

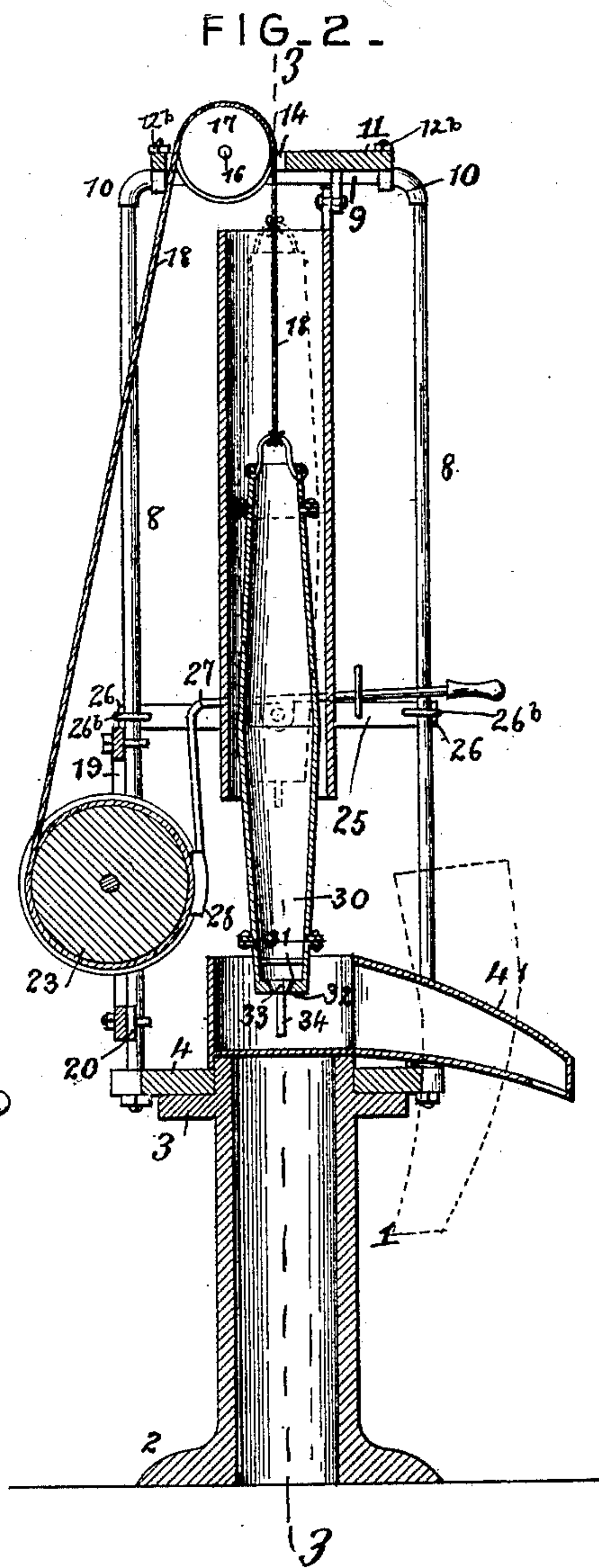
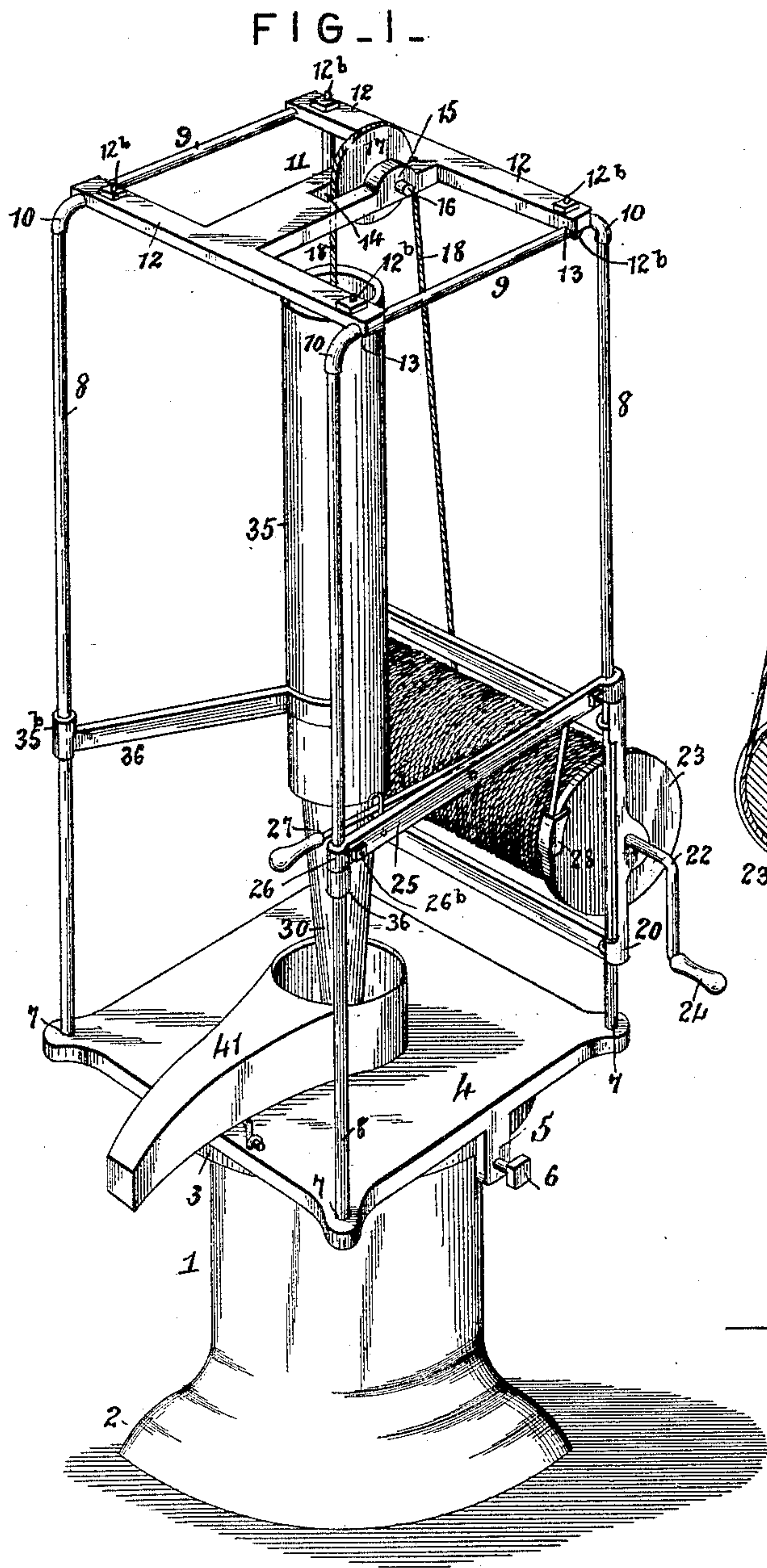
(No Model.)

