

Airplanes As Aids To Forest Patrols

Improved Methods of Communication and of Transporting Fire-Fighters Important Factors in Checking Forest Fires

With the cessation of hostilities overseas, the development of peace-time uses of the airplane has become a live subject, which is receiving considerable attention. Among the uses under consideration is that of forest fire patrol. Experiments previously conducted in Wisconsin confirm the opinions expressed by returned aviators, that there is a large field of potential development in this direction.

The British Columbia Forest Service became convinced during the past year, of the feasibility of airplane patrol for forest fires, and leased a flying boat for use along the extensive coast line of that province. The machine was, however, accidentally wrecked before it had had an opportunity to demonstrate its value. It is understood that the experiment is to be continued during the season of 1919.

The co-operative forest protective associations of Quebec, under the leadership of the St. Maurice Association, are also undertaking to arrange for patrol by flying boat, or airplane, to discover fires in Association territory in that province.

Similarly, the matter has been brought to the attention of the Canadian Air Force, which is in a peculiarly favourable position to make experiments along these lines, to demonstrate the extent to which, and the conditions under which, the airplane may be used advantageously in forest protection work. The matter is one of such wide national interest that the co-operation of Dominion agencies in this direction would be fully justified.

It must be borne in mind, however, that such a patrol will involve considerable expense for maintenance of machines and salaries of staff, that patrol by men on the ground can still by no means be dispensed with, particularly in the settled districts, and that the mere discovery of fires, however prompt, loses much of its value unless adequate provision is made for getting men quickly to the scene, when a fire is discovered. This implies improvements in communication and transportation on a par with the improvement in the discovery of fires resulting from the use of aircraft. Presumably, it will be a matter of development of the more or less distant future, before ordinary gangs of fire-fighters will be transported to forest fires by airplane. In the meantime, the opening up of the country by construction of roads, trails and portages, and the purchase of launches, automobiles, track motors and portable fire-fighting pumps, will be in order. Improved communication is also necessary, whether by wireless telegraph, or by ordinary or wireless telephone. Improved appliances along these lines, developed at the front, should prove of great value in forest fire protection.

During the war the airplane has proved of incalculable value in the preparation of maps by photography.

Similarly, it will also prove of great utility in mapping drainage and forest types in the vast unsurveyed and relatively unexplored areas of our northern forests. In this way, a much more accurate idea could be secured of the forest conditions and existing supplies of timber than will otherwise be feasible for many years to come. Such work must, of course, be supplemented by a certain amount of detailed investigation by men on the ground, to determine the specific composition and average stand of the various forest types. Work of this character might readily be carried on as a supplement to the fire patrol by airplane, or independently, according to the circumstances of the case.

In any event, present indications point to a distinct field of usefulness for aircraft in connection with various phases of forest work.—C. L.

Should Receive Assistance

(Continued from page 1)

ern Wisconsin not one settler in three knows how to make use of the soil surveys of Wisconsin, even if he is aware of their existence.

In Wisconsin we have gone somewhat further in our attempts to protect the purchaser of land through the activity of our State Department of Agriculture. We have connected with this department a director of immigration of a new type, Mr. B. J. Packer. His activities are far different and better than those of the old kind of state immigration agent. He thinks, first of all, of the settler and his well-being and endeavours to protect him against mistakes in buying land and then to help him after he has bought the land. Space is not adequate to do more now and here than to indicate briefly his methods, for it would take an article to describe fully Mr. Packer's work.

The principal doorway into Wisconsin is through Chicago, and Mr. Packer advertises in the Chicago papers that, on certain days, he will meet those who wish to buy Wisconsin lands at the United States Immigration station. He talks with each would-be settler in order to ascertain his intentions and his fitness for going on the land. One of the inquiries is this: "Does your wife want to go on a farm?" If the wife does not wish to go, he warns the man that he is not likely to be happy and successful, and tells him that he had better go back and talk it over with his wife. He discourages those who, for any reason, are not likely to be successful, and then attempts to direct the settler to desirable sections and to help him make a wise selection of land. Naturally he does not mention any real estate agents, but gives the settler the following letter:

To Whom It May Be of Interest:

The bearer, _____, is in touch with this department and is looking for a farm home in Wisconsin. It is our purpose to keep in communication with him to learn of his progress in farm development and to ascertain if he is satisfied with the treatment received by any person or firm selling him lands. Any complaint will be promptly investigated and any

courtesies extended him by those with whom he may have business relations will be appreciated.

