

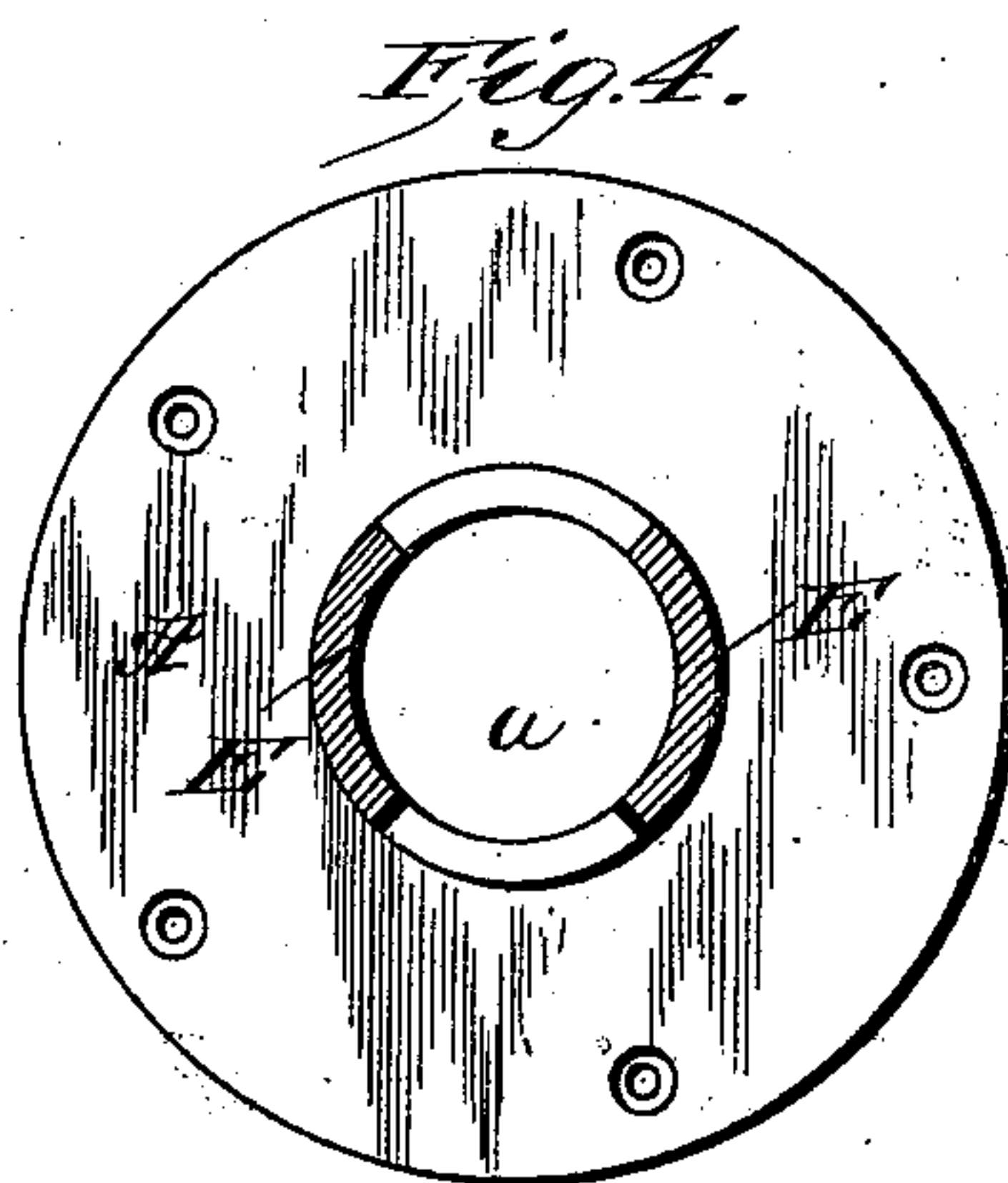
