches in the airplane cabin floors.

The "loud-hailer" developed by Department personnel is a very effective method of communicating with the ground and particularly of giving such warnings as make sure your camp fire is dead out" and "be careful with fire", as well as a typical directive to ground crews supposedly fighting fires. The pilots could be heard quite clearly as high as 1800 feet.

Papers covering lectures given at the course were distributed to all immediately after each lecture and therefore each person who attended the course has a complete record of the lectures.

The subjects taught at this school are known in some degree by many of the persons responsible for preventing and fighting forest fires, but everyone who has this responsibility should know what went on at this courses. This, as said before, is the first course of its kind held in Ontario and it is hoped to continue these courses on an annual basis. Each person attending the course was charged with the responsibility of passing on to others in his organization the lessons learned at this school and it is hoped that by holding these courses and by passing the lessons learned to others that the fire fighting forces, both the Department of Lands and Forests and Industry, will become more efficient as a result of these courses.

Mr. Frank A. McDougall, Deputy Minister, Department of Lands and Forests, visited the school and made the following comments:

"This co-operative effort of the forest industries with the Department of Lands and Forests is deserving of the highest praise. Such co-ordinated action is important and necessary. In the lifetime of any of us, in industry or in Lands and Forests Department, none of us individually can learn too much about preventing forest fires and fighting them when they do occur. Only by the collective efforts of all of us — forest rangers and those engaged in forest industries — by the pooling of our combined knowledge and experience, can we hope to succeed in the protection of Ontario's forests. That is the fundemental value of gatherings like this. I am sure that it will be of benefit to all concerned."

EDITOR'S NOTE:

One of the items fully discussed at the Forest Protection Course, was "Back-firing".

It was generally agreed that back-firing had a place in fighting fires, and in view of this the Editor requested Mr. J. C. Dillon, Supervisor of Forest Fire Control, Department of Lands and Forests, to write a short report on "Back-firing". This should be read with interest by all who are concerned in fire protection.

The organization and training of fire crews was a subject of much discussion at the Fire Protection Course. It was agreed that the pump crews organized as shown above would produce most efficient results, and it was agreed that pump crews trained in the Province of Ontario would be organized as above.

Crews trained in this organization will be able to operate with fewer improvements if necessary, and produce good results. However, for training purposes it was agreed that those crews organized would be used.

This crew organization is to be standard in the Province of Ontario, and it is hoped that all industry pump crews will be organized on this basis.

(See Pump Crew Organization on Page 15)

BACKFIRING — THE MASTER TOUCH

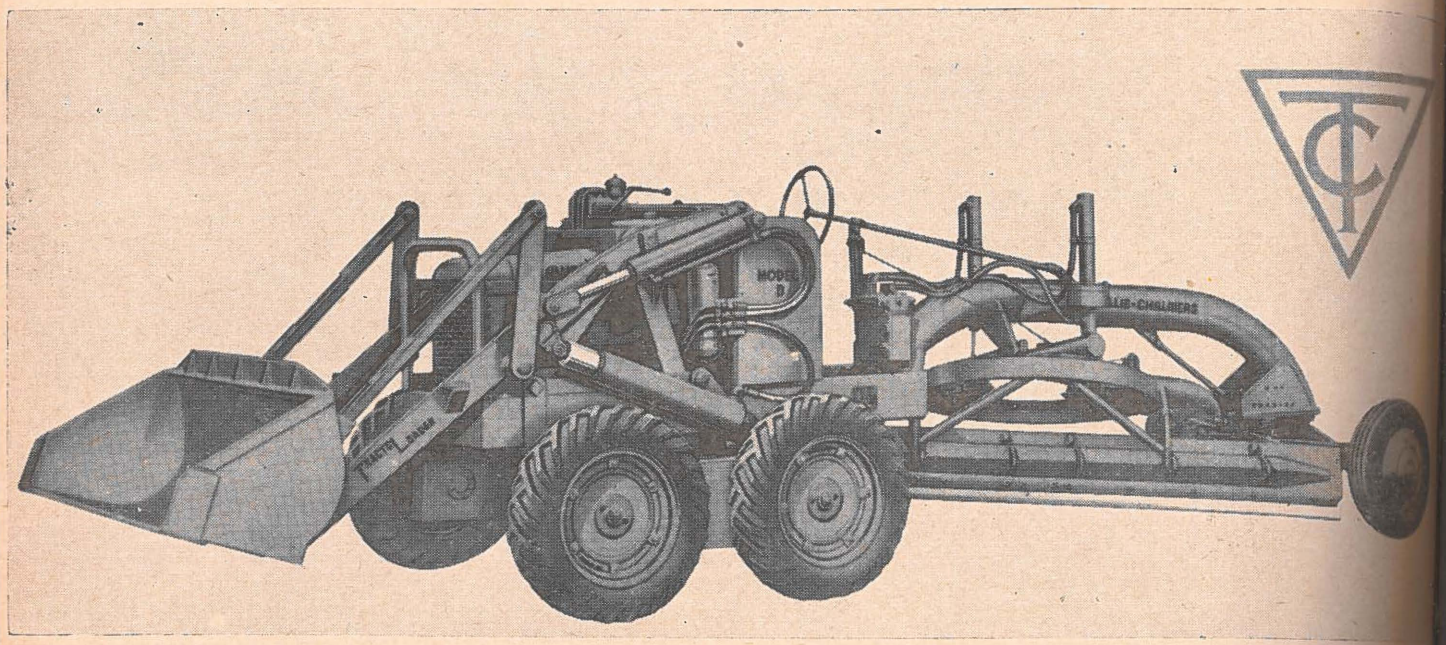
By J. C. Dillon

Backfiring is a method of controlling fires, of that there is no doubt. There is a natural tendency on the part of any man in charge of a fire to hesitate about starting a back fire and well there might be, However, I do not know of one single instance where a backfire has failed to perform its function if the proper preliminaries were carried out. In short when a backfire fails it is a case of poor judgment and should be considered as such rather than a condemnation of the method.

Backfiring might be analized in this manner — supposing a fire was threatening a backwoods settlement and had cut off the ordinary means of exit such as a road or waterway and the firebreak surrounding the community was definitely not large enough or cleared sufficiently to tops the advancing fire. There are women and children in the settlement. Under such circumstances, the wise fire fighter will attempt to enlarge the fire break by backfiring, and no one could possibly consider that his attempt was wrong. This has been done and no doubt we will be called upon to repeat the action as this Province develops frontiers.

