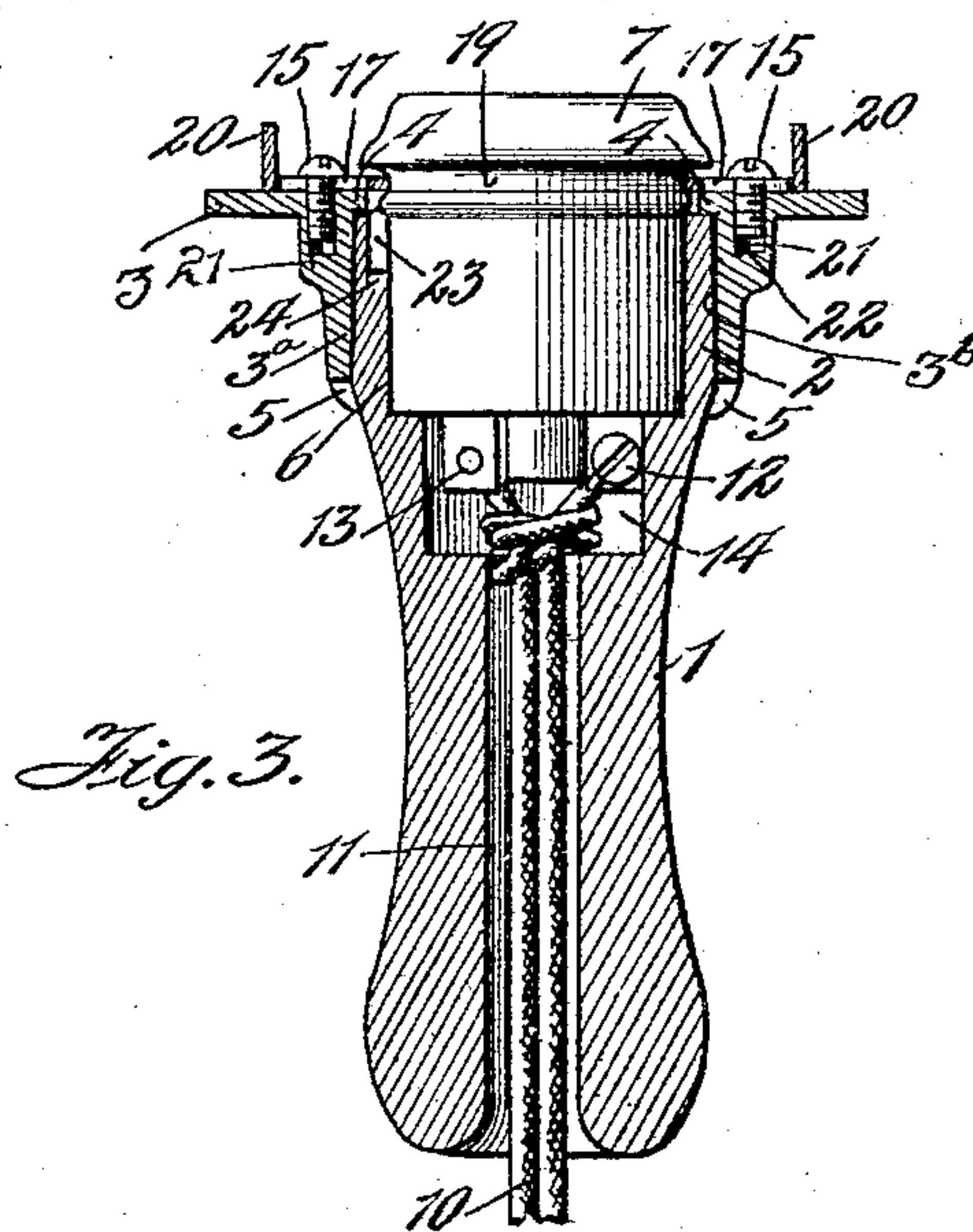
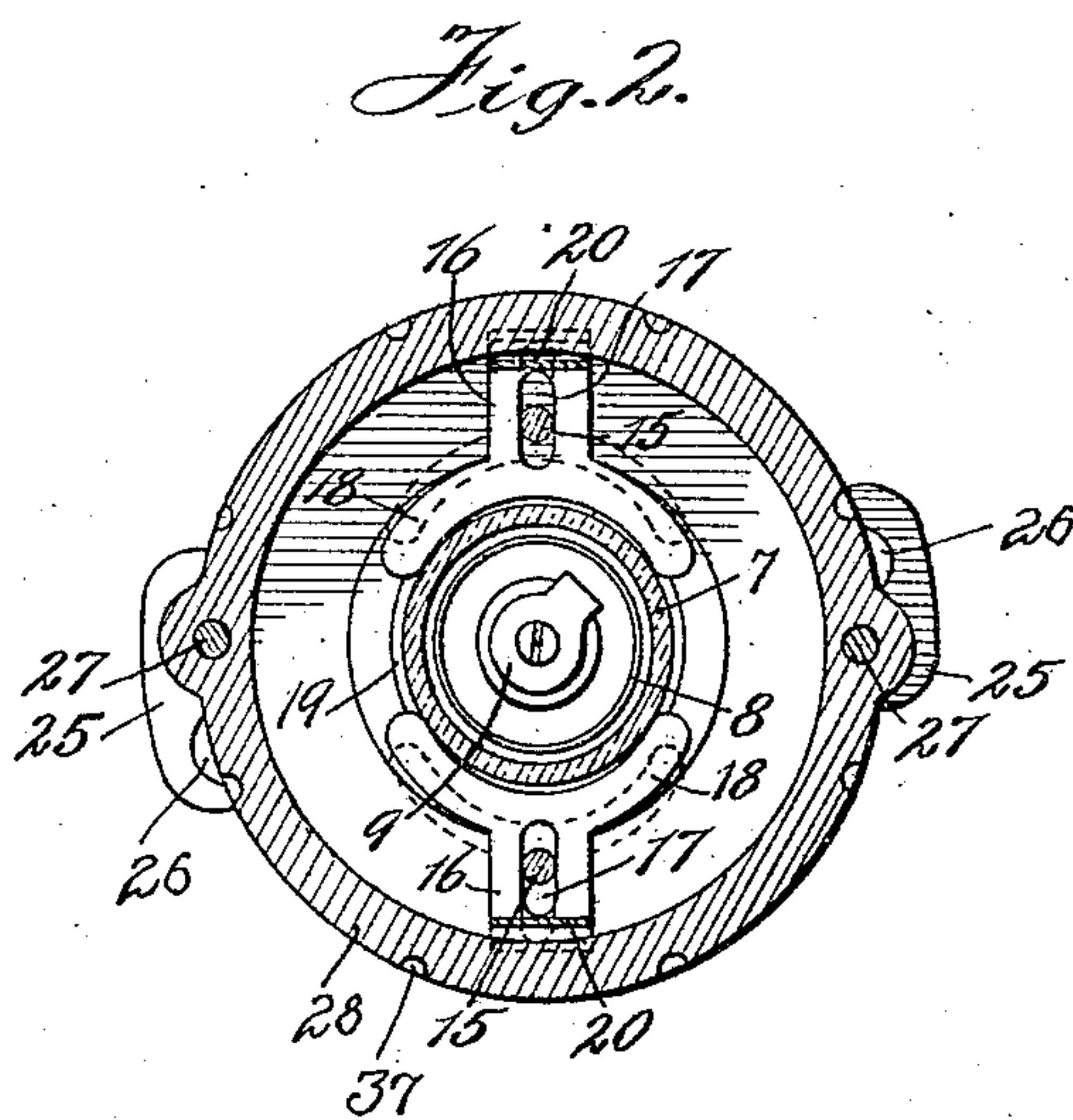
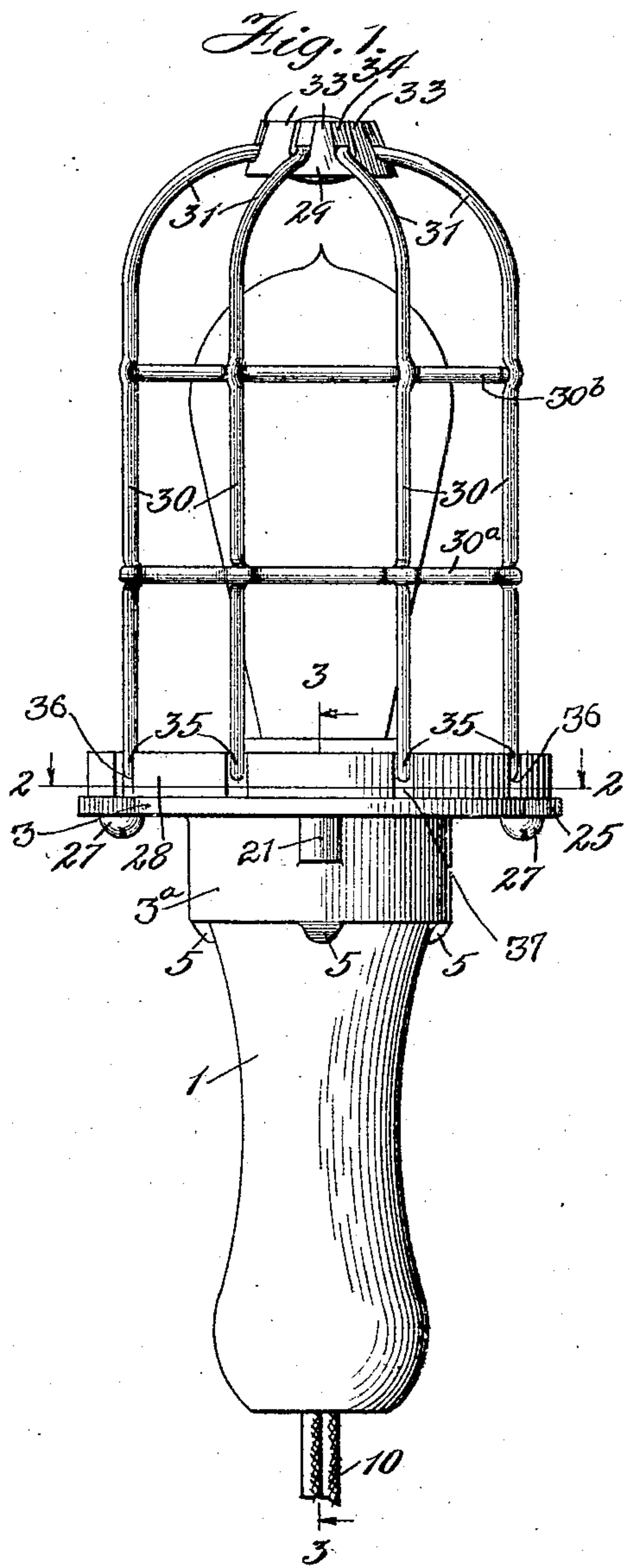


