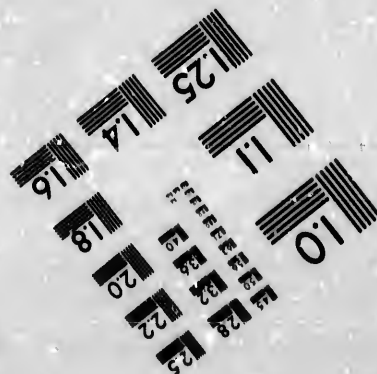
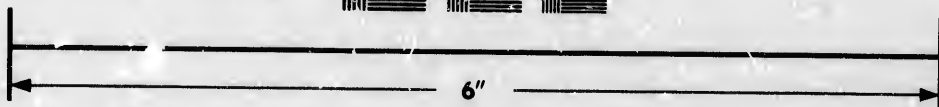
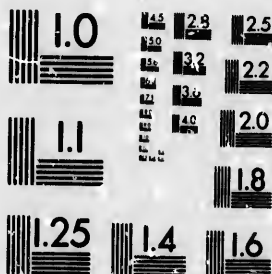


**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

2.4
2.8
3.2
3.6
4.0
4.5

**CIHM/ICMH
Microfiche
Series.**

**CIHM/ICMH
Collection de
microfiches.**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

01

© 1981

Technical and Bibliographic Notes/Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion
along interior margin/
La reliure serrée peut causer de l'ombre ou de la
distortion le long de la marge intérieure
- Blank leaves added during restoration may
appear within the text. Whenever possible, these
have been omitted from filming/
Il se peut que certaines pages blanches ajoutées
lors d'une restauration apparaissent dans le texte,
mais, lorsque cela était possible, ces pages n'ont
pas été filmées.
- Additional comments:/
Commentaires supplémentaires:

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Includes supplementary material/
Comprend du matériel supplémentaire
- Only edition available/
Seule édition disponible
- Pages wholly or partially obscured by errata
slips, tissues, etc., have been refilmed to
ensure the best possible image/
Les pages totalement ou partiellement
obscurcies par un feuillet d'errata, une pelure,
etc., ont été filmées à nouveau de façon à
obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

The copy filmed here has been reproduced thanks to the generosity of:

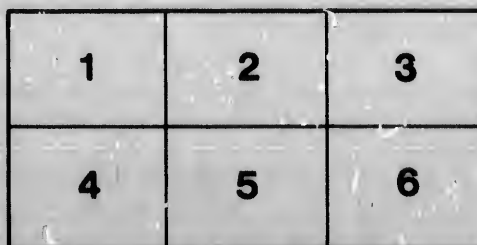
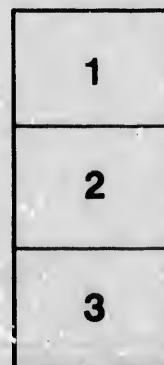
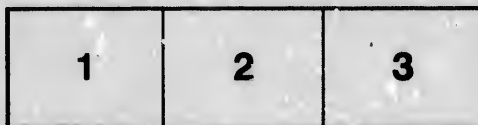
Library of the Public
Archives of Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

La bibliothèque des Archives
publiques du Canada

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

ills
du
difler
une
mage

rata

elure,
à



FOREST FIRES

-AND-

17

FIRE RANGING.

REPORT OF

AUBREY WHITE, ESQ.,

ADDRESSED TO

COMMISSIONER OF CROWN LANDS.



Toronto:

PRINTED BY WARWICK & SONS, 26 & 28 FRONT STREET.
1886.

FC

S
tion
carel
of su
thoug
confu
milli

I
much
sity, f
addre
which
have
doma
of ne
propo
action
mun

T
—wh
day 3
as a r
durin
cover
exten

REPORT

IN CONNECTION WITH

FOREST FIRES AND FIRE RANGING.

TORONTO, March 30th, 1886

SIR,—I take the liberty of drawing your attention to the great destruction of the timber wealth of this Province, which is caused mainly by the careless setting out of fire at dangerous points in the forest during the heat of summer by settlers, lumbermen, hunters, explorers and others, which, though of apparently small moment when started, have often become vast conflagrations, laying waste miles of the forest and destroying untold millions worth of public property.