Now if under the foregoing conditions backfiring was considered essential to the preservation of life and property, it is equally sond thinking when applied to a

(Continued on Page 16)



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1. The rear framework of the Model D becomes part of the loader frame, reduces weight and simplifies the combination framework.
2. Four large tandem wheels have greater capacity to carry the added weight of loader and loaded bucket.
3. It is not necessary to substitute heavier front axle, spindle, wheel bearings, steering gear, or tires.
4. The rear mounting does not affect steering nor interfere with the prime functions of the motor grader.
5. The weight of the loader and its payload is well distributed over the four tandem wheels for improved traction and stability.
6. The tubular frame is not subjected to strains encountered in loading operations because shock loads are transmitted directly to the drive wheels.
7. Forward vision of operator is in no way affected.
8. Because pump, valve, oil reservoir, and cylinders are close together, hydraulic lines are short, friction reduced.
9. Increased stability allows a high bucket reach that permits loading the average size dump truck from the rear.
10. The cost of the combination unit is less because of simplicity of design and construction.

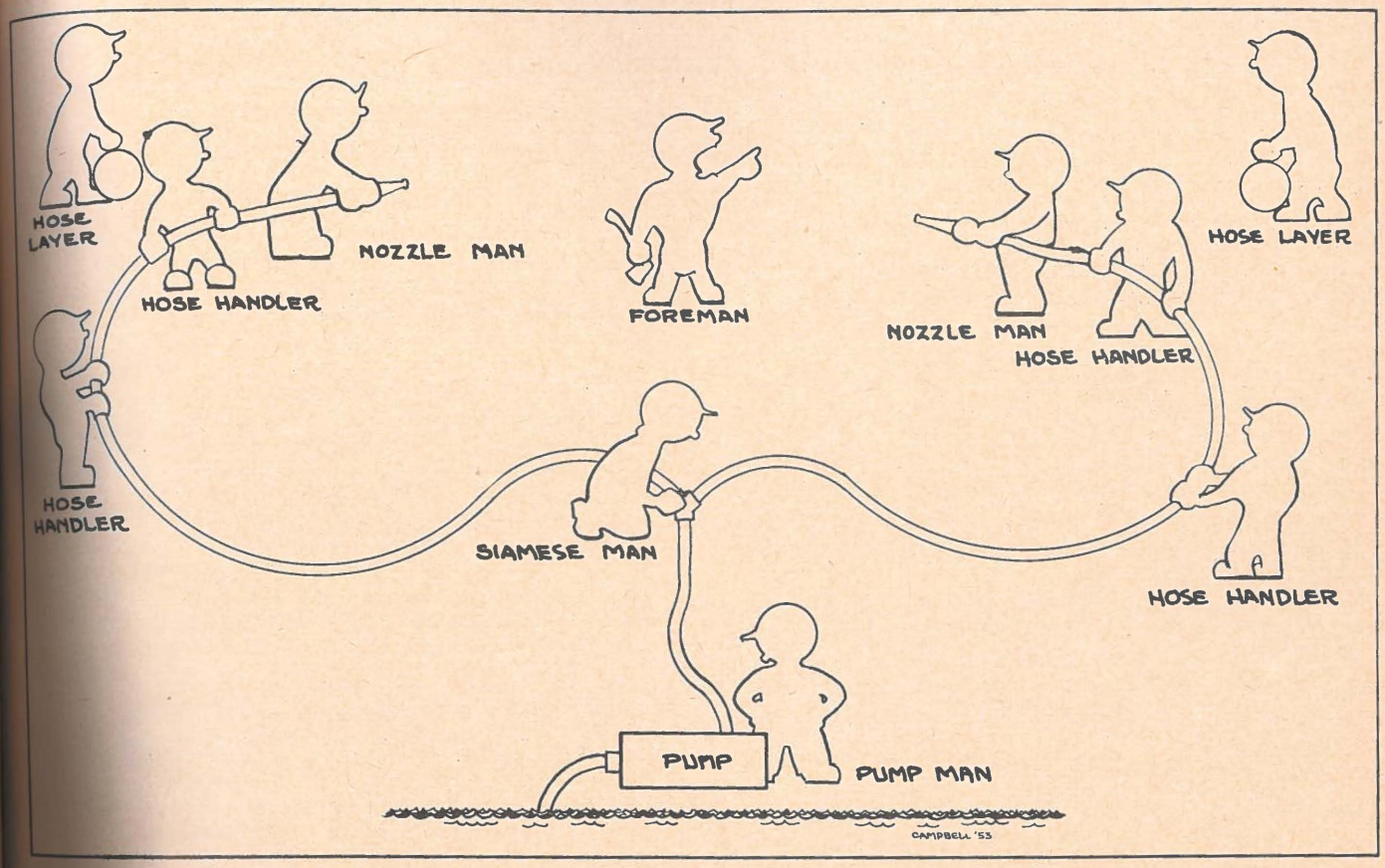
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Organization of Fire Crews



Pump Unit Foreman: Supervises all work of the crew including location of pump in relation to fire; scouts fire line to determine what type of hose lay would be best suited to control fire spread, and to determine what portion, if any, of the fire line can be by-passed with hose lines, etc. He co-ordinates his work with that of hand tool crew foremen and with other pump unit foremen.

Pump Operator: Is responsible for power pump operation and running maintenance, gas, oil, etc. required for continued operation.

Siamese Operator: Is responsible for efficient operation of siamese valve.

Nozzle Men (2): Their function is to make effective use of water and nozzle pressure in suppressing the fire along its perimeter. These men must be able to judge the effect of their work in relation to the intensity of the fire in order to move along the fire line with a minimum of delay.

Hose Layers (2): Their function is to lay out hose immediately ahead of the nozzle crew on the fire line as it is required.

Hose Handlers (4): The function of these men is to handle hose in a manner that will enable the nozzle man complete freedom to concentrate on directting water onto the fire's edge without waste or loss of time. It will be noted that the supply of hose to this crew must be looked after by additional men assigned to this work. It is not possible to determine in advance as to how many men will be required for carrying hose due to variation in terrain, distance, etc.

