

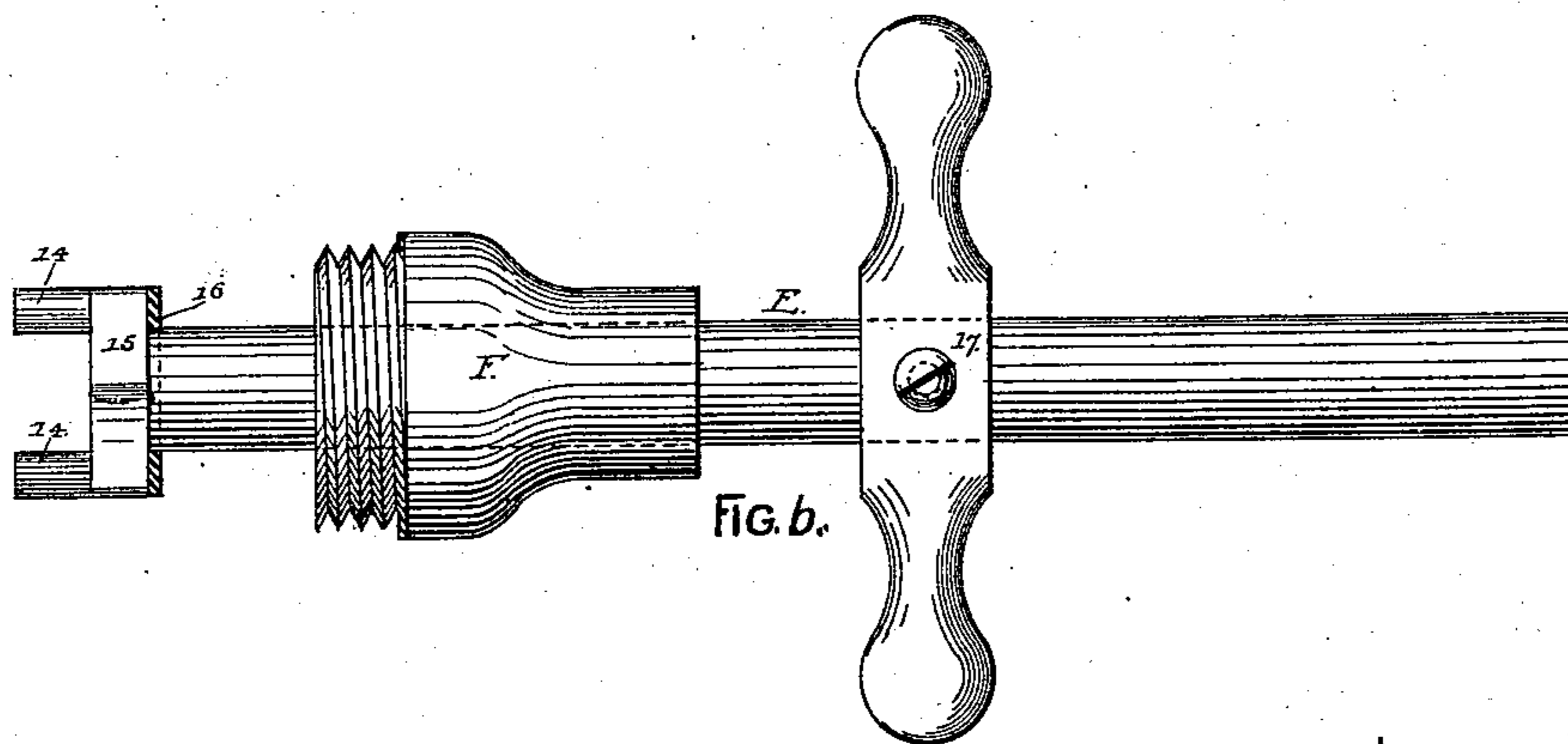
