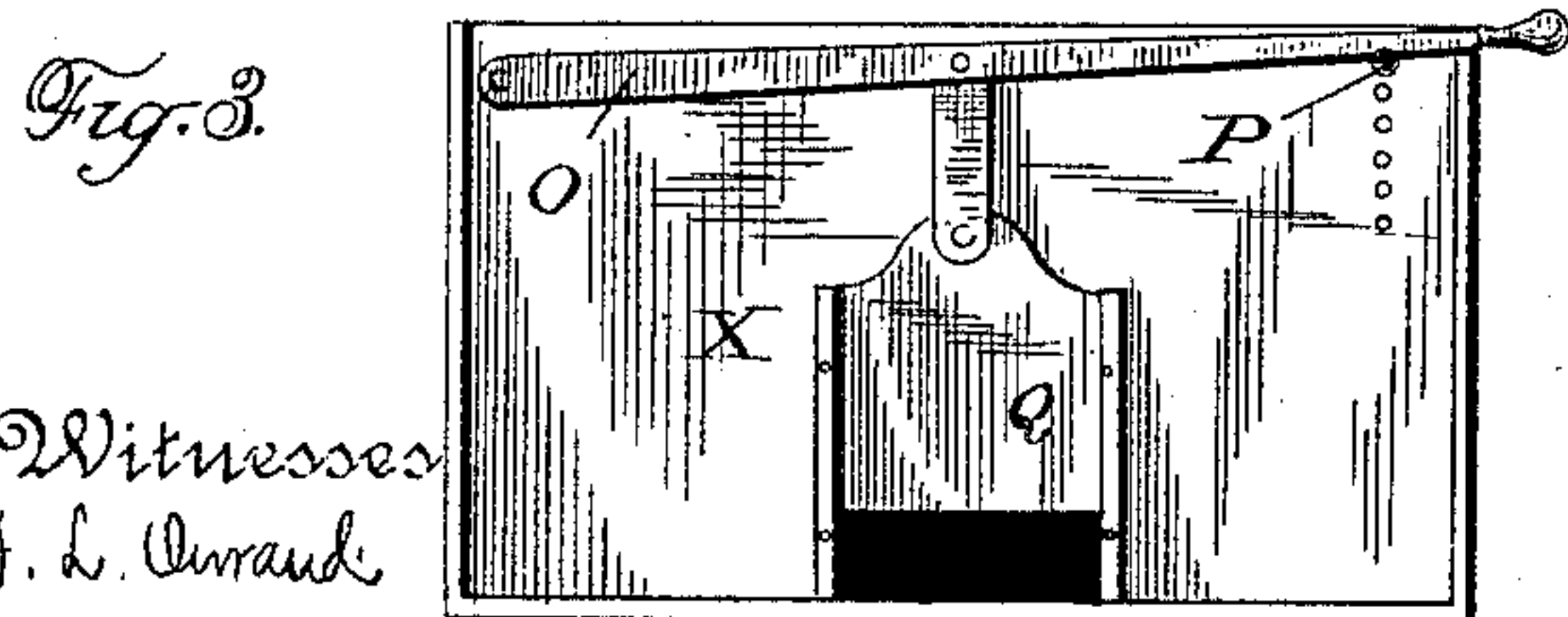
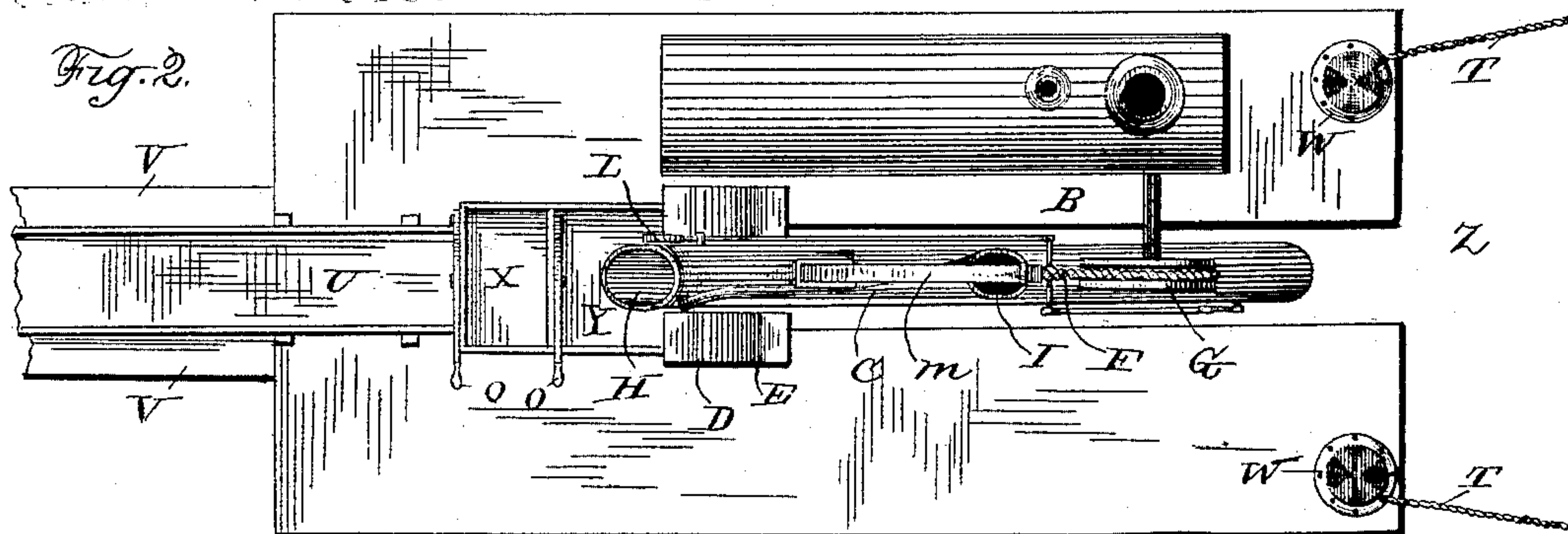
