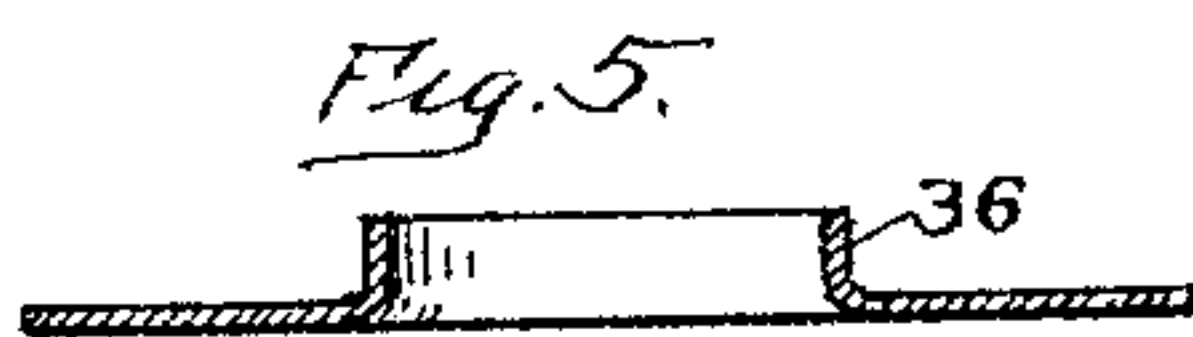
