

No. 777,100.

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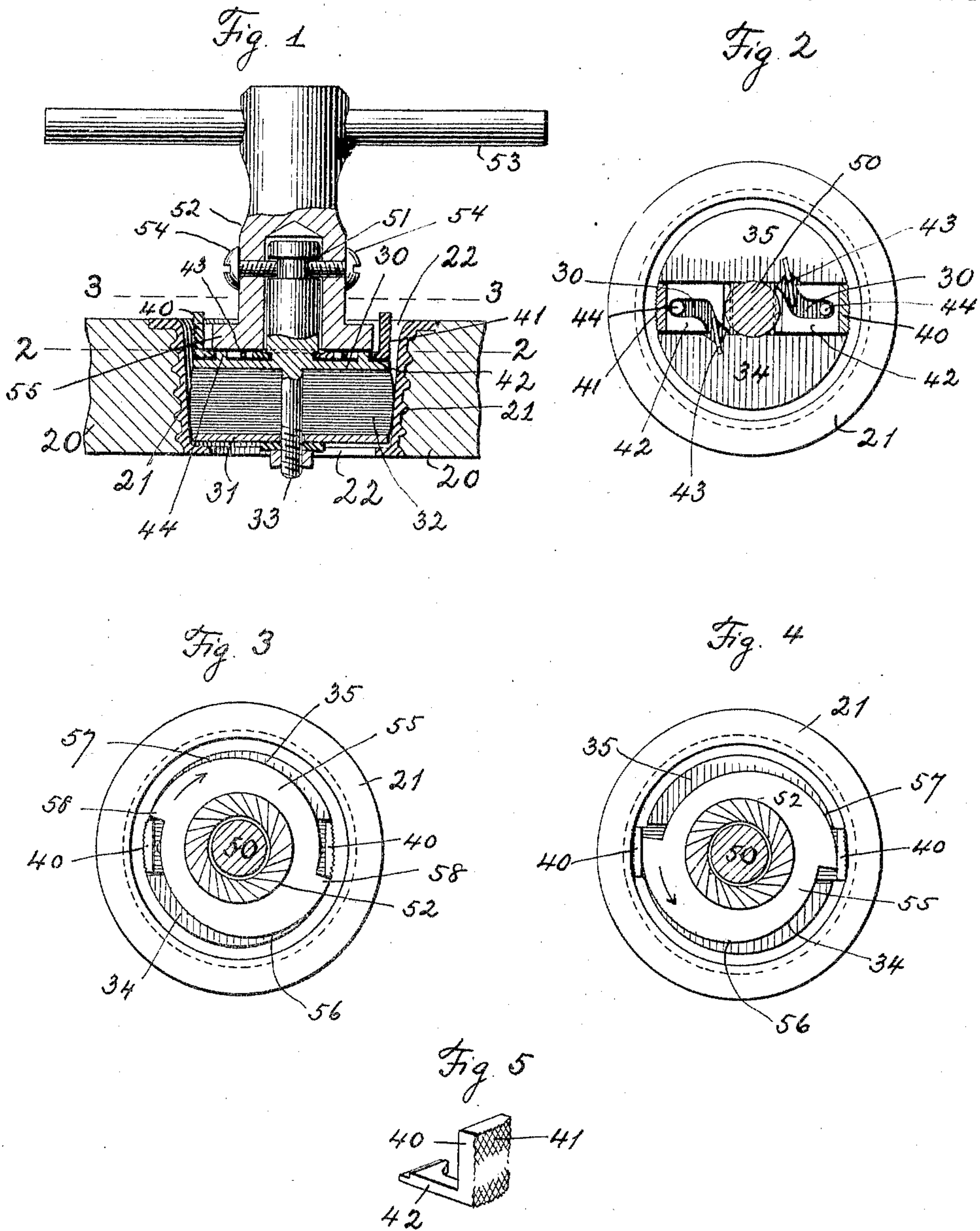
A. HOERR & J. BOERSCHINGER.

TEMPORARY CLOSURE FOR BUNG HOLES OR THE LIKE.

