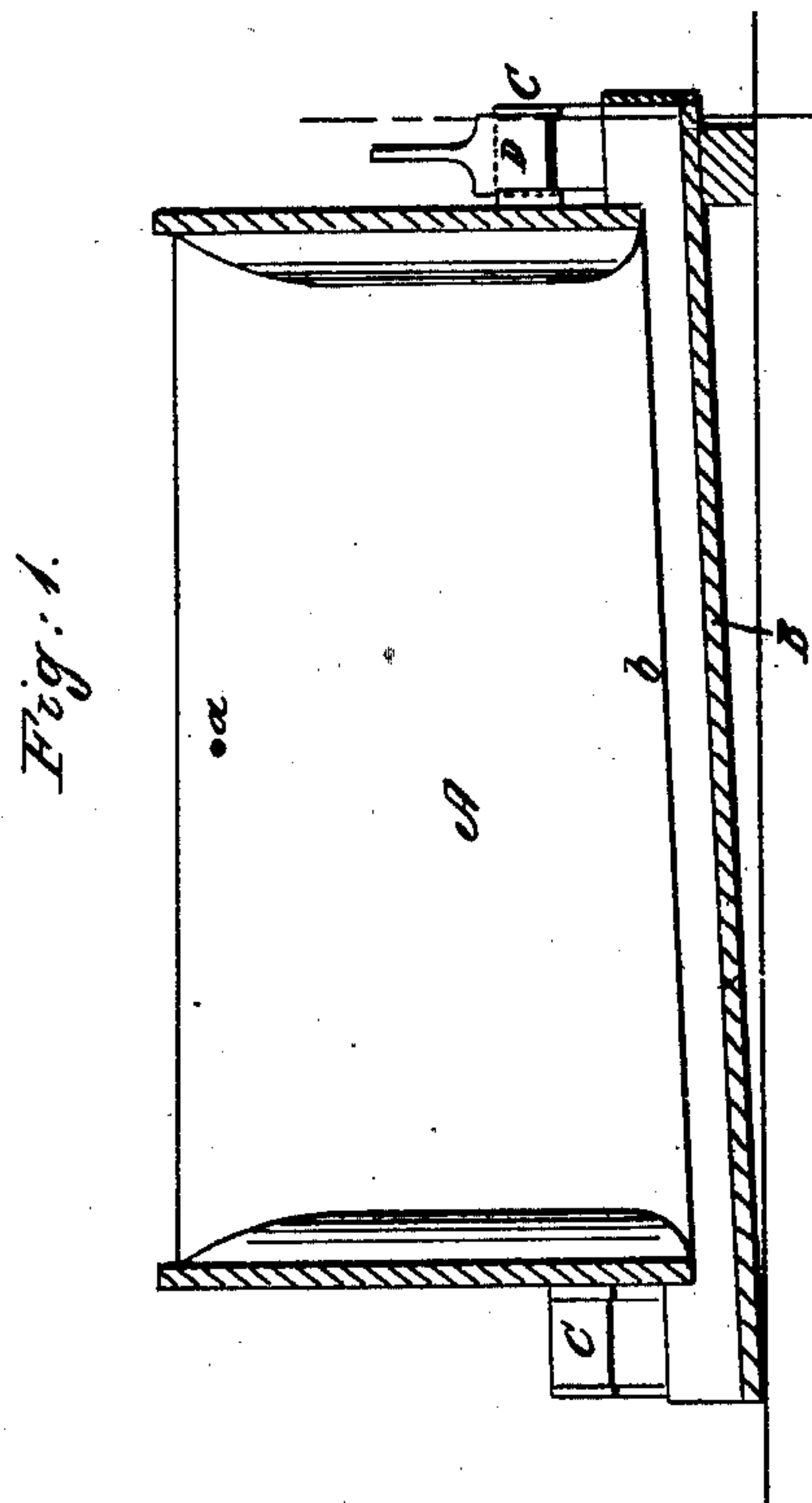
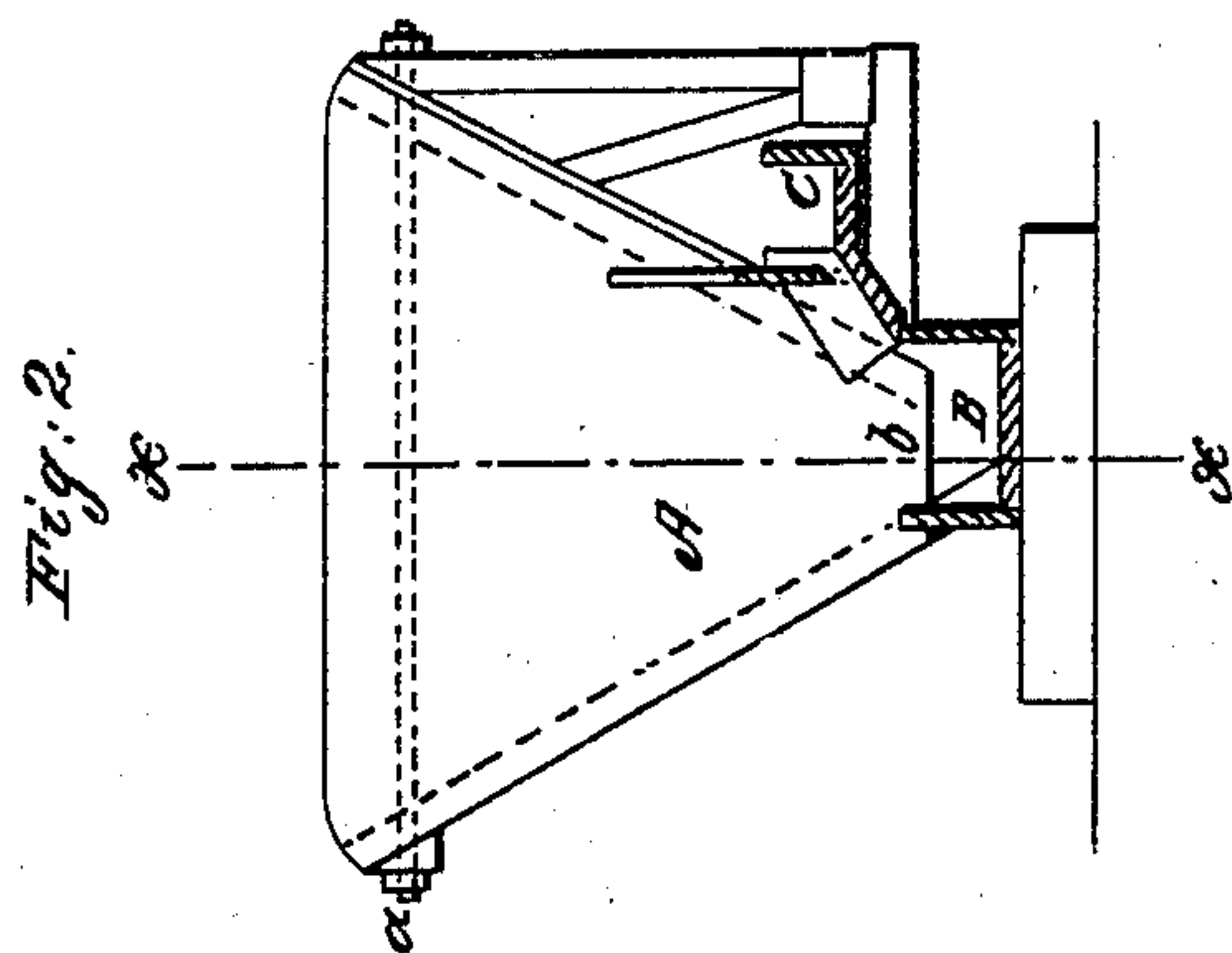