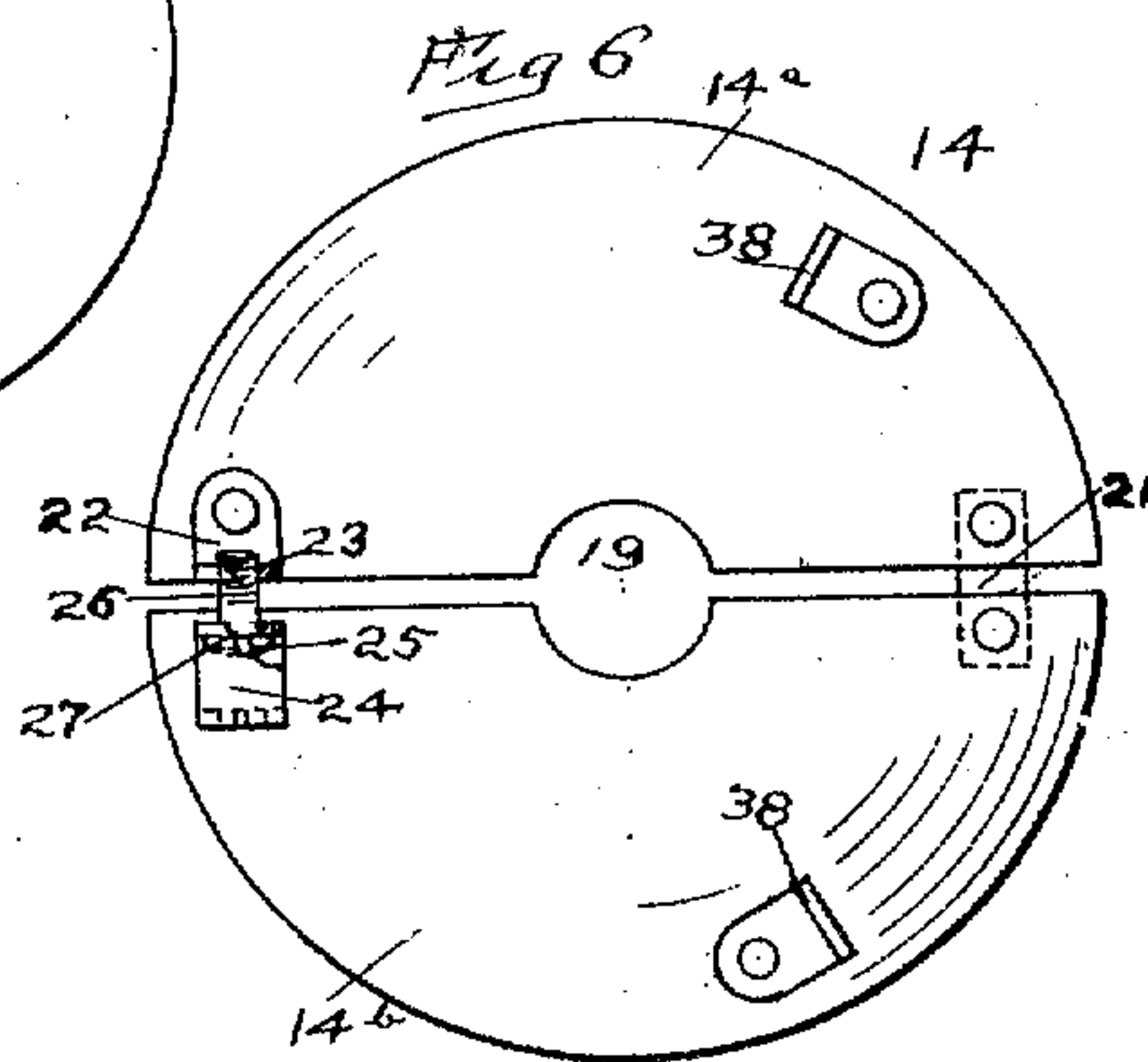