2 Sheets—Sheet 1.

J. M. HUFF.  
WINDLASS WATER ELEVATOR.

No. 462,875.

Patented Nov. 10, 1891.



Witnesses

Jas. H. McElathran  
Wm. Bagger

By his Attorneys,

Inventor

John M. Huff

Chas. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

J. M. HUFF.  
WINDLASS WATER ELEVATOR.

No. 462,875.

Patented Nov. 10, 1891.

FIG. 3-

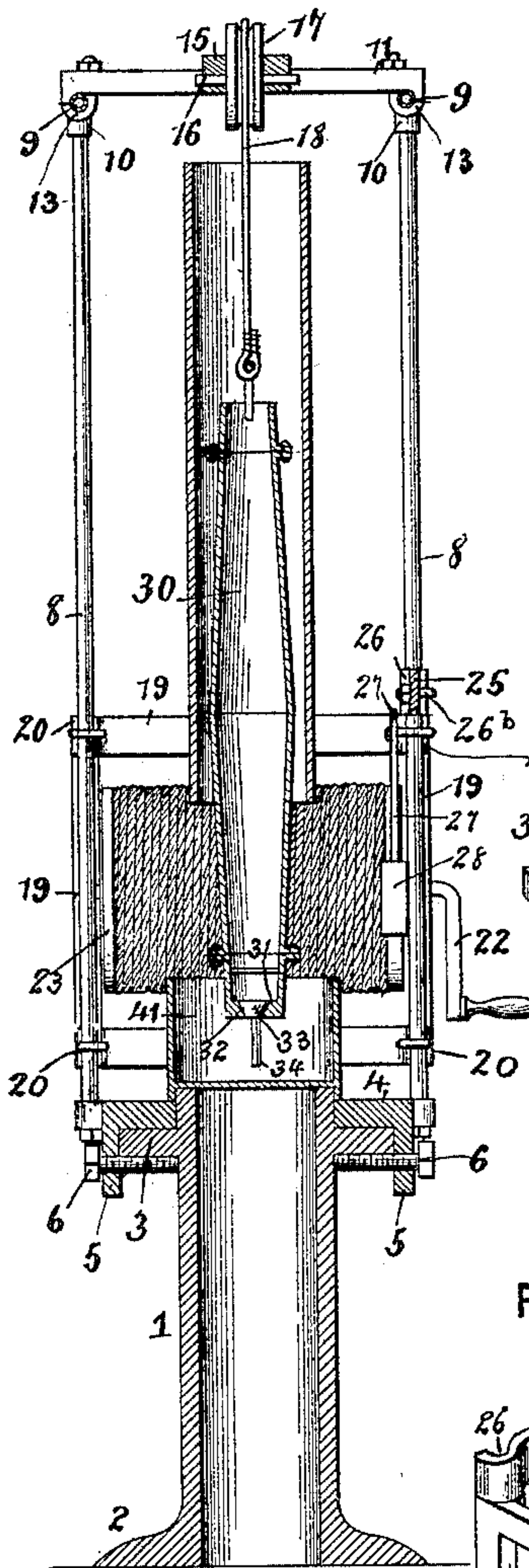


FIG. 7-

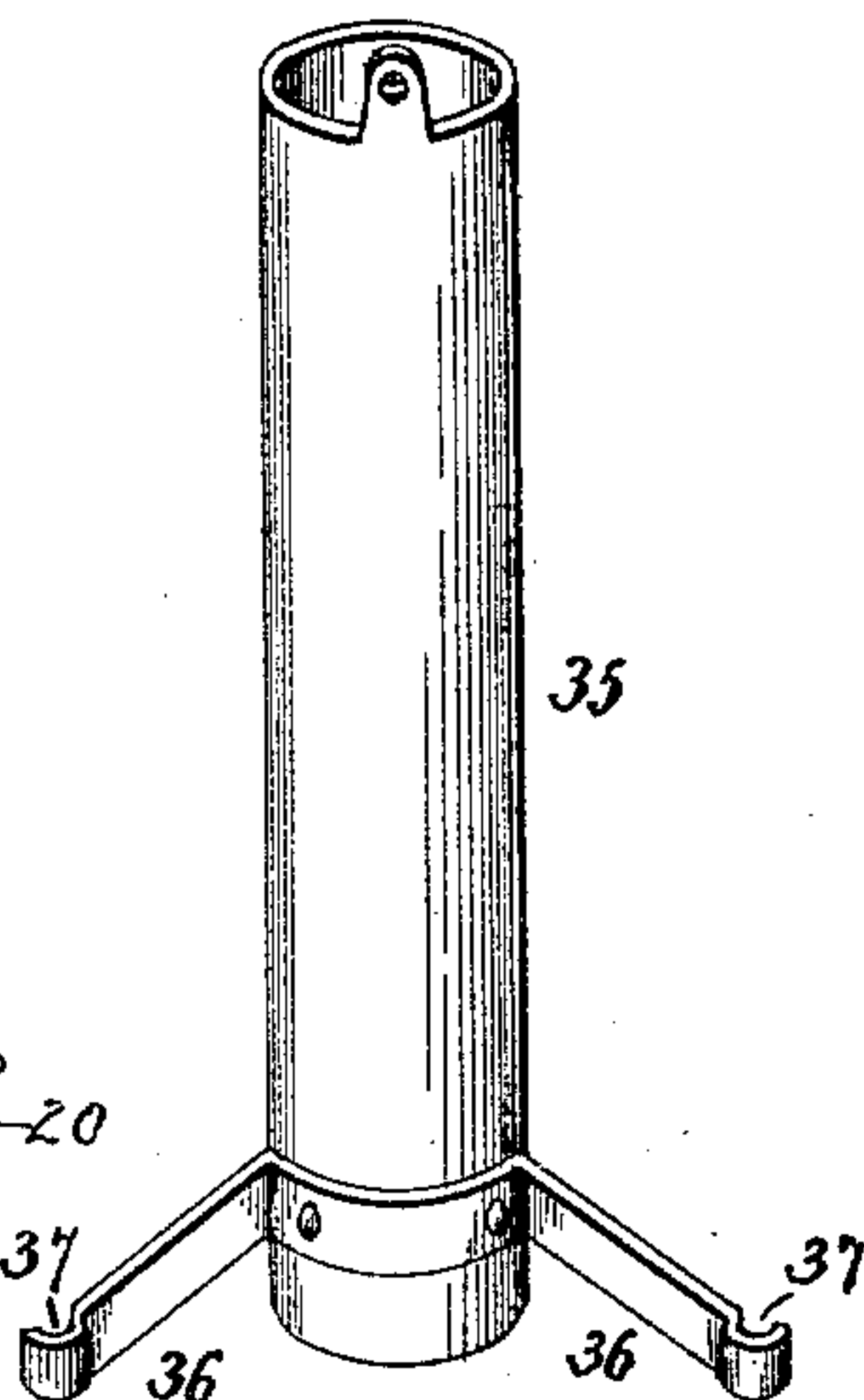


FIG. 4.