APPLICATION FILED APR. 18, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:
Herman Meyer
Alan McDonnell

August Hoerr and INVENTORS
Jacob Boerschinger

BY *William R. Baird*
THEIR ATTORNEY

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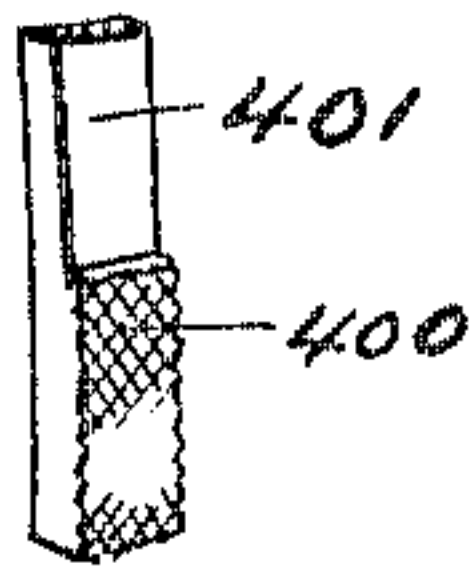
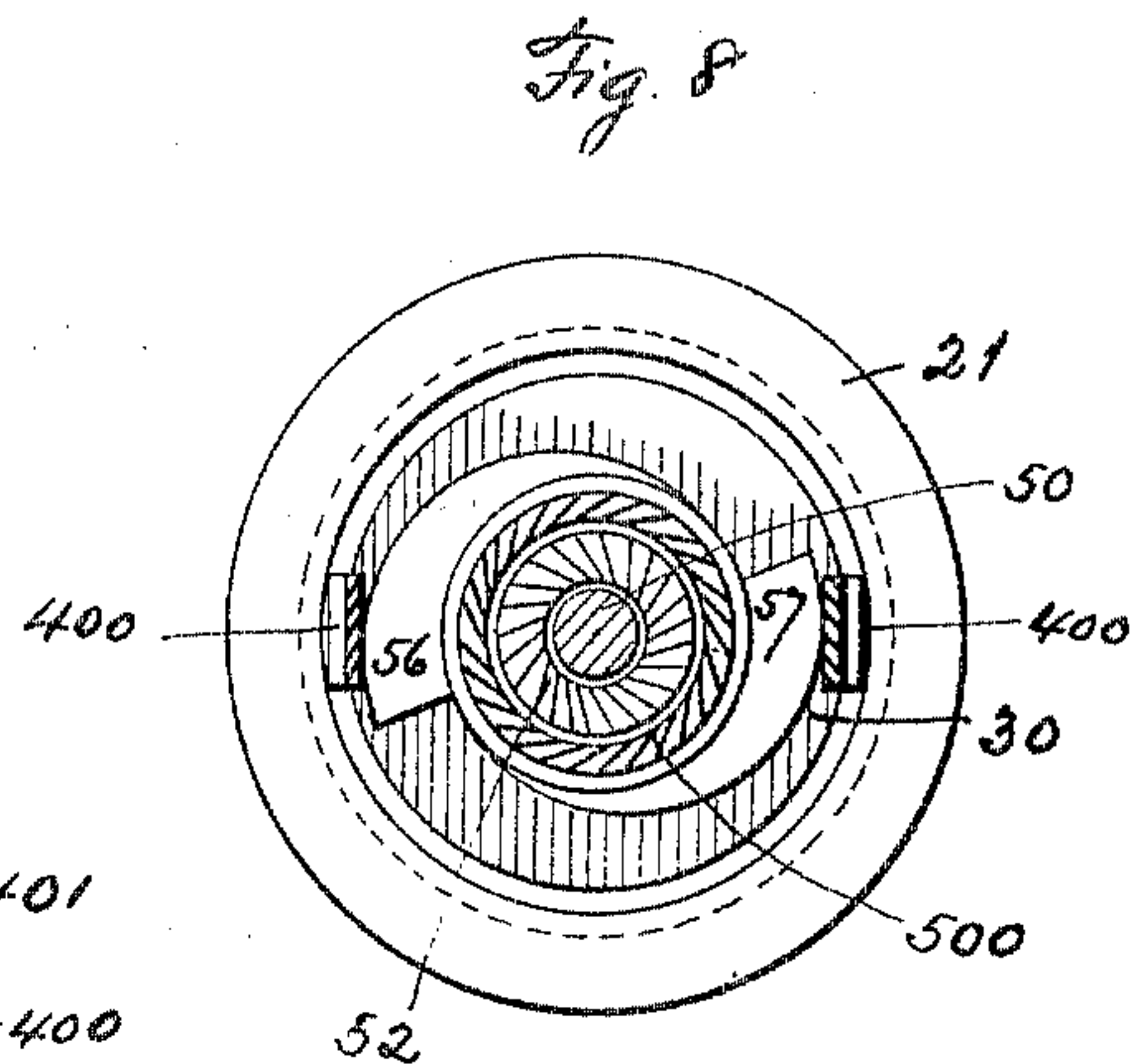