J. R. HERSHEY & N. H. SMITH.  
PORTABLE ELECTRIC LAMP.  
APPLICATION FILED DEC. 23, 1907.

908,262.

Patented Dec. 29, 1908.

2 SHEETS—SHEET 1.



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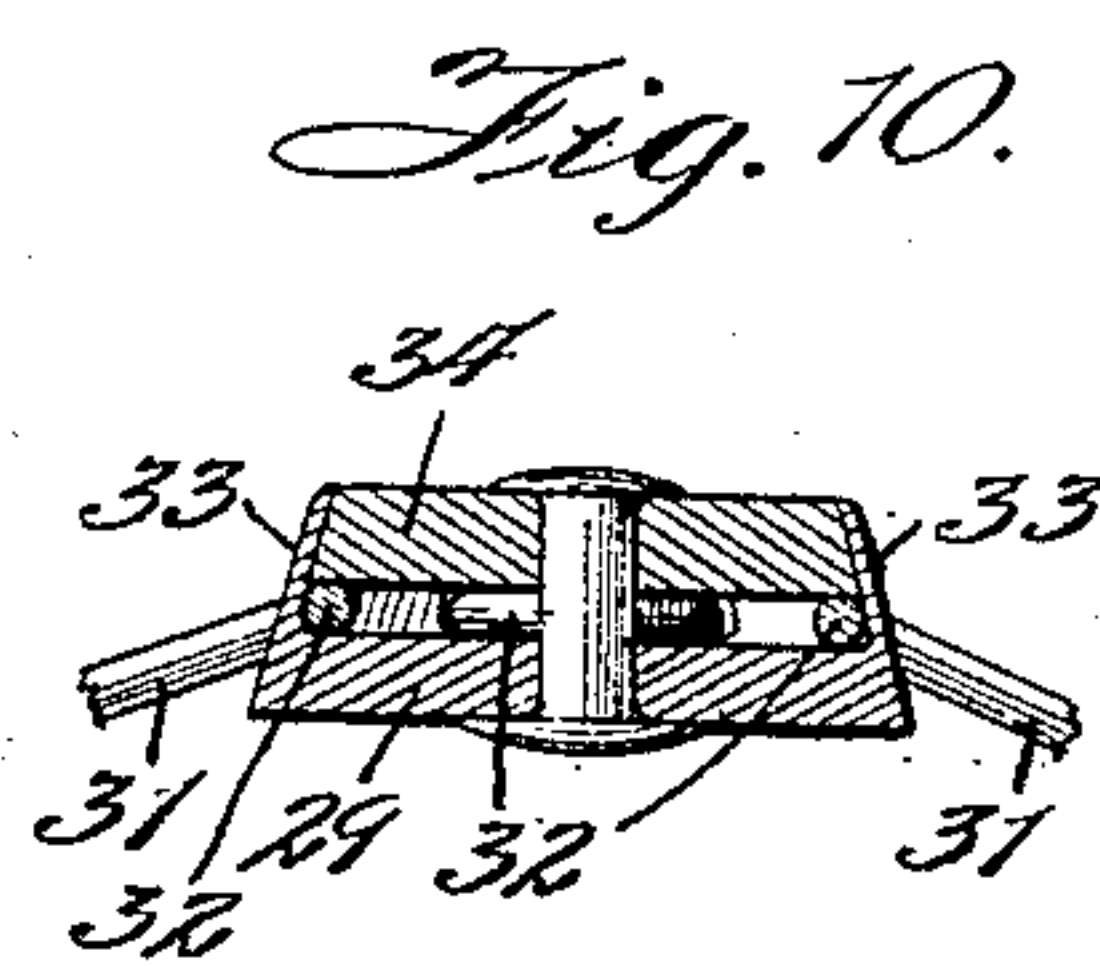
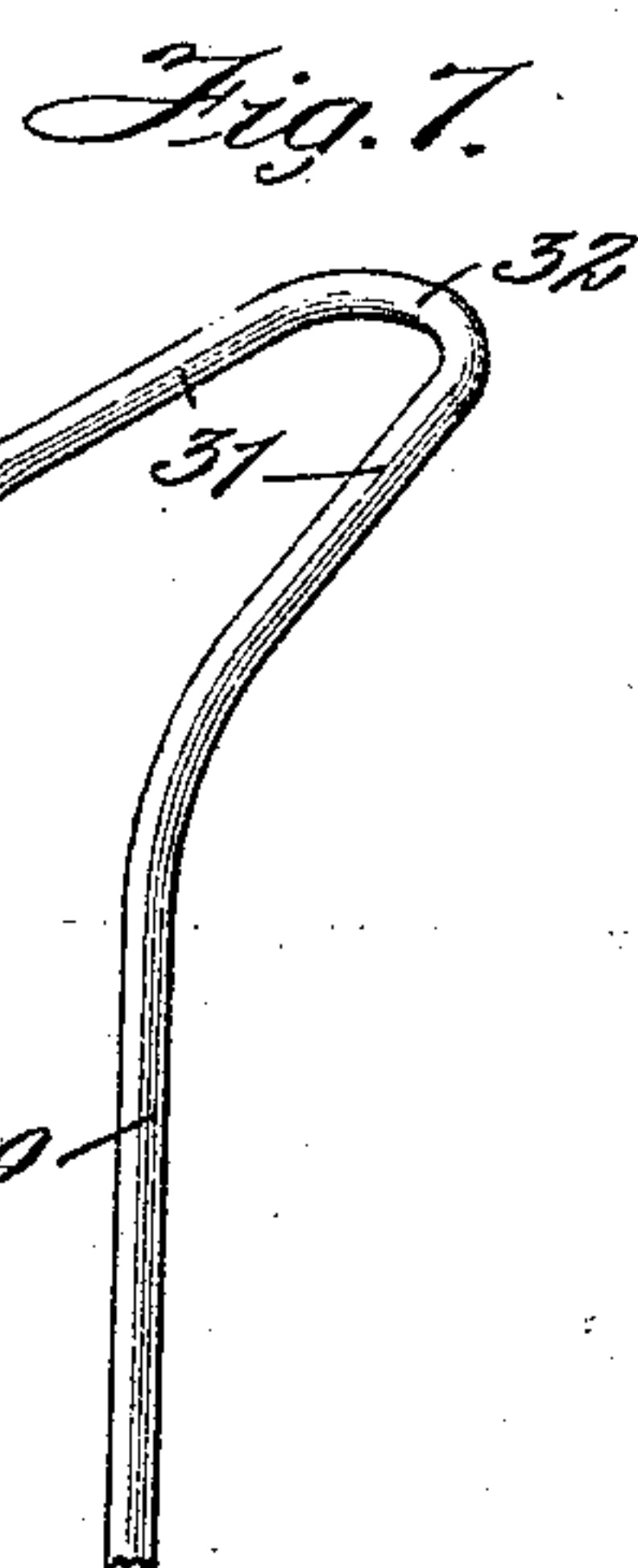
