

No. 683,361.

Patented Sept. 24, 1901.

J. L. WATSON.
DIVING APPARATUS.

(Application filed Mar. 18, 1901.)

(No Model.)

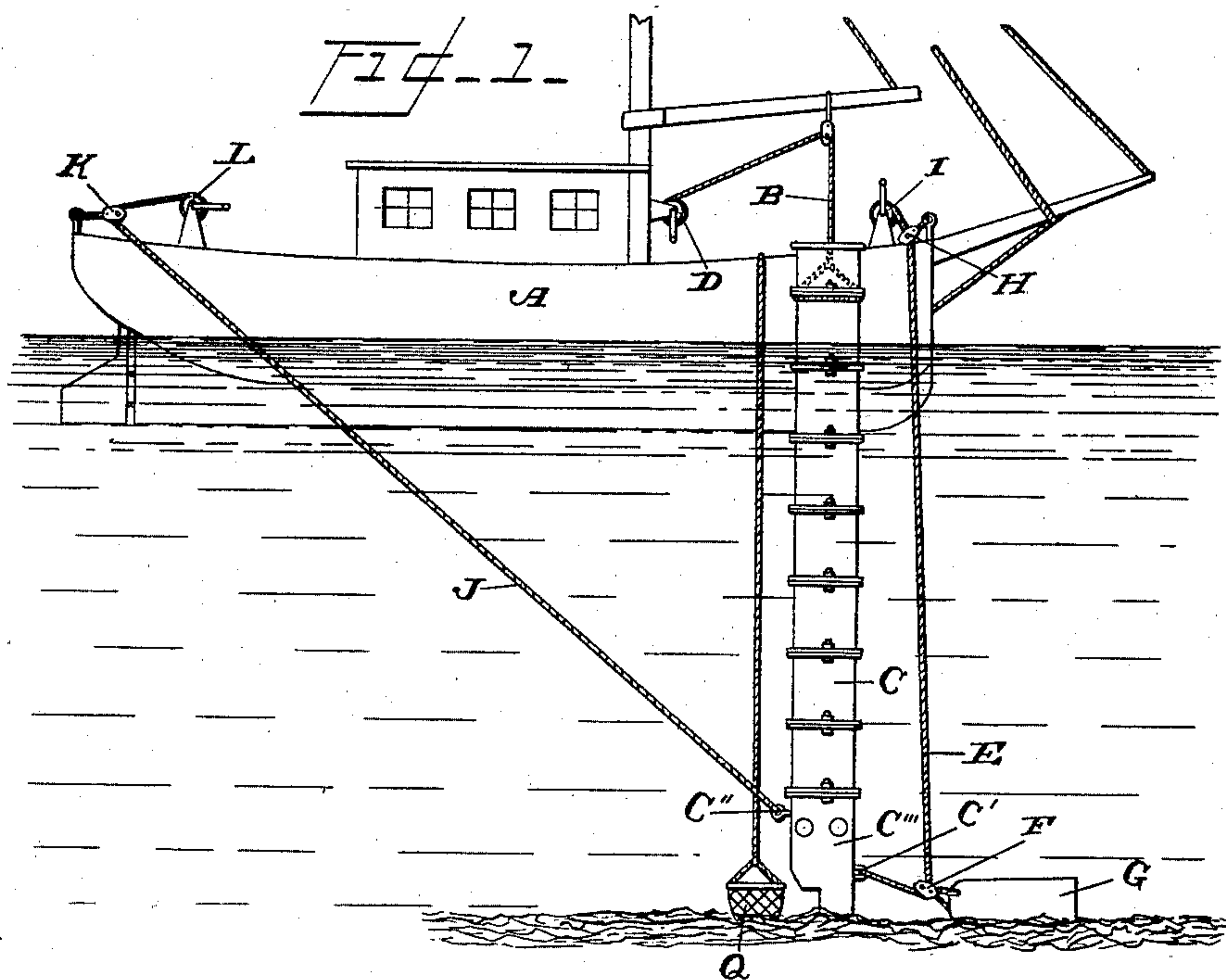


FIG. 2.