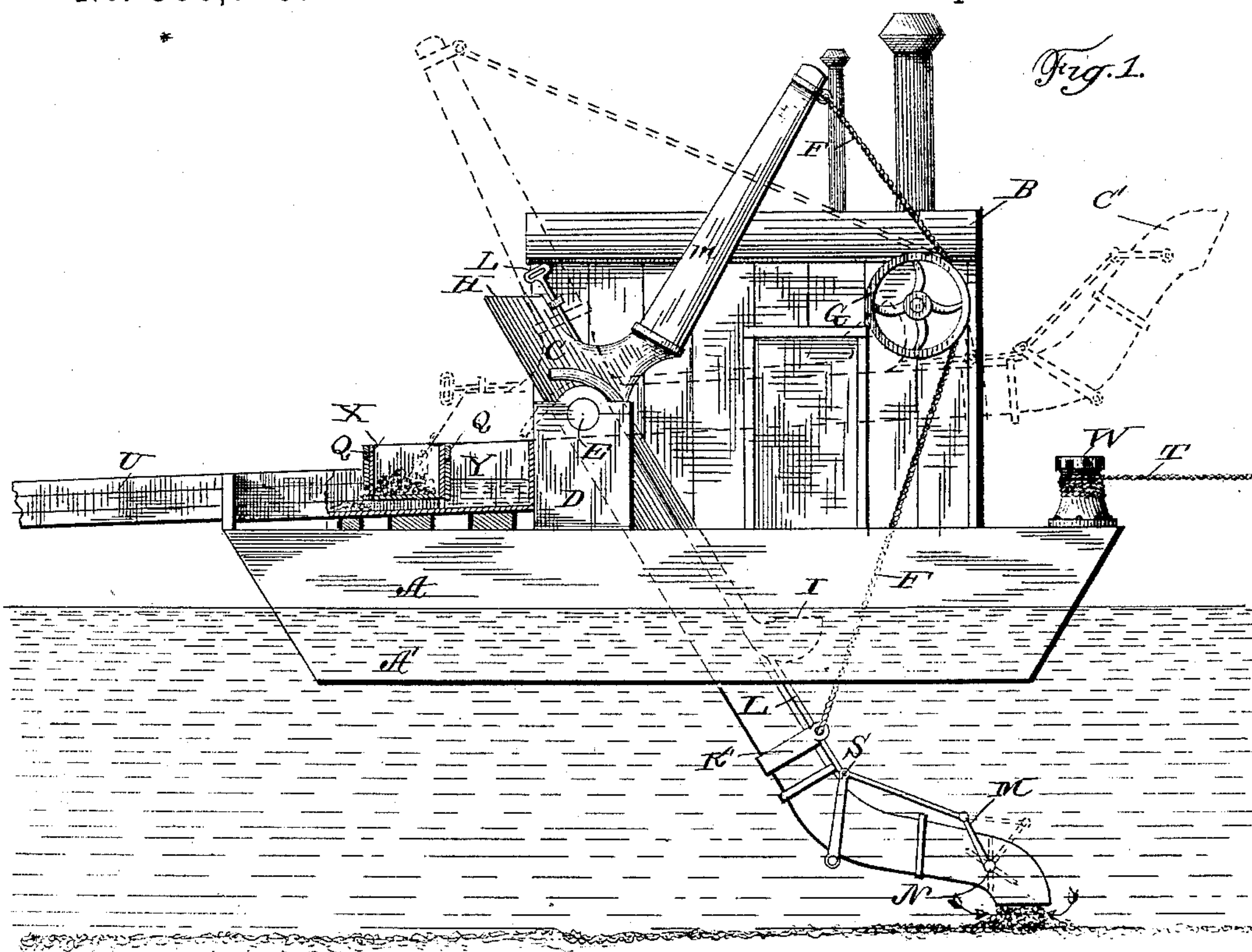


