three inches, and might be mistaken for strata, but they are irregular and of limited extent. In Nottinghamshire, the fibrous gypsum on the banks of the Trent is often beautifully white and translucent, and is accompanied with scales of chlorite, exactly similar to what I have observed in the beds of gypsum in the Valais, in Switzerland. The white fibrous gypsum is employed by the paper-makers to whiten writing-paper and add to its weight.

Massive gypsum is granular : it occurs in irregular beds and blocks, in the red marl, and is evidently a local formation. Anhydrous gypsum is occasionally met with in Nottinghamshire. Gypsum is associated with rock-salt, wherever the latter mineral is found. It is now discovered, that the gypsum in the Alps, when uncovered in its native beds, is always anhydrous. Common gypsum contains 21 per cent. of water. Anhydrous gypsum is entirely free from water, and is much harder and heavier than common gypsum. Should it prove a general fact, that the gypsum associated with rock-salt is always originally anhydrous, it might tend to elucidate the formation of both minerals; a subject which will be referred to, after describing some of the principal repositories of rock-salt.

Many repositories of rock-salt are situated near the feet of mountain ranges, and were probably deposited originally in salt-water lakes: beds of rock-salt are now found at the bottom of some of the salt lakes in Africa. But though many salt formations are in comparatively low situations, there are others that occur at great altitudes, both in the Alps and the Cordilleras. In England, the principal beds of rock-salt are situated at a little distance from the western side of the range of hills, which separate the rivers that flow into the eastern and the western seas.

The rock-salt of Cheshire cannot properly be said to lie in or under the red sand rock before described, but is surrounded by it, and probably rests upon it; but as the lowest bed of salt has not been sunk through, this cannot be yet ascertained. The upper bed of rocksalt in that county is about forty-two yards below the surface : it is twenty-six yards thick, and is separated from the lower bed of salt, by a stratum of argillaceous stone ten yards thick. The lower salt has been sunk into forty yards. The upper bed was discovered about a hundred and forty years since, in searching for coal. Rocksalt at Northwich, extends, in a direction from N. E. to S. W., one mile and a half; its further extent in this direction has not been ascertained : its breadth is about fourteen hundred yards. In another part of Cheshire, three beds of rock-salt have been found. The uppermost is four feet, the second twelve feet, and the lowest has been sunk into twenty-five yards, but is not cut through. Besides the beds of rock-salt, numerous brine springs, containing more than 25 per cent. of salt, rise in that county. The transparent specimens of rock-salt are nearly free from foreign impurities, and contain scarcely any water of crystallization.