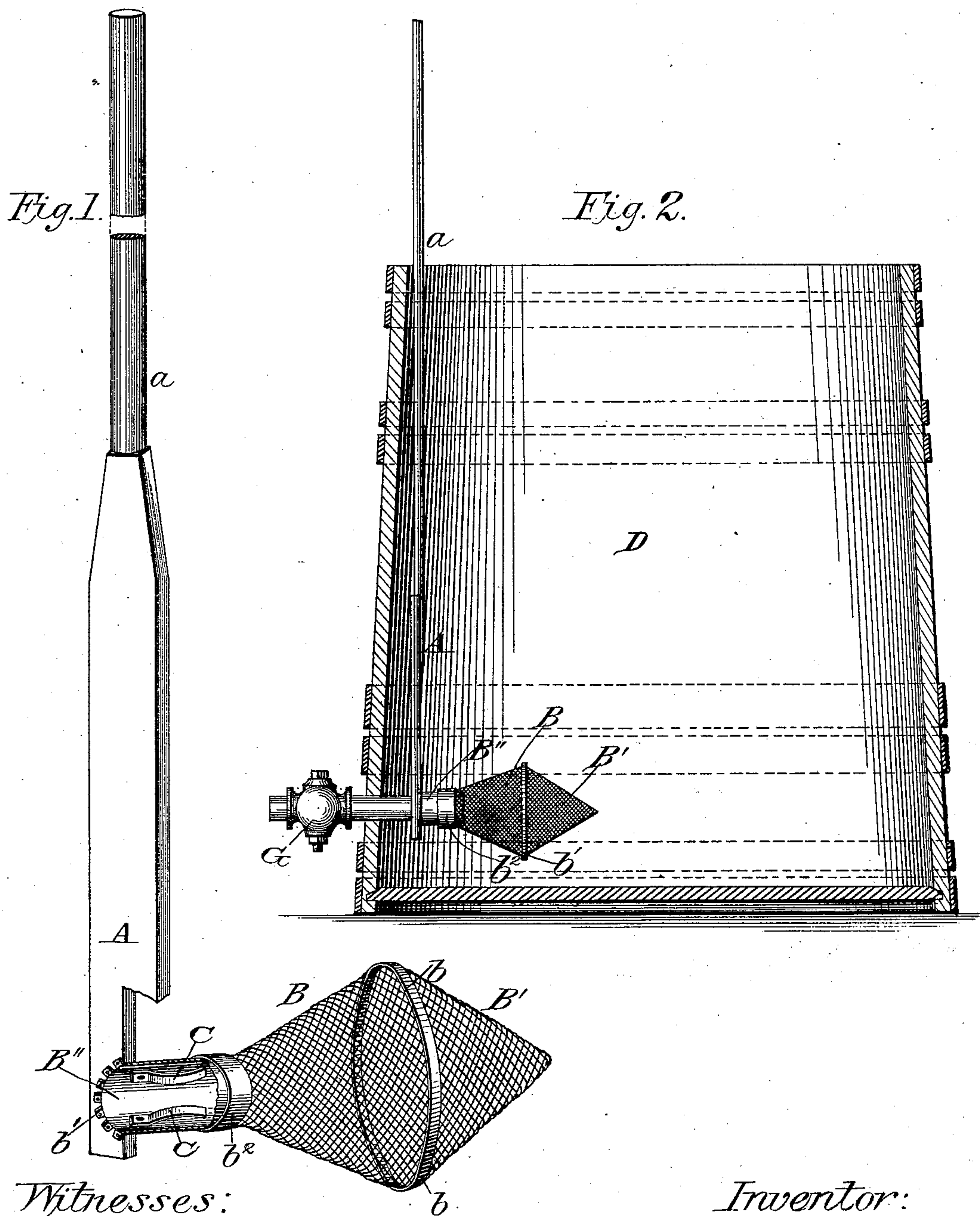


(No Model.)

J. HAGGERTY.
Strainer for Oil Tanks.

No. 243,446.

Patented June 28, 1881.



Witnesses:
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Fred Nichols

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN HAGGERTY, OF BRADFORD, PENNSYLVANIA.

STRAINER FOR OIL-TANKS.

SPECIFICATION forming part of Letters Patent No. 243,446, dated June 28, 1881.

Application filed April 15, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN HAGGERTY, of Bradford, McKean county, Pennsylvania, have invented new and useful Improvements in Strainers for Oil-Tanks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters or figures of reference marked thereon.

