

No. 769,910.

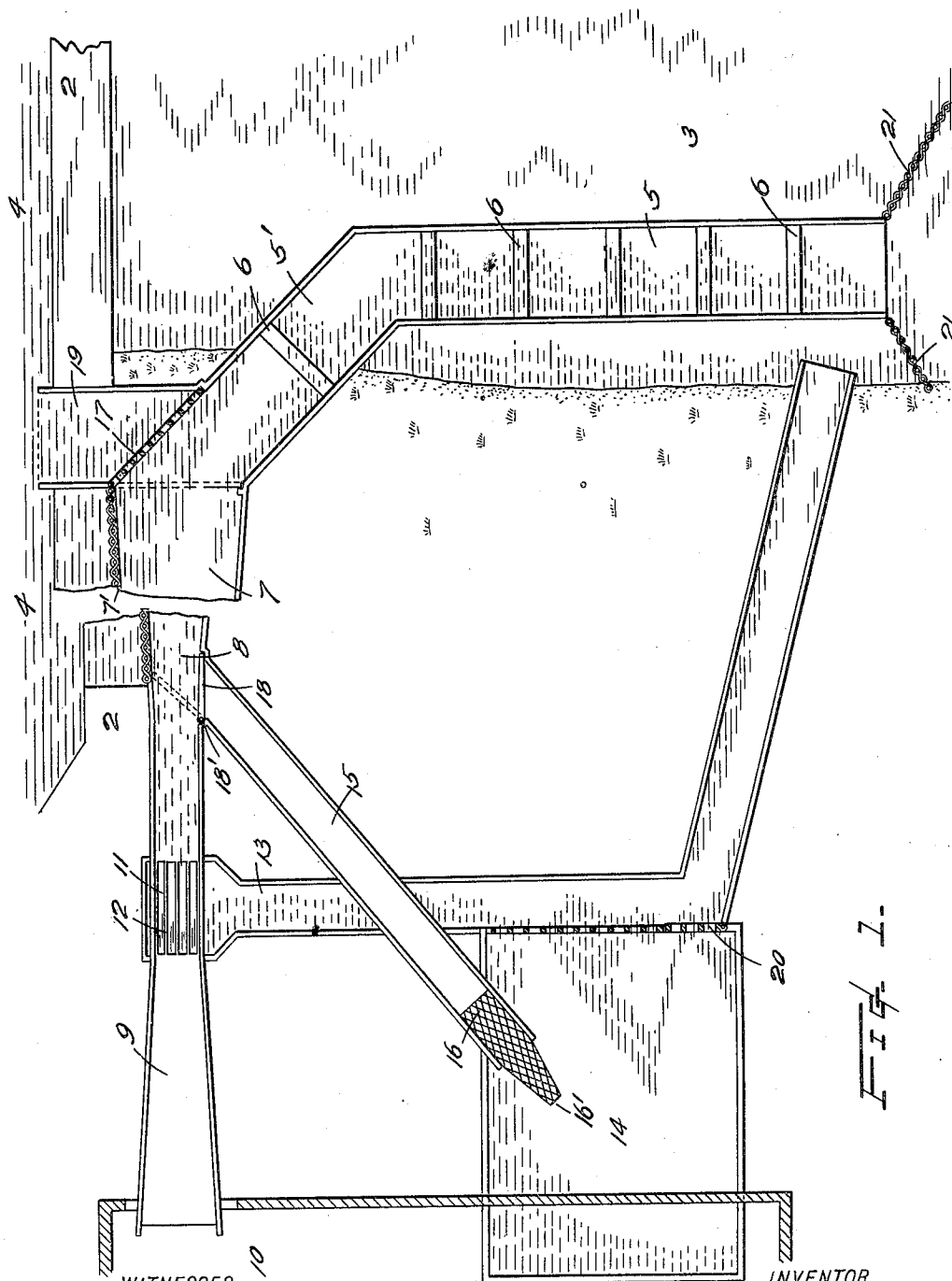
PATENTED SEPT. 13, 1904.

