

Had there been a good topographical map in existence, that expenditure would have been unnecessary.

In drainage work the information derivable from a survey of this kind would be invaluable, and as our agricultural population is waking up to the benefits arising from proper drainage, no time should be lost in giving them this aid. The maps would enable any engineer to determine by a simple calculation the area of any basin to be drained, and to know accurately the size of drain necessary, and its proper location, and the survey would do away with all litigation arising from parties claiming that their lands do not lie in the basin to be drained, as a reference to the map would show at a glance the natural drainage outlet for any piece of land.

These maps would also be exceedingly valuable in assisting an equitable assessment of real estate for taxes, and in providing the necessary information required in locating and building public highways, and would save large sums of money which are now expended in finding out where roads should be built; and the sum so saved might be expended in making the roads more solid and permanent.

The information afforded by the maps provided from a survey of this kind, in reference to our inland waters, and the possibility of their utilization for navigation which is becoming every day of more importance, would be of vast benefit to the country.

Many large public works are now being agitated, and will no doubt in the near future be undertaken, as, for instance, the "Ottawa Ship Canal," the "Trent Valley Canal," etc., the possession of good topographical maps would very naturally assist in settling the question of the feasibility of these and many other schemes for the improvement of navigation, etc.

Instances might be cited indefinitely to prove the value, not only to the Government, but to the people at large of a trigonometrical and accompanying detail survey of the kind herein referred to, but it is thought that enough has been said to conclusively show the benefits which would accrue therefrom.

The survey should be undertaken by the Federal Government, as it is pre-eminently a Dominion work, and we now come to the important point of a basis or scheme for its inception.

In a work of such proportions as a survey of this kind would alternately assume, it is primarily essential that a well matured and carefully considered scheme be first laid down, upon which to develop the whole; and being guided by the experience of other countries, it is evident that a primary triangulation is necessary as a ground work for all detail surveys.