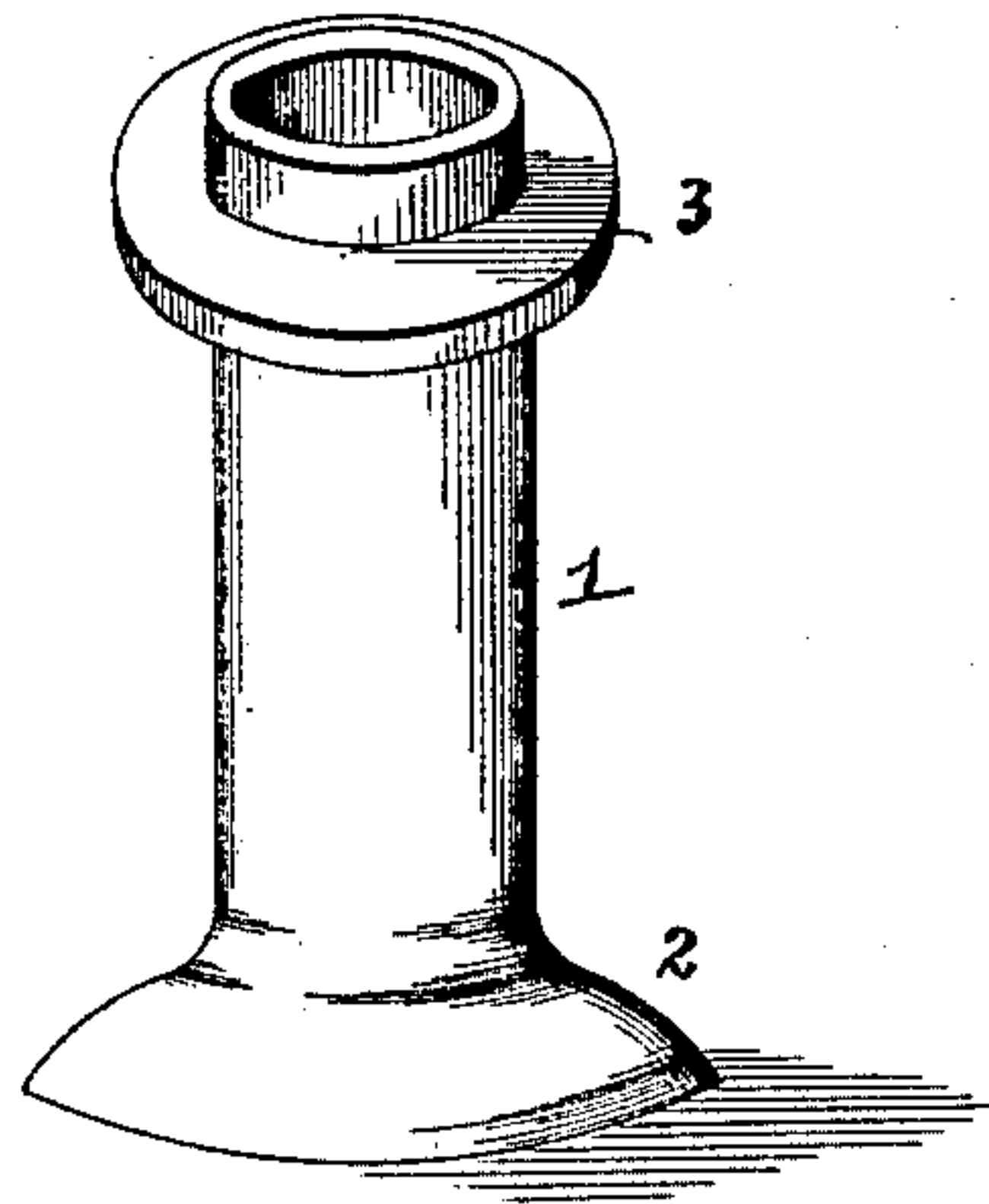


FIG. 5-

