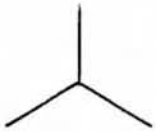
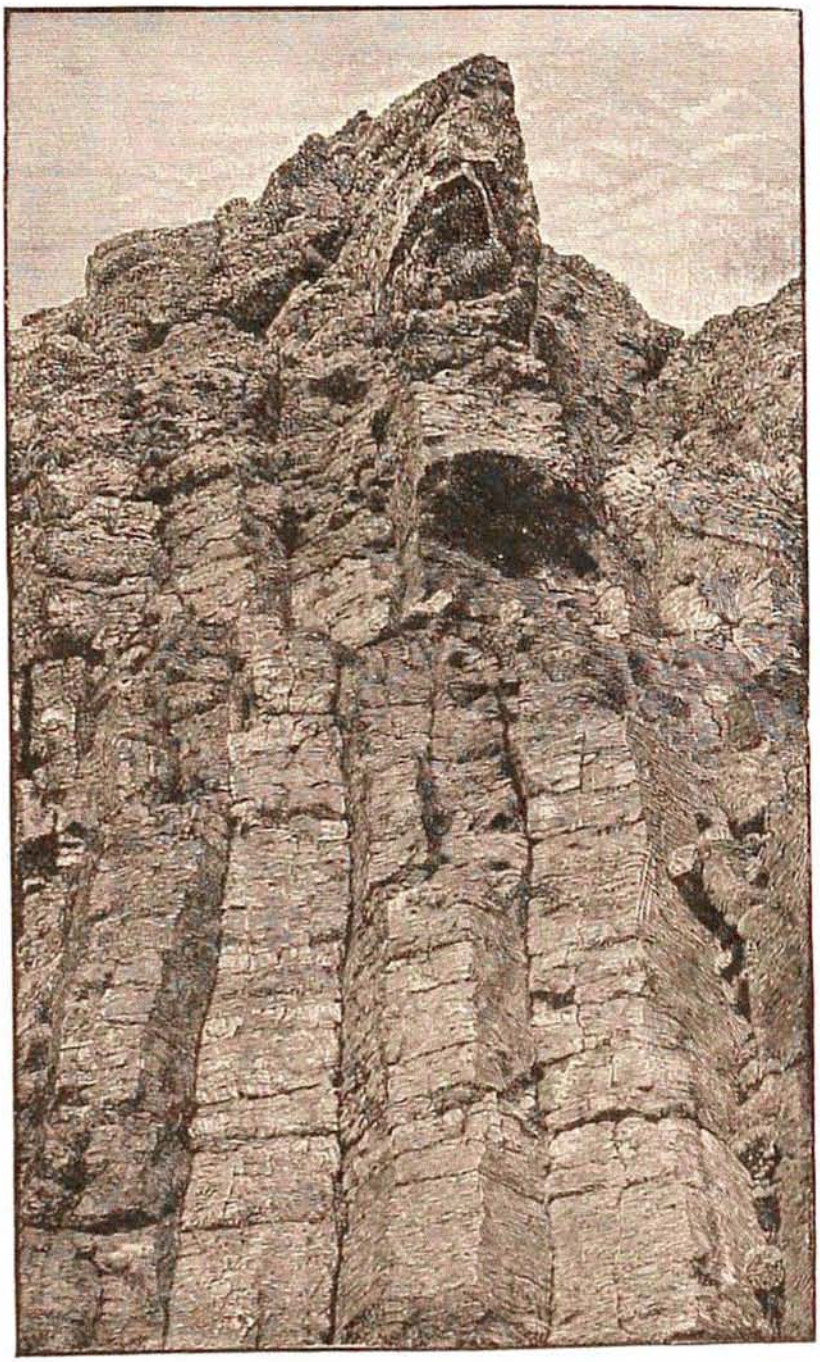
can be opened about a point on its surface by equable contraction is three, and hence this number is the easiest to make; and since three such lines symmetrically placed make angles with one another of 120° (Fig. 223), the hexagonal prism, more or less regular, is the most common form of the "basaltic" column.

223.



In the case of large dikes between walls of rock, the set of divisional planes which is nearly or quite vertical is generally more strongly developed than the others, and this occasions a laminated structure in that direction looking like upturned bedding. This structure is common in the trap of the Triassic of the Connecticut valley; and at the same time joints transverse to the apparent lamination also occur. In many of the nearly vertical fronts, these two courses of joints are predominant.

224.



Obsidian columns, Yellowstone Park. Iddings.

(*b*) *Contraction from cooling when the heat is short of fusion* often produces columnar fractures in fine-grained rocks. Sandstones are thus made columnar by contact with melted rocks. Part of the effect is due to drying.

4. *Expansion and contraction in the process of solidification and fusion.*—Since the *glass* state of a mineral or rock is a consequence of rapid cooling from fusion, and the *stone* state is the result of slow cooling, glass will become stone if melted and very slowly cooled. In passing from the liquid to the glass state, in the case of