

The geological *sketches* on the map accompanying my former report were only intended to give the public a general idea of the geological structure of the State in advance of the large map which has been proposed.

The map which would accompany a final report would give in detail the geological features of our territory and the position of all its useful minerals, including ores, limestones, marls, &c., &c.

The report would contain a classified account of the soils peculiar to each formation, and a full description of all our mineral resources useful to agriculture and other branches of industry.

By this means many materials hitherto unavailable will be brought prominently into notice, so as to augment both our industrial pursuits at home and our trade with other States and nations.

In my first report it was remarked that in a new country, a limited population may be supplied with food under a very defective system of agriculture.

This has been verified in our own country, but with an increase of population, improved systems of culture have become necessary. Exhausting systems have materially lessened the yield of grain and other crops in most of the old States which are in part dependent upon the virgin lands of the West to feed their people. It is therefore evident that improved systems of agriculture have become an absolute necessity, because of the increase of population without a corresponding increase of production.

England, France and other European countries long since felt this necessity, and have materially increased the amount of their agricultural products.

The aid of science and skill has been availed of under the patronage of governments, and have materially aided in renovating their exhausted soils, so that their products have been largely increased. This improvement is in a great measure owing to two causes.

First, a more correct knowledge of the scientific principles which have been disseminated among the farmers. The second, produced by the first, consists of improved skill in conducting all the operations of the farm, including proper working and pulverizing the soil and procuring, preparing and applying manures.

On the continent the farmers make the most of their domestic resources with little reliance upon imported manures.

In Britain, because of a plethora of capital and the great mercantile activity of her traders, a large trade is carried on in the importation of manures from foreign countries.

Some of the German agricultural chemists have lamented over the exportation of bones to England which their farmers