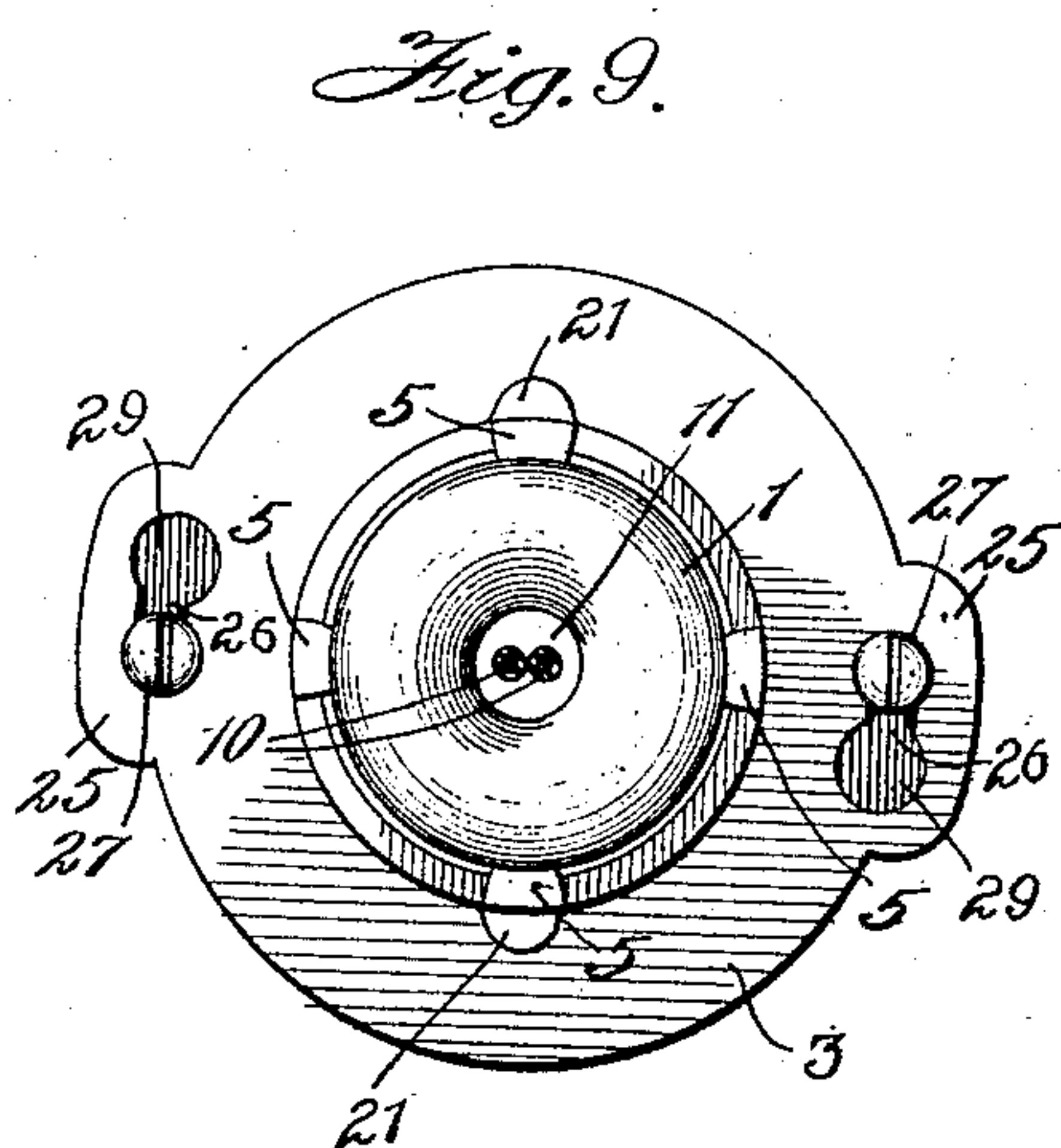
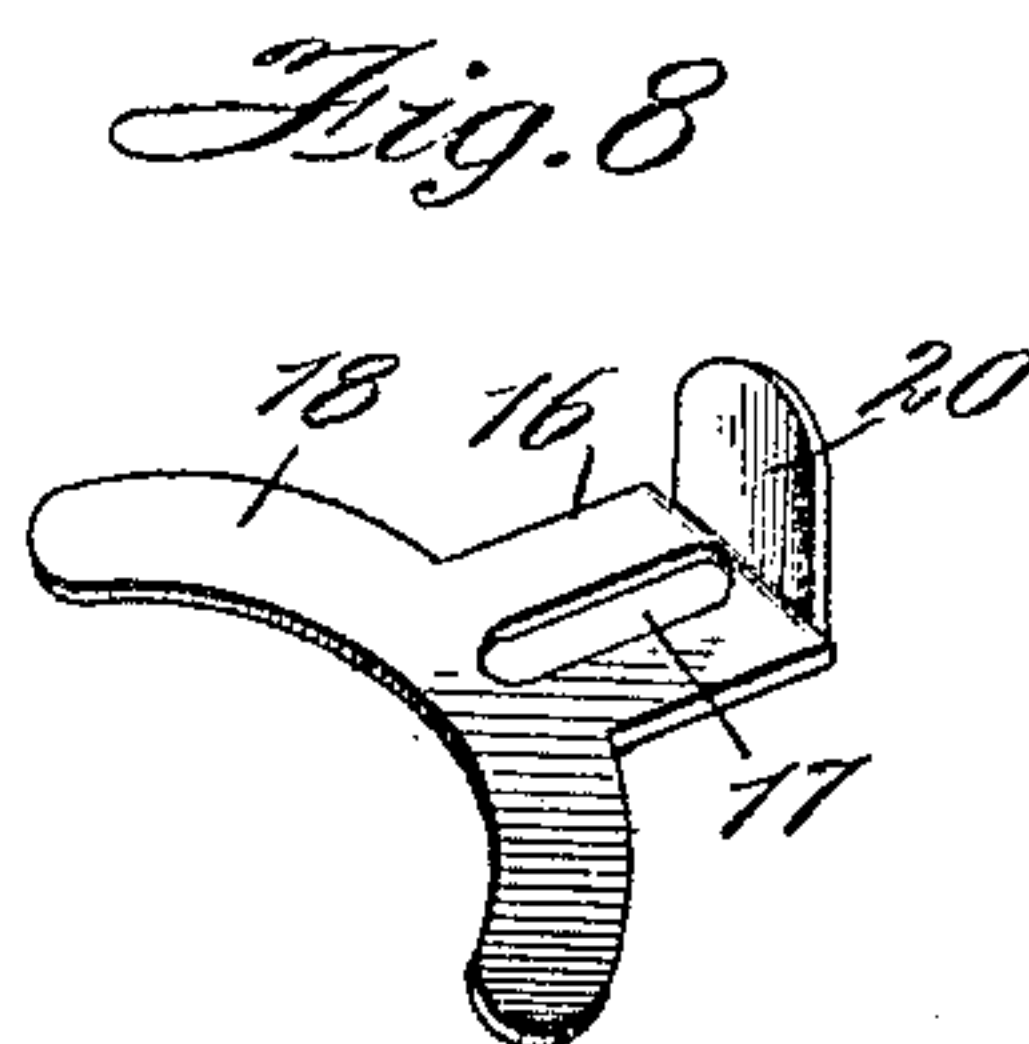
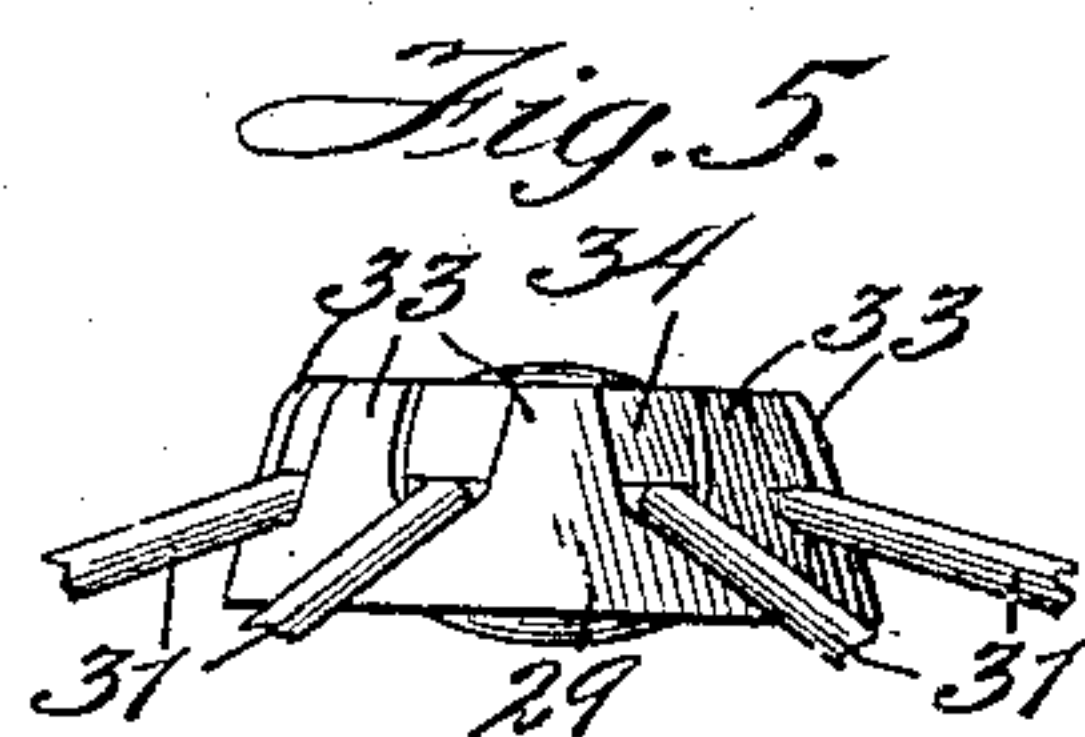