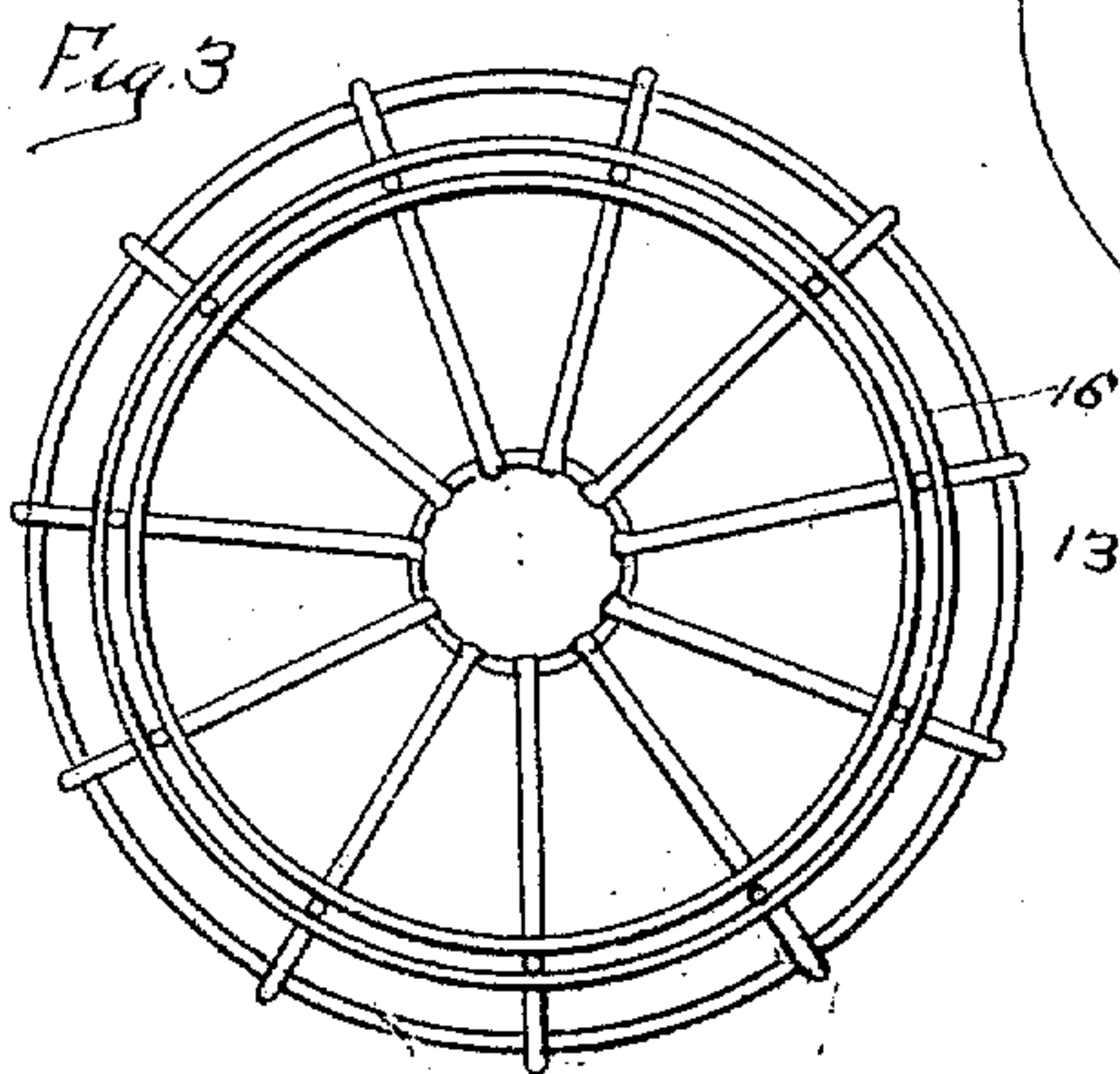
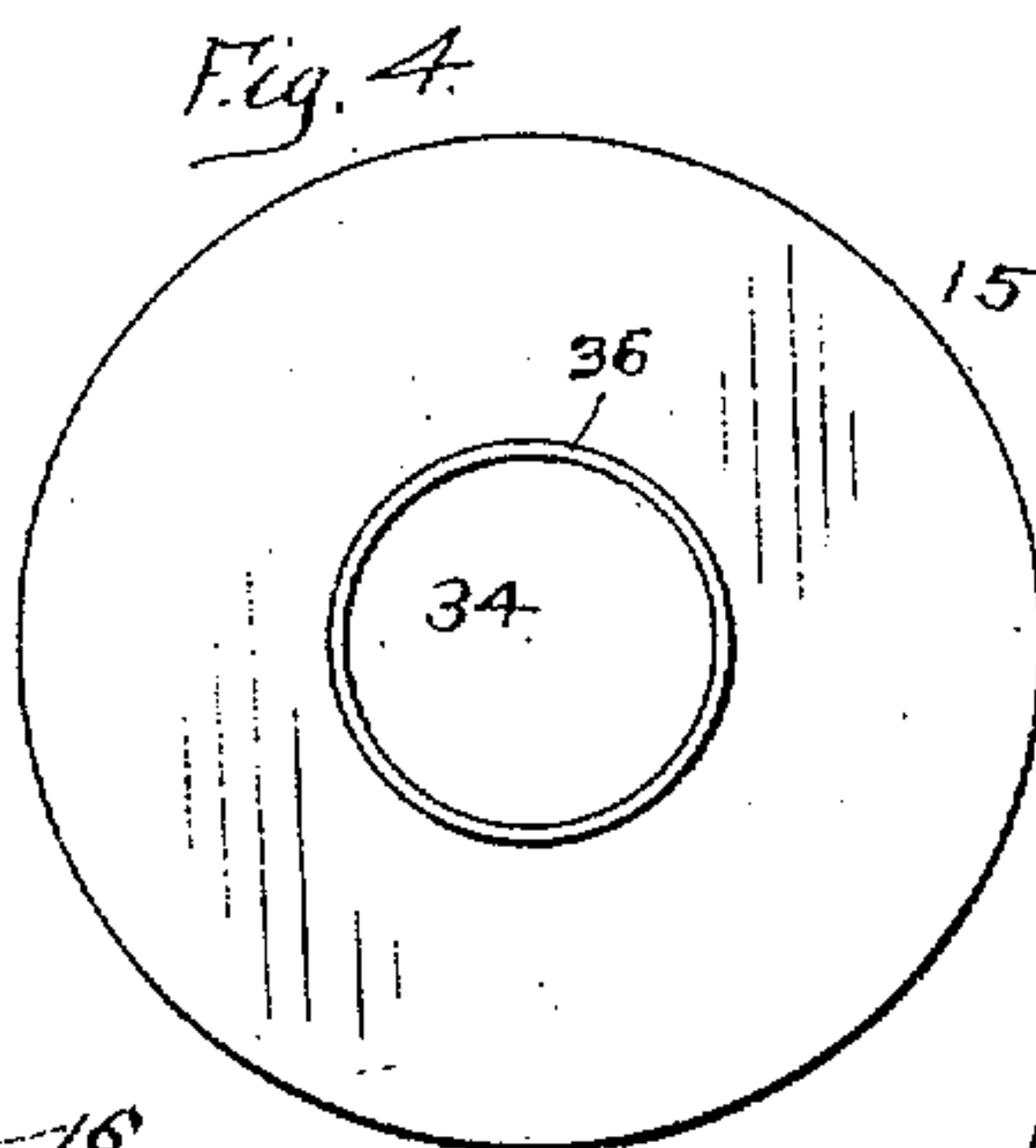
