The chalk with numerous flints is again visible on the height west of the castle, at a still greater elevation. That it forms the upper part of this height, was proved in making the extensive fortifications on its summit, as well as the openings a little beneath it, immediately below the citadel, which were intended for the reception of some part of the troops stationed at Dover during the war. These openings (*a* of the preceding sketch) are in an unfinished and ruinous state, but they served to evince an interesting fact. Each of these four chambers is driven into the hill about 100 feet, and is perhaps 20 wide and 15 feet high; and in each, the only roof left to support the superincumbent chalk is *a bed, not of flints, but of flint;* the whole is one nearly continuous, though not regularly tabular and evenly-disposed mass. The belief of the existence of this fact, in regard to at least many of the beds of flint in the upper chalk near Dover, was previously entertained, by observing the workmen on the shore cleave several blocks of chalk, each eight or ten feet square, close to the beds of flint passing through them; and in every instance, examination proved that the flint of each bed so exposed, was connected together; not that it formed one plane surface; but, though varying in thickness from six to 18 inches, the flint would, if it could have been taken off whole, have exhibited occasional cavities, which, collectively, would have formed but a small proportion of the whole surface. A man who had been employed on this work during eighteen years, asserted that he had always observed the same fact.

The flint thus exposed for the first time, is sometimes cracked through in several places, from one cavity to the next; and the fractured surface always appears more or less white and opake. Such a fracture seems explicable only by the supposition of a contraction having taken place in the flint while in its natural position. Nor does it appear at all improbable that a contraction had actually taken place. Flint newly disengaged from its natural bed, is much more brittle, requires a much lighter blow to break it, than flint that has been long exposed.* This may perhaps be owing to the moisture or water belonging to the flint in its natural state, but which it loses in great measure by the joint action of the air and sun.

As the opake white substance, which in some cases only surrounded the edges of the fractured surface, did not project

* The flint gravel used for mending the roads round London, is in some places providently taken from the pit some time before it is wanted, and exposed to the action of the air and sun: for this practice the alleged reason is, that it hardens; which, probably is the fact.