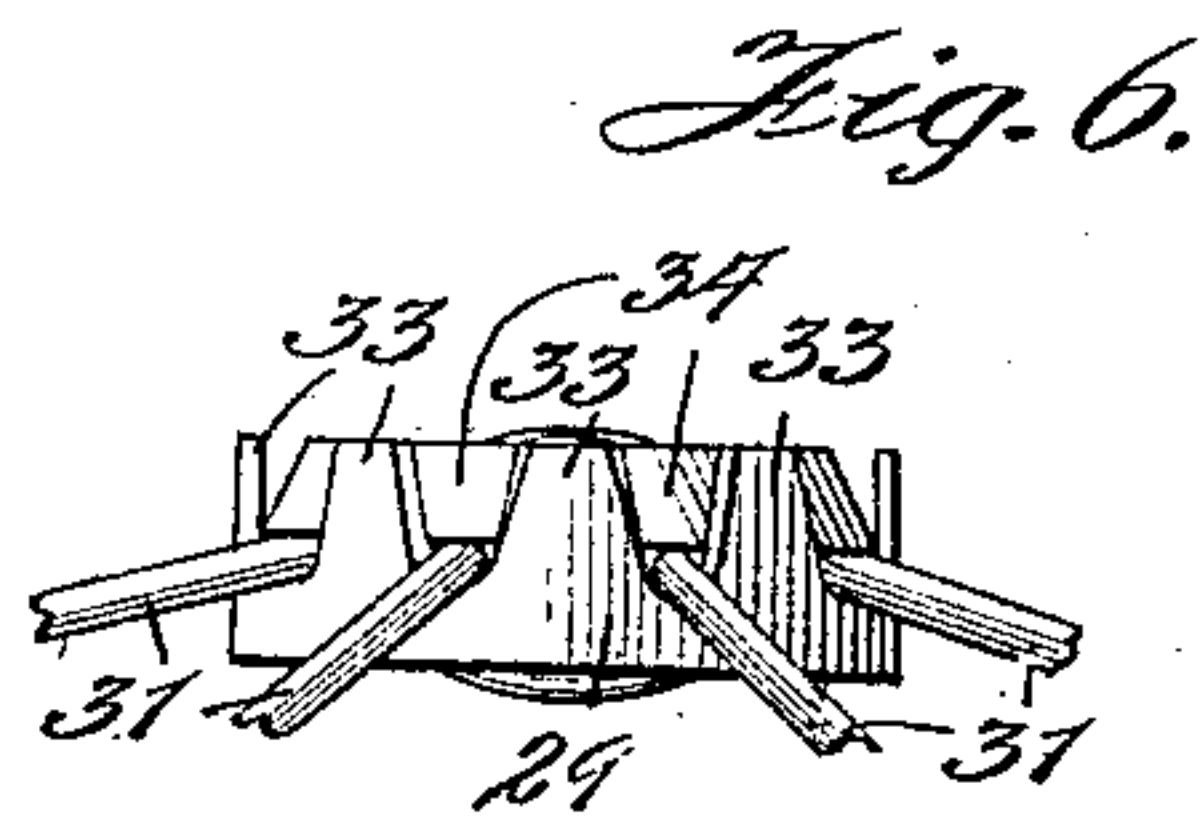
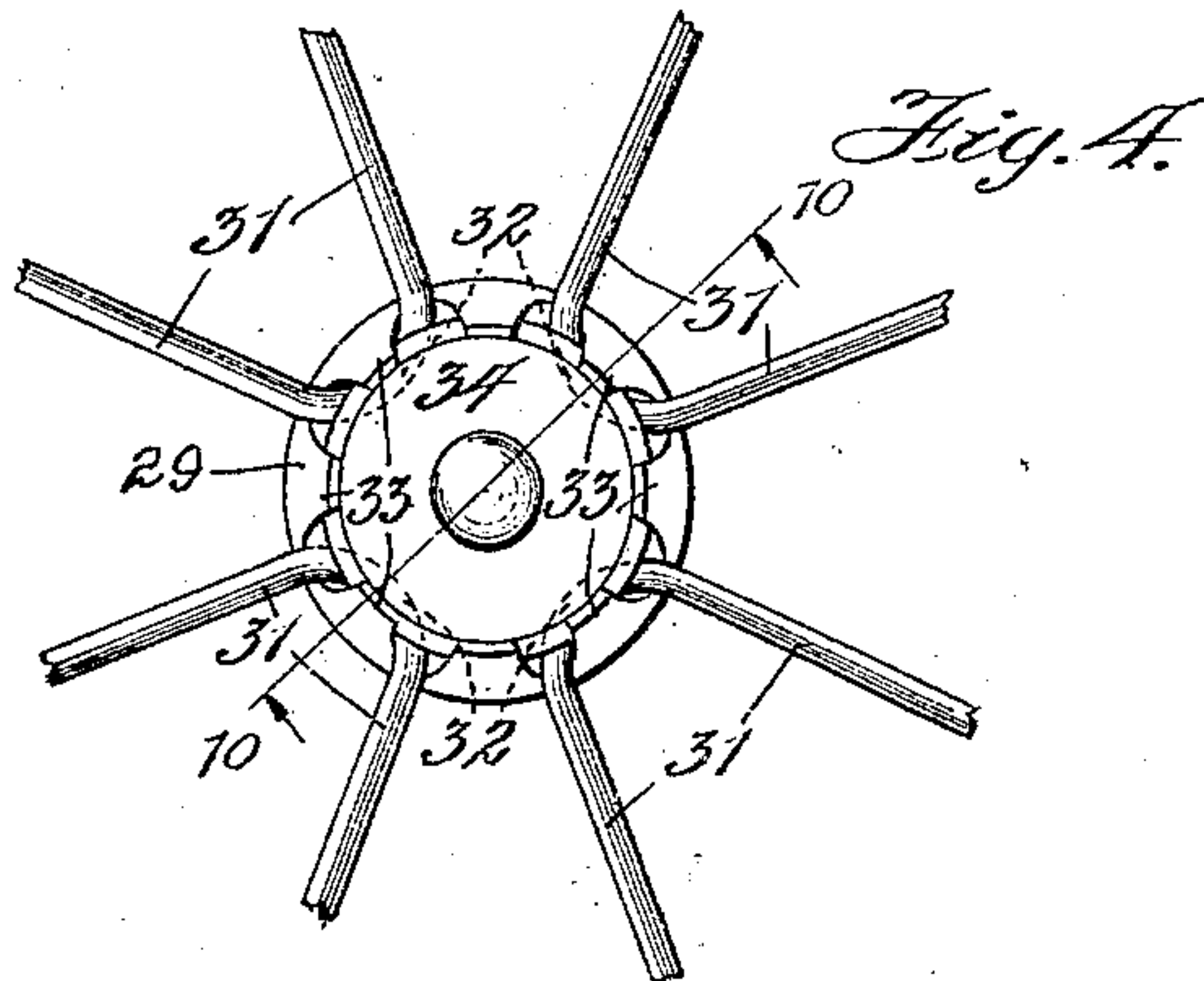
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