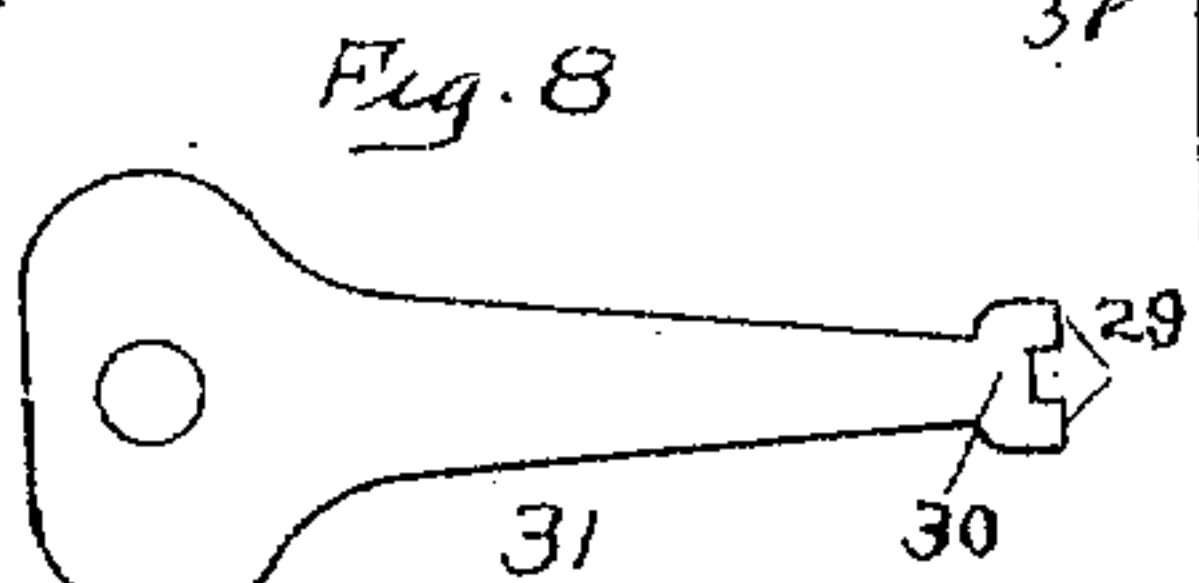
