

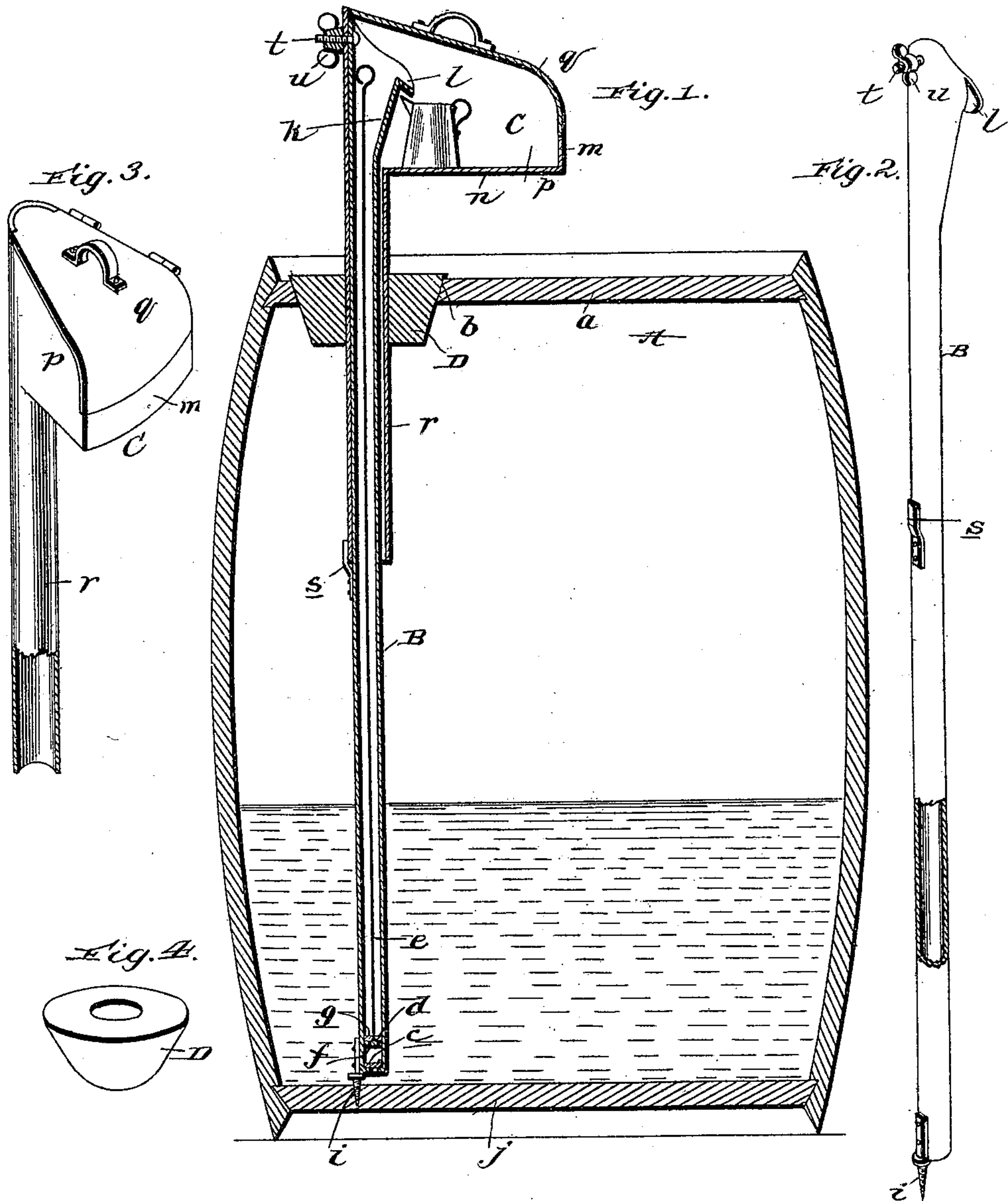
No. 621,450.

Patented Mar. 21, 1899.

J. O. ELLISTON.
BARREL PUMP.

(Application filed Dec. 10, 1898.)

(No Model.)



witnesses:
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UNITED STATES PATENT OFFICE.

JOHN O. ELLISTON, OF SOUTHAMPTON, NEW YORK.

BARREL-PUMP.

SPECIFICATION forming part of Letters Patent No. 621,450, dated March 21, 1899.

Application filed December 10, 1898. Serial No. 698,885. (No model.)

To all whom it may concern:

Be it known that I, JOHN O. ELLISTON, a citizen of the United States, residing at Southampton, in the county of Suffolk and State of New York, have invented new and useful Improvements in Barrel-Pumps, of which the following is a specification.

My invention relates to that class of pumps which are designed to be removably placed in barrels and used to discharge the same of their contents; and it consists in the peculiar and advantageous construction hereinafter described, and particularly pointed out in the claims appended.

In the accompanying drawings, Figure 1 is a sectional view illustrating my improved pump in its operative position in a barrel. Fig. 2 is a perspective view of the pump-cylinder. Fig. 3 is a perspective view of a dripper forming part of the pump. Fig. 4 is a perspective view of the collar which renders the connection of the dripper to the barrel-head substantially air-tight.

In the said drawings similar letters designate corresponding parts in all of the views, referring to which—

A is an ordinary barrel which in order to enable it to receive my improvements is provided in its upper head *a* or in its side with the ordinary opening or bung-hole *b*.