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SPARK ARRESTORS

A test to find out the most efficient spark arrestor was recently conducted by member companies using the Nylund Spark Arrestor and the ordinary screen type copy. The report is as folliws:

"On the night of August 5, 1953, a thorough test was made on both the screen type and the Nylund type of spark arrestor.

"The test was run after dark on the wash-room stove. With screen type arrestor in place a good fire was well stirred up. Many sparks were observed leaving the arrestor. The Nylund arrestor was then affixed, the fire stirred harder than before and no single spark was to be seen. The draft on the stove was checked by the bull-cook both at night and in the morning. It was at least as good as and possibly better than it had been with the screen arrestor.

"On the following morning a Nylund arrestor was placed on the cookery stove pipe and the cook was asked to pay particular attention to the draft and smoke situation throughout the morning. At noon she reported that the draft had improved and the stove smoked less than before.

"On the afternoon of August 8, 1953 a Nylund arrestor was tested on the cookery at McKay Lake Lake Road camp. The cook reported an immediate improvement in draft and a reduction of smoke.

In the above cases the arrestors were used outside the buildings. In the winter they might better be used inside as they are good heat savers.

CONCLUSION:

Screen type arrestors plug up badly and quickly (a few days) with carbon particles. Nylund arrestors can not plug as there is no screen.

Screen type arrestors do not stop all sparks. Nylund arrestors do appear to stop all sparks.

Nylund, reportedly will outlast the screen type arrestor by at least two times and possibly more. This would doubtless offset the difference in price which is $8.91 as against $4.35.

ABITIBI SMOOTH ROCK FALLS DIVISION USE ANTI-FREEZE IN FIRE PUMPS FOR WINTER USE

The use of anti-freeze in the Wajax pump gears was first used in this Division during the winter of 1951-52. As the pumps are used as a means of camp defense during the winter it is essential that they start quickly and easily regardless of temperature. In some of the camps it is possible to operate the pump inside a warm building but this is not always the case.

It was found that when a pump was taken from the warm storage quarters to the water supply several minutes elapsed before the hoses were connected. In this short interval the oil in the pump gears became so stiff that it was very difficult to crank the motor. Another hazard had been the possibility of a small amount of water remaining in the pump after draining. This water, if exposed to the cold, changed to ice, jamming the gears and sometimes causing serious damage to certain parts of th epump.

A good quality anti-freeze was used to protect the interior of the pump and proved quite satisfactory. Not only was it fairly easy to crank the pump but it did not matter if a little water remained in the pump. Furthermore as the anti-freeze was non-injurious to the linen hose, it was no longer neressary to flush out the pump before attarhing the outlet.

BACK-FIRING — THE MASTER TOUCH

(Continued from Page 13)

fire which is advancing unchecked through timber areas and where it is known that the natural firebreaks will not halt it. Here is where the experienced fire fighter is at his best, and here also is where the best is demanded of any fire fighter.

The keynote in backfiring is to make the fire go the way you wish, against the wind, and under your control. If this can be accomplished any backfire will work, but as mentioned previously, the preliminaries are all important.

A backfiring crew should be comprised of men with plenty of intestinal fortitude. They are lined up along the break, smothered in smoke and each man must depend to the hilt on every man on the backfire line, otherwise if one weak link lets go during the first crucial moments, then disaster is in the making.

Supposing a fire is advancing, crowning, toward a river. If it crosses the river then the next line of defence has to be scouted out, but in the intervening area there is a valuable stand of timber and this is going to be lost if the backfiring method is not applied. In short, values are at stake that warrant every control method in the lexicon of fire fighting.

If along the shore of the river, or some distance inland, to protect the timbered fringe, an attempt is to be made to backfire, here are the essentials:

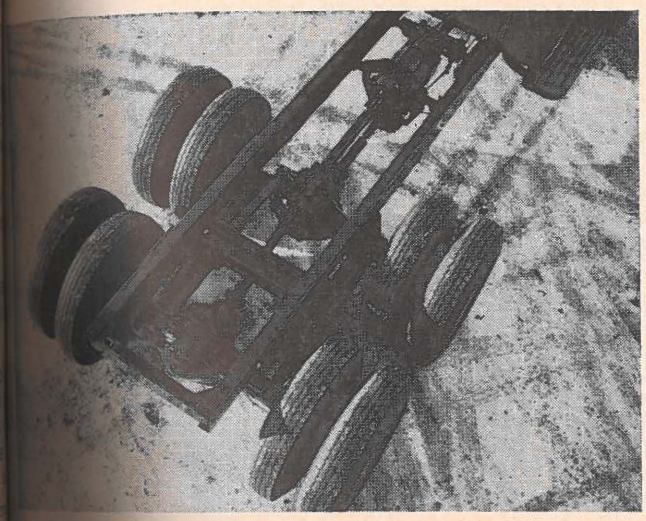
1. Plow out a bulldozed line down to mineral soil where and where possible. If time permits double the line or triple it, because the wider the break the better the chance is of keeping back the fire on the proper side or the side next the oncoming fire.
2. Have pumps set up commensurate with the length of line to be fired, and those pumps should be working and wetting down the area to the opposite side from which the fire is advancing. In short this is a precaution to keep the fire from jumping the break with the wind. If water is pumped on the side where the back fire is started then the backfire will not burn and the effort is useless.
3. The two ends or sides of the backfire must be held and this is where the water is pumped on the fire side because if the ends swing around then the backfire can escape control.
4. As the backfire gains momentum it will eat its way toward the advancing point of the main fire and clean up the fuel in the intervening area. This is what one wishes to accomplish.
5. This system is easier explained graphically, but an echelon formation for controlling the ends of the backfire can be worked and a step-by-step advancement under complete control can be effected by using such a system.
6. During the process men who can hold fast, handle the nozzles properly can bring success to the backfiring venture. If such fails then the river is the line and such men know what to do when the chips are down.
7. We have men who can do this job and the equipment to back them up and when we get the right men and the necessary equipment in the right spot then backfiring is a logical step in fire control.