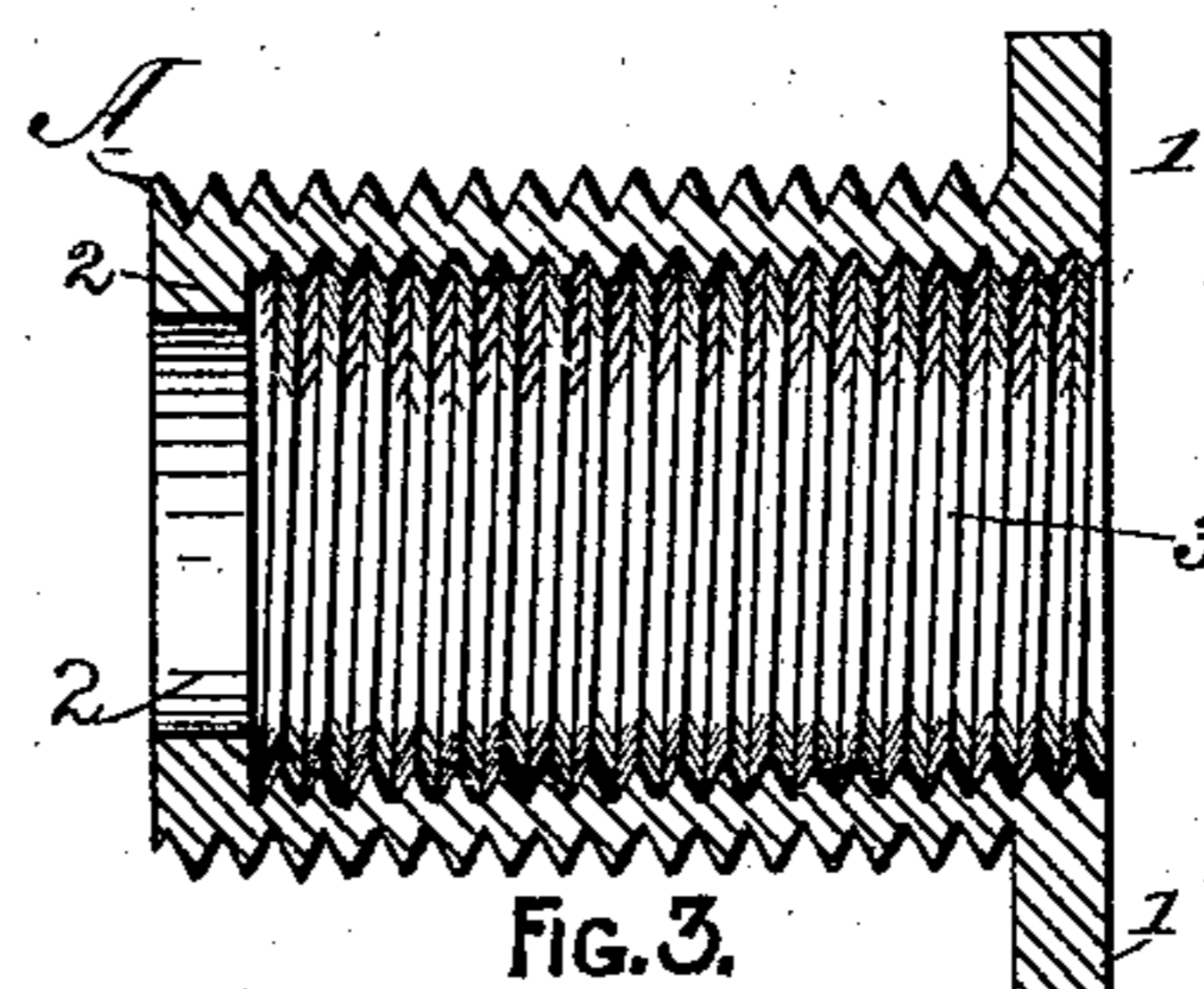