(No Model.)

A. MENDENHALL.
GOLD MINING DEVICE.

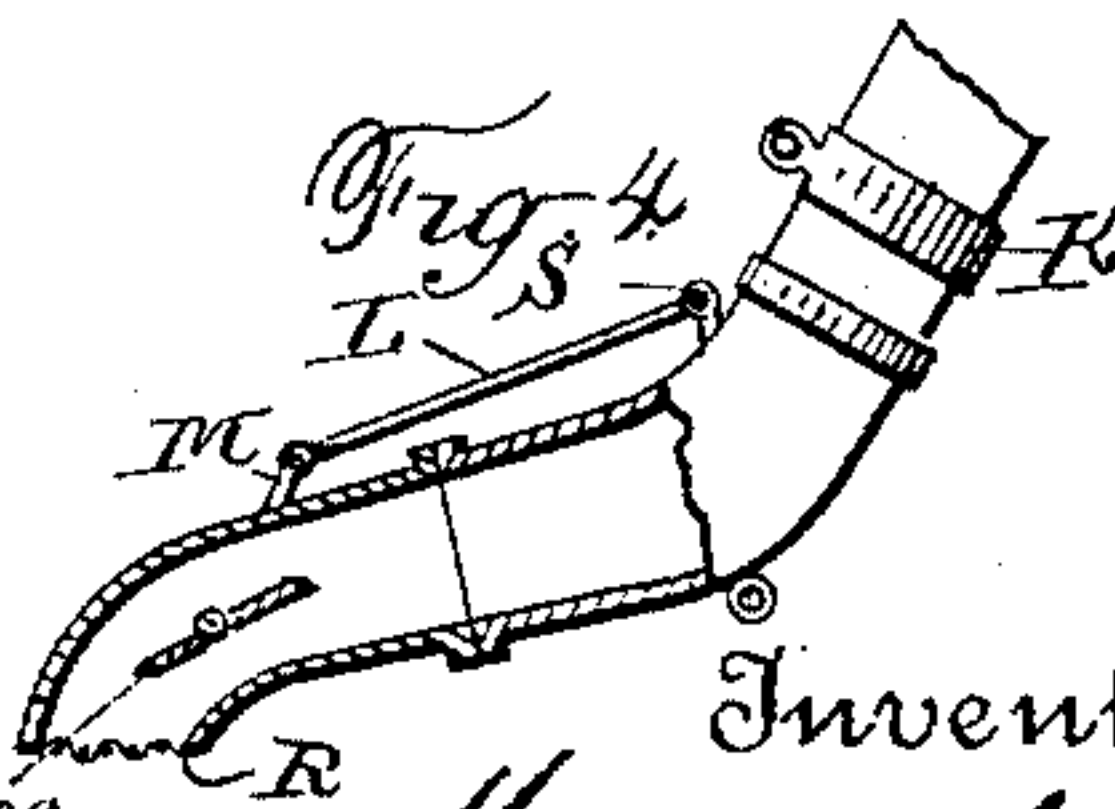
No. 360,713.