Director of Immigration for Wisconsin.

This letter is by no means of negligible significance to the settler, as may be seen from the fact that one Chicago agency refuses to sell land to men bringing the letter from Mr. Packer, being afraid of possible consequences. Another doorway into Wisconsin is through Minneapolis and St. Paul, and at these points an attempt is made to reach the immigrant into Wisconsin. Many are also reached through letters directed to the Director of Immigration, at Madison. In various ways, Mr. Packer gets hold of a considerable proportion of the immigrants into the state and warns them as well as he is able against the purchase of worthless lands, and, so far as he may, against land sharks. His idea is not to get a man into Wisconsin, but, to use his words, "to get a man into Wisconsin who 'will stick.' " Some have been inclined to criticize him for turning men away, but the results justify his methods. The writer recently made a tour of investigation with Mr. Packer to visit those whom he had placed on the land. He found one of these settlers who had brought into the state nine others, and another settler who had brought into the state five others.

The purpose in speaking of Mr. Packer's work is to indicate very briefly one line of activity followed by those who are pursuing modern methods of land settlement. It is hoped later on to describe more fully Mr. Packer's work and to give statistical details. It can be seen, then, that a public interest is at stake in the wise selection of land, and that the humble settler needs assistance.

—R. T. Ely.

Agriculture Must Be Made Profitable

Speculation Interferes With Production and Diminishes Wealth

The absence of a sound system of development for the economic use of land and all natural resources, and of human resource and energy as a raw material of wealth, has brought us face to face with acute financial and social problems which will not be solved in this generation unless we show ourselves more awake to the significance of present tendencies and conditions.

We cannot separate town and country, or province and municipality, or manufacturing and agriculture. Their interdependence must be recognized. We must establish confidence in government organization under our federal system unless we desire to revert to autocracy; we must impose more confidence on the base of government organization, which rests in the municipality.

To promote industry in town and country we must recognize that production alone makes or increases wealth, and that speculation diminishes production, and therefore diminishes wealth. Urgent as are our urban

problems, our chief attention needs to be directed to our rural problems. In connection with the rural problems we need (1) To plan and develop land for economic use; (2) To promote closer settlement and closer connection between manufacture and agriculture, and (3) To provide facilities for co-operation, rural credit, education and social intercourse.

There is no simple solution of these problems; planning and development will only provide the foundation on which to build. We must plan to promote values and methods of production as well as to guide physical development. It is folly to force increased production from agriculture without making agriculture a better paying business; it is equally folly to use government money to increase production and not make it easier and cheaper to produce, nor to take into account the probable increase in production in other countries.

In new countries, self-interest is apt to be so strong that it prevents people from realizing the truth that whatever artificial condition is injurious to social well-being, whatever impairs health and lowers vitality, is destructive of productive capacity and proportionately lessens our wealth. We know that natural resources in themselves are not a source of wealth, and that the real source comes from the human energy and skill we apply to whatever resources are available. Instances are numerous where crowded populations live in poverty with ample natural resources at their call, and of others, where an energetic and skilful people have founded great wealth on comparatively small natural resources. Some people seem to think that increase of population and of capital only are needed in Canada to develop our resources, whereas these things may neither increase wealth nor production per capita unless we apply more science and organization to develop our resources.—T. A.

APPRECIATION OF FIRE PREVENTION CAMPAIGN

The Maritime Branch of the Canadian Manufacturers' Association at a recent meeting in Amherst, N.S., passed a resolution recording their appreciation of the work being carried on by the Commission of Conservation in attempting to arouse public opinion to the seriousness of Canada's fire losses and in assisting municipalities and other bodies by means of technical advice respecting fire-prevention measures.

The Association also memorialized the Governments of Nova Scotia, New Brunswick and Prince Edward Island to appoint provincial fire marshals to investigate fires, prosecute incendiaries and inspect properties for the removal of fire-breeding conditions.

The sugar beet crop in Southwestern Ontario was good last year, the yield running from 15 to 18 tons per acre. About \$10.50 per ton is being paid for them.

Two out of every three fires occur in residences, says the Ontario Fire Marshal.