JACOB R. HERSHEY AND NEWTON H. SMITH, OF KEOKUK, IOWA, ASSIGNORS TO ELECTRIC SERVICE SUPPLIES COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

## PORTABLE ELECTRIC LAMP.

No. 908,262.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed December 23, 1907. Serial No. 407,739.

*To all whom it may concern:*

Be it known that we, JACOB R. HERSHEY and NEWTON H. SMITH, citizens of the United States, residing at Keokuk, in the county of Lee and State of Iowa, have invented new and useful Improvements in Portable Electric Lamps, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

Our invention relates to portable guarded electric lamps, and has for its objects, first, improved means for securing together the handle and the base that carries the lamp-guard; second, improved means for holding the lamp-socket firmly in its seat on the handle, while permitting ready removal of the socket; third, an improved construction of the guard surrounding the bulb of the lamp.

In the drawings, wherein appears one illustration of my invention, Figure 1 represents a side view in elevation of a form of portable electric lamp and guard embodying my improvements; Fig. 2 is a top view partially in section on line 2—2 of Fig. 1; Fig. 3 is a longitudinal sectional view on line 3—3 of Fig. 1, the guard and bulb being removed and certain of the parts being shown in elevation, for the sake of clearness; Fig. 4 is a fragmentary top plan view of the guard to show how the strips or wires are held in proper relation to form the upper end of the guard; Fig. 5 is a side view of the part shown in Fig. 4; Fig. 6 is a view similar to Fig. 5 showing the prongs on the upper ring or disk before they are bent over to clamp down the strips; Fig. 7 is a view in perspective showing the intermediate curved portion of the U-shaped strip whereby it is secured to the ring or disk at the upper end of the guard; Fig. 8 is a detail view of one of the clamps that hold the lamp-socket in place; Fig. 9 is a bottom plan view showing a form of bayonet-slot connection between the base and the guard; and Fig. 10 is a sectional detail view on line 10—10 of Fig. 4.

The handle 1, preferably made of some insulating material, such as wood, is at one end provided with a tapering extension 2, as shown in Fig. 3. The base 3 for carrying the guard is provided with a cylindrical portion 3<sup>a</sup> having a central conical opening 3<sup>b</sup> so shaped that the complementarily taper-

ing extension of the handle may be firmly wedged into said opening, whereby a tight joint is secured between the base and the handle. An inwardly projecting shoulder 4 may be provided on the base for pivotally arresting the relative movement of the handle and the base toward each other, when the parts are assembled. To further increase the firmness of the connection between the handle and the base we provide a series of prongs 5 on the outer end of the cylindrical portion, as seen in Figs. 1 and 3. When these prongs are forced inwardly, they grip the handle tightly, thereby preventing separation or loosening of the parts. To separate the parts it is only necessary to bend the prongs out of engagement with the handle, when the wedge-connection between the parts may be severed.

The extension of the handle is provided with a recess or hollow 6 to accommodate the lamp-socket 7. This socket may be of any approved construction, and, in the instance shown, is composed of a cup-shaped member of insulating material having secured within the screw-threaded shell contact 8 and the spring center contact 9,—this being the usual arrangement of the lamp-contacts in sockets of this nature. The service wires 10 lead through an aperture 11 in the handle to the binding posts 12 and 13 projecting from the lower portion of the socket. These binding posts are electrically connected with the lamp-contacts 8 and 9. A recess 14 is provided to conveniently harbor the downwardly extending binding posts 12 and 13, as shown in Fig. 3.