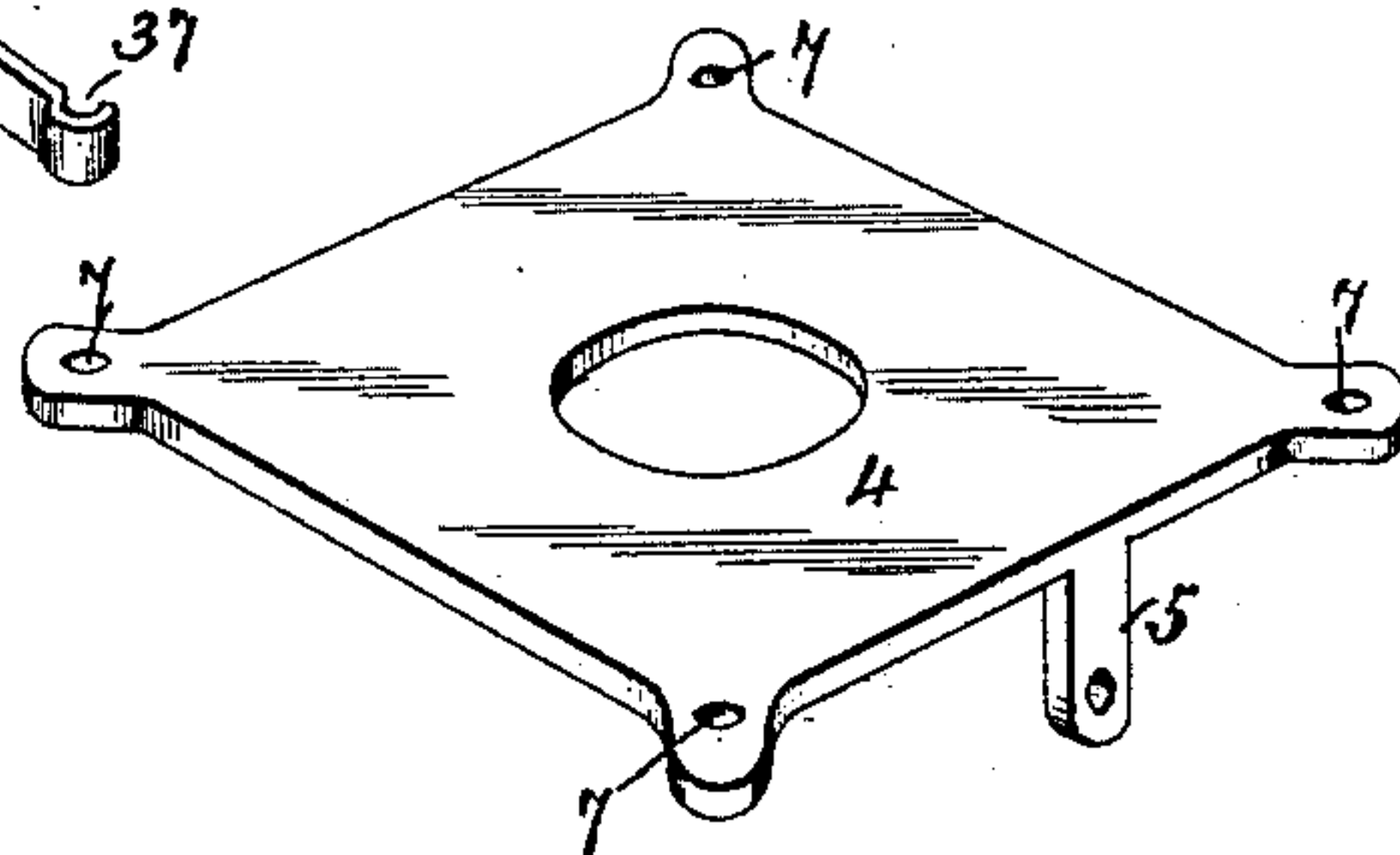


FIG. 6-

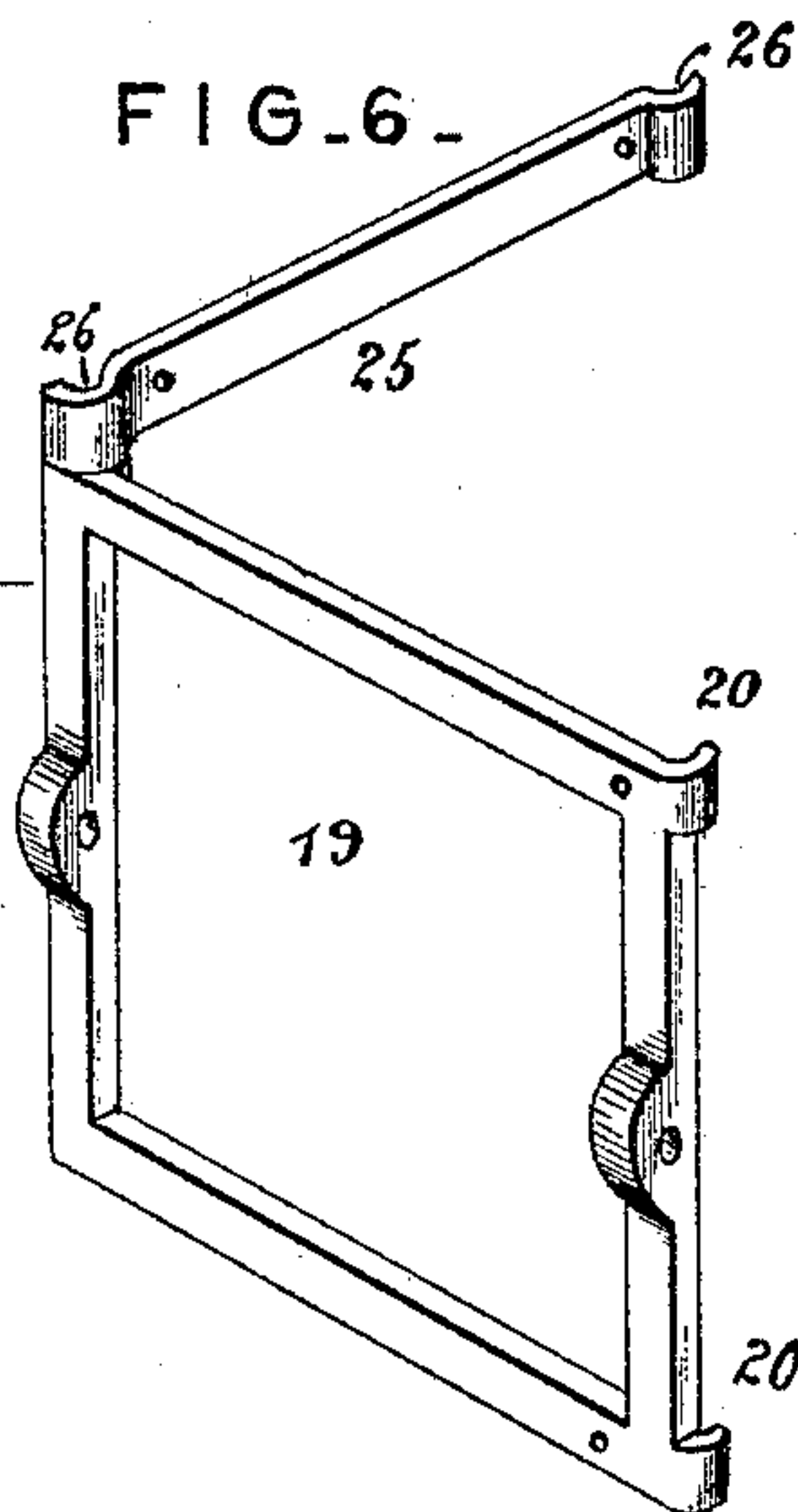