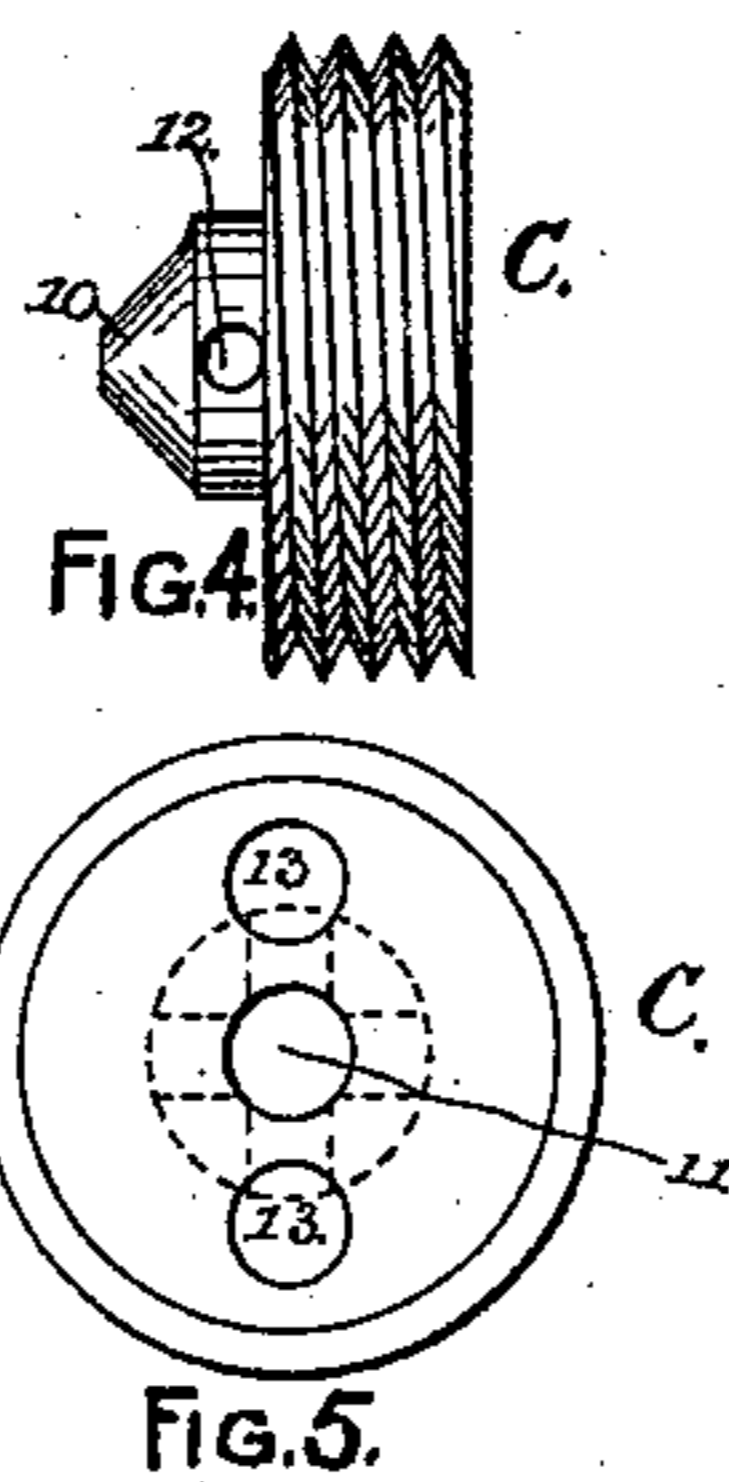
