

the soil with a heavy harrow, a drag, or by means of a *very shallow* plowing. It may be urged that the expense of hauling the manure over the plowed field increases the cost and labor; but this is a small matter compared with the loss sustained by burying the manure too deep in the soil.

When we desire to possess a rich and *permanent* pasture field, we can in no way more effectually and economically produce it than by a liberal top dressing with stable manure. This is the practice in the south-eastern counties of Pennsylvania.

CONCLUSION.

In order to make the present report more immediately useful to the farmer, I have avoided, as far as possible, scientific discussions and descriptions. These will more properly be brought into view in a final report.

It was intended to have treated in a much more comprehensive manner most of the subjects, and to have introduced many other matters that I believe interesting and useful to the farmer and planter. It appeared, however, impracticable to do so without materially increasing the size of the report. It became, therefore, necessary to treat many subjects in the briefest manner and to omit others, in order to compress the report within what might be considered proper limits.

The field work was seriously retarded, as I have before stated, by the inclement weather of last year, so that in order to complete my programme as far as possible, I continued in the field to a late period in the autumn. Before proceeding to write out the report, it became necessary to construct the map of "geological illustrations," on account of the references to be made in the report. This was a work of much labor, occupying my whole time for more than a month, when it was put in the hands of the engravers. Being the first work of the kind which had been undertaken in this State, it was also necessary that I should look after it whilst the lithographic stones were being prepared for the printing.

The construction of the large map also required much attention in collecting information and in having it used so as to insure accuracy as far as practicable.

The necessary attention to these maps delayed the report, so that I was wholly unable to present it until the 10th of January.

I much regret that the haste with which I have been compelled to close did not permit a final reading, with a view to making verbal corrections, which doubtless will be required. Such oversights will be readily noticed by the reader, and will not impair the meaning of the sentences.

The subjects, it will be observed are treated with especial