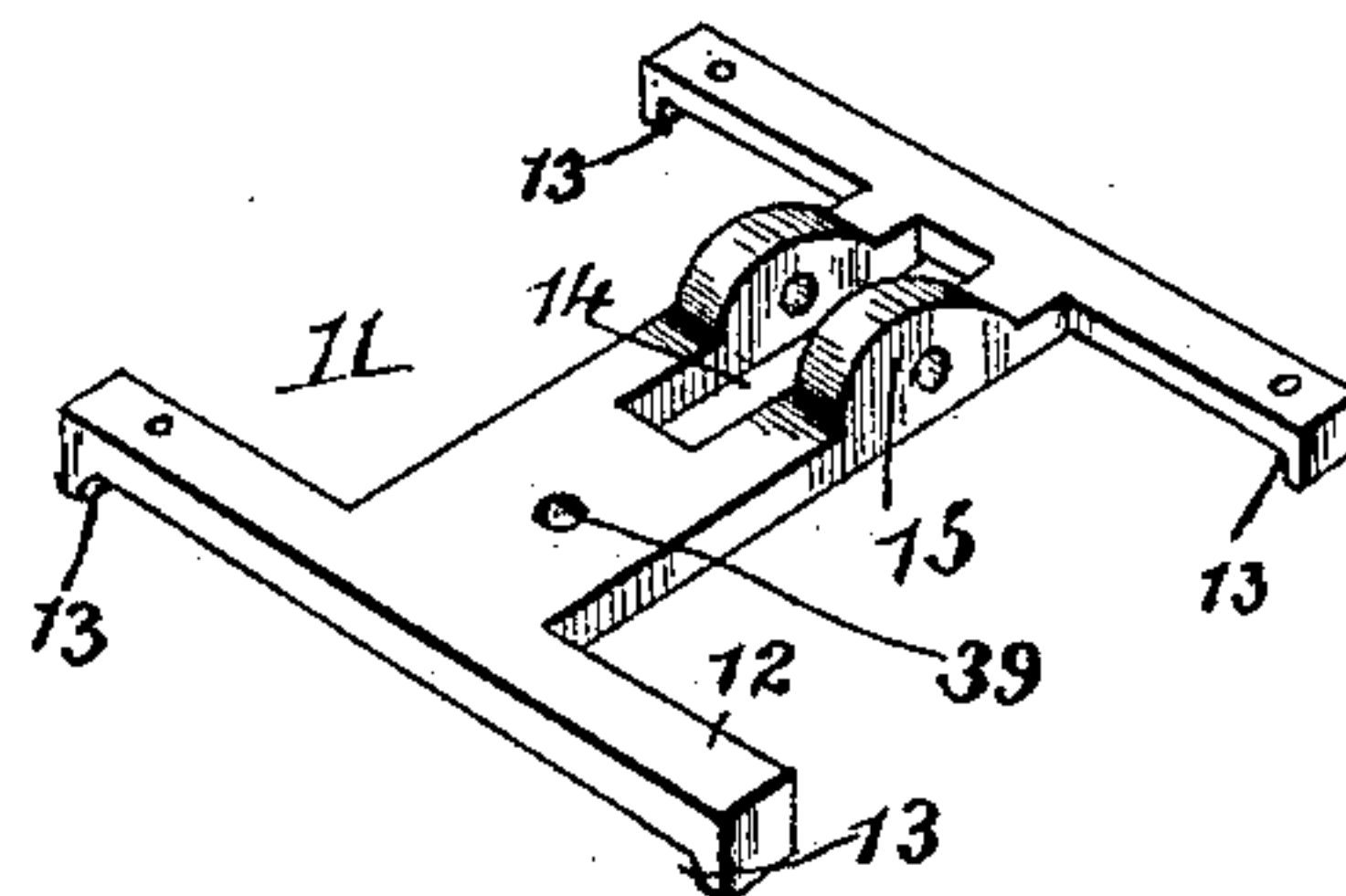