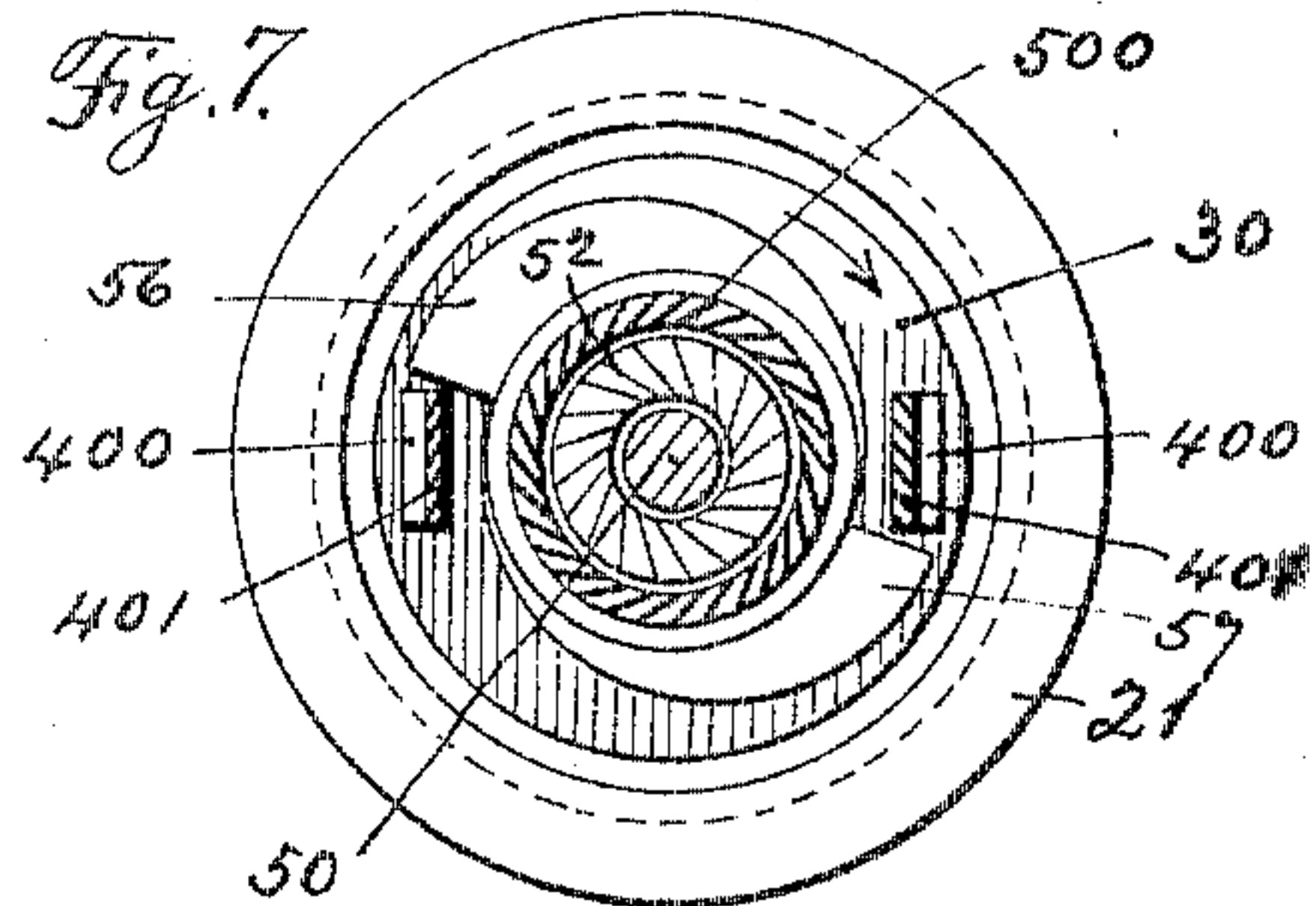
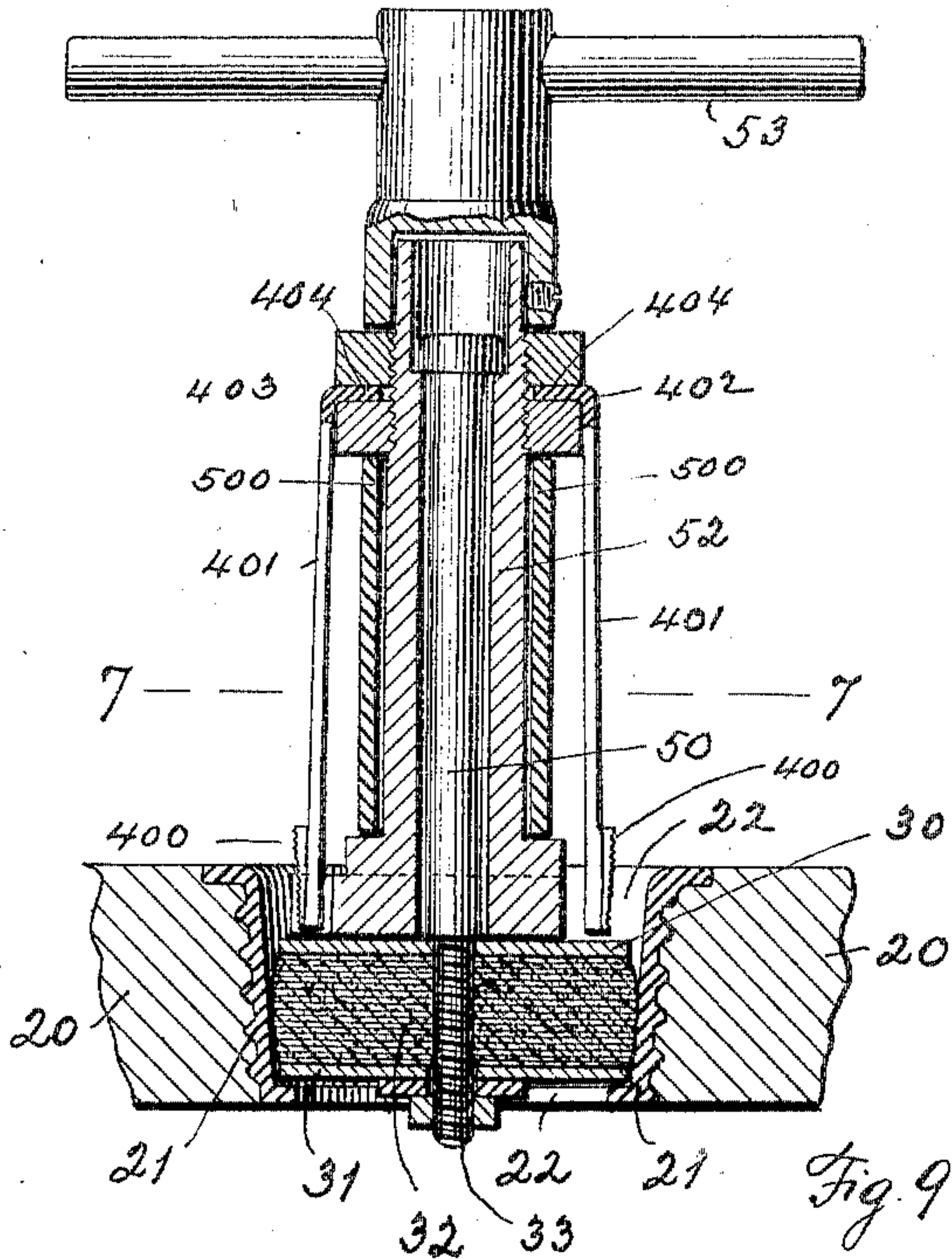
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WITNESSES:

