

destination, where they should be placed on suitable boards of proper size, for permanent preservation.

Such a collection of well prepared fishes will be useful to the practical naturalist, and illustrate, in a more complete manner, to the public, the diversified forms and characters of the class of fishes, which specimens preserved in alcohol do not so readily show.

These skins may also be preserved in alcohol.

2.—PRESERVING IN LIQUIDS.

The best material for preserving animals of moderate size is alcohol. When spirits cannot be obtained, the following substitutes may be used:—

I. GOADBY'S SOLUTION.—*The aluminous fluid*, comprises rock salt, 4 ounces; alum, 2 ounces; corrosive sublimate, 4 grains, boiling water, 2 quarts. *The saline solution*, composed of rock salt, 8 ounces; corrosive sublimate, 2 grains; boiling water, 1 quart. To be well stirred, strained, and cooled.

II. A strong brine, to be used as hereafter indicated for Goadby's Solution.

III. In extreme cases, dry salt may be used, and the specimens salted down like herring, &c.

The alcohol, when of the ordinary strength, may be diluted with one-fifth of water, unless it is necessary to crowd the specimens very much. The fourth proof whiskey of the distillery, or the high wines, constituting an alcohol of about 60 per cent., will be found best suited for collections made at permanent stations and for the museum.—Lower proofs of rum or whiskey will also answer, but the specimens must not be crowded at all.

To use Goadby's Solution, the animal should first be macerated for a few hours in fresh water, to which about half its volume of the concentrated solution may then be added. After soaking thus for some days, the specimens may be transferred to fresh concentrated solution. When the aluminous fluid is used to preserve vertebrate animals, these should not remain in it for more than a few days; after this, they are to be soaked in fresh water, and transferred to the saline solution. An immersion of some weeks in the aluminous fluid will cause a destruction of the bones. Specimens must be kept submerged in these fluids.—The success of the operation will depend very much upon the use of a weak solution in the first instance, and a change to the saturated fluid by one or two intermediate steps.

The collector should have a small keg, jar, tin box, or other suitable vessel, partially filled with liquor, into which specimens may be thrown (alive if possible) as collected. The entrance of the spirit into the cavities of the body should be facilitated by opening the mouth, and making a small incision in the abdomen a half or one inch long, or by injecting