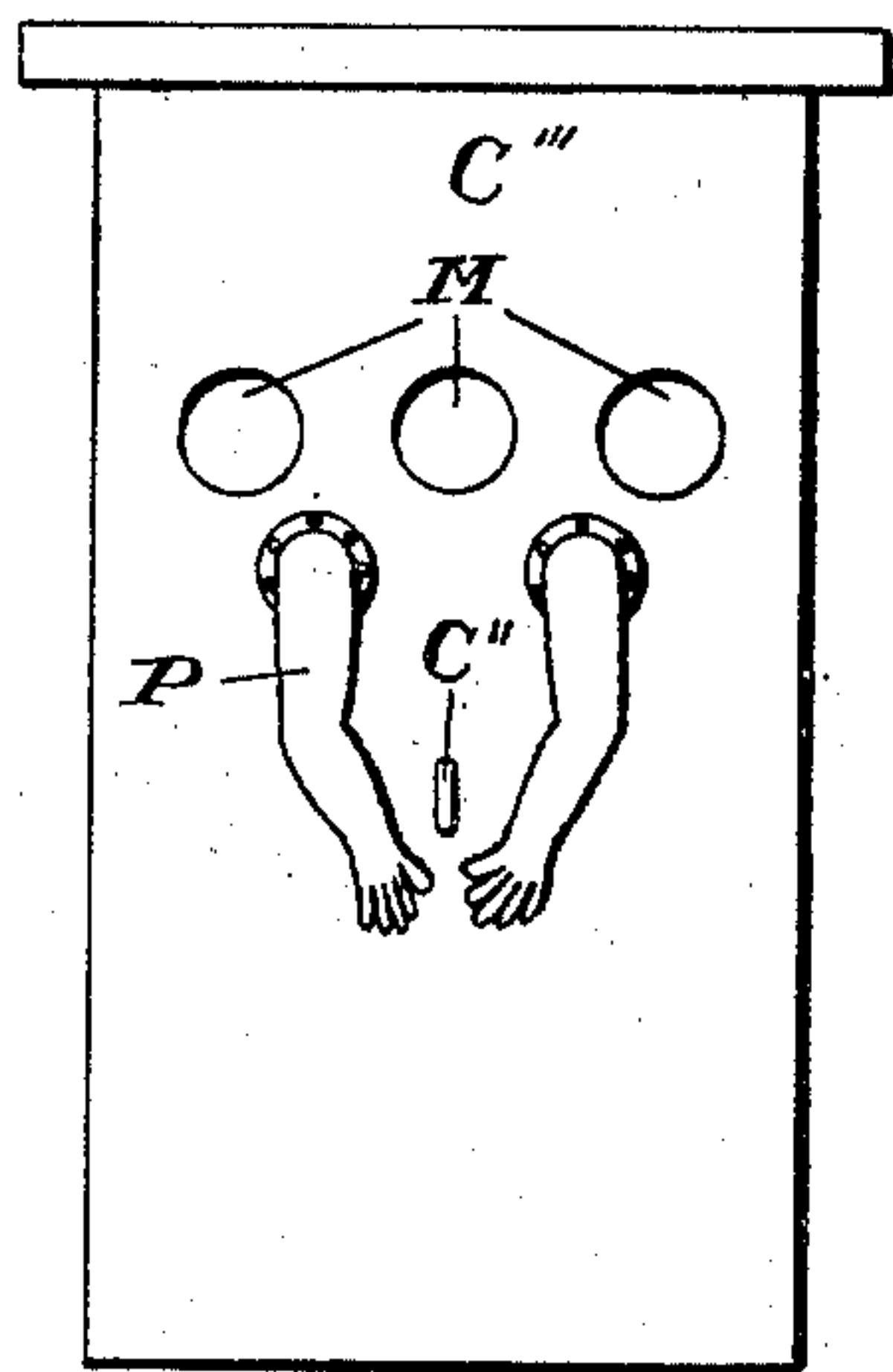