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Alan M. Donnell

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THEIR ATTORNEY

UNITED STATES PATENT OFFICE.

AUGUST HOERR AND JACOB BOERSCHINGER, OF NEW YORK, N. Y.

TEMPORARY CLOSURE FOR BUNG-HOLES OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 777,100, dated December 13, 1904.

Application filed April 18, 1904. Serial No. 203,618. (No model.)

To all whom it may concern:

Be it known that we, AUGUST HOERR and JACOB BOERSCHINGER, citizens of the United States, and residents of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Temporary Closures for Bung-Holes or the Like, of which the following is a specification.

Our invention relates to temporary closures for the bung-holes of barrels, kegs, and the like containers and shipping-packages; and its novelty consists in the construction and adaptation of the parts, as will be more fully hereinafter pointed out.

It not infrequently happens, especially in the brewery trade, that occasions arise when it is desirable to close the bung-hole of a cask or barrel temporarily—for instance, when a beer-keg is being treated by the pitching process. It might be argued that a bung sharply driven in the hole to close it would amply suffice for the purpose; but it must be remembered that if the closure is but temporary it must be withdrawn readily, as well as inserted easily.

The object of our invention is to provide a simple and efficient temporary closure of the character described.

In the drawings, Figure 1 is a partial elevation and longitudinal central section of a preferred form of our device. Fig. 2 is a plan view of the same beneath the plane of the line 2 2 in Fig. 1. Fig. 3 is a similar view beneath the plane of the line 3 3 in Fig. 1, showing the parts before the grips are moved against the bushing; and Fig. 4 is a view similar to Fig. 3, showing the parts after the grips have been moved against the bushing. Fig. 5 is a detail perspective view of one of the grips. Fig. 6 is a partial elevation and longitudinal central section of a modified form of our invention. Fig. 7 is a plan view of the same beneath the plane of the line 7 7 in Fig. 6, showing the parts before the grips are moved against the bushing. Fig. 8 is a view similar to Fig. 7, showing the same parts after the grips have been moved against the bushing. Fig. 9 is a perspective

detail of one of the grips shown in Figs. 6, 7, 50 and 8.

We will first describe the form of our invention shown in Figs. 1, 2, 3, 4, and 5 and will afterward point out the variations therefrom in the forms shown in the other figures. In the drawings, 20 is a part of the wall of a barrel, keg, or similar receptacle, and 21 is a conical bushing, made of iron or other suitable material, secured thereto to form the walls of a bung-hole 22. 30 is an upper plate of a piston, 31 being the lower plate and 32 an intermediate packing of any suitable fabric or material. The plates 30 and 31 are of slightly smaller diameter than the packing 32, and the latter is intended to form a tight fit against the bushing 21. A rod 33, secured to both plates in any suitable manner, serves to draw them together to compress the packing and hold it securely in place. 40 40 are grips intended to be moved outward against the bushing 21 and to firmly press against the same, the outer contact-surface 41 being roughened in order more efficiently to accomplish such purpose. Each grip is provided with an inwardly-extending flange 42, movable between guides formed by two plates 35 and 34, secured to the plate 30. Springs 43, secured to these plates, serve to retract the grips inwardly after they have been moved outward, posts 44 limiting their inward movement. A central post 50, forming an upper extension of the rod 33, connecting the piston-plates, is provided with an annular groove 51. Mounted over, around, and embracing this post is a tubular stem 52, provided at its top with a transversely-placed rod 53, forming a handle, and provided also with one or more apertures to admit of the insertion of screws 54 54 or similar means to engage with the groove 51 to hold the stem 52 in position. At the bottom of the stem and substantially parallel to the piston is a plate or disk 55; cut to form two cams 56 and 57 in the forms of semi-circles the centers of which are eccentric to the center of rotation of the stem 52, so that when the stem is rotated the faces of the cams 56 and 57 press upon the rear of the grips 40 to force them outward against the bushing,