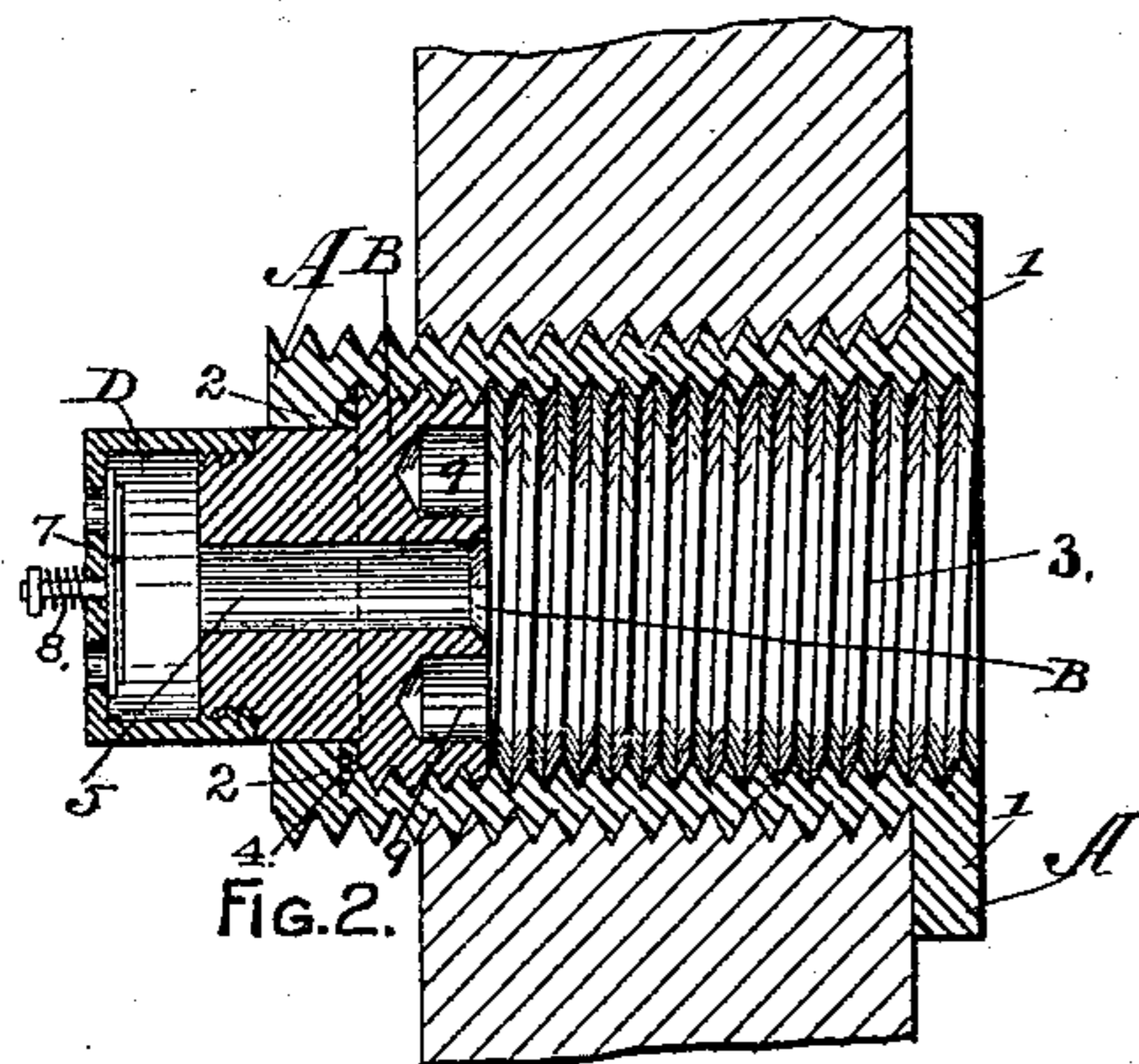