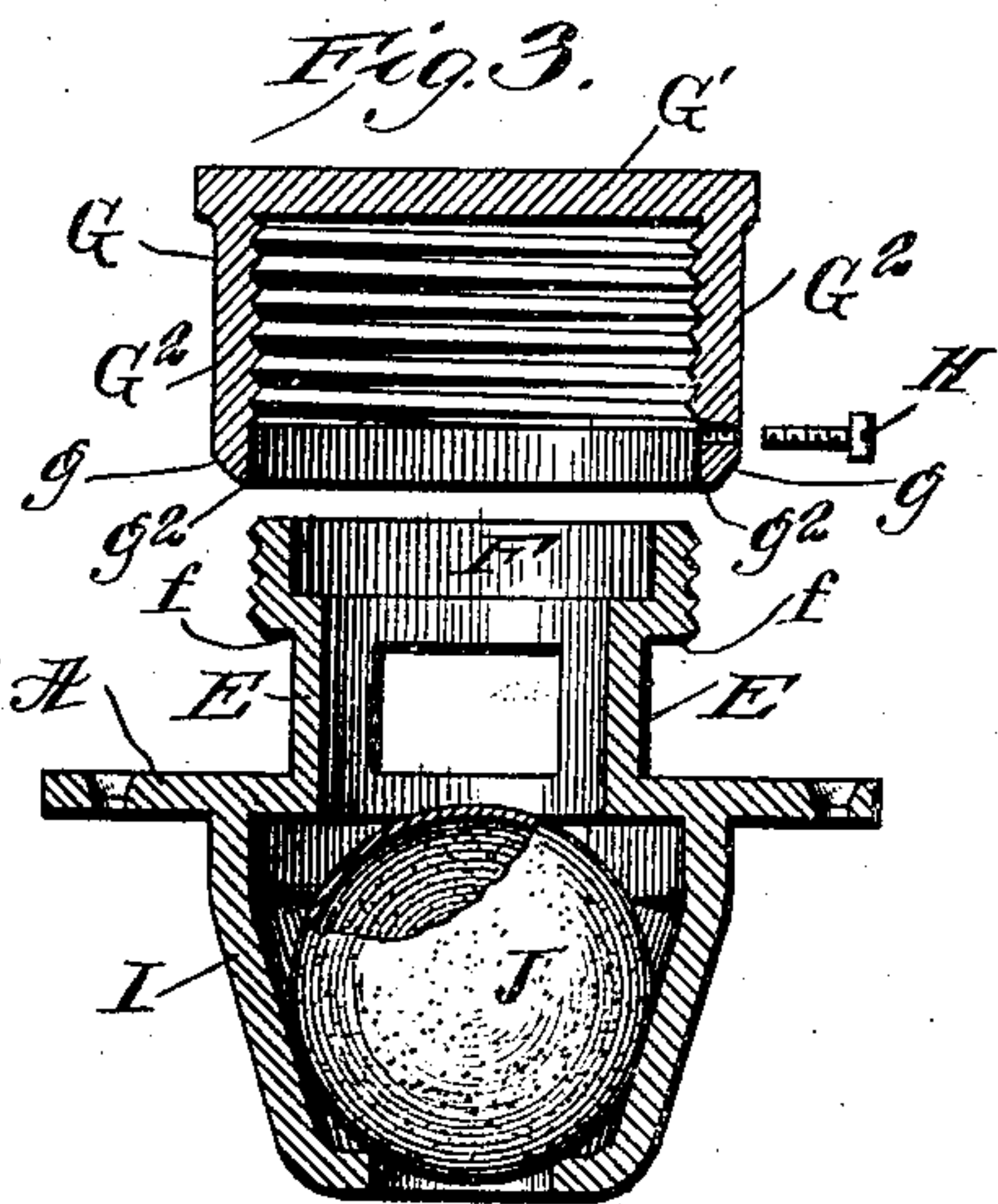
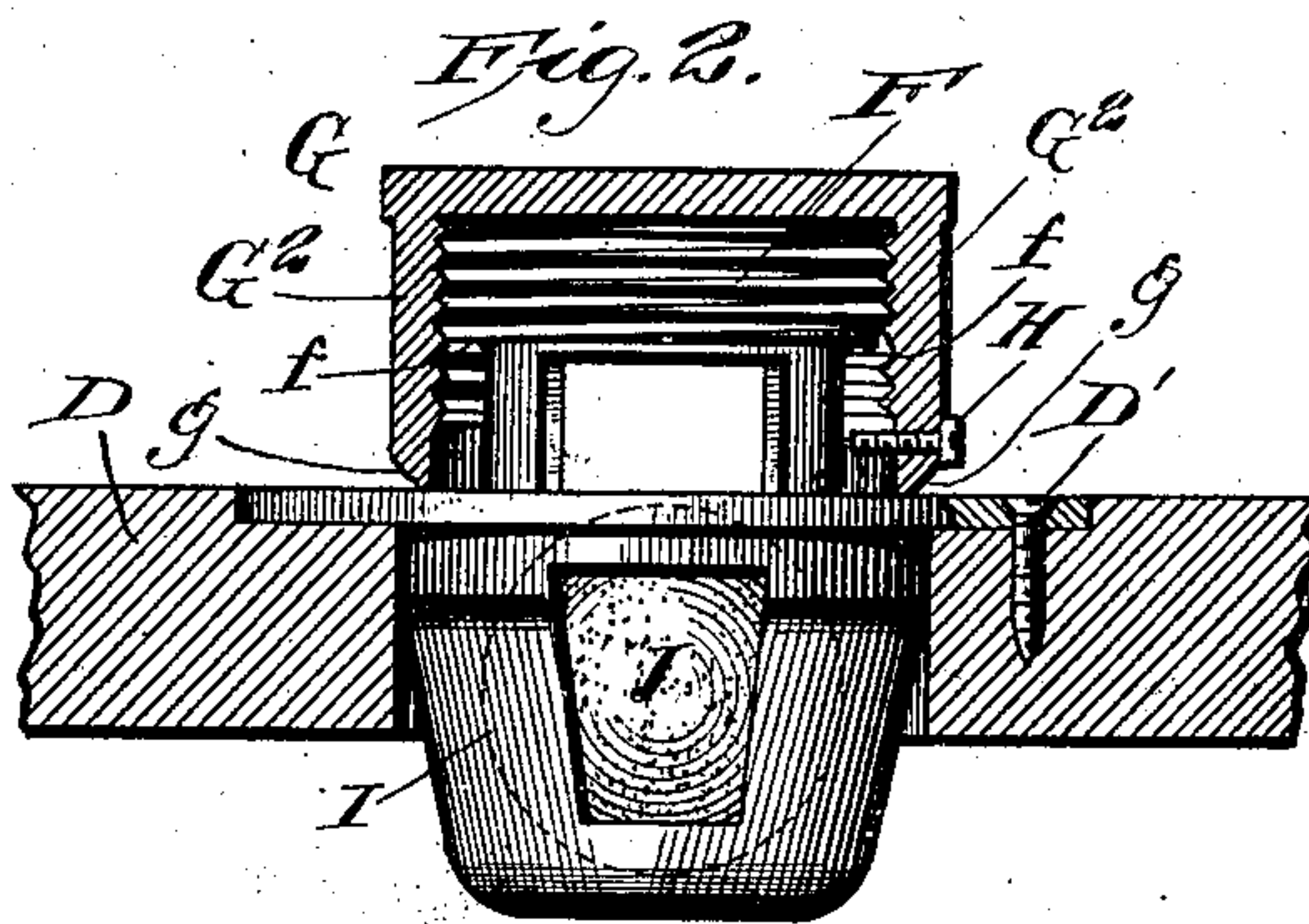