H. ROBERTS.
Gold Washer.

No. 24,889.

Patented July 26, 1859.



Witnesses:
Joseph Barnew
Ezra Woolson.

Inventor:
Harrison Roberts.

UNITED STATES PATENT OFFICE.

HARRISON ROBERTS, OF MORMON ISLAND, CALIFORNIA.

GOLD-WASHER.

Specification of Letters Patent No. 24,889, dated July 26, 1859.

To all whom it may concern:

Be it known that I, HARRISON ROBERTS, of Mormon Island, in the county of Sacramento and State of California, have invented a new and Improved Gold-Washer; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a longitudinal vertical section of my gold washer, the line $x x$, Fig. 2, indicating the plane of section. Fig. 2 is an end view of ditto, the sluice and supply channel being represented in section.

Similar letters of reference in both views indicate corresponding parts.

This invention consists in arranging the supply channel and the sluice in such relation to the hopper that the water strikes the dirt contained in the hopper from below whereby the hopper is made self supplying and the quantity of dirt washed depends entirely upon the force of the stream.

To enable those skilled in the art to fully understand, make and use my improved gold washer I will proceed to describe its construction and operation.

A is a box constructed of wood or any other suitable material, with two of its sides inclined in the shape of a hopper, the size of which may be varied according to convenience and taste, and if the same is made of great length it is strengthened by cross braces, a . It is left open at the bottom where the two inclined sides meet each other so as to leave a narrow crevice, b , the width of which depends upon the fineness of the dirt to be washed, and upon the quantity of water which is at the command of the operator. The hopper, A, rests on a sluice, B, which is supplied with water through the channel, C, and the supply is regulated by a gate D. The sluice, B, together with the hopper is placed at a certain inclination in a longitudinal direction, the degree of which de-

pends upon the fall of the stream of water at the command of the operator, but it will be noticed that a very small fall is required there being no necessity of raising the water to the top of the hopper, and for this reason my gold washer is applicable in every locality, where the operation of other gold washers is either impossible or at least very expensive. The water channel, C, runs along the side of the hopper, A, and the gate, D, is so arranged that a greater or smaller portion of the stream can be brought to act on the contents of the hopper, or the communication between the channel, C, and the upper part of the sluice, B, may be cut off altogether, so that the whole of the stream is discharged into the sluice below the hopper.

The operation is as follows:—The hopper is filled with dirt and the water is let on so as to pass through the sluice, B, and as the lower portion of the dirt is washed away the upper layers sink down and a constant supply of dirt is kept up until the hopper is empty. No attention whatever is required and still the supply of dirt to the sluice is much more uniform than with ordinary gold washers where an attendant is required to keep up the supply.

This gold washer is particularly adapted to drift dirt which, being finer, supplies itself with more uniformity and which washes out with a smaller force of the stream than dirt containing large lumps, or stone.

What I claim as new and desire to secure by Letters Patent is:—

The arrangement of the sluice, B, in combination with the hopper, A, and with the supply channel, C, in such a manner that the water strikes the dirt from below, and that the hopper is made self supplying, substantially as herein specified.

HARRISON ROBERTS.

Witnesses:

JOSEPH BANDE,
EZRA WOOLSON.