In order to securely hold the lamp socket in its place on the handle, we make use of the following scheme: By means of adjustable screws 15 we attach two clamping members 16 upon opposite sides of the top-surface of the base. These members are each provided with a slot 17 whereby movement of the members is permitted toward and away from the lamp socket, when the screws are loosened, as indicated in dotted lines in Fig. 2. The arc-shaped extensions 18 on these members are adapted to enter the peripheral groove 19 on the socket, as shown in Figs. 2 and 3. It will thus be seen that with the clamping members moved inwardly and the screws 15 tightened, the socket will be securely seated and locked on the handle. In case it is desired to remove the socket, it is



only necessary to slightly loosen the screws 15, when the clamping members may be slid out of engagement with the socket to permit ready withdrawal thereof. This is facilitated by providing each clamping member with an upward projection 20 to serve as a finger piece.

As shown in the drawings, the cylindrical portion of the base 3 is not of sufficient thickness to harbor the screws 15 for which reason we have shown the base as provided with bosses 21 in the openings 22 of which the screws 15 work. However, this is merely an unimportant detail of construction, and the cylindrical portion 3<sup>a</sup> may be made sufficiently thick to dispense with separate bosses for the screws. If the groove 19 be made somewhat V-shaped in cross-section, rather than circular, then the clamping members secure a firmer grip upon the socket, rendering any movement of the same impossible. A lug 23 on the socket is adapted to enter the slot or notch 24 in the handle extension when the socket is placed upon the handle to prevent rotation of the socket. The circular shoulder or flange 25 on the base has oppositely situated bayonet-slots 26 to cooperate with the adjustable screws 27 on the lower guard-ring 28 to permit mounting of the guard upon the base, as well as ready removal thereof from the base. As seen from Fig. 9, the enlargements 29 in the slots 26 allow the heads of the screws 27 to pass through, so that by slight rotation of the guard with respect to the handle, the heads of the screws are brought out of alignment with said enlargements and may then be tightened to firmly clamp the guard upon the base.

Referring now to the structure of the guard, it will be seen that the same comprises a lower ring 28 and an upper ring or disk 29, these two members being connected by substantially U-shaped strips 30. For the sake of illustration, these strips are shown as ordinary round wires. Of course, they might just as well be flat or of any desired configuration. Transverse ring-members 30<sup>a</sup> and 30<sup>b</sup> may be connected to the longitudinal portions of the strips 30 for stiffening and bracing the structure. The strips converge at 31 to bring the intermediate curved portions 32 into engagement with the disk 29. We have devised a new way for clamping the curved portions 32 to said disk. Considering Fig. 6, it will be observed that this disk is provided with a series of peripheral prongs 33 spaced from the central body portion 34 of the disk. The curved portions 32 extend into the space between the prongs and the central body portion of the disk and are secured in place by forcing the prongs down inwardly. We have referred to the part 29 as a disk or ring, because it may be in the shape of either. As expressed in cer-

tain of the appended claims, we do not limit ourselves to the form of disk provided, as shown, with a central body portion against which the prongs abut when bent inwardly. A simple ring with peripheral prongs, would answer the purpose fully, although, when it is desired to attach a suspension-hook to the part 29, the form shown (see Fig. 10) is well adapted to permit such attachment. The central body portion 34, carrying the hook, is soldered or otherwise secured to the ring-portion having the prongs.

The free ends 35 of the strips 30 are connected to the guard-ring 28 in any convenient manner, as, for instance, by soldering. Or, the ends may be projected through slots or openings 36 in the guard-ring and then bent upwardly against the inner surface of the ring. In addition to this, the joints may, of course, be soldered. Projection of the strips beyond the outer surface of the ring 28 is obviated by providing the grooves 37.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent, is—

1. In a portable electric lamp, the combination with a base having a cylindrical portion with a central conical opening, of a handle provided with a tapering extension which cooperates with said opening to wedge the base and handle firmly together, and a socket associated with said parts for operatively supporting an electric lamp.

2. In a portable electric lamp, the combination with a base having a cylindrical portion with a central conical opening, of a handle provided with a tapering extension which cooperates with said opening to wedge the base and handle firmly together, means on said base for positively arresting the relative movement of the parts toward each other, and a socket associated with said parts for operatively supporting an electric lamp.

3. In a portable electric lamp, the combination with a base having a cylindrical portion with a central conical opening, of a handle provided with a tapering extension which cooperates with said opening to wedge the base and handle firmly together, an inwardly projecting shoulder on said base to engage the outer end of said extension for positively arresting the relative movement of the parts toward each other, and a socket associated with said parts for operatively supporting an electric lamp.

4. In a portable electric lamp, the combination with a base having a cylindrical portion with a central conical opening, of a handle provided with a tapering extension which cooperates with said opening to wedge the base and handle firmly together, a plurality of prongs on the outer end of said cylindrical portion forced inwardly to grip



the handle to prevent separation or loosening of the parts, and a socket associated with said parts for operatively supporting an electric lamp.

5 5. In a portable electric lamp, the combination with a base having a cylindrical portion with a central conical opening, of a handle provided with a tapering extension which coöperates with said opening to  
10 wedge the base and handle firmly together, means on said base for positively arresting the relative movement of the parts toward each other, a plurality of prongs on the  
15 outward end of said cylindrical portion forced inwardly to grip the handle to prevent separation or loosening of the parts, and a socket associated with said parts for operatively supporting an electric lamp.

20 6. In a portable electric lamp, the combination with a base having a cylindrical portion with a central conical opening, of a handle provided with a tapering extension which coöperates with said opening to wedge the base and handle firmly together,  
25 an inwardly projecting shoulder on said base to engage the outer end of said extension for positively arresting the relative movement of the parts toward each other, a plurality of prongs on the outer end of said  
30 cylindrical portion forced inwardly to grip the handle to prevent separation or loosening of the parts, and a socket associated with said parts for operatively supporting an electric lamp.

35 7. In a portable electric lamp, the combination with a handle provided with a recess at one end, of a socket mounted in said recess, a pair of oppositely disposed clamping members carried on the handle and movable  
40 toward said socket into engagement therewith to hold the same firmly in place, and away from said socket to permit ready withdrawal of the same.

45 8. In a portable electric lamp, the combination with a handle provided with a recess at one end, of a socket mounted in said recess and having a peripheral groove, a pair of oppositely disposed clamping members carried on the handle and movable toward  
50 said socket into engagement with said groove to hold the socket firmly in place, and away from said socket to permit ready withdrawal of the same.

