446 ON THE ACTION OF RUNNING WATERS.

We often see furrows scooped out on the walls that bound the narrows of rivers; we also see rocks rounded, and entirely destitute of moss. But let the facts be examined with attention, and we shall find that this erosion always takes place in the parts of their course, where, on account of the nature of the neighbouring soil, the torrents carry with them, in their risings (or floods), debris and detached stones from their banks; and it is by means of these stones that they wear the rocks which are in their bed.

It is very easy to appreciate these circumstances. It is remarked, that this erosion has never taken place at the sources of powerful springs. All the pebbles which had to be carried off have been so long ago, and the mosses which grow abundantly on the rocks at the level of the water, and in the bed of these torrents, have nothing more to fear from the destructive action of these solid bodies. The case is the same with the parts which immediately succeed a lake, or a great excavation, capable of arresting all the hard bodies carried off by the river. There the mosses appear in abundance; because they are not subjected to the action of any other substance than of the water alone.

The present rivers do not therefore appear to have any erosive power upon the rocks which are completely aggregated, when they act by themselves, and when no other cause, such as frost, decomposition, &c. has disintegrated the rock. The absence of these foreign circumstances is proved by the vegetation or the enamel which then cover the rocks exposed to the action of the water.

These rivers, in proportion as they remove from the