FIG. 8-



Witnesses

Jas. K. McLathran

Wm. Baggett

By his Attorneys,

John M. Huff

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

JOHN MATHIS HUFF, OF SEARCY, ARKANSAS.

## WINDLASS WATER-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 462,875, dated November 10, 1891.

Application filed February 13, 1891. Serial No. 381,315. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN MATHIS HUFF, a citizen of the United States, residing at Searcy, in the county of White and State of Arkansas, have invented a new and useful Windlass Water-Elevator, of which the following is a specification.

This invention relates to windlass water-elevators, and it has for its object to provide a device of this class which shall possess superior advantages in point of simplicity, durability, and general efficiency.

The invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a perspective view of my improved windlass water-elevator. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a vertical transverse sectional view taken on the line 3 3 in Fig. 2. Fig. 4 is a perspective detail view of the base or bottom section. Fig. 5 is a perspective detail view of the supporting-plate. Fig. 6 is a perspective detail view of the windlass-frame. Fig. 7 is a perspective detail view of the tubular shield. Fig. 8 is a perspective detail view of the cap-plate.

Like numerals of reference indicate like parts in all the figures.

The base or bottom section of my improved water-elevator consists of a cylindrical casting 1, having a bottom flange 2, by means of which it may be mounted upon the well-curb, and provided near its upper end with an annular flange 3, supporting the base-plate 4, which is provided with downwardly-extending lugs 5, having set-screws 6, which engage under the flange 3, thus retaining the base-plate 4 securely upon the upper end of the bottom section 1. The four corners of the base-plate 4 are provided with perforations 7 to receive the uprights 8, which are preferably constructed of metallic tubes, such as ordinary wrought-iron gas-pipes, which are connected at their upper ends in pairs by means of the cross-bars 9 and elbows 10. 11 designates a cap-plate, which is provided with laterally-extending arms 12, the under sides of which are provided with perforated grooves 13 to receive the cross-bars 9, to which they

are secured by hooked bolts 12<sup>b</sup>, thus serving to space the uprights 8 and hold the structure securely in position for operation. The cap-plate 11 has a central slot or opening 14, and it is provided on its upper side with lugs 15, having bearings for a pin or shaft 16, upon which is journaled a sheave 17, over which passes the hoisting-rope 18.

19 designates a rectangular frame, which is provided with lugs 20, having perforations for the passage of hooked bolts, by means of which the said frame is mounted adjustably upon two of the uprights 8. The sides of the frame 19 are provided with bearings for a shaft 22, carrying a drum or windlass 23 and having at one end a crank or handle 24, by means of which it may be conveniently manipulated to rotate said drum or windlass, to which one end of the hoisting-rope 18 is suitably attached.