Patented Apr. 5, 1887.



Witnesses
J. L. Curran

W. S. Boyd.
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Inventor

Amos Mendenhall

By his Attorneys

Attorneys,
Louis Bagger & Co.

UNITED STATES PATENT OFFICE.

AMOS MENDENHALL, OF UNIONPORT, INDIANA.

GOLD-MINING DEVICE.

SPECIFICATION forming part of Letters Patent No. 360,713, dated April 5, 1887.

Application filed May 10, 1886. Serial No. 201,780. (No model.)

To all whom it may concern:

Be it known that I, AMOS MENDENHALL, a citizen of the United States, residing at Unionport, in the county of Randolph and State of Indiana, have invented a new, useful, and Improved Gold-Mining Device, of which the following is a specification.

My invention relates to improvements in that class of machines used for taking the gold from the bottom of rivers or other waters.

The object of my invention is to provide a machine for the purpose named so constructed and arranged in its several parts as to utilize the force of water under pressure upon a loose sediment or deposit when rushing into the end of an empty tube that is placed near to or in such deposit; and it consists in the improved construction and combination of parts, as will be hereinafter more fully set forth.

Referring to the accompanying drawings, in which the same letters of reference indicate corresponding parts in all of the figures, Figure 1 is a side view of my improved gold-mining device partly broken away. Fig. 2 is a top plan view, and Figs. 3 and 4 are detail views.

A A, Fig. 1, is the boat or scow, which can be made of wood or any suitable material, as the case may require, and provided with water-tight compartments, if necessary, and propelled and steered as ordinary crafts now in use.

A' A' represent that part of the boat which is under water.

C C is the dredging or receiving pipe, the dotted lines showing it in different positions, C' showing it in the position it occupies when discharging its contents into the sluice-box X, and also when moving the boat to a different locality.

G represents a wheel, to and around which the intermediate portion of the rope F is secured and passed one or more times. One end of the rope is secured to the lower end of the pipe and the other end to a lever-arm, m, which is secured to the upper portion of the pipe, thus causing the pipe C C to ascend and descend at will of the operator by reversing the motion of wheel G. The dotted lines represent the rope in its different positions.

I represents a dipper for automatically rais-

ing water to the reservoir Y for washing purposes. The reservoir Y and box X are each provided with a gate, Q, handle O, and pin P, for supplying the sluice-trough U with a proper quantity or proportion of water and gravel.

E represents the pivot or journal of the pipe C C, on which it swings.

D represents a support for the journal E.

H represents the discharging end of pipe C C. m represents the lever-arm attached to the upper end of the pipe C C, and to which the upper end of rope F F is attached, referred to above.

K represents a strap having an eye, to which is attached the lower end of said rope, the strap being attached to pipe C C.

N represents the valve in and near the end of pipe C, and which is worked at will by the rod L L.

M is a rod connected to valve N. The dotted lines of rod L L and M and N show the valve closed.

R is a strainer for preventing the entrance of anything that would interfere with passing or operating valve N.