COVER PICTURE

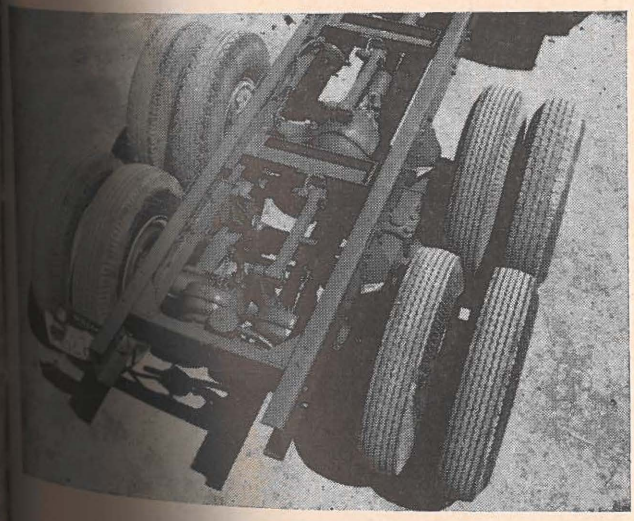
The photo on the cover of this issue of the LOG BOOK shows a helicopter carrying a canoe. This is one of many demonstrations at the Fire Protection Course at Jellicoe.

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GUT BUCKET

This Gut Bucket of Beardmore is not original with the town but, as has been explained by the musicians grouped around there, this is made up of a wooden frame and an ordinary wash tub mounted thereon and the twine string run over a pole, the string giving the different sounds by tension.

The Gut Bucket forms an ideal background for a group of ad lib Dixie-land musicians such as comprise the Beardmore group. The main requisite a man must have is a good musical ear.

Anyone wishing information as to how to manufacture this unique instrument, please contact Mr. E. M. (Buzz) Lein, General Logging Superintendent, St. Lawrence Corporation Ltd., Beardmore, Ontario.



Entertainment at the Fire School. "Buzz" Lein's Beardmore orchestra provided the music on the breakup night of the Fire School. Note the "Gut Bucket."

PLASTIC HOSE USED IN CAMP FIRE SET-UP

At Caramat, Ontario, fire suppressing equipment on hand for suppression of any fires that occur in that community, Marathon have a 2" plastic line, 2000 feet long. This plastic hose is very light and very practical for the job for which it was bought. It is not considered practical for bush fire operations.

Marathon Paper Mills of Canada Limited are also investigating the possibility of having plastic pack cans manufactured. Such cans would be about ⅓ the weight and much more durable than the galvanized cans.

Readers of the LOG BOOK will be informed of developments in Marathon's efforts.

FOREST FIRE SONG PUBLISHED

"SMOKEY THE BEAR" in now the title of a song well known in the United States.

Regular sheet music for this song may be purchased for forty cents.

"Smokey The Bear" records have been cut as follows:

Columbia — Gene Autry
R.C.A. - Victor — Eddy Arnold
Golden Mitch Miller and Orchestra
Decca — Frank Luther

GET ONE OF THESE RECORDS — YOU'LL LIKE IT!

FIRE CONTROL OBJECTIVE

"To prevent the occurrence of fire in so far as humanly possible,

to be prepared to the maximum degree of efficiency,

to satisfactorily cope with the fires which may be expected to occur, and to be in a position upon the discovery of a fire to take immediate and effective action to assure suppression with the least possible loss."

This Fire Control Objective was written by Mr. T. E. Mackey, Chief, Division of Forest Protection, several seasons ago when he was a District Forester.

NORTHWESTERN ONTARIO FOREST FIRE RECORD

Sixty forest fires were started in Northwestern Ontario in August, bringing the total in the Fort Frances, Kenora, Sioux Lookout, Port Arthur, Geraldton, White River and Kapuskasing districts to 257 fires with approximately 20,000 acres burned.

No forest fires were attributed to Forest Operations in August, and the total remains the same at 8 fires.

Fort Frances, Sioux Lookout and Kapuskasing have no fires attributed to Woods Operations.

Port Arthur has four.

Kenora has one.

Geraldton has one.

White River has one.

These fires have been reported to Woods Operators in detail, so that every effort be taken to prevent a recurrence of these fires started by these causes.

For the remainder of the fire season, all woods personnel are urged to take every precaution.

NEW EDITION RELEASED

An up-to-date review of all significant aspects of Canadian life is contained in the 1953-54 issue of Quick Canadian Facts. In its 112 pages the ninth annual edition of the pocket-size book contains information on the Dominion, the provinces, government, latest census figures, trade and industry, natural resources, finance, and taxes. Distributed through book stores and newsstands, the new edition of Quick Canadian Facts is this week released across the country.

ANSWERS to Quick Canadian Quiz

1. In the State of Minnesota.
2. There were 1,086,273 Canadians over 65 years of age.
3. Employees and employers contributing equal amounts and one fifth of their total contribution is added from federal tax revenues.
4. Less than 10% of pelts are ranch raised.
5. Newfoundland.

Humor out of Russia is pretty grim—as, apparently, are most things that come out of Russia.

There's the one now about the Russian who said to his friend, "Too bad about old Si, eh?"

"Si who?" asks the friend.

"Si Beria," replies the Russian.

And the story that when the men came to arrest the chief of the secret police, he asked what they wanted.

"We didn't come to praise you," the chief of the squad replied. "We came to Beria."



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(Continued from Page 10)

would hardly ask a cutter to wear the safety items you would expect an electric welder to use, or vice-versa. We should, though, consider each occupation on its own and after agreeing whether certain safety items are to be issued to help prevent injury to that particular job we should, if we believe in our safety program, insist on them being used.

We have now outfitted the employee in what we think is safe apparel. He should be told its purpose and how best to use it, just as you explain to him the other functions of his work. This naturally heads to my next stop—education, or showing the employee how to do his job and do it in a safe manner.

Too often this very important aspect is skipped over lightly. The man is hired — he is issued his tools to work with — shown where he will work — given a few words of caution along with a few minutes of actual demonstration on how to do his job — and then left on his own. If he is a cutter, it is a safe bet that this same fellow will soon be nursing the effects of a misplaced or misguided blow from an axe — that hand-tool that still causes so much damage.

