

## APPENDIX.

I. *On the Instruments requisite to a Geologist.*

THE construction of geological maps cannot be too strongly recommended, though they should never see the light; since thus only is practical accuracy attained. While such a map also saves pages of unintelligible description, there is much information that can be conveyed in no other manner; as no confidence can be placed in mere description, where more than one rock is concerned. Thus also does it become a test of the observer's fidelity; while, if that which has been accurately examined is easily detailed, so must we distrust written reports of matters demanding much attention and labour, if that which is comparatively easy has been neglected.

But as such a map is sometimes the geologist's object, he must commence by the careful choice of a topographic one; since, if defective or erroneous, it becomes the source of much labour and much doubting. They alone who know the facility afforded by a good map, and the vexations of a bad one, will appreciate the importance of this object. It cannot well be too large; from the narrow extent of many rocks in nature; while it may often be necessary to enlarge certain portions for this purpose. A multiplicity of details is also indispensable. Roads, rivers, hills, houses, and villages, form the *reticulum* for the geologist's observations; while, according to the number and accuracy of these, will be the facility and the