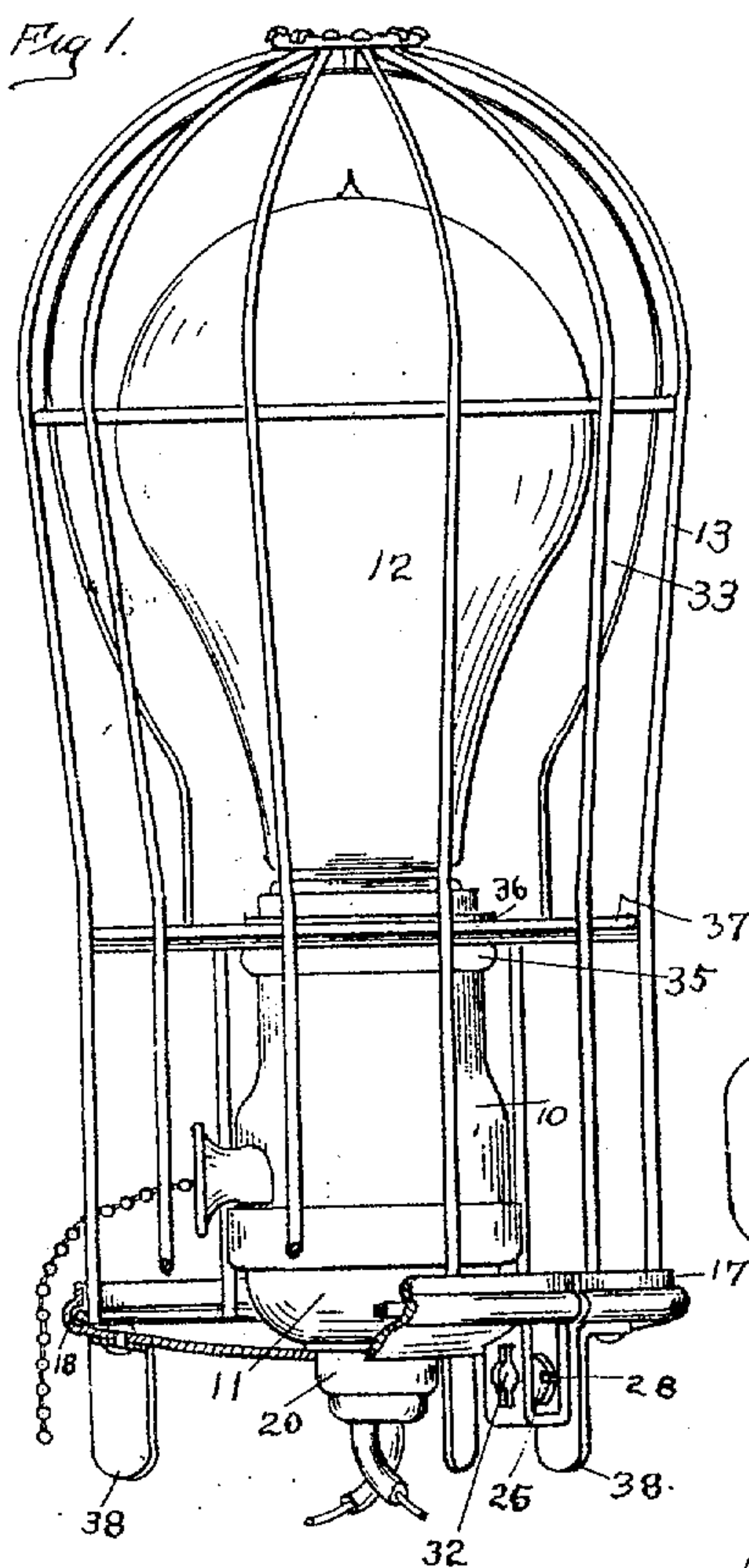