O. MELBYE.
FISH TRAP.

APPLICATION FILED JULY 6, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

Luke A. Miley
J. W. Th. Han

INVENTOR

Oskar Melbye

BY

Pierre Barnes
ATTORNEY

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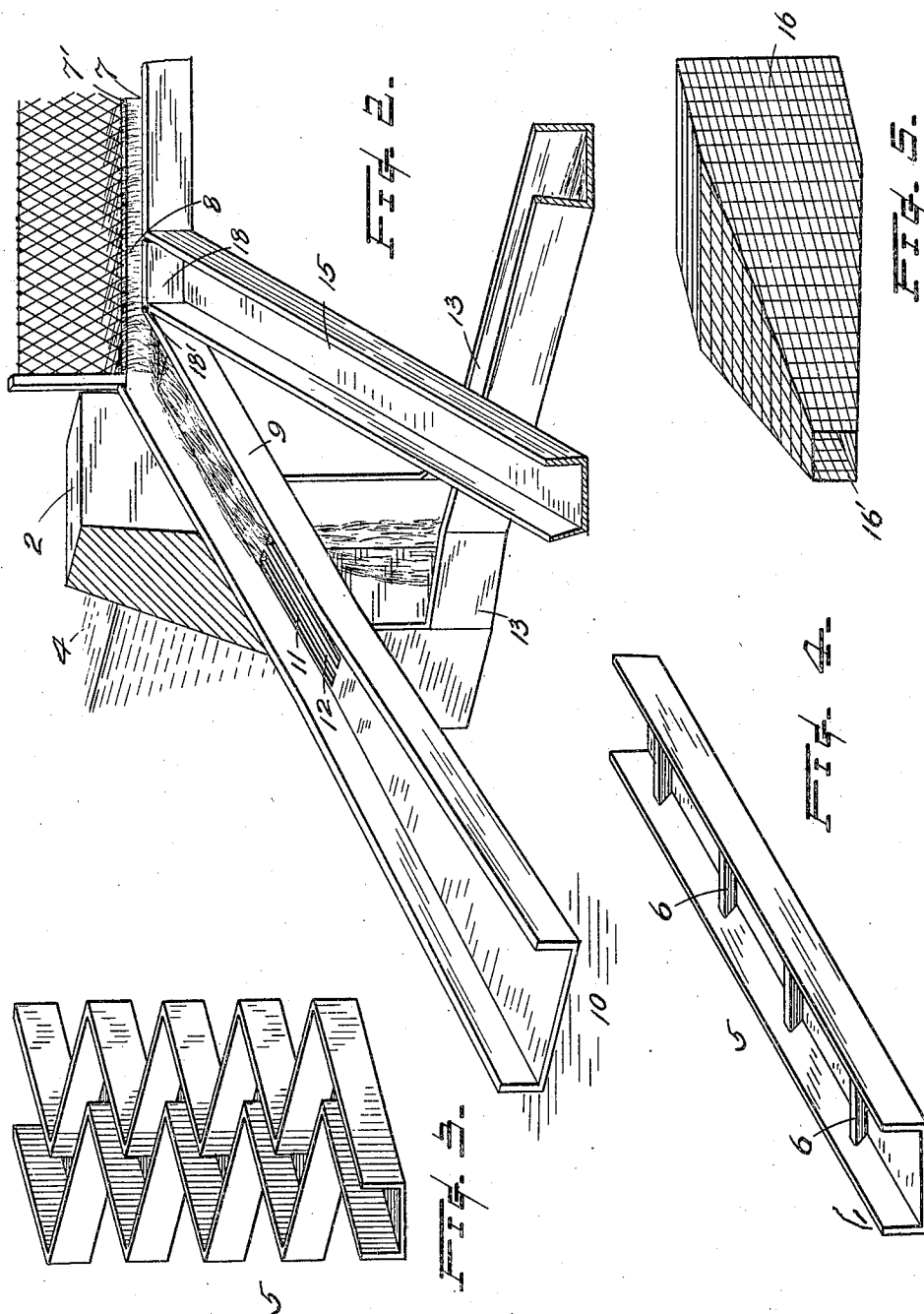
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UNITED STATES PATENT OFFICE.

OSKAR MELBYE, OF CYPRESS ISLAND, WASHINGTON.

FISH-TRAP.

SPECIFICATION forming part of Letters Patent No. 769,910, dated September 13, 1904.

Application filed July 6, 1903. Serial No. 164,314. (No model.)

To all whom it may concern:

Be it known that I, OSKAR MELBYE, a citizen of the United States, residing at Cypress Island, in the county of Skagit and State of Washington, have invented certain new and useful Improvements in Fish-Traps, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to fish-traps; and the object of the invention is to provide improved means for entrapping anadromous fishes as they pass up a river or stream, and to further provide various leads and gates whereby the fish may be directed so that they will themselves swim or be carried by the onflow of water into receiving-tank or be projected upon the floor of a hatchery or packing-house separated from the water.

The trap is adapted for use in any stream in which are found either natural or artificial waterfalls or in which dams may be constructed.

The invention consists in the various novel features of construction and combination of parts, as will be hereinafter fully described, and illustrated in the accompanying drawings, in which—

Figure 1 is a general plan view of my invention. Fig. 2 is a fragmentary perspective view of the same. Figs. 3 and 4 are perspective views of forms of fish-ladders suitable for use with my invention, and Fig. 5 is a similar view of the hood or terminal upon one of the leads shown in Fig. 1.

