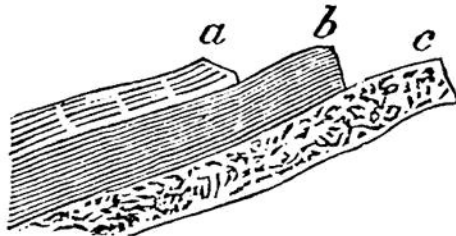


situated upon a clay, called by geologists London or blue clay, and if we bore through this bed we find chalk, that rock being always situated beneath the London clay. Chalk, therefore, could never be found at the surface, if rocks were arranged like a pack of cards upon a table, without the removal of the upper bed. This, however, is not the arrangement we observe upon examination, for at a very short distance from London, Shooter's Hill for instance, chalk is found to be the superior rock.

- It is seldom that strata occur in a perfectly flat position, but they are generally inclined, more or less, so that one emerges from beneath the other, as shown in the diagram.



Inclined strata, *a b c*.

In consequence of this arrangement, we may, by travelling over a country, determine the character of the rocks of which it is formed, with even more accuracy than could be attained by piercing through the whole of the beds at the surface of the highest rock.

In this arrangement we cannot but observe a proof of design, for by the present disposition of beds, man is made acquainted with all those which are necessary for his comfort and the advance of the arts of life; and he can obtain them with little or no exertion. If rocks had been placed in a flat position, it is not probable that we should ever have discovered either coal or the metals; for as these are situated so low in the series that it would be necessary to bore to the depth of many thousand yards in order to obtain them, it is doubtful whether any inducement to make the attempt would have been offered. But supposing that from any circumstance their existence and properties had become known, their situation would effectually prevent their being obtained in sufficient quantities to supply our wants. It is scarcely to be imagined what would be the result if all the coals and metals were expended, much more to determine the condition in which man would now be if they had never been known;