I am well aware that this matter has for some time been a cause of much anxious consideration to you, and it is not to dwell upon the necessity for taking some action—as that is universally admitted—that I now address you, but to submit for your consideration a plan or system under which much may be done to prevent such numerous and extensive fires as we have witnessed in the past, by exercising some supervision over the public domain, whereby, as far as possible, the starting of fires—except in cases of necessity—may be prevented, and fires which are assuming dangerous proportions may be controlled or extinguished, and generally taking such action as will, with a reasonable expenditure of money, reduce to a minimum the loss of timber by bush fires.

The period of the year during which this supervision would be required—which may be called the dangerous period—is included between the 1st day of May and the 1st day of October, as between these dates the bush, as a rule, is dry and inflammable, and fire runs with great celerity—while during the rest of the year, extending from October to May, the ground is covered with snow, or the moisture in the bush is such as to render any extensive fire impossible.

I would, therefore, suggest that during the dangerous period of each year, a certain number of men, to be called Fire Rangers, shall be stationed at points in the licensed and unlicensed lands of the Province, where from settlement, railway construction, lumbering or any other cause, fire is so frequently used as to be a source of danger.

There is great difficulty in arriving at an accurate estimate of the number of men required to protect a section of country, let alone the whole Province, as some limits, owing to nature of the bush, prevalence of lakes, streams and swamps, sparse settlements, etc., will not require as close supervision as others, therefore it would be well nigh impossible for me here to state the number of men which would be adequate to make the service effective. When we come to place the men, the licensees—who are quite familiar with the topography, etc., of their limits—will be able to give us a fairly correct idea of how many men will be necessary on each limit; thus we will be able to deal satisfactorily with the licensed area—leaving the unlicensed, unsettled, and consequently less exposed parts of the Province to be dealt with by the Department as necessity may arise. I would therefore recommend that each licensee should be notified that these men would be appointed, and invited to state how many men would be required to properly guard his limits, the Department having the right, after consultation with the license holder affected, either to decrease or increase the number suggested, should it be thought expedient to do so.

The next point, and a most important one, is the selection of the men, as unless we get active, energetic men, of cool temper and good judgment, we shall not make the scheme a success; but in addition to the possession of the above qualities, they must have a thorough bush training, and be quite familiar with the limit on which they are stationed. Such men will know the various settlers upon a limit, their residences, habits—whether careless or the reverse—the parts of the limits which are most exposed or inflammable and need the closest watching, and above all, they will have practical ideas as to the proper steps to take in order to control or suppress a bush fire. Bearing all this in mind, and the necessity of having some further and more direct supervision over the men—scattered over an immense area as they will be—than could be exercised by the Department, I think the selection of them should also be left with the various licensees, as they will most certainly know the men best qualified to fulfil the duties of the position, the Department, of course, reserving the right to reject or

remove any man considered unfit for the position, either from incapacity or through harassing of settlers, for where settlement and lumbering are going hand in hand, as they must do in this Province, it is of the utmost importance that no friction should arise between the settler and licensee, as should ill blood between the two classes be created, the whole system would prove unsuccessful, nor could any be devised which would preserve the forest if settlers were moved by malice to destroy it. The whole system presumes a good understanding between settler and licensee, and as I know that lumbermen now fully appreciate the folly and danger of quarrelling with settlers, I see no objection to allowing them to select the men, and what is of great importance is this, that these men feeling they owe their appointments to the licensee, and being under his supervision, there is every reason to believe they will be more watchful and diligent than if they were only supervised by and responsible to the Department of Crown Lands.

The next point is the expense of the system and how it should be borne. It seems to me that the interests of the Government and licensee should be regarded as equal in this matter, and that the whole thing, being in the nature of an experiment, each, for the present, should bear half of the expenses not only of the Rangers but of suppression of fires and costs of prosecution under the Fire Act. The men should receive the following rates of pay, subject to reduction or increase as experience is gained: Ranger in charge of limit, three dollars per day; assistants, two dollars per day, which amount should be understood to cover board and all expenses, except such as are caused by special emergencies or enforcement of the Fire Act; they should be paid as their necessities required, which payments, and all expenses incurred, should be made upon application, forwarded through and recommended by the licensee. At the close of the season they should send in a proper account, upon a form supplied from here, and duly attested by affidavit, showing the number of days on duty and any special expenses incurred, with vouchers for the same, forwarding this account through the licensee, who should recommend it for payment. The licensee should then be debited with half the total expense, which should remain a charge on the limit, payable before renewal of license.

