

where there is not some form of local settlement. Where agricultural settlers are not found there are still logging camps, miners, construction crews, or perhaps surveyors, tourists, summer residents, hunters, etc. The communication system must be planned to put the supervising officer in direct touch with all these sources of labour and he must organize this labour so that in case of emergency it may be called upon for assistance with a reasonable certainty of an immediate and effective response. This has been accomplished in several ways but probably the most successful has been through the organization of volunteer fire companies, organized with all the necessary officers and bound by agreement to report on call at designated points. Many factors and local conditions necessarily cause wide variations in the possibilities of developing these forces for use in fire emergencies.

In the more highly perfected organizations it is possible to distinguish three lines of defence or classes of forces behind the "smoke chaser." These may be called:—

(a) **Main line forces**, which are as a rule made up of all the available employees of the timber-owner;

(b) **Supports**, which consist of local residents usually scattered through or on the immediate border of the forest who are under definite contract to perform certain specified emergency fire duties; and

(c) **The Reserves**, which may consist of organized volunteer fire companies as outlined above or may be simply an available labour supply at some adjacent centre where arrangements for securing men have been made through labour agencies or other means.

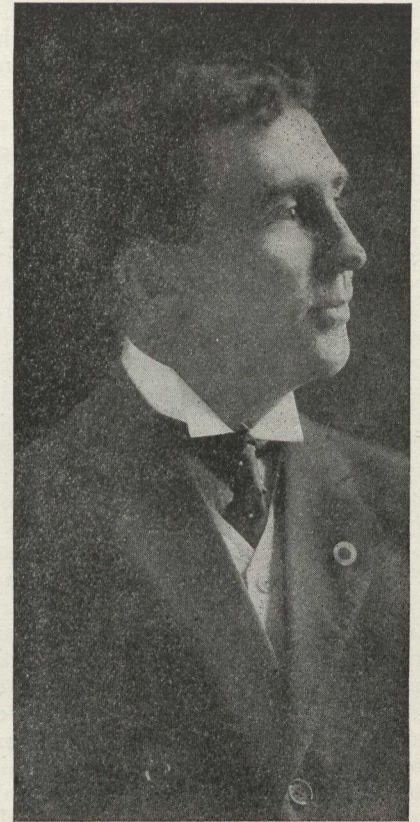
Whatever is the form and com-

position of the Supports and Reserves, the mobilization, equipment, and transportation of these forces to the fire-line must be handled by the supervisory officer and his staff. This is largely dependent upon the system of communication.

Finally, the supervisory officer must provide for the maintenance of his forces on the fire-line and the direction of the work of suppression by these forces. In this, his problems differ from that of the military officer in no material aspect except the merely rudimentary development of his medical service and the absence from his transportation columns of anything corresponding to the enormous quantity of ammunition required by modern troops. A complete discussion of this phase of the function of supervision might constitute the subject matter of a manual of forest protection and is beyond the scope of a manual on communication alone, but the main divisions of it may be very briefly considered. In doing so, however, it is necessary to recollect that although the object of all fire-protection forces is principally to prevent fires, nevertheless the supreme test will come in the actual handling of a dangerous forest fire and all organization must be based upon preparation for this contingency. This, of necessity, involves a somewhat elaborate organization which must be provided though it may never in practice be utilized for the purpose intended. From this it does not necessarily follow that a staff is held idle merely awaiting emergencies that no effort is spared to avoid. On the contrary, the skill of the organizer is shown by the way the necessary staff is secured for emergency work without continuous maintenance.

(To be concluded.)

Our Directory of Directors



Mr. Walter C. CAIN,
Deputy Minister of Lands and Forests for Ontario.

Mr. Walter C. Cain, Deputy Minister of Lands and Forests for the Province of Ontario who was appointed to that position on October 1st, 1921, on the retirement of Mr. Albert Grigg, has recently been elected a Director of the Canadian Forestry Association.

Mr. Cain has been an employee of the Department of Lands and Forests for many years, and has a thorough knowledge of the work of the Department. He is also an authority on many of the complex matters of business connected with the administration of timber and mining resources of the Province.

Mr. Cain, who is still a young man, was born in the town of Newmarket, Ontario, where he always took a prominent part in athletic activities. Perhaps he was best known as a Lacrosse Player, and was one of the famous Dade-Henry combination on the Brantford Team when the Telephone City for the first time won the Senior Championship of the old Canadian Lacrosse Association.

Mr. Cain's promotion to his present position is the result of merit and was the subject of many letters of congratulation from his numerous friends throughout the Province.



Fire Ranger's Cabin in Course of Construction.

Photo by P. Campbell, Dom. Fire Ranger.