performed, the flashlight powder was tested and found to be very quick in its action and the remainder of it was mixed into the surface layer of the crucible full of "Thermit." A bit of magnesium ribbon was suggested as a fuse and a large pan of sand put under the crucible to protect the table top. The front seats were vacated and the fuse lighted. Beautiful fireworks! enormous heat! molten alumina and molten iron! slow-cooling, and then examination of the products. A brief recital of the great chemical attraction of aluminum for oxygen as compared with that of iron and the greater evolution of heat during its oxidation, and then advertising matter of the Metal and Thermit Corporation, which was at hand, was passed and the pictures therein contained taught some of the practical uses of the mixture. About this time the bell rang for the close of the double period.

Now one cannot expect to strike a gold mine like that, with every topic studied, but the thing to do is to be on the alert to use any such project that chances to turn up, even though the subject matter be contained solely in the last chapter of the book. Good judgment must, of course, be used to avoid going too far afield in such discussions. Here is where the project method will succeed or fail, according to whether it is used or misused. There must be skillful guidance, but when properly used, the results are fine. Let us all use it more largely.

SALT WATER AQUARIA FOR THE SCHOOL LABORATORY.

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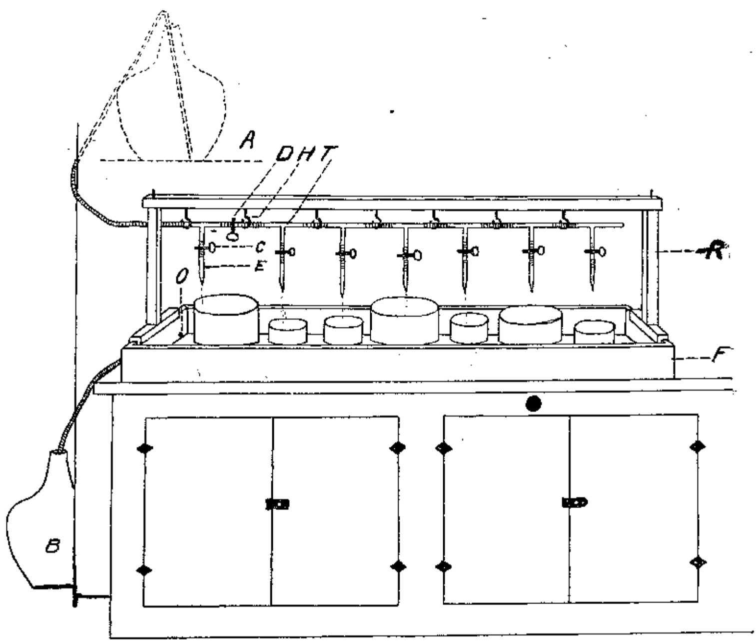
Although the contents of the "pickle jar" may be attractive to the seasoned zoology student, it is rarely so to the young high school pupils, while living animals if exhibited in an attractive way make a strong appeal. The device here described has been found useful for keeping marine animals alive and in good condition in the school laboratory.

In the large salt water aquaria where marine animals are successfully kept it will be noticed that care is taken to aerate the water constantly. Air is usually carried into the tanks along with the incoming stream of water. The apparatus described here is arranged on the same principle though it is so simple that it can be set up at very small cost of time and effort.

As shown in the diagram, the apparatus consists of a tray (F) for the aquarium dishes and a series of tubes (E) which furnish a jet of water to each dish. The tray in this case is 6 feet by 1½ feet and 2 inches deep, of white pine, the joints snugly fitted, and the whole covered with three coats of enamel paint to make it water tight. The rack (R) for the tubing is made from 1x1 inch pine and has brass hooks (H) along the under side of the horizontal piece to hold the glass tubing. Glass T-tubes (T) joined by short pieces of rubber hose rest upon the hooks, a delivery tube (E) drawn out to a capillary point is attached to each T-tube, and spring clips (C and D) serve to cut off the stream of water when desired.



When we get specimens from the beach, we bring home several demijohns of clean sea water besides that which the specimens are in, for the latter is not of much use after the collections have traveled for several hours by automobile. The specimens are taken from the collecting cans as soon as possible and arranged in the dishes, which are filled with clean sea water, as few specimens as possible being put in one dish. A little eel grass and green algae are added to each dish when possible to help in the aeration and to give a pleasing color effect. A ten gallon demijohn of clean sea water is placed on the shelf (A) which in this case, is just inside a doorway in a closet and higher than the rest of the apparatus. The water siphons down through the tubes and leaves the capillary nozzles with enough force to drive considerable air into the water in the dishes. The overflow from the dishes runs to the lower end of the tray and through the outlet (O) into the demijohn (B) which stands on the floor. To make the outlet we insert a three or four inch piece of glass tubing into a hole bored in the tray and pack the chinks with bits of cloth. The enamel paint fills up the remaining holes so that the joint is tight. Rubber tubing is attached to this glass tube. When demijohn (A) is empty, (B) is full, and they may be made to exchange places. If ten gallons of the sea water are run through the siphon two or three times a day it is usually sufficient to keep the creatures in good shape. Some kinds require more aeration than this, while some, such as the sea anemones, can get along with less.

By using a large sized atomizer bulb the siphon may be started with little trouble. Place a clip on the tube at (D), remove the glass tube (E) and the clip (C); attach the collapsed atomizer bulb to the tube at (C) and allow the bulb to expand. As soon as the water reaches (C), replace the clip there and remove clip (D), then remove the bulb and replace the tube (E).

If the animals that die and the food that remains uneaten are promptly removed from the water and if water that becomes cloudy is not allowed to mix with the rest, the aquaria remain attractive for some time. As the water evaporates, distilled water is added to keep the density uniform. The various parts of the apparatus are all detachable so that when it is not in use it is taken apart and stowed away in a small space. Corymorpha, clams, hydroids (*Clytia bakeri*, found growing on the clam *Donax*), shrimps, nudibranchs, crabs, small starfish and sea urchins, and other forms often difficult to keep alive have been kept for two weeks or more in these aquaria and sea anemones may be kept almost indefinitely.