It is not enough to skip over this part lightly and leave the man to flounder on his own. He should be shown how to do his job — he should be checked repeatedly — and told in no uncertain terms that that is the way we want him to do his job — the safe way. There is no use in acting like an ostrich and sticking out heads out of sight. Hoping things will come out O.K. If we are going to accept safety as part and parcel of our operation we should be prepared to insist on our accepted policies carried out. If an employee does not hold up his end of the production line, steps are taken to jack him up or other changes are made. He is either transferred to other work or replaced if he continues in this manner. Why then should not this same principle apply to safety? Who is responsible for safety? This question is asked repeatedly. We have many approaches to the question but the answer is always the same. We are all r e s p o n s i b l e for safety. Safety is like any operation — it requires the will of all to make it go. Naturally a plan should be evolved. Generally this policy is set up by management after discussion with supervision and others. It is though, the function of supervision to see that your safety plan is followed. Each supervisor, from manage ment down should accept the responsibility of seei that the plan is enforced. The man on the line shou look to his foreman for guidance —- the foreman to h supervisor, and so on up. Your Safety man, if y have one, should not be shouldered with this respon ibility —- he should assist in the formation of the p icy and in its application and in general, counsel the best of his ability. It is the accepted belief in industry where safety is programmed that the abo line is more advantageous. In short, you should be sponsible for the safety of the men you supervise.

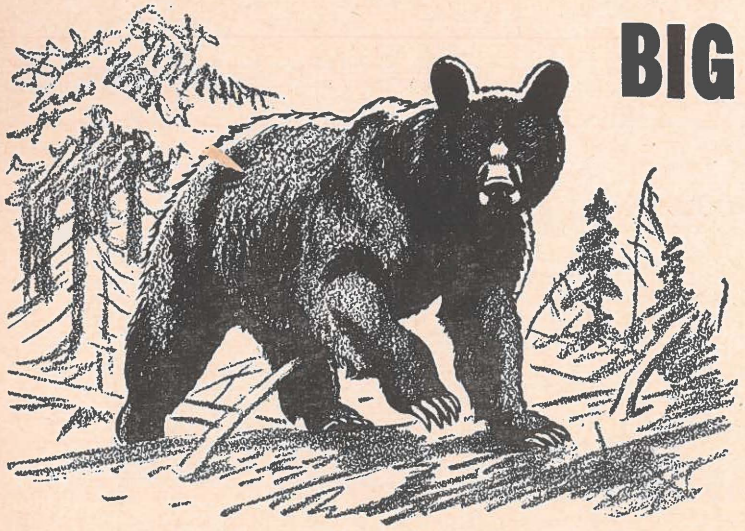
How you plan your campaign is of course anoth matter. It does not matter too much what you do how much you do. To be effective you should ins that what you want to do is done.

You can use films — run contests or apply ma other features. They are all good — you should n though, overplay it. You can sicken of an overdose your favourite food which may be highly seasoned too rich. It is, I think, much better to keep on accepted and proven diet. It is a winner in the lo run.

We have with us today, a number of delegat whose operations I know do not warrant due to eco mics the same style of plans that larger operators c accomodate. There is though, no reason why this gro should not accept the same principles and apply the on a scale comparable to their size of operation. many cases these smaller groups are in a way pa and parcel of our own operations, in, that we rece the product they produce. We should therefore, g serious consideration to assisting in this field. If have proved that a well planned safety program help us with our own problems we should then be helpi ourselves again, maybe in an indirect manner, if could offer our services to these groups. It would c tainly be worth trying.

UNIVERSITY OF TORONTO FACULTY OF FORESTR 1952-53 SUMMARY OF REGISTRATION

First Year Students —	35
Second Year Students —	38
Third Year Students —	39
Fourth Year Students —	23
TOTAL	135



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PORT ARTHUR, ONTARIO

WORKMEN'S COMPENSATION REHABILITATION CENTRE AT MALTON

(Continued from Page 7)

The complete program is one physical reconditioning of the patient, to return him to the highest possible level of functional ability. Although emphasis is placed on physical reconditioning, it is not forgotten that treatment can fail if it is not accompanied by the patient's desire to get well. Finding a method to stimulate this desire is one of the problems of the team.

In the final stages, to establish this confidence from a mental point of view, and to gain assurance of the stage he has reached, the patient is tested on the work he will have to do or on activities simulating his job. A lumberman will be required to use his axe, saw, pulp hook; a railroad worker to use rail-laying tools; a construction labourer to use the tools of his trade and to carry maximum weight. A labourer is tested on his ability to carry, dig, push and pull; a mechanic has to spend time kneeling and laying, meanwhile using his tools. After this test the man is reassured and the doctor is able to recommend his capabilities and restrictions for a better job placement. This is the ultimate goal of all treatment administered at the Workmen's Compensation Board Rehabilitation Centre.

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.

DIVISION OF FOREST RESEARCH — SILVICULTURAL LEAFLETS RECEIVED

No. 70 — The Influence of Bracken Fern On Establishment of Spr and Fir Seedlings by I. C. M. Place.

No. 71 — A Method of Marking Seed Used in Experiments, by J. Farrar and J. W. Fraser.

No. 72 — A Study of Development in a Virgin Hemlock St Queens County, Nova Scotia, by M. H. Drinkwater.

No. 73 — Debudding Red Pine — —Ten-Year Results, by A. Bickerstaff.

No. 74 — More and Better Material From Coppice Stands of R Maple, by C. C. Thomson.

No. 75 — Thinning and Growth in a Red Pine Plantation, by W. Stiell.

Also recently published is a Miscellaneous Publication N entitled "The Petawawa Forest Experiment Station."

IMPORTANT CHANGES

Important changes in species used for pulp have take place during the past decade in the Lake States. Aspen, which ranked fifth at the beginning of the period, is now the principal pulpwood species cut in the Lake States area. Hemlock, once the leading species, has fallen to fifth place. Pine, spruce and balsam fir now rank second, third and fourth, respectively.

—Lake States Timber Digest - July 195

SAFETY VS. TIME

It takes one minute to write a safety rule.
It takes one hour to hold a safety meeting.
It takes one week to plan a safety program.
It takes one month to put it in operation.
It takes one year to win a safety award.
It takes one lifetime to make a safe worker.
It takes one second to destroy it all with an accident.