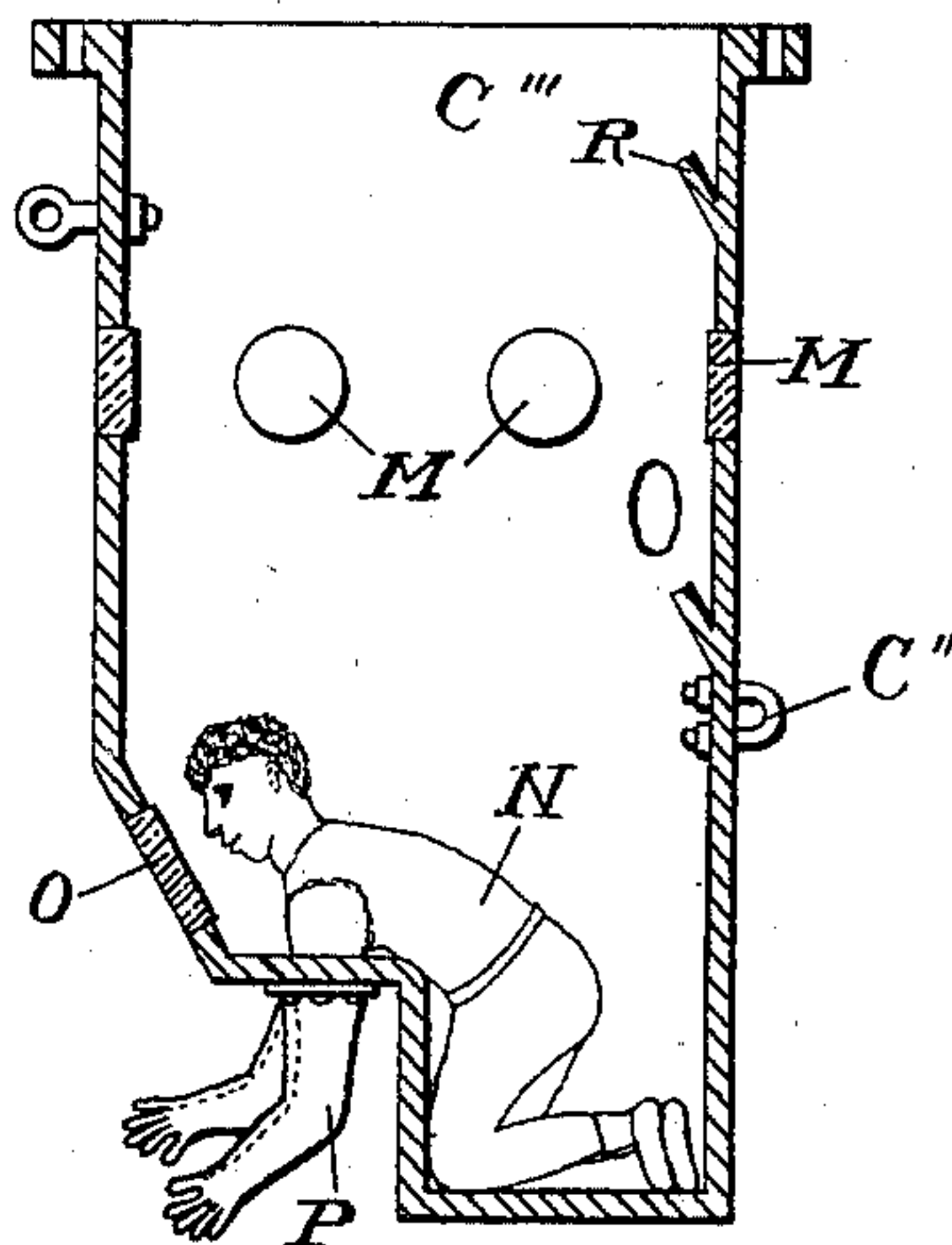


