

rough sketch accompanying our former report, which shows how the Bujuku derives its supplies from a much larger part of the snowy area than does the stream hitherto considered to be the upper course of the Mobuku. The Duke was not able to define so clearly the drainage on the side of the Semliki, but he says that the streams flowing west from the four main passes leading in that direction all unite to form the Butagu, the valley of which has been the usual line of approach to the snows on this side. In the Ice age the whole of the valleys of the Bujuku, Mobuku, and Mahoma (south of, and parallel to, the Mobuku) were filled with glaciers of the first order, which must have united and descended the Mobuku valley for some distance. Similarly, glaciers descending from the three southernmost of the groups must have united to form a great westward-flowing ice-stream. At present the lowest point reached by a glacier (that which feeds the Mobuku) is 13,682 feet. The permanent snows are included in a circle ten miles in diameter.

It should be mentioned that the Royal Geographical Society proposes to apply the Duke's name to the most southerly of the snowy *massifs*, instead of that of Thomson, who himself never saw Ruwenzori, important as his work was for the general opening up of this part of East Africa.

#### MAN AND SUPERMAN.

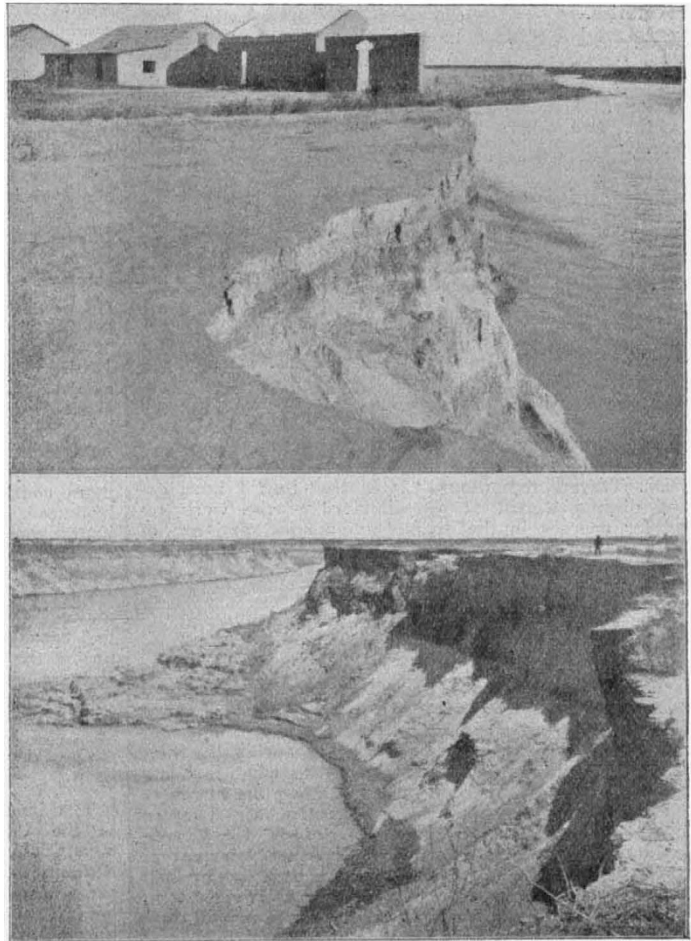
MR. ARTHUR J. DAVIS, of the U.S. Reclamation Service, describes in the *National Geographic Magazine* for January the startling changes that are now taking place in the region north of the Gulf of California. For 150 miles from the apex of the gulf, an area of delta and alluvium and old sea-bottom extends to the north-west between the mountains. The upper part of this basin forms the Imperial Valley, and lies in the territory of the United States. Below the Mexican frontier, the Colorado River, emerging from the hills, has built up a huge alluvial barrier above the level of the land to the north of it. This in its growth cut off the head of the ancient gulf, and led to the gradual disappearance of the water by evaporation.

The Imperial Valley thus came into existence, with part of its floor 300 feet below the level of the adjacent sea, and a variable lake without an outlet, the Salton Sink, at its northern end. From time to time the Colorado River, in seasons of flood, has diverted itself from the elevated delta into the Salton Sink, and the lake has grown in consequence. At other times it has banked itself out of this region, has flowed again into the Gulf of California, and has left its temporary northward-running channels, the Alamo and New Rivers, practically dry and sand-filled.

The ease with which the northern lowland could be irrigated led to the formation of a canal about seven years ago. Its mouth, however, became silted up, and a spot was then selected above a steeper slope, where the velocity of the water leaving the Colorado was greater and more effective. In May, 1905, however, the first serious flood-waters deepened this new channel, and supplied far more water northward than was required. The "Salton Sea" rose rapidly, and the Southern Pacific Railroad along its margin was equally rapidly moved to higher ground. Striking alterations occurred in the old valley-floors as they were invaded, and the cataract of the New River, cutting its way back to the frontier town of Calexico, flowed there in a channel 45 feet below the level of the

farm-lands. The peril became so great in 1906 that a huge dam was constructed on the delta, in order to compel the Colorado River to return to its former route into the Gulf of California. Mr. Davis's account of this titanic struggle—the printer makes him speak of "herculeanean efforts"—forms very interesting reading. The dam having been completed last November, it was estimated that the enlarged "Salton Sea" would dry up in about twelve years; but in December the water of the Colorado worked its way round the dam, and resumed its rush into the Imperial Valley.

The great cataract in the New River was in January eating its way backward, that is to say southward, at the rate of a mile in three days, with a width of some 1700 yards and a fall of 100 feet. The farms in the Imperial Valley are unable to avail themselves of the water so copiously



Upper figure.—Partial destruction of the town of Mexicala, Mexico, by the New River. Lower figure.—The New River cutting into the farm-lands near Imperial, California, forming banks 70 feet in height, which are constantly falling in.

supplied, since it lies below their level; a great inland sea is arising, and dispossessing the railroad and the people whom it serves; and the probability of the diversion of the whole Colorado River northward threatens to deprive of water the settlers in Arizona and Mexico from the Grand Cañon down to the Gulf of California. It needs the philosophic spirit of a Lyell to regard physiographic changes of such magnitude with admiration rather than dismay.