## CLASS 645.—SHELLS, CORALS, AND PEARLS.

This class presented no exhibits of special interest or merit, save a fine collection of corals from Bermuda.

CLASS 646.—Whalebone, Shagreen, Fish-Glue, Isinglass, Sounds.

In whalebone, the United States had two exhibits, both of whalebone for general purposes, in its rough and finished condition. In shagreen, the only exhibits were from Japan. Beautifully prepared skins of the shark (shagreen) were found in the Japanese collection. A peculiar kind of shagreen, derived from the sturgeon, was also among the Japanese exhibits. In fish-glue, isinglass, and sounds, the exhibits were numerous. Prominent among the samples of isinglass were those of Russian make derived from the sturgeon. isinglass, besides being used for fining and clearing wines and fermented liquors, such as beer and ale, is employed to a considerable extent as a glaze or dressing for silk, velvet, and satin fabrics. The exhibits from Russia were excellent in quality. The demand for a "fining" substance, capable of removing the albuminous or other impurities in malt liquors manufactured in the United States, has been fully met by a preparation made from the sounds of the hake. The isinglass furnished by a number of manufacturers in the United States, made principally from the sounds of the hake, fully answered the purposes for which it was intended. American isinglass has almost entirely supplanted in the United States all imported substances. The demand for this American isinglass has increased very much of late years, it being used largely by the German brewers. The care shown in the manufacture of this particular isinglass, evidenced by its clear color and perfect solubility, was thought to show marked progress. It would be worth while for manufacturers of this American isinglass (made from the hake) to find out whether, in case of a surplus, this substance might not be used in England, France, or Italy, as a glaze or dressing for silk-goods. Some isinglass from the United States, resembling the Russian and made from the sounds of the sturgeon, was of good quality. A valuable product prepared from the skins of the cod, partaking more of the character of a glue than of isinglass, was thought worthy of special mention, as utilizing a substance hitherto thought to be of little value. Isinglass from Brazil, made by simply stripping the bladder of a fish called the pascada, was of fine quality. Norway exhibited a good quality of isinglass. In the Chinese collection there were found good specimens