FIG. 3.



WITNESSES
Chas. L. Hyde.
Mattie McGinnis

INVENTOR
John L. Watson
BY HIS ATTORNEYS
Hazard Harpham

UNITED STATES PATENT OFFICE.

JOHN L. WATSON, OF LOS ANGELES, CALIFORNIA.

DIVING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 683,361, dated September 24, 1901.

Application filed March 18, 1901. Serial No. 51,770. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. WATSON, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Diving Apparatus, of which the following is a specification.

My invention relates to means to enable a person to descend into and below the level of the water and examine the bottom and remove anything therefrom without coming in contact with the surrounding water; and the object is to provide means to accomplish the same in a safe, efficient, and economical manner. I accomplish this object by means of the mechanism described herein and shown in the accompanying drawings, in which—

Figure 1 is an elevation of my diving apparatus in working position in the water and secured to a boat anchored at the bottom and the retrieving-basket in position for use. Fig. 2 is a front view of the lower or working section of the diving-barrel. Fig. 3 is a vertical central section of the lower or working section, showing the operator at work therein.

Referring to the drawings, A is a boat of ordinary construction, adapted to carry the diving apparatus and to which the same is secured by the supporting-rope B, passing from the upper end of the diving-barrel C over a pulley to the windlass D. The anchor-rope E passes from the lower section of the diving-barrel at C', where the same is secured, into and through the block F, which is made fast to the anchor G, up to and through the block H, and secured to the windlass I. The elevating-rope J, secured to the lower section of the barrel at C'', passes thence to and through the block K and is secured to the windlass L.

The barrel is put into the position shown in Fig. 1 as follows: The first or working section of the barrel is brought to the side of the boat, the rope B is thrown around the section and below the upper flange thereon and is suspended thereby, the lower end of the rope E is passed through the block F on the anchor G and secured to the section at C', the anchor-rope is unwound from the drum of the windlass I, and the anchor is permitted to drop to the bottom. Then the elevating-rope J is se-

cured to the barrel at C''. Then the rope on the windlass I is wound up, drawing the barrel down into the water in the direction of the anchor until the flange on this section is within easy access, when another section is bolted thereon, a water-tight gasket being placed between the sections to make a water-tight joint. This process of building up the barrel by adding section after section is proceeded with until the lower section rests on the bottom, as shown in the drawings. When the barrel is in the position shown in Fig. 1, it may be desirable to move to a new locality without disassembling the sections of the barrel. If so, the barrel may be swung up against the side of the boat by drawing in on the rope J and paying out on the rope E. That will throw the lower end of the barrel up against the stern of the boat and out of the water, the top end being in the direction of the bow of the boat, where it can be secured. In the lower or working section C''' are provided a number of water-tight windows M, disposed on the wall of the section at a suitable distance from the bottom for convenient observation by the operator N when in a standing position, and also windows O, suitably located for the operator when in a stooping position therein, as shown in the drawings. Projecting downwardly from the offset portion of the bottom of the working section I provide a couple of flexible water-tight sleeves P, having a glove-shaped end terminating in finger-tips arranged to receive the hand and arm of the operator, so that he can use his hands on the bottom or adjacent thereto without permitting the entrance of water into the barrel. In Fig. 2 I have shown these arms projecting from the side of the section so located as to be used by the operator standing. In Fig. 1 I have shown a retrieving-basket Q in position for shellwork or for receiving anything lost. By this arrangement it will be seen that the article taken from the bottom is placed in the basket and raised directly to the top without being taken into the barrel, by which means the barrel is always dry. The operator descends to and ascends from the bottom of the barrel by means of a ladder comprising rungs R, projecting inwardly from the inside of the various sections. These rungs

project upwardly, so that they will present no
obstacle to the movement upward of anything
in the barrel, the purpose being to afford
means for the operator to pass freely up and
5 down the barrel without any rope, and when
the operator should for any reason become
disabled at the bottom and not able to climb
the ladder he may be drawn to the top by a
rope, the rungs being so arranged that no pro-
10 jections on the rungs will prevent the rope
from passing freely upward and raising him
out.

Having described my invention, what I

claim as new, and desire to secure by Letters
Patent, is—

The combination with a barrel for diving
purposes of the ropes E and J, the anchor G,
the windlasses I and L, and the supporting-
rope B, and windlass D.

In witness that I claim the foregoing I have 20
hereunto subscribed my name this 12th day
of March, 1901.

JOHN L. WATSON.

Witnesses:

HENRY T. HAZARD,
G. E. HARPHAM.