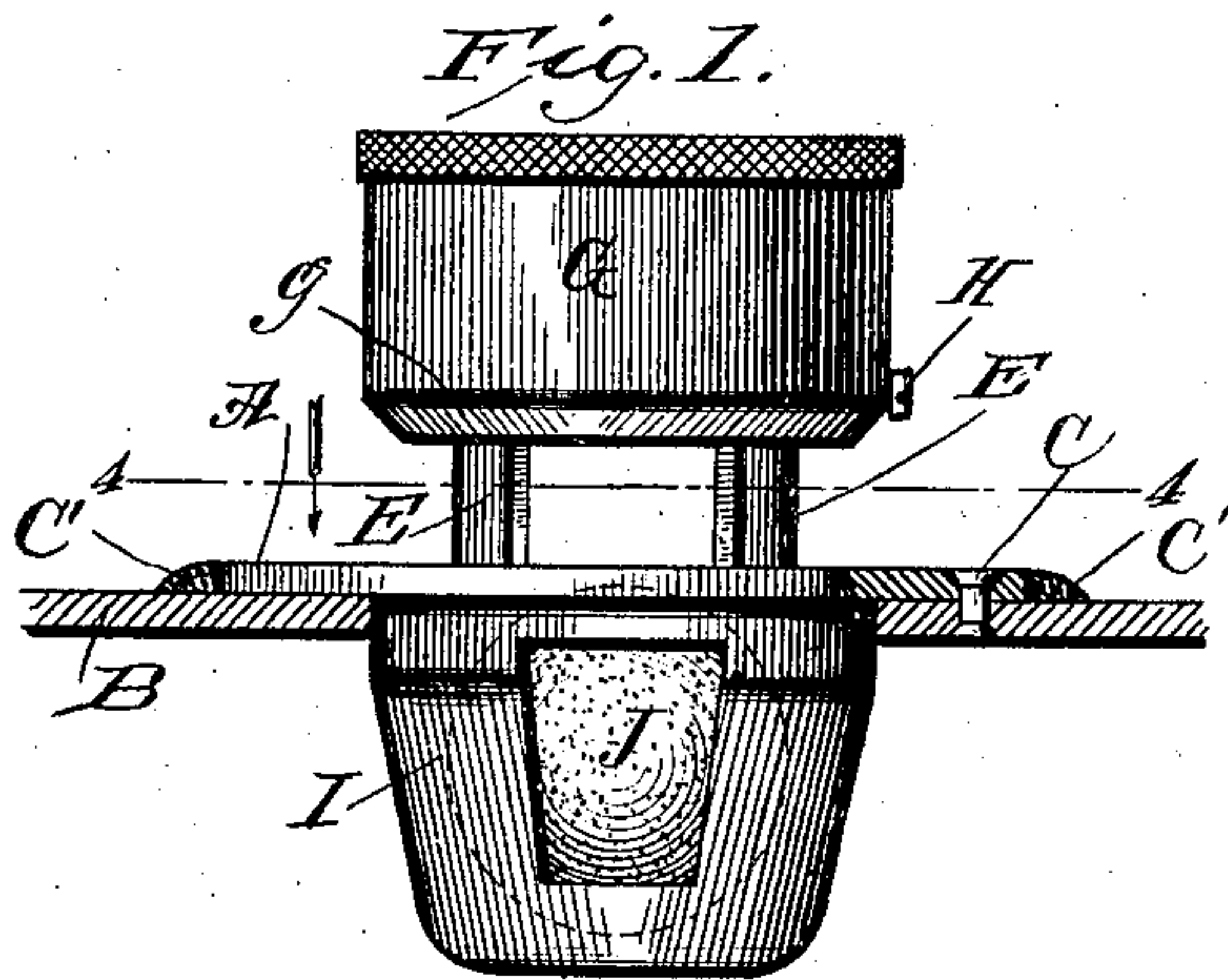
No. 847,112.