The clothing of the men with authority is the next consideration. This can be done by appointing them bush and Fire Rangers and instructing them from here as such, which will make them ex-officio officers to enforce the

provisions of the Fire Act, under section 14 of the said Act. This will arm them with all necessary authority, and lend official prestige to them which will be found a valuable factor in dealing with settlers. This completes the scheme so far as its creation and organization is concerned, and we will now discuss their action in the field.

In instructing them from here it is not possible to frame rules which shall meet every emergency, and as they are presumed to be practical men it will be well to leave them plenty of latitude to deal with each case in such manner as their knowledge and presence on the spot may suggest; at the same time it will be only proper that I should indicate briefly some of the more important of the duties which I think would devolve upon them.

Upon the ranger in charge of the limit will devolve the responsibility for any action taken in preventing or suppressing fires, and the expenses incurred in connection therewith. He will be furnished with a diary, in which he must enter the movements of himself and assistants, anything of interest or importance occurring on the limit, the nature of the country and timber where they travel, etc., so that the Department and licensee may be fully informed about the limit; its topography and the timbered portions of it. This diary must be sent in at the end of the season, and should be accompanied with any report or recommendation in the direction of improving the scheme, which experience may suggest. Having been supplied with a number of posters of the Fire Act, they will, on reaching the scene of their duties, proceed to post them up in public and conspicuous places, and being also supplied with copies of the Act in pamphlet form, they will distribute these among settlers, residents or frequenters of the limit, explaining to them the provisions of the Act, calling particular attention to the penalty for the infraction thereof, and they will endeavour to inculcate a spirit of care and caution in setting out and preventing the spread of fires, informing them of their headquarters, inviting their co-operation and assistance to punish those who wilfully or carelessly disregard the Act, and doing everything, in short, to secure the sympathy, confidence and support of the settlers. By doing those things, and keeping continually on the move, they will impart a thorough knowledge of the Fire Act, and keep alive an active interest in its enforcement.

In travelling through a limit where the country is broken, or circumstances will permit, an elevated position should occasionally be sought, so

that a view of the surrounding country can be obtained, by which they will ascertain the locality of any fire, and in the event of such being discovered where there is not a settler, or if it should be assuming proportions which would indicate danger, they should proceed at once to the spot and take steps to extinguish or control it.

Where settlers are living in a pine country, and require to burn their fallows or choppings during a dry period, the Rangers should impress upon them the necessity of choosing a calm evening to set out fire, and if the surroundings are dangerous, he should ask to be notified of the time, so that he might be on the spot and prepared to call in assistance if the fire should be spreading.

In the event of an emergency arising, that is to say, should a fire assume such proportions as to be beyond control of the Ranger and his assistants, or should the springing up of a wind render it advisable that a fire should be promptly extinguished, the superintending Ranger should be instructed that he may engage such outside assistance as will enable him to accomplish this object, paying the men employed reasonable wages, such as ordinarily prevail in the locality. He should also at once advise the licensee and the Crown Land Department, by telegraph, if possible, so that some one to represent one or both should be sent, if thought desirable. On suppression of the fire the Ranger in charge should report all the facts to the Department, accompanying his report with pay list of the men employed, shewing number of days, names and rates paid. These should be sent through the licensee, who should recommend them for payment, if reasonable, the Department then paying the expense and debiting half to the licensee.

The foregoing is a sketch of the organization, rates of pay and duties of the Fire Ranging force proposed to be created, which can be modified or improved as experience is gained. I have not thought it necessary to describe minutely the various modes of combating bush fires, as the necessary steps depend largely upon the extent of the fire, state of the weather, nature of the localities and timber, and the persons on the ground who will be familiar with these points can best be left to deal with each fire as it occurs. What I desire is to obtain your approval of the principle of establishing some body to prevent the fearful destruction that has been going on, and I think I may fairly claim that the scheme I have now suggested is simple, will be far-reaching and effective, and comparatively inexpensive. You are aware that last year we tried the experiment of

sending one of our ordinary Ranging staff on Mr. McLaren's limits, and another on McLachlan Brothers, keeping them there during the summer, and that these gentlemen have written testifying to the good effect, thanking the Department, and sending their cheques for half the expense.

In conclusion, I would suggest that an appropriation of five thousand dollars be taken for this service this season, and I am well satisfied that once the scheme is put in practical operation, and its good effects are seen and understood, all criticism will be disarmed and no exception will be taken to a much larger appropriation next year.

I have the honour to be,

Sir,

Your obedient servant,

AUBREY WHITE.

limits, and
the summer,
ect., thank-
ense.

e thousand
atisfied that
cts are seen
ior will be

HITE.