In drawing the oil from tanks through tubes for the purpose of conducting it to the refineries, operators are oftentimes inconvenienced by leaves, sticks, ice, and slush, which pass from the tanks with the oil and catch upon the joints of the pipes, clog the same, and prevent the flow of oil. When such a mishap occurs it becomes necessary for some one to follow the pipe-line, sometimes for miles, to discover the place where the débris has collected and clogged the pipe. After the clogged point has been discovered it often becomes necessary to remove a section of the pipe before the defect can be remedied, or, if the stoppage arises from ice, to build a fire below the pipe and melt the former. These operations take time, and often are the cause of great loss to the owners of wells, who cannot get their oil piped, and to the pipe-line company, who are compelled to keep a force of men ready to follow the line and discover the place where the stoppage occurs.

The object of my invention is to provide means for obviating these difficulties; and to this end it consists of means—which will hereinafter be described and claimed—for preventing the rubbish from passing from the tanks.

Referring to the drawings, Figure 1 represents a perspective view of my device for preventing the rubbish from passing from the tank; and Fig. 2, a sectional view of a tank, showing my device placed ready for use.

D represents an oil-tank, B B' the strainer, and A the handle for supporting the strainer.

The tank D is provided with a pipe, F, which is placed immediately below the hatchway and connects with the pipe-line. A cock, G, is placed in this pipe, outside of the tank, for the purpose of cutting off the flow of oil when it is desired to fill the tank or prevent the oil from passing to the line. The inner extension of the pipe F is for the purpose of receiving the base or tub of the strainer.

The strainer B B' is preferably made in the form of two cones, joined together at their bases *b* in any suitable manner. It can readily be seen that by using this form the oil, which has a whirling motion in passing out of the tank, will sweep all substances from the outer surface of the strainer and allow the oil to flow freely. The part B is joined at *b''* to a funnel, B'', which is attached to the base A by cutting slits in its free end and forming small sections *b'*, which are splayed over the surrounding wood of the base and attached to the latter by nails or other means. Inside the tube are placed two or more springs, (shown in section, Fig. 1,) which prevent the device from slipping off the pipe F.

The handle A may be made of any desired shape, but is preferably extended below the strainer, for the reason that the latter, if the extension were not provided, might be broken off by hitting the floor or the pipe, which extends into the tank eighteen or twenty inches. The extension also serves as a "feeler" for the pipe. After the pipe is found the flat bottom upon the extension is placed upon the pipe and worked along until the free end of the latter is reached. The strainer is then slipped over the pipe, as shown in the drawings. The auxiliary handle *a* may or may not be sold with handle A.

The operation is very simple. Consider the tank as being full of oil and the cock G closed, and the producer desirous of piping his oil to the main line or to a refinery. He first inserts his strainer through the hatchway and seeks for the pipe by means of the broad flat bottom of the handle A. After finding the pipe F he works his device toward the free end of the former and allows it to slip over the pipe. If necessary, he can attach the handle to the top of the tank by any suitable means. The cock G is now opened and the oil pours through the pipe, and, as a matter of course, the débris tries to pass with it, but meets with an obstacle in the shape of the strainer, which, by the aid of the whirling motion of the oil, throws the foreign matter to one side. Sometimes the débris is formed of substances that will not be thrown off and the strainer becomes clogged. In such a case it will only be necessary for the operator to shut off cock G, remove the strainer from the tank, clean and replace it in its former

position, and open the cock, and the oil will flow as before.

I am aware that it is not new to apply detachable strainers to vessels, and this I do not claim; but

What I do claim is—

1. A strainer formed of two cones joined at their bases, and having a base or tube placed upon one of the cones, in combination with a handle attached to the tube supporting the strainer, for the purpose of inserting the latter into and withdrawing it from the tank, for the purposes set forth.

2. A strainer having a tube or base for attaching it to a pipe within a tank, in combination with a handle affixed to the tube, for the purpose of connecting the strainer with or disconnecting it from the pipe within the tank, all substantially as described.

3. A strainer having a tube or base for attaching it to a pipe within a tank, in combination with a handle attached to said tube or base and having an extension below the strainer, for the purposes set forth.

4. A strainer having a base or tube provided with springs upon its inner side for the pur-

pose of holding the strainer upon the pipe, in combination with a handle attached to the tube supporting the strainer, for the purpose of inserting the latter into and withdrawing it from the tank, for the purposes set forth.

5. A strainer formed of two cones joined at their bases, and having a tube or base provided with springs upon its inner side, in combination with a handle attached to the tube supporting the strainer, for the purpose of inserting the latter into and withdrawing it from the tank, for the purposes set forth.

6. A tank having a nipple or pipe upon its inner side, in combination with a strainer having a tube which fits over said pipe, and a handle attached to the tube, as shown, for the purpose of inserting the latter into and withdrawing it from the tank, for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of April, 1881.

JOHN HAGGERTY.

Witnesses:

C. H. NICHOLS,
M. F. HALLECK.