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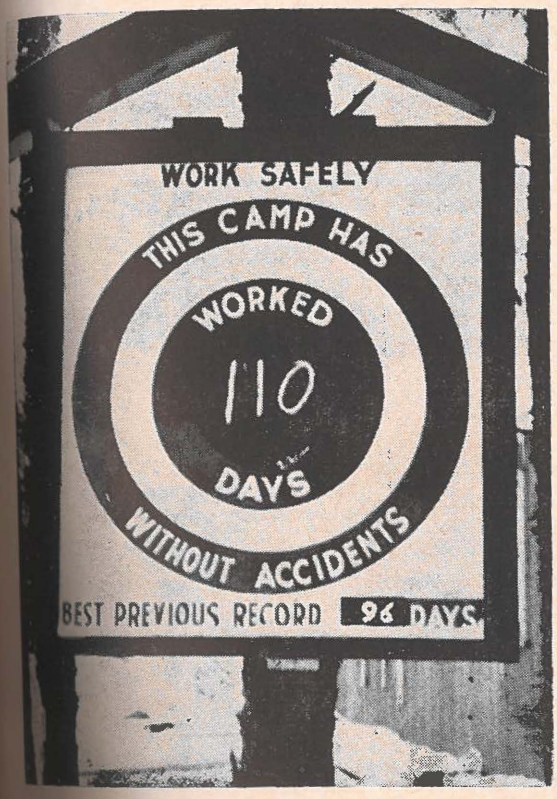
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This chain was started in the hope of bringing happiness to all tired business men. Unlike most chains, this one does not require money. Simply send a copy of this letter to **FIVE (5)** married male friends. Then bundle up your wife and send her to the fellow who heads the list.

When your name comes to the head of the list, you will receive 188 women — some of them ought to be dandies. Have faith — do not break this chain. One fellow broke this chain and got his own wife back!

PUBLICATIONS RECEIVED

Lake States Forest Experiment Station, University Farm, St. Paul 1, Minnesota, Technical Notes received.

No. 398—1951 Lake States Pulpwood Production Reaches All Time High.

No. 399—1952 Lake States Production Continues at High Level.

No. 400—Hypoxylon Canker of Aspen in the Lake States.

No. 401—Scrub Aspen Control with Basal Sprays.

No. 402—Snowshoe Hare Damage to a Jack Pine Plantation in Minnesota.

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ARTIFICIAL REGENERATION ON LIMITS OF THE LONGLAC PULP AND PAPER COMPANY LIMITED

(Continued from Page 4)

(1) Keep the roots moist at all times.
(2) Take advantage of natural regeneration, as this programme is only intended to supplement natural stocking, not replace it.
(3) Roots must be planted in mineral soil.
(4) Roots must be planted in moist soil.
(5) Roots must be spread out, not bundled.
(6) Tree must be planted to the depth of the root collar —this point cannot be over-emphasized.
(7) Compact the soil around the roots to avoid air spaces.
(8) Space the trees 8 feet by 6 feet.

It is necessary to instruct each man personally and continue to instruct and check until every tree is planted as though he owned it.

Each camp is responsible for its own regeneration program after the plantation area has been selected, and tools and trees delivered. The spring programme, starting about the first week of May, is usually of two weeks duration. It may overlap the sap peeling season, but will not cut deeply into it. Only unfavourable weather prolonged the 1953 Spring programme of 512,000 seedlings beyond two weeks. 2-2 and 2-0 stock can be planted, the 2-0 stock being assigned to the least competitive areas. The 2-0 stock is graded at the nursery, the smaller stock being sent to the transplant fields, and the larger stock sent out for planting. For this reason, it is improbable that 2-0 stock would be available for Fall planting. The Fall programme, starting about August 20th, can be extended for a month or more, and may, conveniently, employ labour which will later move into winter camps.

The planting tool is a short-handled round-mouth shovel with the blade cut down to six inches. It is efficient for scalping away the duff in preparation for the L-slit.

The tree supply schedule calls for shipments at four or five day intervals. This ensures minimum time lapse between lifting and planting, and permits the transplant truck to haul full loads. For the four or five day interval, adequate storage can be found under shade trees, in root houses, refrigerators or well-ventilated buildings, or wherever shade, coolness and water are available. For storage of longer periods, heeling-in beds are necesasry.

From the supply centre, the 2-2 trees are transferred to 2 or 3-gallon pails at 50 to 75 trees per pail, and the 2-0 trees to 105 oz. fruit cans at 200 trees per can. In each case, three to four inches of water in the pail ensures wet roots at all times.

The optimum planting crew for average working conditions is twelve men under a foreman. Larger crews lose efficiency, in that too many men try to work in too small an area or become too wide spread. A smaller crew results in excessive overhead.

In an 8 foot cut-over, three men work together, one man planting the strip road while the two outer men fill in on the sides and in amongst the brush piles. In a skidded area, the area is gridded, ignoring existing skid trails and skidways. Where the brush piles and underbrush are too heavy to permit gridding, several men plant the skidway, then fan out down e skid trail, filling in on the sides as they work to back of the cutting block.

Production, on a general labour basis is 400 t per man day of 2-2 stock and 500 trees per man of 2-0 stock. On a piecework basis, production creases to 800 trees per man day of 2-0 stock. experimetnal piecework plantation of 60,000 2-0 sp ce appears successful after six weeks.

The LongLac Nursery is being established to g 2-0 spruce to 2-2 stock. The overall area is 75 ac with 45 acres under actual cultivation to produce million trees annually beginning 1955. It is a tr plant nursery only, obtaining 2-0 stock from the Sp Falls Power and Paper Co. Ltd. at Kapuskasing. T local nursery will permit the lifting of the trees at optimum time for planting, and will minimize the t lapse between lifting and planting, hence red planting shock.

SURVEY HIGHLIGHTS — GERALDTON DISTRIC

1. The total area of the Geraldton district 7,884,547 acres or 12,320 square miles, 79 per c of the area is productive forest land, 2 per cent is p forested land, 11 per cent is non-productive land a 8 per cent is water surface.

2. The total area of the Geraldton district is most wholly in the ownership of the Crown; only 1 acres are privately owned.

3. The forests of the district are predomina mature with 57 per cent mature, 23 per cent immatu 12 per cent young growth and 8 per cent reproduc forest.

4. The valuable coniferous type is widespread the district covering 57 per cent of the total area per cent is mixed woods, 5 per cent hardwood and per cent reproducing forest.

5. The volume of the primary growing stock just over 10 billion cubic feet. Conifers make up per cent of the volume and hardwoods 33 per cent.