as shown in Fig. 4, while the continued rotation of the stem 52 causes the extremity of the cam 58 to pass out of contact with the grip, and the latter is retracted. In Fig. 3 the 5 cams are shown rotatable from left to right and in Fig. 4 in the reverse direction.

In Figs. 6 to 9, inclusive, we have illustrated a modified form of the device. In these figures the piston-plates 30 and 31 and packing 32 are the same as before. The central 10 post 50 is longer, and so is the tubular stem 52. In place of the grips being constructed as before they are formed of roughened pieces 400 at the extremities of a dependent piece 401, 15 bent at 402 and 403 to form a cross-plate 404, made integral with or secured to said pieces 401. A tubular sleeve 500 turns freely on the post 50. In this construction the rotation of the handle 53 moves the cams 56 and 57 out- 20 wardly against the piece 401 and forces the grips 400 400 against the bushing as before, while the continued rotation of the handle will release the grips from their outward pressure when the extremity of the cams has ceased to 25 contact with the grips. In this construction the inherent elasticity of the piece 401 acts as a spring to retract the grips away from the bushing.

What we claim is—

30 1. A temporary closure for the bung-holes of barrels and the like, comprising a piston consisting of plates with a soft packing between, a plurality of grips separate from the piston and adjacent to one of the plates thereof and 35 radially movable, and means adapted to press them outward against the walls of the hole and automatically retract them to place when the pressure is released.

40 2. A temporary closure for the bung-holes of barrels and the like, comprising a piston consisting of plates with a soft packing between, a plurality of grips separate from the piston and adjacent to one of the plates thereof and radially movable, and means adapted to press 45 them outward against the walls of the hole and automatically retract them to place when the pressure is released, consisting of a cam-disk and means for rotating the same and a spring secured to each grip and to a fixed part of the 50 device.

3. A temporary closure for the bung-holes of barrels and the like, comprising a piston adapted to fit the hole, one or more outwardly-movable grips separate from and outside of said piston, and means adapted to move the 55 grips against the walls of the hole and retract the same after such movement consisting of a cam-disk pivoted at the center of the piston, and retracting-springs.

4. A temporary closure for the bung-holes 60 of barrels and the like, comprising a piston adapted to fit the hole, one or more outwardly-movable grips separate from and outside of said piston, and means adapted to move the grips against the walls of the hole and retract 65 the same after such movement consisting of a cam-disk pivoted at the center of the piston and less in area than the surface thereof, whereby being continuously rotated, said disk will first press the grips and then release them. 70

5. A temporary closure for the bung-holes of barrels and the like, comprising a piston adapted to fit the hole, a plurality of outwardly-movable grips separate from and outside of the piston, and means adapted to move the grips 75 against the walls of the hole, comprising a continuously-rotatable disk provided with a plurality of cam projections at its periphery adapted to press against said grips, means for continuously rotating said multiple-cam disk, 80 and means for retracting the grips after said movement.

6. A temporary closure for the bung-holes of barrels and the like, comprising a piston adapted to fit the hole, a central outwardly- 85 projecting post, oppositely-disposed grips provided with retracting-springs, a continuously-rotatable disk provided with cam projections at its periphery, one for each grip, and a handle mounted on the post adapted to continu- 90 ously rotate said post and the multiple-cam disk.

Witness our hands this 15th day of April, 1904, at the city of New York, in the county and State of New York.

AUGUST HOERR.

JACOB BOERSCHINGER.

Witnesses:

S. HOFFMANN,

RUDOLF ALTERT.