



Fig. 82. River issuing from a Swiss Glacier.

epoch of thaw and floods, the power of the waters was sufficient to move pebbles of the size of a pigeon's egg. I have observed in Middle and Southern Alabama multitudes of quartzose and other hard pebbles that could not have been derived from any source nearer than the spurs of the Appalachian ridges in the northern portion of the state. One noteworthy locality is along the gorge of the Black Warrior River, at Tuscaloosa, where Sir Charles Lyell, when on his second tour through the United States, mistook them for the "shingle" of the Cretaceous system. This system produces no such pebbles in Alabama. Another locality worthy of mention is at Jackson, on the Tombigbee River, in the southern part of the state, where they constitute a bank a hundred feet in depth. In short, these pebbles may be traced all the way to the Gulf of Mexico; but their normal position is always in the deeper portions of the superficial accumulations. When the pow-