B is the cylinder of my improved pump, which is preferably formed of sheet metal and contains an upwardly-opening clack or other suitable valve *c* and a piston *d*, carried by a rod *e* and having one or more openings *f* and an upwardly-opening valve *g*, controlling the same. The cylinder is provided at its lower end on one side with a short screw *i*, designed to be turned into the lower head *j* or side of the barrel, so as to fix the cylinder against casual movement. This arrangement of the screw is advantageous, since it admits of the lower end of the pump-cylinder approaching quite close to the bottom of the barrel and enables the pump to remove all or practically all of the contents of the barrel. At its upper end the said cylinder is slightly enlarged, as indicated by *k*, and is provided with a lip *l*, arranged, as shown in Fig. 1, to discharge liquid as it is raised by the pump into a vessel placed to receive it.

C is the dripper of my improved pump,

which is also preferably formed of sheet metal. The said dripper comprises a body *m*, which is made up of a bottom *n*, side walls *p*, and a hinged cover *q* and is designed to rest above the head *a* of the barrel, and a tubular depending portion *r*, which is designed to rest in the opening *b* of the barrel-head and loosely receive the pump-cylinder after the manner shown. At its lower end the dripper C rests in a lug *s* on the pump-cylinder, and adjacent to its upper end it is detachably connected to the said cylinder, preferably through the medium of a bolt *t* and wing-nut *u*, as shown. By reason of the construction just described the pump-cylinder and dripper are securely held together and yet may be readily disconnected by simply removing the bolt *t* and nut *u* and moving the cylinder endwise to disengage the lug *s* from the lower end of the dripper-tube *r*. With this done the cylinder B may be drawn out of the dripper, and the tube *r* of the dripper may then be readily cleared of any sediment that may have collected therein.

D is a collar, of wood or other suitable material, which snugly receives the tube *r* of the dripper and occupies the opening *b* in the barrel-head. This collar D is exteriorly tapered, as shown, and hence it will be seen that it may be made to snugly fit openings *b* of various sizes to render the connection of the tube *r* to barrel-heads substantially air-tight.

When my improved pump is to be placed in a barrel, the cylinder B and the dripper-tube *r* are inserted through the opening *b* and are pressed downwardly and turned so as to force the screw *i* into the lower portion of the barrel. With this done the pump is secured against casual disconnection from or movement in the barrel, notwithstanding the upward pull exerted incident to the upward movement of the pump-piston. After the pump is secured to the barrel, as described, the collar D is moved down into the hole *b*, when the pump is ready for operation.

In use the piston of the pump is reciprocated in the usual manner to lift liquid in the cylinder B, and the vessels to receive the raised liquid are placed on the bottom *n* on the dripper below the lip *l* of the cylinder. From this it follows that any overflow of liq-

uid from the vessels will be caught in the body of the dripper and conducted by the tube *r* back into the barrel.

When the pump is not in use, the cover *q* of the dripper is closed to exclude dust from the dripper and barrel, and also to prevent evaporation of the contents of the barrel.

After the barrel has been discharged of its contents the pump may be readily removed therefrom and may be as readily placed and secured in another barrel.

It will be appreciated from the foregoing that my improved pump is very simple and cheap, that it may be readily placed and secured in an ordinary barrel after an opening, as *b*, is formed therein, and that the pump-cylinder and dripper may be readily disconnected when it is necessary to free the latter of collected sediment.

The valve at the lower end of the pump-cylinder and the piston *d* in said cylinder may be of any construction suitable to the purposes of my invention, and I therefore do not desire to be understood as confining myself to the construction shown and described.

Having thus described my invention, what I claim is—

1. The combination of a barrel having an opening *b*, a dripper comprising a body resting at a considerable distance above the barrel and having a bottom and side walls and a cover, and a depending tube extending down through the opening and into the barrel, a pump-cylinder loosely arranged in the depending tube of the dripper and extending up into the body thereof and having the enlarged portion *k* and lip *l* at its upper end and also having a lug receiving the lower end of the dripper-tube, a detachable connection between the upper portion of the pump-cylin-

der and the body of the dripper, a screw connected to the side of the pump-cylinder and depending below the lower end of the same and engaging the bottom of the barrel, said screw having its point disposed off the longitudinal center of the pump-cylinder and a removable, exteriorly-tapered collar surrounding the tube of the dripper and occupying the opening *b* in the barrel; said collar being of a less height than the distance between the bottom of the body of the dripper and the top of the barrel, substantially as and for the purpose set forth.

2. In a barrel-pump, the combination of a dripper comprising a body adapted to rest at a distance above the barrel, and a depending tube adapted to extend through an opening in the barrel, a pump-cylinder extending through and detachably connected to the depending tube of the dripper; said cylinder being of a length to support the dripper-body at a distance above the barrel, a screw connected to the side of the pump-cylinder and depending below the lower end of the same and adapted to engage the bottom of a barrel, said screw having its point disposed off the longitudinal center of the pump-cylinder and a collar surrounding the tube of the dripper and adapted to occupy the barrel-opening; said collar being adapted to be moved upwardly on the dripper-tube and out of the barrel-opening, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN O. ELLISTON.

Witnesses:

GEO. ELLISTON,
WM. T. BIRDSALL.