6. The most important species is black spr which makes up 38 per cent of the total volume, pine contributes 13 per cent, white spruce 7 per c balsam fir 8 per cent, poplar 20 per cent and wh birch 13 per cent. The balance is made up of sm amounts of white cedar and larch.

7. In the mature forest 64 per cent of the v ume is in pulpwood size material 4 - 9 inches d.b.h. 36 per cent in the sawlog size class 10 inches d.b and over. For conifers in the mature forest, 71 per c of the volume is in pulpwood size material and 29 cent in the sawlog size class. White spruce and pine are the main sawlog producers. Only 17 per c of the volume of black spruce is 10 inches d.b.h. over.

8. The annual allowable cut from Crown is 160,718,750 cubic feet. Of this amount 55 per c is made up of conifers and 45 per cent hardwoods annual allowable cut for species making up the con shows that 58 per cent is black and white spruce per cent jack pine, 13 per cent balsam and 1 per c other conifers. The allowable cut for hardwoods per cent poplar and 29 per cent white birch.

9. The utilization of all species in the Gera district is currently less than the allowable cut cut of conifers is 47 per cent of the allowable c Only 6 per cent of the allowable cut for hardwood utilized.

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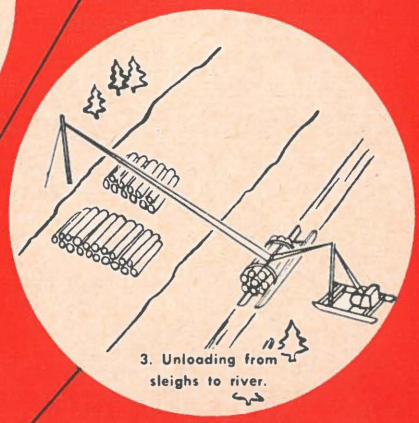
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PORT ARTHUR — ONTARIO

NORTHERN PAPER MILLS TREAT TREES WITH CHEMICALS TO PROLONG SEASON FOR PEELING PULPWOOD

In 1952 the Northern Paper Mills treated approximately 800 cords of spruce and balsam pulpwood, using Atlas "A" debarking compound. This wood was treated in the interests of prolonging the season in which pulpwood could be peeled.

In reporting this operation to the LOG BOOK, Mr. Howard Hicks, Woods Superintendent, at the Northern Paper Mills at Hansen, Ontario, stated:

"To apply this chemical we use a form of girdling tool which we make up in our own shops. This is used to remove a ring of bark from the tree four inches in width. As the chemical has no effect on the tree below where it is applied it is necessary to girdle the tree close to the ground. To apply the chemical we use a special brush. A small pressure tank is carried on the back of the man who applies the chemical and a tube from this tank feeds the brush through the handle. A small spring valve half way up the tube stops the flow of liquid while the painter moves from one tree to another.

"Last season we found that this wood did not peel much until after the first frost. We also found that it is a bit difficult to peel much wood in the fall as while there is frost in the bark it cannot be removed very easily. However we did find that even while we had two feet of snow in the woods this spring that this timber peeled very well. In fact it peeled well enough that some of our cutters asked for a strip of this treated timber that they could continue with it rather than start sap peeling.

"This chemical must be applied during the peeling season as it is carried up the tree by the upward flow of sap. When girdling it is very important to make sure that all bark has been taken off clean and that the wood itself is not cut. Trees will show signs of dying one week after the chemical has been applied.

"Having cut some 200 cords of this treated wood last fall we found when hauling that it was quite heavy. This caused us some alarm but we now find that the treated wood which was cut this spring dries out about the same as sap peeled wood.

"We have heard it mentioned quite often that this chemical is very dangerous for the employee to handle but we do not feel that we can agree to these stories if the proper care is taken. It is quite true that the chemical is deadly poison and is injurious to the skin. However if one does happen to spill or splash any of the liquid on the flesh it can be washed off easily. Our men are instructed that while handling the chemical they must wear rubber trousers, or waterproof cloth trousers, and rubber gloves. By taking these precautions we have had no trouble.

This summer, approximately 1600 cords of wood were treated and plans are being discussed for still more timber to be treated next year.

It was found that some trees did not receive quite sufficient chemical in 1952 and for that reason slightly more chemical per tree has been applied this year.

It is also reported that about the middle of August one of the foremen tried peeling two trees that were purposely left standing last Spring and he reports that these trees peeled much better than they did in the spring.

CHEMICAL TREATING OF TREES FIRST START BY MR. ALEX WHITE, FORMER NORTHWESTE ONTARIO INSPECTOR OF THE LUMBERMEN'S SAFETY ASSOCIATION BEING USED.

The Minnesota Timber Producers' Bulletin rep ed an article from the Chemical Debarking Resea Project, New York, on use of chemicals to loosen b from trees in the United States. It states that a m portion of the pulpwood used by the Armstrong Fo Company of Johnsonburg, Pa., is now chemically tr ed.

This treatment of trees using chemicals was experimented with by Mr. Alex White, former Sa Inspector of the Lumbermen's Safety Association patents obtained for the United States and Canada White sold his United States patents to a group American companies and it is understood that the p chase of Canadian patents is being discussed by a gr of interested Canadian companies.

ODDS ON SAVINGS

The capitalist, who is said to do nothing fo company but collects all the profits, should not re be thought of in the singular.

He is a composite figure made up of hundreds thousands of ordinary men and women who lend th savings in the hope that they will be put to product use for them and that thereby a dividend will be earn But it is by no means certain that any dividends will forthcoming.

In fact, the odds on these people getting a sh in a profit are surprisingly short.

Following are figures taken from the Departm of National Revenue's Taxation Statistics.

The show the number of manufacturing compan reporting a profit and compare it with the number those which reported a loss in the taxation years 194 1950.

Taxation Year	Number of Companies Reporting a Profit	Number of Compa Reporting a Loss
1945	6.426	1,309
1946	6,998	1,594
1947	7,340	2,122
1948	7,217	2,589
1949	7,134	2,912
1950	7,817	2,834

These figures are worth examining. They show why it is that a company must offer some inducem to people to invest their savings in the business and how right it is that people who do so should have s share in the prosperity of that company. If 2,834 co panies make a loss as against 7,817 making a pro it means that the odds on a man getting any return all for the loan of his money are considerably less th three to one.

