

cessful and continuous flying depends on the preliminary organization, and on the organization during the period in which flying is carried out. This involves all kinds of detail, not the least among which is the transportation of the machines, stores, etc., to the point of departure, and in this country this particular item would be quite a serious matter. In a small country like England, it would be quite possible for a machine to fly to the point of departure, thus saving a lot of bother; but in a vast country like this it would be uneconomical, as aircraft engines have only a limited life before they require overhauling and machines would arrive at their final destination, after many stops, in a state requiring several days of careful overhauling, let alone the possibility of breakdown at some of the landing places en route.

Public Control.

If Canada has an Air Service my idea would be for any department requiring assistance in the aviation line to make application to the Air Department, stating their wants, and then rely on the Air Department to provide the necessary equipment to cope with the situation. In the early stages of an Air Department, the charge to the department requiring the work would probably be purely nominal, as one of the main wishes would be, to a certain extent, to educate the department and the rest of the public as to the possibilities of aviation. In a year or so, however, it would only be reasonable for the Air Department to send their account in for the actual working expenses; but this would not include any percentage of the cost of stores and spares which were not actually used, as on completion of the expedition these would all be returned, having been kept in good condition in the meantime, and be put back again into circulation, while the personnel would be returned to other duties.

Nationalization is Best.

To get off the track of this lecture for a second, aviation run by a private company on a very big scale, embracing as many diverse interests as possible, or as a National Service doing the same, could, in my opinion, be made to well pay for itself in this country, but the scale would, I think, be too big for any company to undertake for some years to come, and so everything points to nationalization here, as a company on a small scale trying to run things economically would only let themselves and the public down, and by their mistakes and shortcomings queer the pitch of aviation with the general public. You may take it as an axiom

that false economy in aviation material and personnel is a great mistake, and that the best cannot be too good. There is good reason for saying that an Air Department should be run as a business concern, showing a balance sheet, as moderate working expenses would show it was being of value to the community, whereas big working expenses would show it was not and that a change of policy or organization was required.

The public are apt, in talking about aviation, to neglect the possibility of lighter than air craft; but with the advent of the efficient semi-rigid ship and very much more efficient rigid ship, based on the old Zeppelin design, I think lighter than air work is going to play a very important part in the future of aviation.

Crossing the Atlantic.

Merely to give one instance of this possibility, I want to tell you that the modern Zeppelin, the total weight of which is from 60 tons, can carry sufficient fuel to cross and recross the Atlantic three times, as well as passengers, material, etc., to the extent of 20 tons, all this being carried out at a speed of some seventy miles an hour.

R. H. CAMPBELL RECOVERED.

It is with much pleasure that the Journal chronicles the full restoration to health of Mr. R. H. Campbell, Dominion Director of Forestry, who was seriously injured near the Pas, Manitoba, while on inspection duty. Mr. Campbell returned to Ottawa a few days before Christmas and took over most of his official duties.

A GREAT SERIES FOR THE 1919 FORESTRY JOURNAL.

Commencing with the February issue, Dr. C. D. Howe, of the Faculty of Forestry, University of Toronto, will write a valuable group of articles for the Canadian Forestry Journal, the first of which will be entitled "The Making of a Spruce Tree."

Every reader in whom the working of Nature has aroused a sense of wonder and curiosity will follow Dr. Howe's stories with eagerness from month to month. Not more than a page of two to each contribution—popularly written and well illustrated!

The first article by Dr. Howe comes in your February number, which will be issued by the Association not later than the 10th of the month.