The pipe C may be made of suitable length for working at greater or less depths, or for projecting forward as occasion requires, the joints being made as in ordinary pipe-fitting.

S represents a support and guide to rod L L. The sluiceway U may be extended to any desired length, and may be supported on the boat or scow above referred to, or additional boats, scows, or rafts.

V are gang-planks on each side of the sluiceway U.

W W represent capstans, to which are attached the anchoring or cabling ropes T T, for governing and changing the position of the boat on the river in connection with the rudder.

By alternately shortening one or the other of the cables T T and lengthening the other at the same time by turning of the two capstans, the boat will move sidewise in proportion to the shortening of one of said cables and lengthening of the other, and, also, by shortening both of said cables it will move forward or farther up the river.

The forward part or prow of the boat A is provided with a well or opening, Z, through

which the outer end of the pipe C is raised and lowered, and upon each side of which are located the capstans W at the ends of the ropes T. Upon one side of this well is located
 5 an engine-house, B, which is provided with the ordinary mechanism for operating the wheel G. In operation, the boat is located in the river or other place by securing the shore ends of the ropes or cables to any stationary
 10 objects, or by means of anchors. The outer end of the pipe C is then lowered by revolving the wheel G in the proper direction, the valve in the end of the pipe being closed before it enters the water. When the end of
 15 the pipe has been placed upon the bottom of the river, or very near to it, the valve is opened by means of the rod L, which thus permits the water to rush into the pipe with great force, which will cause the deposit under
 20 the end of the pipe and near to it to be carried into the pipe with the water. As soon as the pipe is filled up to the level of the water upon the outside, the valve is closed by
 25 means of the rod L and the engine reversed, which reverses the action of the wheel or drum G. This causes the outer end of the pipe to be raised to a horizontal position, as shown in
 30 dotted lines in Fig. 1, which causes its contents to be emptied into the sluice-box X and the contents of the dipper, which has been filled with water only, to be emptied into the
 35 reservoir Y. The pipe is again lowered, the valve opened, and the pipe again filled with the gold-bearing deposit and water again raised to a horizontal position, when it is again emptied
 40 into the sluice-box, the only power required being enough to raise and lower the pipe. In this way the entire deposit upon the bottom of the river can be taken up and
 45 passed through the sluiceway and the gold separated from the gravel, &c., in the usual manner. By means of the gates Q at the ends of the sluice-box and reservoir the proper amount of water can be graduated, so that the
 50 deposit can be thoroughly washed and all the gold separated. By proper adjustment of the rudder and the cables the prow of the boat

can be drawn toward the shore upon either side of the river, and the end of the pipe can be let down almost to the very edge of the
 55 water, thus taking up deposits that could not be reached if the boat could only approach the shore sidewise.

I do not wish to limit myself to any particular material nor to any particular shape or size of
 60 the parts used in my machine, except substantially as I have shown and described them.

Having thus described my invention, I claim—

1. In a gold-mining device, the combination of a boat having a well in its prow, a pipe
 65 pivoted in bearings upon said boat, a lever-arm secured to the upper end of said pipe, a receptacle at the stern of the boat for receiving the contents of said pipe, a revolving
 70 wheel or drum journaled above the well in the boat, a rope secured at its intermediate portion to said drum and at its ends to said pipe and lever-arm, and means for operating said drum.

2. In a gold-mining device, the combination of a boat, a pipe pivoted upon its deck,
 75 means, substantially as described, for operating it, and a dipper secured to said pipe.

3. In a gold-mining device, the combination of a boat, a pipe pivoted near its upper
 80 end upon said boat, a valve in the interior of the lower end of said pipe adapted to hermetically seal the same, an arm and a rod for operating said valve, and means, substantially as described, for raising and lowering said pipe.

4. In a gold-mining device, the combination of a boat, a pipe pivoted near its upper
 85 end upon said boat, a valve in the lower end of said pipe, a jointed rod secured to said valve, a link at the joint secured to said pipe, and means, substantially as described, for raising and lowering said pipe.

AMOS MENDENHALL.

Witnesses:

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