PATENTED MAR. 12, 1907.

G. W. RENTON.

BOAT PLUG.

APPLICATION FILED JAN. 18, 1907.



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UNITED STATES PATENT OFFICE.

GEORGE W. RENTON, OF BROOKLYN, NEW YORK.

BOAT-PLUG.

No. 847,112.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed January 18, 1907. Serial No. 352,903.

To all whom it may concern:

Be it known that I, GEORGE W. RENTON, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have made certain new and useful Improvements in Boat-Plugs, of which the following is a specification.

This invention is an improvement in boat-plugs—such, for instance, as that shown in my former patent, No. 275,270, dated April 3, 1883; and the present invention has for an object to provide a novel construction whereby to overcome difficulties resulting from the clogging of the parts by the painting of the boat and also means for preventing the cap from becoming detached from the fixed or body portion of the plug, together with the novel construction of the cap, whereby it will efficiently close the opening when the cap is screwed down; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a side view of a plug embodying my invention with the cap adjusted to its uppermost position. Fig. 2 is a sectional side elevation, the cap being shown in section and being lowered to shut off the passage of water. Fig. 3 is a sectional view illustrating the body portion and cap in section and separate from each other, and Fig. 4 is a cross-section on the line 4 4 of Fig. 1.

In carrying out the invention a suitable opening is formed in the bottom of the boat, and over this is secured a base-plate A, having an opening registering with that in the bottom of the boat. The plug may be applied to metal boats, as illustrated in Fig. 1, in which B indicates a portion of the bottom of the metal boat, and rivets C are employed for securing the base-plate thereto, a ring of solder C' being applied around the edge of the base-plate A. The invention may also be applied to wooden boats, as shown in Fig. 2, in which D illustrates a portion of the wooden boat, and the base-plate is secured thereto by screws D'. Upon the base-plate, on opposite sides of the opening *a* therein, are mounted the posts or standards E, which are curved on their outer sides concentrically, with the opening *a* and with the ring F mounted on the said posts and threaded on its outer side to receive the cap G.

The circle of the curve of the outer sides of the posts or standards is of a less diameter

than the ring F, so that the lower edge of the said ring forms an annular shoulder constituting an abutment beneath which an inwardly-projecting stop device H on the cap G will engage when the cap is raised to its uppermost position. This stop device H is preferably a headed screw threaded through the depending portion of the cap and of such length that when turned home, with its head abutting the outer surface of the depending portion of the cap, its point will move just clear of the outer curved surface of the cylindrical or post portion of the body of the plug and yet will engage below the annular shoulder *f* at the base of the ring F, as before described and as will be understood from Fig. 2 of the drawing.