The reward he gets in the way of a dividend does appear quite so exorbitant when we are confronted figures such as these.

A lot of live wires would be dead ones if it weren't for their connections.



RED FEATHER FLIES AGAIN

With the fall weather and the colouring in the forests turning red and gold, the annual Red Feather campaigns of Community Chests across the Dominion of Canada take place. Local needs are set forth in local programs and the logic of consolidating appeals for the support of community welfare activity is generally recognized.

In the Lakehead area, the Campaign will take place from October 5th to the 24th and, in the Port Arthur area Mr. Frank C. Brown is General Chairman and T. S. Jones of the Thunder Bay Timber Operators' Association is again in charge of the woods canvass.

This year there are 11 agencies sponsored by the Community Chest. Of special interest to woods workers are the Sailors' Institute and the Salvation Army. Other agencies are:

Canadian Institute for the Blind
Children's Aid Society
Navy League of Canada
Port Arthur Girl Guide Association
St. John Ambulance Council
St. Joseph's Manor
Thunder Bay Humane Society
Victorian Order of Nurses
John Howard Society

The Community Chest is endorsed by Presidents of the Trades and Labour Congress of Canada, the Canadian Congress of Labour, leading business men and citizens generally.

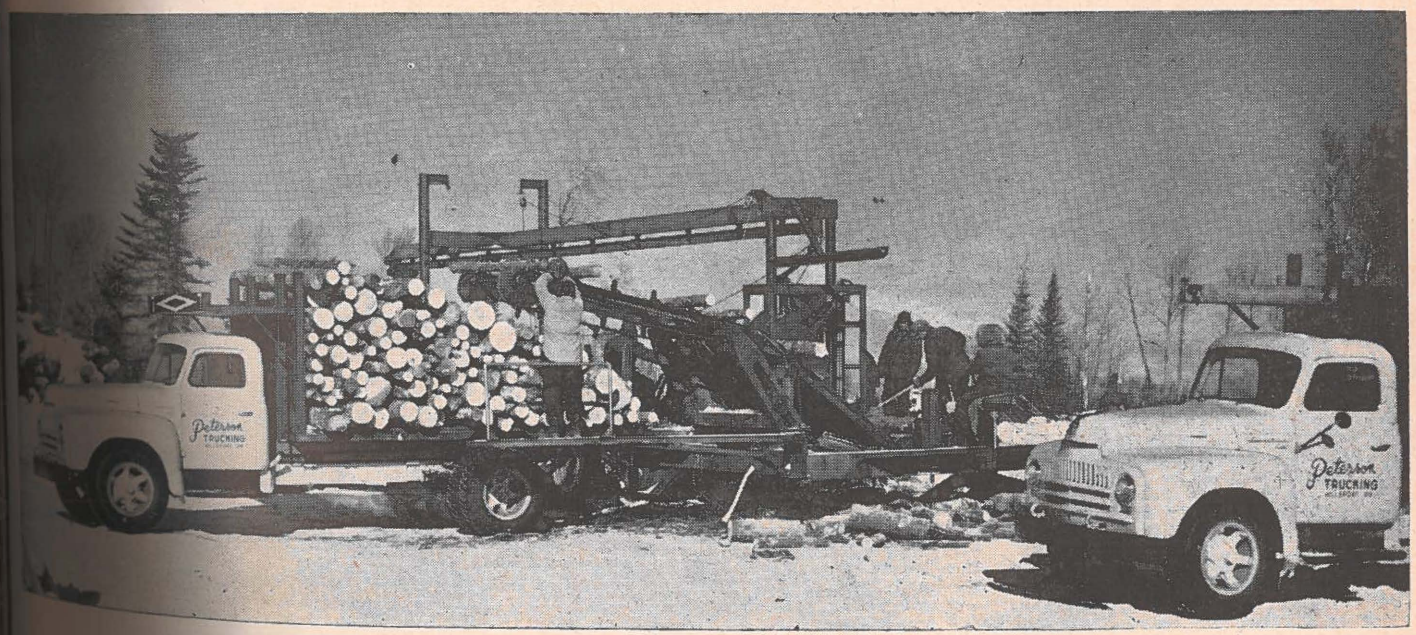
Since the Community Chest was organized in the Port Arthur area, woods workers have been particularly generous and once again they are asked to contribute to this worthy cause.

Volunteer work by camp foremen, clerks and Union stewards makes this campaign in the camps possible and Chest officials are asking once again for the splendid support rendered in other years.

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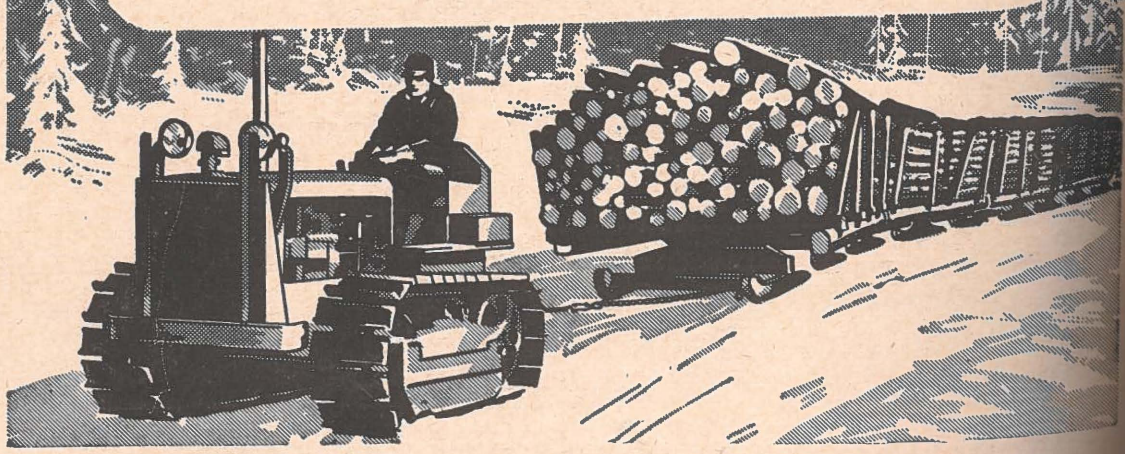
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