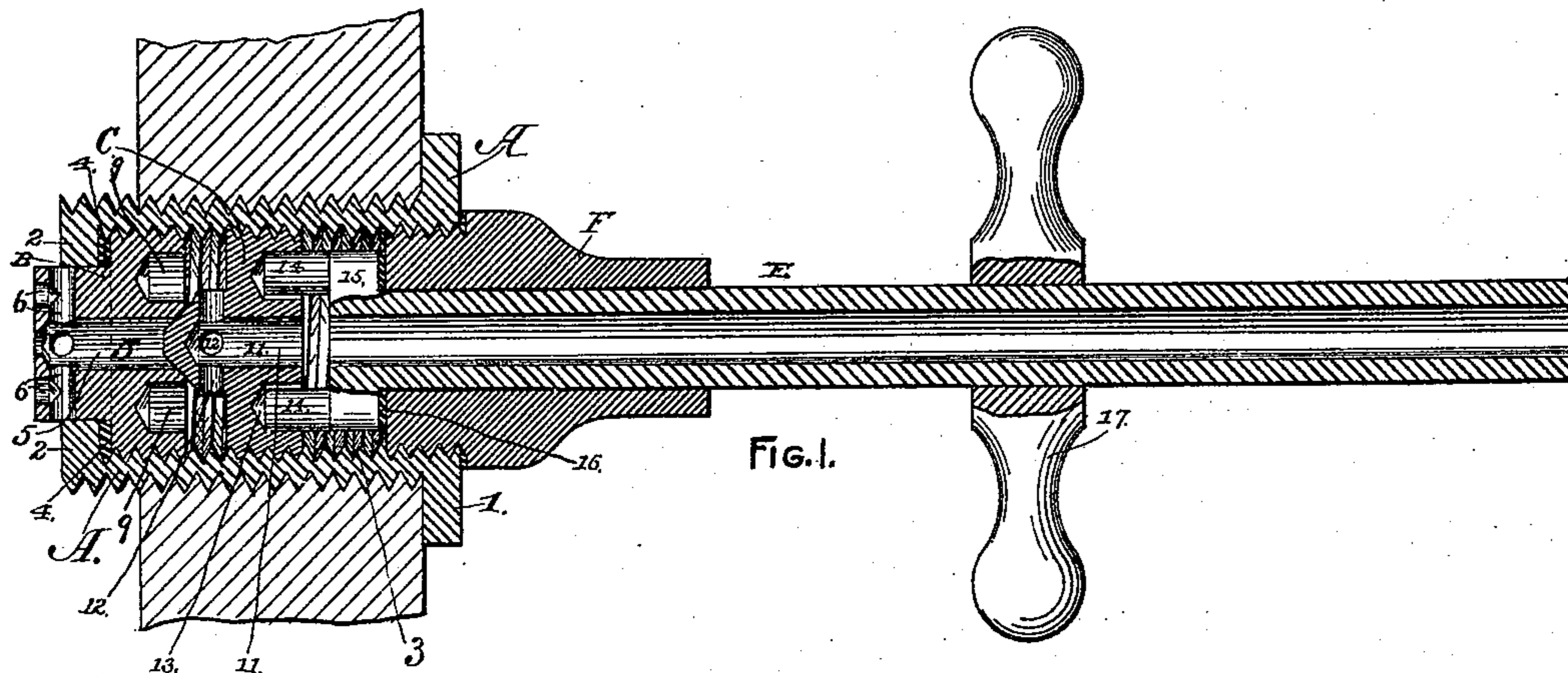
(No Model.)