55 9. In a portable electric lamp, the combination with a handle provided with a recess at one end, of a socket mounted in said recess, a pair of oppositely disposed clamping members carried on the handle, an arc-shaped extension formed on each of said  
60 clamping members, and means for adjustably mounting said clamping members whereby they may be moved inwardly to cause said extension to engage the socket for holding the same firmly in place, and moved

outwardly to permit withdrawal of the 65 socket.

10. In a portable electric lamp, the combination with a handle provided with a recess at one end, of a socket mounted in said recess and having a peripheral groove, a pair  
70 of oppositely disposed clamping members carried on the handle, an arc-shaped extension formed on each of said clamping members, and means for adjustably mounting said clamping members whereby they may  
75 be moved inwardly to cause said extensions to engage said groove for holding the socket firmly in place, and moved outwardly to permit withdrawal of the socket.

11. In a portable electric lamp, the combination with a handle, of a base mounted thereon and provided with an aperture, a socket extending through said aperture, and a pair of oppositely disposed clamping members carried by said base and movable toward  
80 said socket into engagement therewith to hold the same firmly in place, and away from said socket to permit ready withdrawal of the same.

12. In a portable electric lamp, the combination with a handle, of a base mounted thereon and provided with an aperture, a socket extending through said aperture and having a peripheral groove, and a pair of  
90 oppositely disposed clamping members carried by said base and movable toward said socket into engagement with said groove to hold the socket firmly in place, and away from said socket to permit ready withdrawal of the same. 100

13. In a portable electric lamp, the combination with a handle, of a base mounted thereon and provided with an aperture, a socket extending through said aperture, a pair of oppositely disposed clamping members on said base, an arc-shaped extension  
105 formed on each of said clamping members, and means for adjustably mounting said clamping members on the base whereby they may be moved inwardly to cause said extensions to engage the socket for holding the same firmly in place, and moved outwardly to permit withdrawal of the socket. 110

14. In a portable electric lamp, the combination with a handle, of a base mounted thereon and provided with an aperture, a socket extending through said aperture and having a peripheral groove, a pair of oppositely disposed clamping members on said  
115 base, an arc-shaped extension formed on each of said clamping members, and means for adjustably mounting said clamping members on the base whereby they may be moved inwardly to cause said extensions to engage said groove for holding the socket  
120 firmly in place, and moved outwardly to permit withdrawal of the socket. 125

15. In a portable electric lamp, the combination with a handle, of a base mounted thereon and provided with an aperture, a socket extending through said aperture, and a pair of oppositely disposed clamping members on said base, an arc-shaped extension formed on each of said clamping members, and means for adjustably mounting said clamping members on the base whereby they may be moved inwardly to cause said extensions to engage the socket for holding the same firmly in place, and moved outwardly to permit withdrawal of the socket.



combination with a handle having a recess at one end, of a socket seated in said recess and provided with a lug, said handle having a notch for receiving said lug to prevent rotation of the socket on the handle, and means for locking the socket in place.

16. A lamp-guard comprising, in combination, a disk having a central body-portion and a series of peripheral prongs spaced therefrom, a plurality of substantially U-shaped strips having intermediate curved portions extending into the space between the prongs and the central body portion of the disk, said prongs being bent over said curved portions against said body-portion to clamp the same firmly against the disk, and a ring to which the lower free ends of said strips are connected.

17. A lamp-guard comprising, in combination, a disk having a series of peripheral prongs, a plurality of substantially U-shaped strips having intermediate curved portions hooked over said prongs, a button disposed over said intermediate portions inside the prongs, said prongs being bent over said intermediate portions and against said button to clamp the same firmly against the disk, and a ring to which the lower free ends of the strips are connected.

18. In a portable electric lamp, the combination with a handle provided with a longitudinal bore, a recess and a chamber of greater diameter than said bore supplementing said recess, of a socket mounted in said recess, and means for clamping said socket firmly in place, the binding terminals for said socket extending therefrom into said chamber and the conductors leading therefrom being disposed in said bore.

19. In a portable electric lamp, the combination with a base having a conical opening, of a handle provided with a tapering portion which coöperates with said opening to wedge the base and handle firmly together, and a socket associated with said parts for operatively supporting an electric lamp.

20. In a portable electric lamp, the combination with a base having a conical opening, of a handle provided with a tapering portion which coöperates with said opening to wedge the base and handle firmly together, means on said base for positively arresting the relative movement of the parts toward each other, and a socket associated with said parts for operatively supporting an electric lamp.

21. In a portable electric lamp, the combination with a base having a conical opening, of a handle provided with a tapering portion which coöperates with said opening to wedge the base and handle firmly together, part of said base being forced inwardly to grip the handle to prevent separation

of the parts, and a socket associated with said parts for operatively supporting an electric lamp.

22. In a portable electric lamp, the combination with a base having a conical opening, of a handle provided with a tapering portion which coöperates with said opening to wedge the base and handle firmly together, a plurality of prongs on the outer end of said cylindrical portion forced inwardly to grip the handle to prevent separation of the parts, and a socket associated with said parts for operatively supporting an electric lamp.

23. In a portable electric lamp, the combination with a base having a conical opening, of a handle provided with a tapering portion which coöperates with said opening to wedge the base and handle firmly together, means for positively arresting the relative movement of the parts toward each other, part of said base being forced inwardly to grip the handle to prevent separation of the parts, and a socket associated with said parts for operatively supporting an electric lamp.

24. In a portable electric lamp, the combination with a handle provided with a recess at one end, of a socket mounted in said recess, and a clamping piece movably secured to said handle, said clamping piece being arranged to be moved into engagement with said socket to hold the same firmly in place, and out of engagement with said socket to permit withdrawal of the same.

25. In a portable electric lamp, the combination with a handle provided with a recess at one end, of a socket mounted in said recess and having an indentation therein, a clamping member carried on said handle and movable toward said socket into engagement with said indentation to hold the socket firmly in place, and away from said socket to permit withdrawal of the same.

26. In a portable electric lamp, the combination with a handle, of a base mounted thereon and provided with an aperture, a socket extending through said aperture, and a clamping piece movably secured to said base, said clamping piece being arranged to be moved into engagement with said socket to hold the same firmly in place, and out of engagement with said socket to permit withdrawal of the same.

In witness whereof, we have hereunto subscribed our names in the presence of two witnesses.

JACOB R. HERSHEY.  
NEWTON H. SMITH.

Witnesses:

C. A. MILLER,  
A. G. HERSHEY.