

in our own State those who are able to execute work of this kind with great fidelity and neatness.

It has been suggested that what is called a "population map" should also be presented with the report. The construction is such as will show at a glance the ratio of population to the square mile in each county. Dr. Alexander has kindly arranged the plan for such a map, and the Messrs. Hoen are prepared to furnish the requisite number of copies of both maps upon moderate terms by the time the printing of the report shall be completed.

When the survey of the entire State shall have been made, and the large geological map be completed, it will of course be expected that a final report will be presented for the use of the public.

The final report should be divided into two parts:

1. A full and systematic account of the geology and mineralogy of the State.
2. Economic geology, in which our mineral resources of all kinds shall be described with especial reference to their application to agriculture and other branches of productive industry.

The geological sketch now given is intended to aid in familiarizing our citizens with the principal geological features of their State, and especially to show their connection with its great and leading interest, which I need not say is agriculture.

I have endeavored, as far as possible, to avoid the use of technical terms, and the descriptions are made as popular as is practicable. It would be just as impossible to speak or write about the application of science to agriculture without the use of some of these terms, as it would be for a farmer to describe operations and circumstances connected with his pursuits without the use of the terms usually applied. The farmer may be reminded that these are the technical terms of his profession, and are fully as unintelligible to the uninitiated as are those of chemistry and geology.

As agriculture is now inseparably connected with science, or rather has become a science itself, it is incumbent on those connected with it to understand the few terms which have been adopted from other branches of science.

By reference to a few elementary books, not only would these terms be readily mastered, but much useful information be acquired. Among American publications I would especially recommend the "Elementary Geology" of Professor Hitchcock, of Amherst College, which I consider the best elementary treatise yet published. In reference to Chemistry I may refer to "Wells' Principles and Applications of Chemistry," just published. There is no farmer that would not find advantage in devoting some of his winter evenings to