

JAPANESE BIRDS.

We select the herewith illustration from a handsomely gotten up work on Japan, by the celebrated German traveler Wilhelm Heine. It represents birds of the heron and crane species, and was made from a sketch by himself personally. These birds are very numerous, and are diverse in their appearance and characteristics. They are not allowed to be hunted except by the nobles; and according to the popular belief, they are the symbols of happiness and good fortune, and are frequently represented as such in the plastic and pictorial arts.

The ibis (No 4) is a beautiful and rare bird, the first specimen of which was brought to Europe by Siebold. It is two feet six inches high; the bill is of a dark violet brown, red at the point. The skin covering the head and ears, and also that of the legs and feet, is of a brilliant red; and the nape of the neck is covered by a bunch of long narrow feathers extending to the base. The color of the bird is white.

The white crane (No. 2) appears in the southern part of Siberia as well as in Japan. The color of the young birds is of a reddish brown, which soon changes into white. The feet, the bill, and a piece of bald skin above the eyes, are of a brilliant red color.

The monk heron (No. 7) is two feet eight inches high, being covered with black feathers on the upper part of the neck and head. It has similarly colored legs, with a bill of a greenish gray, which changes towards its base into a rust-red color.

The great spoonbill heron (No. 3) is two feet nine inches high. It resembles, in general, the European species, with a small difference in the length of the feet and bill. The color is white, the bill being yellow and the feet black.

The small silver heron (No. 1) differs greatly from the Eu-

ropean herons, and from those of Egypt and Persia. The specimen represented in our engraving measures two feet in height. The feathers which cover the neck and back are long and thread-like, and are used in trimmings and other ornamentation, being of a resplendent white color. The feet are dark black.

The bittern (No. 5) does not differ from the kinds indigenous to Europe, Egypt, Nubia, Abyssinia, and Siberia.

The great kingfisher (No. 6) is frequently found in the presence of a company of herons; he appears to listen attentively to the chattering of the birds, with the air of a reporter to whom it is necessary that not a word should be lost.

The Cause of the Gulf Stream.

Mr. John P. Whipple, of Whitewater, Wis., sends us a pamphlet in which he argues that the Gulf Stream and all other ocean currents are produced by the tidal wave and the land with its peculiar formation. We fail to perceive the practical scientific value of our correspondent's suggestions, particularly as he observes that the land and tide are continually making the water unequal and that the tide and winds stir up the ocean. Some of the theories advanced are hardly in accordance with accepted views, especially those relating to the trade winds where "the sun is continually warming the air at the surface of the earth, which makes it lighter, and the night cools it and makes it heavier, so the cool air follows the sun around the earth and that is the cause of its keeping one direction;" and also the statement that the earth's rotation is due to "the sun continually expanding the side nearest it, making it lighter; night condenses and makes the opposite side heavier, and its motion round the sun forces it to rotate."

As the inventor of these novel ideas naively remarks that his Gulf Stream theories depend on the fact of the water on the east shore of the Isthmus of Panama being on a higher level than that on the opposite side, he probably will abandon them on learning that the mean height of the two oceans is precisely the same. The old idea that the Atlantic is many feet higher than the Pacific has long since been exploded.

Iron Shipbuilding in Iowa.

A correspondent, J. H., states that two iron steam yachts have recently been built in Dubuque. They are built on the same style as the Cunard steamer China, built on the Clyde. The building of the yachts was done under the superintendence of a man who worked on the China. The dimensions of each yacht are: Length of keel 47 feet, width of beam 7 feet 6 inches, depth of hold 4 feet. They are propelled by screws which make 300 revolutions per minute and propel the boats at a speed of 12 miles an hour. The screw of each boat is driven by a twelve horse power upright boiler, and engines of unique pattern, which will soon be patented. Everything aboard each yacht is so arranged that she can be entirely managed by one person. They can be used as sail boats and are capable of carrying 50 passengers each. They are the fifth and sixth iron steamboats built in this city (one of which, the Clyde, has a 150 horse power engine and is one of the fastest tow boats on the Mississippi river). She was the first built west of the Alleghany mountains. Except the masts and seats, there is no woodwork on the two yachts. Their names are the Island Queen and the J. D. Eddy. They cost \$2,000 a piece, and are built by Rouse & Co., proprietors of the Iowa Iron Works.



JAPANESE BIRDS—HERONS AND CRANES.