T. E. MURRAY.

COMBINED COCK AND COUPLING FOR BARRELS, &c.

No. 456,367.

Patented July 21, 1891.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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PLACE.

COMBINED COCK AND COUPLING FOR BARRELS, &c.

SPECIFICATION forming part of Letters Patent No. 456,367, dated July 21, 1891.

Application filed November 28, 1890. Serial No. 372,945. (No model.)

To all whom it may concern:

Be it known that I, THOMAS E. MURRAY, of the city and county of Albany, in the State of New York, have invented new and useful
5 Improvements in Combined Cocks and Couplings for Barrels and other Vessels, of which the following is a specification.

This invention relates to improvements in devices for drawing liquids from barrels and
10 other similar vessels; and it consists of a device composed of a metallic bushing which is permanently secured to the barrel and provided with an internal screw-thread, a removable valve-seat secured in said bushing,
15 a valve fitted to stop the opening in said seat and having a screw-thread on its periphery, which fits into the screw-thread of said bushing, a sleeve fitted to engage in the outer end of the bore of said bushing, and a tubular
20 wrench or handle fitted to rotate in said sleeve and provided with suitable means for engaging with and operating said valve; and it also consists in providing said device with a check-valve for preventing musty or tainted air
25 from passing into the barrel to affect the taste of the liquid thereafter contained.

In the accompanying drawings, which are herein referred to and form part of this specification, Figure 1 is a longitudinal section of
30 my device attached to a barrel or other vessel, the valve of the device being closed. Fig. 2 is a longitudinal section of the bushing and valve-seat provided with a check-valve for preventing an inflow of air into the barrel
35 when the latter is empty. Fig. 3 is a longitudinal section of the bushing detached from a barrel, the valve-seat being removed therefrom. Figs. 4 and 5 are respectively a side
40 elevation and a front elevation of the screw-valve detached from the bushing, and Fig. 6 is a side elevation of the detachable sleeve and tubular wrench detached from the device.

As represented in the drawings, A designates the metallic bushing of my device, which
45 is provided with screw-threads on its periphery for the purpose of securing the same in the head or other convenient part of a barrel. Said bushing is made tubular in form and has at its outer extremity a circumferential
50 flange 1 to overlap the adjoining part of the barrel, and at its inner extremity an annular

flange 2 extends inwardly to form a shoulder for receiving a valve-seat at that point. The bore of said bushing is provided with a screw-thread 3, formed therein from its outer ex- 55 tremity to the flange 2.

B is a removable valve-seat having on its periphery a screw-thread corresponding to the screw-thread in the bore of the bushing A. Said valve-seat is fitted to screw into said 60 bushing, so as to bear against a packing 4, which is interposed between the valve-seat B and flange 2 for the purpose of forming a water-tight joint at that point. As shown in Fig. 1, the valve-seat B has a central opening 65 5, whose outer end is closed by the valve C, and a series of tributary openings 6 lead into said central opening. Said tributary openings, being small, act as strainers to prevent hops and other foreign matter from entering the 70 device to clog it.

As shown in Fig. 2, the valve-seat B is provided with a cage D on its inner end. Said cage having a perforated end on which an outwardly-opening check-valve 7 is fitted to 75 bear and cover the perforations, and, as shown, said valve is held in a closed position by means of a delicate spring 8, which will yield to the pressure of the liquid contained in the barrel when the valve C is raised from 80 its valve-seat B; but in the absence of an internal pressure in the barrel, as when the liquid has all been drawn from the barrel, the spring 8 will retain the valve 7 to close the perforations in the end of the cage D. Said 85 check-valve is for the purpose of preventing musty or foul air from entering an empty barrel when by reason of carelessness the valve C is not properly closed, and in such cases the valve 7 will close automatically 90 to effect the exclusion of the foul air into the interior of the barrel. When preferred, any other form of valve may be substituted for the valve 7, provided it is capable of operating under the pressure of the liquid con- 95 tained in the barrel.

The valve-seat B is removable from the bushing A for the purpose of allowing a stream of water to be forced into the interior of the barrel for the purpose of cleans- 100 ing the latter, and for the purpose of facilitating the removal and return to place of

said valve-seat it is provided with pits 9 for receiving a wrench or other suitable implement, whereby said valve-seat can be screwed into and out from its place in the bushing A.

