Forest Fires at Last Conquered by Aerial Salt-Shakers?

Salem, Ore.—A plan to sprinkle salt on the clouds to produce rain, which would curb the forest fire menace, was offered to Governor Olcott in a letter from J. J. Boyce, of Portland. Boyce would have the salting done from airplanes. The Governor did not declare himself in favor of the idea, but was reported to be considering the scheme to equip airplanes with salt-shakers. Boyce, in his letter, called the Governor's attention to the fact that in flying one passes through zones where there is moisture in the air, but not enough to condense and form raindrops. Common salt would draw this moisture, if dropped from high above such an air current, Boyce maintained. He hazarded the opinion that clouds and rain would result.

---

that they are not to-day in universal use in Canadian for ests. Yet the fact is that they are not in universal use, and from present appearances, not likely to be in universal use for some years to come. Some patrol work carried on this summer by the St. Maurice Fire Protective Association (Quebec) represents practically all that has yet been done in Canada in the matter of forest air work. The main reason that aircraft are not in universal use is because no satisfactory answer has yet been given to the question, "Will it pay?" Or, to put it another way, "If a definite amount of money is to be spent on fire protection, will the best results be obtained by spending it on aircraft or on fire wardens?"

MEN OR MACHINES?

Those responsible for fire protection are so far not at all convinced that best results will be obtained by spending it on aircraft. To illustrate: An estimate of cost prepared last spring for aerial patrol of a certain forest area in Quebec worked out approximately at $23,000 (this did not include any provision for wireless.) This estimate was prepared without taking into account any expenditure in the purchase of machines, the intention being that machines should be borrowed from the Government. It did not take into account various other items, such as the construction of housing for the machines, depreciation, interest on the investment, workshop equipment, etc. Now, the figure of $23,000 was intended to cover two four-hour patrols per day on an average of twenty days per month for a period of six months. With the same amount of expenditure on wages for fire wardens, a fire protective service would be able to employ for six months at $100 per month practically forty wardens. Those concerned in fire protection work naturally ask the question: "With forty wardens, wouldn't we get better results than with the aircraft patrol?" Perhaps they would, and perhaps they would not, but that is the question that, more than any other, serves to delay action in regard to the rapid application of aircraft to forest work.

Of course, in addition, there is the capital involved in the purchase of planes and other equipment; there also is the high cost of installation of wireless stations, because, to get full efficiency out of aircraft there should be wireless installations as well. To go into the business of applying aircraft and wireless to forest work involves a large capital expenditure and a large expenditure on operation.

While most people are convinced that efficiency would be promoted by an air service, the men responsible for expenditure on forestry work naturally weigh the pros and cons. They must figure on a dollar basis. They know pretty well what they can accomplish per dollar by a warden service. No one has yet given a practical demonstration as to what can be accomplished by aircraft on the dollar basis. Therefore, alluring as the prospect of a forestry air service is, it would appear that the development of such service will be comparatively gradual and comparatively slow.

PLANES ARE NOT FIRE-FIGHTERS.

There is another point in connection with this subject which also largely enters into the calculation of the forest workers: For the present the airplane is not of any value in actual fire-fighting. But an additional warden service (as in the case mentioned above, 40 wardens) would be of very distinct value in fire-fighting. Now, there probably will never be a time when no one is optimistic enough to expect that history will not from time to time repeat itself. With this in mind the forest worker will not discuss a forest air service without attaching great importance to what a large warden service can do against a fire, when an airplane would be powerless.