In the said drawings the numeral 2 indicates a dam or waterfall located in a river or the like and making the latter of two levels, of which 3 is the lower or downstream portion and 4 is the higher. A fish-ladder 5 (see Figs. 1 and 4) extends in an inclined position from the said lower level to nearly the height of the upper water-level and may be provided with a diagonally-arranged portion 5', as shown in Fig. 1, or where the height of the dam or waterfall is considerable the whole length of the ladder may be made of a series of such diagonal portions as shown in Fig. 5. In the first-mentioned ladder cleats or steps, such as 6, would be utilized in order to break the current passing therethrough. Extend-

ing laterally in the shore direction from the upper end of the said ladder is a conduit 7, which may be of any suitable length and is preferably made with its bottom approximately horizontal and narrowing in width toward the delivery end 8. This conduit is positioned so that the upper edge of its sides or at least the upstream one, 7', that is contiguous with the dam, is even with or below the surface of the water flowing thereover, as shown in Fig. 2. An inclined trough or duct 9, which is comparatively narrow at its inlet end, connects the conduit end 8 with or extends upon a floor or platform 10 of the packing-house or hatchery. The bottom of the said duct intermediate its length is removed, as at 11, and bars 12 are fixedly placed thereacross in a longitudinal direction. Located, preferably, directly beneath the said opening is a sluiceway 13, adapted to convey the water and furnish a channel for the escape of small fish precipitated therein from the trough 9—as, for instance, back to stream part 3.

14 is a receiving-tank having a grating or openings along one side for the escape of the smaller fish and is connected by an inclined duct or trough 15, which is provided upon its lower end with suitable hood or outlet 16, with a contracted opening 16', adapted to prevent the fish which may have passed into the tank from reëntering the trough. Gates 17 and 18 are provided, respectively, at the juncture of the ladder with the conduit 7 and at the juncture of the conduit with the inclined troughs 9 and 15. The first-named gate is of lattice-work and may be swung across the entrance of the conduit to prevent the passage of the fish therein or into a sluiceway 19, passing through or over the dam or waterfall, but will permit the water inflow there-through. The other gate, 18, is preferably made without any openings therein and, being hinged at 18', may be swung across either of the outlet-troughs and direct the flow of water and the passage of the fish through one or the other channel, according to whether the fish are to be conveyed into the aforesaid receiving-tank or upon the floor of the packing-house. A gate 20 is also preferably positioned in one of the sides of the receiving-

tank, and, if desired, the entrance to the ladder may likewise be provided with a gate. Lead screens or nettings 21 are removably secured to the sides of the fish-ladder at its lower end and spread in diverging lines therefrom in a downstream direction to the banks of the river.

The operation of the device is as follows: The fish in proceeding up the river to spawn are intercepted and directed by the lead-nets 21 into the ladder, which they ascend against the current of water flowing theredown until they reach the top, when, if they are not to be trapped, they are allowed to pass into the higher level of water through sluiceway 19. In trapping them, however, this sluiceway is closed, and the fish move onward into conduit 7, which at its outlet end is quite narrow and through which the fish are borne by the rush of water, due to the steep incline of both the outlet-troughs, into either the receiving-tank or upon the floor of the house by manipulating the gate at this point. If to the latter, the fish will obviously be separated from the water, which will escape through the opening into the underneath sluiceway, and deposited in a dry or nearly dry state upon said floor. The receiving-tank is intended solely for the collection of surplus fish.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fish-trap, in combination, a fish-ladder, an approximately level conduit connect-

ed to the upper end of said ladder, inclined ducts leading respectively from the said conduit to a receiving-tank and upon a floor or platform, the duct leading to the said platform being provided with an opening in its bottom and having longitudinal bars extending thereacross, gates positioned at the upper end of the said ladder and at the outlets of said conduit, a screen along a side of said conduit, and lead-screens at the lower end of said ladder, substantially as set forth.

2. In a fish-trap, the combination with an inclined fish-ladder, and means to admit water in the upper end of said ladder; of an inclined trough or duct communicatively connected with the upper end of said fish-ladder, said duct having a portion of its bottom removed and provided with a plurality of bars extending across said removed portion, substantially as set forth.

3. In a fish-trap, the combination with a conduit, communicatively connected at one end with a river or other natural stream of water, and a fish-receiving tank; of a duct connecting said tank with the said conduit, and an inclined duct connected at one end to the said conduit, and means to close the openings between either of the said ducts and the conduit, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

OSKAR MELBYE.

Witnesses:

PIERRE BARNES,
P. C. DORMITZER.