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 LOCK GUARD FOR INCANDESCENT LAMPS AND SOCKETS.  
 APPLICATION FILED DEC. 13, 1909.

954,963.

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# UNITED STATES PATENT OFFICE.

HARVEY HUBBELL, OF BRIDGEPORT, CONNECTICUT.

LOCK-GUARD FOR INCANDESCENT LAMPS AND SOCKETS.

954,963.

Specification of Letters Patent.

Patented Apr. 12, 1910.

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*To all whom it may concern:*

Be it known that I, HARVEY HUBBELL, a citizen of the United States, residing at Bridgeport, county of Fairfield, State of Connecticut, have invented an Improvement in Lock-Guards for Incandescent Lamps and Sockets, of which the following is a specification.

This invention has for its object to provide a lock guard not only for incandescent lamps but for the sockets as well, which will prevent unauthorized removal of the lamp and will also prevent detachment of the socket from its cap. It is of course well understood that users of electric lamps frequently suffer serious loss through the removal of the lamps from the sockets and also from the removal of the sockets themselves from the socket caps, and furthermore that the guards now in use are so constructed that they cannot be attached or detached without removing the lamp from the socket or else are divided, that is made in two parts which are hinged or otherwise secured together. My present invention enables me to provide a guard of this character which shall not be divided but shall be integral and rigid, which will pass freely over the bulb of a lamp, thus avoiding the necessity of removing the lamp from the socket in attaching and detaching and which will not only lock the lamp to the socket but will lock the socket to the cap so that neither lamp nor socket can be removed without the use of a key.

With these and other objects in view I have devised the novel lamp and socket guard of which the following description in connection with the accompanying drawing is a specification, reference characters being used to indicate the several parts.

Figure 1 is an elevation, partly broken away, of my novel lamp and socket guard as in use; Fig. 2 an elevation of the cage detached; Fig. 3 an inverted plan view of the cage detached; Fig. 4 a plan view of the centering plate; Fig. 5 a cross section of the centering plate; Fig. 6 an inverted plan view of the holding plate detached; Fig. 7 an inverted plan view of the screw; and Fig. 8 is a plan view of the key.

10 denotes a lamp socket, 11 the socket cap, 12 an incandescent lamp, 13 the guard

proper, 14 the locking plate and 15 the centering plate. The guard proper is a rigid wire cage which may be formed in any ordinary or preferred manner, the essential feature of the cage being a holding ring which is made large enough to pass over an ordinary incandescent lamp without contact with the bulb. It should be especially noted that the cage is integral; that is to say, it does not consist of independent members hinged or otherwise connected together but is simply a rigid whole. The locking plate comprises two corresponding semi-circular members or parts which are indicated respectively by 14<sup>a</sup> and 14<sup>b</sup>. At the outer periphery of the members or parts is an angle flange 17 having a circular groove 18 which is adapted to receive the holding ring of the cage. At the center of the members or parts is a hole 19, half of the hole being formed in each member, which is shown as adapted to receive the neck 20 of a socket cap. The parts of the locking plate are permanently but loosely connected together on one side by means of a cross piece 21 which is pivoted to both members but leaves them slightly separated, as shown in Fig. 6. One part is provided near its other end with a lug or ear 22 having a threaded hole 23 and the other part is provided opposite thereto with a U-shaped housing 24 which incloses the head 25 of a screw which passes through an unthreaded hole 27 in one side of the housing and is adapted to engage the hole in the ear. The head of the screw is shown as provided with slots 28 adapted to receive corresponding projections 29 on the head 30 of a key 31.

It will be understood of course that any form of slots or recesses may be provided in the head of the screw and that the head of the key must correspond therewith. In use, to attach or detach the locking plate, the key is passed through a hole 32 in the housing which just permits the key to pass but will not permit the screw to drop out. I thus make it practically impossible for anyone not possessing the right key to loosen the locking plate and remove the cage so as to get access either to the lamp or the socket. The connection of the parts of the locking plate by means of the pivoted cross piece allows the parts to be swung apart when the



screw is disengaged from ear 22 sufficiently to permit the neck 20 of a socket cap to be passed through the opening should it be required to remove the locking plate and to permit the holding ring 16 of the cage to be passed within angle flange 17 so that it will seat itself in groove 18 or to be withdrawn therefrom. When the holding ring is seated in the groove and the neck of a socket cap is in hole 19 in the locking plate, the cage is locked to the locking plate and the locking plate is locked to the neck of the socket cap by turning the screw into the threaded hole in ear 22.

