

United States Department of the Interior
Fish and Wildlife Service

Fishery Leaflet 65

Chicago 54, Ill.

June 1944

AN OUTLET GATE FOR FARM FISH PONDS

Prepared in the Division of Fish Culture

For the successful operation of a fish pond it is important to provide an outlet so that the pond can be completely drained. This will permit the collecting of surplus fish and their removal during renovating and restocking of the pond should that become necessary.

The outlet gate shown in figure 1 consists of a steel plate covering the opening of the drain pipe. It is held in place by grooves formed by angle irons anchored to a concrete base. The gate is operated by a handle extending above the water surface.

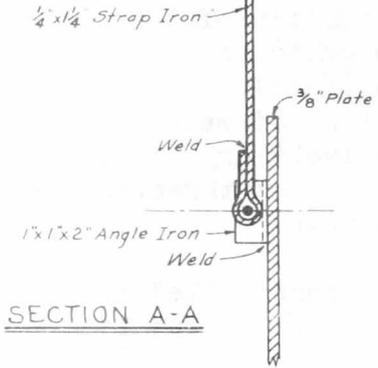
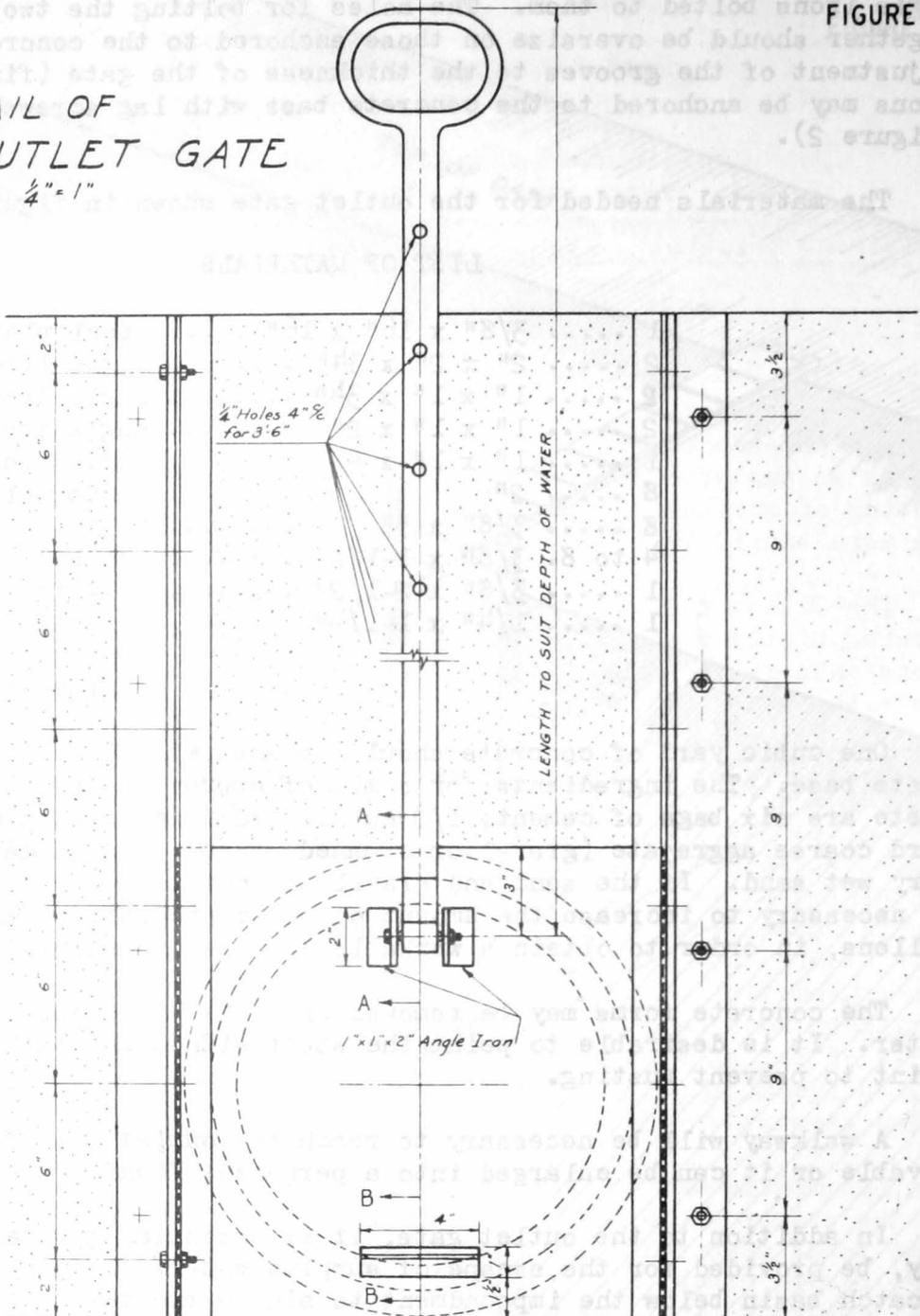
By making some changes in design, it may be possible to construct the gate from materials found around the farm shop. The size of the outlet pipe determines the dimensions of the gate. For pipes four to eight inches in diameter, steel used in the construction of the gate may be as thin as three-sixteenths of an inch. Outlet pipes twelve, or more, inches in diameter should have gates three-eighths of an inch, or more, in thickness. If a relatively thin steel plate must be used, it can be strengthened by permitting the angle irons used for the handle attachment (illustrated in section A-A) and the auxiliary hook (shown in section B-B) to reach nearly the full height and width of the gate; or angle irons reaching nearly the full width of the gate can be installed in place of two or more auxiliary hooks to give the gate added strength.

The handle may be made from almost any scrap iron available. Holes bored at the proper place in the upper part of the handle (figure 2) permit the gate to be anchored at any level desired. The handle may be attached to the gate by two pieces of angle iron and a bolt, as shown in the diagram (section A-A, figure 2). If there is a possibility of anyone tampering with the gate, a hook may be fashioned on the end of the handle to permit its removal. If this type of handle is preferred, a hook similar to that shown in the diagram (section B-B, figure 2) may be used to replace the handle attachment illustrated in section A-A. The auxiliary hook (figure 2, section B-B) is made from a one by one-inch angle iron, four inches or more in length. The angle irons for the handle attachment and auxiliary hook may be welded to the gate, as illustrated, or attached with countersunk bolts.

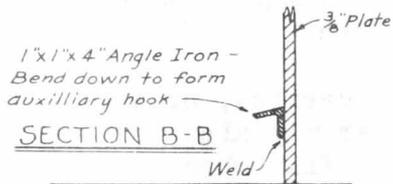
To hold the gate in place a set of angle irons is anchored to the concrete base and another set bolted to them to form the channels in which the gate slides. The flanges of the angle irons anchored to the concrete base must have sufficient width to allow for the thickness of the gate and the

DETAIL OF
FARM POND OUTLET GATE

SCALE $\frac{1}{4}'' = 1''$



SECTION A-A



SECTION B-B

