

## THE ARK AND MODERN SCIENCE.

In an important article on "Prehistoric Commerce and Israel," which appears in the current number of *The British and Foreign Evangelical Review*, the writer, Dr. Howard Osgood, points to one indication which is to be found in the Bible account of the Flood. That account gives a rational measurement for a ship in the relation of breadth and depth to length. The length 450 feet, six times its breadth, 75 feet, is near the proportion which is given to ships of burden to-day. That the ark was not a flat-boat is made certain by the impossibility of building a flat-boat of that length and breadth that would float; it would, as every flat-boatman knows, leak so badly that it could not be kept free of water; and when to the length and breadth is added 45 feet of height, the structure would become ridiculous, a pyramid built on its apex.

The men who knew enough to give these dimensions to the ark were well versed in ship-building, and knew, like the Cushites of South Babylonia, and of the southern shores of the Red Sea, and of the Phoenician coast, the proper proportions for a great ship that would float and resist the enormous pressure of water against her sides and bottom, for the ark drew 22½ feet of water. There is another point with respect to this vessel that has often been made the subject of ignorant jest. It is said that, however excellent and seaworthy the ark may have been, it is absolutely impossible that all the species of animals on the earth could have been crowded into it, though only two of each were put on board. Geikie, in his article on the "Deluge," in Dr. Lindsay Alexander's edition of Kitto's Bible Dictionary, following Hugh Miller, is very positive on this point. But Dr. Osgood contends that two of all the known species of land mammalia, and of birds, reptiles and insects could have found room in the vessel of Noah, of the size given in the Bible. The ark had three decks, and its length was 450 feet, its breadth 75, and its depth 45. Subtract 50 feet for the inclination of the bow and stern and sides, then we have 400 feet by 75 – that is, 30,000 square feet on each deck, or for

the three decks, 90,000 square feet. The steamers carrying live stock from New York to-day allow 20 square feet for oxen. At this rate, on each deck, there would be room for 1,500 oxen, or 4,500 on three decks, with plenty of ventilation, as the decks were 13 feet in the clear apart. Geikie makes the number of the species of mammalia to be between 1,660 and 1,700. If so, the ark could have carried on two of its decks, and a part of the third deck, two of each of the size of an ox. But the average size, according to Professor H. A. Ward, of Rochester, and Mr. Wallace's careful classification of the species, would be that of the grey fox or common house cat. Taking, then, the grey fox as the measure of all the species, and granting him even one-fourth of the size of the ox, and giving him one-fourth of the room required for the ox, all the species would not require the space, 30,000 square feet, of one deck of the ark! Wallace estimates the number of birds at 10,087; of reptiles, 975; and of lizards, 1,252; of insects, 100,000 species. Taking again the average size of these species, no large amount of space would be required to hold two of each species.

– *Sel.*