To remove the cage from the locking plate or to remove the locking plate from a socket cap it is simply necessary to turn the screw backward sufficiently to disengage it from ear 22 when the parts of the locking plate may be swung apart sufficiently to permit the cage to be removed from the locking plate and the locking plate to be removed from the socket cap if required. It will of course be apparent that the lamp may be used in any position as most convenient. In the present instance I have shown the lamp as projecting upward and for convenience when used upon a desk have shown the locking plate as provided with legs 38 upon which the guard and lamp may rest, as clearly shown in Fig. 1. In the present instance I have shown ear 22 as extended to form one of the legs.

The centering plate 15 may or may not be used as preferred, and if used may or may not carry a reflector 33. The centering plate is provided with a central hole 34 which just receives the lamp end of a socket and passes into engagement with the usual rib 35 on the socket. The centering plate is shown as provided with a flange 36 surrounding hole 34 which lies in contact with the end of the socket. The centering plate just passes within holding ring 16 of the cage and fits loosely within the cage, preferably being stopped by and resting in engagement with a ring 37 of the cage. The functions of the centering plate are to retain the bulb of the lamp out of contact with the cage, thus centering the lamp and the cage and holding the latter rigidly in place, that is preventing any movement of the cage relatively to the lamp bulb, and also to carry a reflector if required.

Having thus described my invention I claim:

1. A guard for incandescent lamps and sockets comprising a rigid cage having a holding ring, a two-part locking plate having an angle flange provided with a groove adapted to receive the holding ring and a central hole adapted to receive a lamp socket cap, and means for locking the parts of the locking plate together whereby the cage is

secured to the locking plate, the locking plate to a socket cap and the lamp and socket are locked against removal.

2. A guard for incandescent lamps and sockets comprising a rigid cage having a holding ring, a two-part locking plate having a grooved angle flange which receives the holding ring and a central hole adapted to receive a socket cap, one of the parts of the locking plate having an ear provided with a threaded hole and the other part having a housing, and a screw in the housing adapted to engage the hole in the ear, for the purpose set forth.

3. A guard for incandescent lamps and sockets comprising a rigid cage having a holding ring, a two-part locking plate having a grooved angle flange which receives the holding ring and a central hole adapted to receive a socket cap, a cross piece pivoted to the parts of the locking plate but permitting them to be swung apart, an ear upon one of the parts having a threaded hole, a housing upon the other part and a screw in the housing adapted to engage the hole in the ear.

4. The combination with an incandescent lamp, a lamp socket having a cap and a centering plate having a hole to receive the socket, of a guard comprising a rigid cage having a holding ring within which the centering plate passes, a two-part locking plate adapted to engage the socket cap and having a groove to receive the holding ring and means for securing the parts of the locking plate together.

5. A guard for incandescent lamps and sockets comprising a rigid cage, a locking plate to which the cage is secured and which is adapted to engage a lamp socket cap and a centering plate adapted to pass within the cage and having a central hole to receive the socket.

6. A guard for incandescent lamps and sockets comprising a rigid cage, a locking plate to which the cage is secured and which is adapted to engage a lamp socket cap, a centering plate adapted to pass within the cage and having a central hole to receive the socket and a reflector carried by the centering plate.

7. A guard for incandescent lamps and sockets comprising a rigid cage having a holding ring, a two-part locking plate adapted to engage a lamp socket cap and having grooves to receive the holding ring, a centering plate adapted to pass within the cage and having a central hole to receive the socket and means for securing the parts together and to the lamp socket cap.

8. A guard for incandescent lamps and sockets comprising a rigid cage, a two-part locking plate adapted to engage the cage

and a lamp socket cap and provided with legs, for the purpose set forth, and means for locking the parts in place.

9. A guard for incandescent lamps and sockets comprising a rigid cage, a two-part locking plate adapted to engage the cage and a lamp socket cap and provided with legs, for the purpose set forth, a centering plate adapted to pass within the cage and

having a central hole to receive the socket 10. and means for locking the parts in place.

In testimony whereof I affix my signature in presence of two witnesses.

HARVEY HUBBELL.

Witnesses:

A. M. WOOSTER,  
S. W. ATHERTON.