5 C designates the valve of the device, made in a disk form with a conical point 10, which forms the valve-joint. The periphery of said valve is provided with a screw-thread, which fits the screw-thread in the bore of the bush-
10 ing A, so that by rotating said valve it can be seated in the valve-seat B or moved away from the latter, as occasion may require. Said valve is provided with a central opening 11, that extends through its outer face, but not
15 through its conical point 10. Lateral openings 12 lead into said central opening outside of said conical point and form a free communication, when the valve C is off the seat B, between the interior of the barrel and the
20 bore of the tubular wrench hereinafter described, or with the bore of the bushing A when preferred. Said valve has in or on its outer face pits 13 or other provisions for receiving a wrench or other implement for ro-
25 tating said valve.

E is a wrench made in a tubular form and having on its inner end pins 14, which are fitted to engage in the pits 13 of the valve C. Said wrench is fitted to rotate in a sleeve F, that is removably attached to the bushing A.
30 Preferably said sleeve is fitted to screw into the outer end of said bushing and forms a stopper for the latter. The inner end of the wrench E is provided with a head 15, having
35 on its outer face a packing 16, which when the head 15 is at the extremity of its outward movement will form a water-tight joint with the inner end of the sleeve F. The tubular stem of the wrench E is extended beyond the
40 outer end of the sleeve F and is provided with a cross-handle 17 or other means for rotating said wrench exteriorly. Said tubular stem affords the means for coupling a pipe thereto for conveying the liquid to any required
45 point of delivery.

When preferred, the stem of the wrench E may be made without the tubular bore, or, in other words, solid, the projecting part of said stem being provided with means for impart-
50 ing a rotary motion to the wrench, and in such case the projecting part of the sleeve F should be provided with a tubular projection provided with an opening leading into the interior of the bushing A, said tubular pro-
55 jection being provided with means for attaching a delivery-pipe thereto.

My invention operates in the following manner: The device being secured in a bar-
60 rel, the barrel C being closed and the sleeve F and the tubular wrench E being detached

therefrom, the sleeve F, carrying the tubular wrench E, is screwed into the bushing A, and the tubular wrench is pushed inwardly and engaged with the valve C. Then by turn-
65 ing the wrench E in the required direction the valve C is screwed outwardly until the head 15 presses the packing 16 against the inner end of the sleeve F, and thereby the device will be opened to allow the liquid in
70 the barrel to flow therefrom. After the liquid has been exhausted from the barrel the valve C should be screwed into contact with the valve-seat B, to close the opening into the barrel, and thereby prevent musty or
75 foul air from entering the barrel; but when the check-valve 7 is employed the communication between the interior of the barrel and the external air can be automatically cut off.

What I claim as my invention, and desire to secure by Letters Patent, is—

80 1. The combination of a metallic bushing to be permanently secured in a barrel, said bushing having an internal screw-thread, a removable valve-seat screwed into said bush-
85 ing, a valve which forms a closure for said valve-seat and having beyond its seating-sur- face radial openings leading into a central opening extending to the outer face of said valve, said valve having on its periphery a
90 screw-thread fitted to screw into said bush- ing, a removable sleeve fitted to screw into the outer extremity of said bushing, and a tubular wrench journaled in said sleeve and provided with means, substantially as de-
95 scribed, for engaging with and operating said valve, the bore of said tubular wrench being correspondent to the central opening of said valve, as and for the purpose herein specified.

2. In a combined cock and coupling of the
100 character herein described, the combination, with a screw-actuated main valve provided with means for effecting positive opening and closing movements of the same, of an auxil-
105 iary check-valve contained in an inward ex- tension of the casing for said main valve, so as to be interposed between said main valve and the interior of the liquid-containing ves-
110 sel, said check-valve being fitted to open out- wardly under the pressure of the liquid in said vessel and being provided with a spring for effecting the closing movement of the same when the liquid pressure is removed there-
115 from, whereby an inflow of air into the empty vessel will be prevented, as and for the pur- pose herein specified.

THOMAS E. MURRAY.

Witnesses:

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S. B. BREWER.