The frame 19 is provided at one end with a laterally-extending arm 25, having at its outer end a vertical groove 26 for the reception of one of the uprights or corner-posts 8, to which it is secured by a hooked bolt 26<sup>b</sup>. Pivotaly attached to the arm or bracket 25 is a bell-crank lever 27, one arm of which carries a brake-shoe 28, adapted to engage a flange at one end of the winding-drum, the rotation of which may thus be retarded when desired.

30 designates the well-bucket, which is preferably made tapering from the center toward the top and bottom, in order that it may be lowered into the well and again raised without danger of getting stuck. The bottom of the bucket has an opening 31 and an annular valve-seat 32 for the valve 33, which is provided with downwardly-extending brackets 34.

35 designates a tubular shell, which is provided near its lower end with brackets 36, having hooked ends 37, adapted to engage two of the uprights 8, upon which they are retained by slotted sleeves 35<sup>b</sup>. The upper end of the tubular shell 35 has a perforated lug, by means of which it is hinged to the under side of the cap-plate 11.

41 designates the spout, which is hinged upon the base-plate 4, and which normally covers the opening in said base-plate and at the upper end of the bottom section 1.

The operation and advantages of my in-



vention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. When the bucket is lowered into the well, the water enters under the valve 33, as will be readily understood. When the windlass is manipulated to hoist the bucket, the latter will pass the hinged spout 41 and enter the tubular guide 35. When the spout 41 has been passed, it drops down upon the base-plate 6 and the bucket may then be lowered until the brackets 34 strike the spout and raise the valve 33, thus permitting the contents of the bucket to pass through the spout into a vessel or receptacle placed underneath. The bucket may then be raised sufficiently to enable the spout to be tilted until the bucket may be lowered past it into the well for a repetition of the operation.

My improved water-elevator is equally applicable to drilled or bored and to dug or blasted wells. It is simple in construction, and the parts of which it is composed, being made preferably of iron, will be found exceedingly durable as well as cleanly. When the water-elevator is not in use, it may be readily detached by loosening the set-screws, by means of which the base-plate 6 is mounted upon the bottom section, and a covering-plate may then be secured upon the bottom section to prevent the well being filled with rubbish. When desired, a suitably-constructed pump may also be very conveniently mounted upon the bottom section 1 instead of the windlass water-elevator herein described, the construction of said bottom section being such that a suitably-constructed iron pump may be very readily coupled or connected therewith.

The bottom plate 4, being mounted rotatably upon the base 1, may readily be turned so as to cause the spout to discharge in any desired direction.

The parts of the device may be readily taken apart and packed in small compass for storage or shipment.

Having thus described my invention, what I claim is—

1. In a device of the class described, the combination of the base-plate having the uprights, the cross-pieces connecting said uprights in pairs, the cap-plate having arms provided with grooved lugs for the reception of said cross-pieces, the tubular shield having arms or brackets provided with hooked ends

for the passage of two of the uprights, and a lug hinged to the cap-plate, substantially as set forth.

2. In a windlass water-elevator, the combination of the uprights, the cap-plate having a sheave or pulley, the windlass-frame supported upon two of the uprights, the hoisting-rope passing over the sheave or pulley and having one end connected with the windlass, the bucket suspended at the other end of the hoisting-rope and having an upward-opening valve, and the tubular shield or guide pivotally suspended from the cap-plate, substantially as set forth.

3. In a device of the class described, the combination of the base-plate, the spout hinged upon the same, the uprights, the cap-plate having the sheave or pulley, the depending tubular shield or guide pivotally suspended from said cap-plate, the windlass-frame mounted upon two of the uprights, and the bucket having an upwardly-opening valve provided with a depending arm or bracket, substantially as and for the purpose set forth.

4. In a device of the class described, the combination of the base-plate having the uprights, the cap-plate, a rectangular frame provided with grooved lugs for the reception of two of the uprights and having hooked bolts engaging the latter, the windlass mounted upon a shaft journaled in the sides of the frame, and an arm or bracket projecting from the latter and having a brake-lever pivoted thereto and adapted to engage a flange upon the drum or windlass, substantially as set forth.

5. The combination, with the base-plate, the upright, and the cap-plate, of the windlass-frame mounted adjustably upon two of said uprights and having an arm or bracket provided with a groove for the reception of a third upright, the windlass mounted upon a shaft in the said adjustable frame and having an annular flange at one end, and a bell-crank lever pivoted to the arm or bracket and adapted to engage the flange of the windlass, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN MATHIS HUFF.

Witnesses:

J. J. BELL,

W. G. CALDWELL.