The cap G has the top plate G' and the depending cylindrical portion G², having near its lower edge a threaded opening for the screw H, and such portion G² is threaded on its interior to screw upon the ring F. When the cap is adjusted to the upper position, (shown in Fig. 1,) the stop device H, engaging with the abutment *f*, will limit the upward movement of the cap and prevent the displacement of same. The lower end *g* of the cap G is brought approximately to an edge *g*², so that when the cap is turned down to the position shown in Fig. 2 such edge *g*² will cut its way into or through paint and the like and form a close seat with the base-plate.

An important feature of my invention is the construction whereby the threads are securely housed and the cap is stopped upon the threads of the body portion, so as to protect the same from paint and to prevent any detachment of the cap. In constructions like that shown in my former patent before referred to difficulties have been experienced, because in painting the boat the threads on the cap will be exposed when the cap is adjusted to open position and the accumulation of paint thereon will clog the threads and prevent the screwing of the cap home when the boat is put in the water.

It will be understood that this invention is especially intended for use on life-boats for draining the interior of the boat when it is swung upon davits and to facilitate the ready closing of the openings when the boat is lowered into the water. Thus when the parts are as shown in Fig. 1 and the boat is swung on davits water may drain from the interior of the boat through the opening in the bottom, and when the boat is lowered into the water the cap may be readily adjusted to

position shown in Fig. 2, closing the opening. In this adjustment the edge g^2 of the cap will seat firmly in the paint upon the base-plate and room will be afforded surrounding the posts or standards for the operation of the stop device H, as will be understood from Fig. 2.

Upon the under side of the plate A, I provide a cage I for a ball-valve J, the outer surface of the cage being rounded to avoid injury thereto by logs or the like which may pass beneath the boat when in the water.

It will be noticed from the foregoing that the cap is maintained at all times in connection with the body of the plug with the threads thereof in full engagement with the threads of said body, so that there is no difficulty in starting the threads such as would be experienced in starting threads when a boat is being tossed on rough water. It will also be noticed that the body portion may be formed in a single piece and the cap portion in a single piece, thus simplifying and cheapening the construction of the device, as well as increasing its effectiveness in use.

I claim—

1. The improvement in boat-plugs herein described, comprising a base-plate having an opening and provided on opposite sides thereof with posts or standards curved on their outer sides, a ring on said posts and threaded on its outer side and projecting laterally beyond the outer sides of the posts, affording at its lower edge an abutment for engagement by a stop device, a cap having a top plate and a depending side portion whose lower end is brought to an edge and whose inner side is threaded to screw upon the external flange of the top ring of the body portion and a screw turning through said depending portion of the cap near its lower end and projecting inwardly to engage the abutment at the lower end of the threaded ring when the cap is adjusted to the uppermost position, the lower edged end of the cap being adapted to seat itself upon the base-plate when the cap is lowered, substantially as and for the purpose set forth.

2. A boat-plug having a body portion provided with an upper ring threaded on its

outer side and having at its lower edge an abutment for a stop device and with posts or standards supporting said ring, and a cap fitting upon the said body portion and having a depending part threaded in engagement with the said threaded ring, the posts or standards forming a support for the threaded ring and being of comparatively reduced diameter whereby to afford space for the operation of a stop device on the cap and a stop device projecting inwardly from the cap adjacent to the lower edge thereof and adapted to engage the abutment at the lower edge of the threaded ring when the cap is raised, as set forth.

3. A boat-plug having a base-plate, a ball-valve and a cage therefor below the base-plate, the latter having a central opening, a body portion on the base-plate surrounding said central opening and having the lower portion consisting of posts curved on their outer sides and a ring mounted on said posts and of greater diameter than the lower portion and threaded on its outer side, a cap having a top plate and a depending cylindrical portion threaded on its inner side to engage with the threads of the top ring, the lower edge of said ring forming an abutment, and a screw threaded through the lower portion of the depending part of the cap and projecting at its inner end to engage with the lower edge of the threaded ring when the cap is raised, to limit the movement thereof, substantially as set forth.

4. A boat-plug having a body portion provided with a top ring threaded on its outer side and with a lower or cylindrical portion supporting said top ring and of less diameter than said ring, whereby the latter affords at its lower end an abutment for engagement by a stop device and a stop device movably connected with the cap near its lower end and adapted to engage the abutment at the lower end of the threaded ring to limit the upward movement of the cap, substantially as set forth.

GEORGE W. RENTON.

Witnesses:

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