## THIRD APPENDIX.

Of the Chemical Analysis of Earths and Stones.

I HIS subject, treated in its full extent, would require a particular account of the manner of analyzing not only each particular genus, but also most of the various species contained under those genera; it is easy to see this would require an immense detail; my intention, therefore, is to consider these fossils abstractedly from all external characters, and folely in their relation to chemical agents, particularly to spirit of nitre, and the vitriolic acid.

In this point of view they may be divided into

feven classes:

1st, Those that are wholly or partially foluble, and with effervescence, in nitrous acid,

whose specific gravity is 1,4, or higher.

2d, Those that are insoluble in nitrous acid 1,4, but wholly or partially foluble, and with effervescence, in nitrous acid 1,25, in the temperature of 60°.

3d, Those that are insoluble in spirit of nitre or nitrous acid 1,25, but totally or partially fo-

luble,

