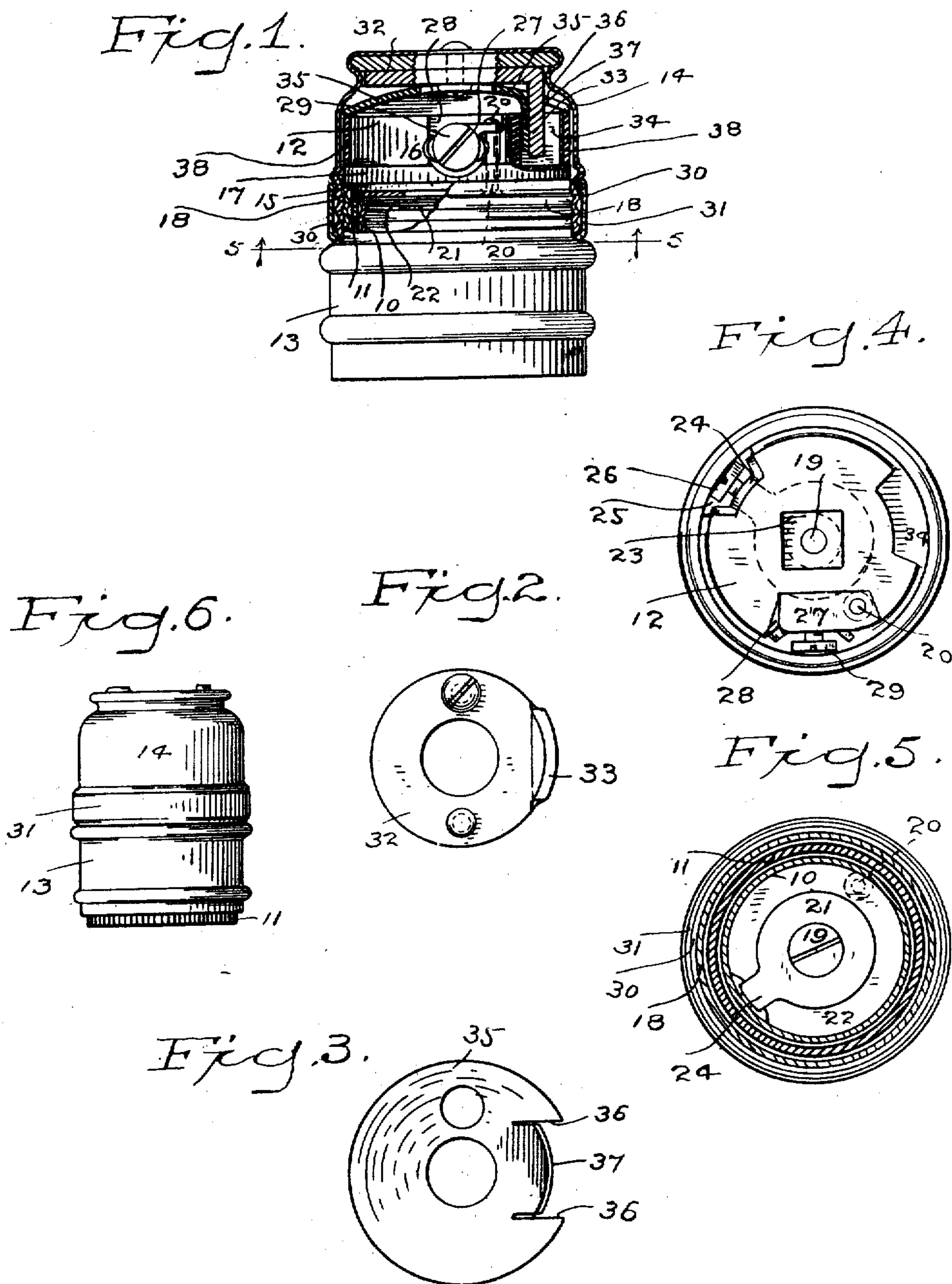


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KEYLESS SOCKET.
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943,076.

Patented Dec. 14, 1909.



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KEYLESS SOCKET.

943,076.

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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 a new and useful Keyless Socket, of which the following is a specification.

This invention relates to the construction of keyless sockets and has for its object a simplified construction, a reduced number of parts and an arrangement of parts that will enable me to greatly shorten the base and to produce a socket which shall be highly ornamental in appearance and adapted for decorative use and shall be very much smaller both in diameter and length than any socket of this character heretofore produced. With these and other objects in view I have devised the novel keyless socket which I will now describe, referring to the accompanying drawings forming a part of this specification and using reference characters to indicate the several parts.

Figure 1 is an elevation of my novel socket on a greatly enlarged scale, partly broken away, to show the construction and arrangement of the parts; Fig. 2 a plan view of the cap bushing detached; Fig. 3 a plan view of the insulating cap disk detached; Fig. 4 an inverted plan view of the insulating base detached; Fig. 5 a section on the line 5—5 in Fig. 1 looking in the direction of the arrows; and Fig. 6 is an elevation of my novel socket, actual size.

10 denotes the screw shell, 11 the insulating lining, 12 the insulating base, 13 the socket shell and 14 the cap. The base, which is much shorter than in any previous construction, comprises a lower portion indicated by 15, a reduced upper portion indicated by 16 and between these portions an annular shoulder indicated by 17. The insulating lining is secured to the screw shell in any suitable manner as by a drive fit. The lower portion 15 of the base is of practically the same diameter as insulating lining 11 which abuts against it. At the upper end of the socket shell is a rolled male thread indicated by 18, the upper end of which abuts against the annular shoulder on the base. The screw shell is secured to the base by means of a central screw 19 and a screw 20. The central screw passes through a central plate 21 which is adapted to be engaged by the center contact of a lamp (not shown), through insulating disks 22

preferably of mica, and engages a nut 23 which is recessed into the top of the base (see Fig. 4).

24 denotes a contact which is formed integral with the central plate, is bent to lie in a recess 25 in the base and is provided with a binding screw 26.

The head of screw 20 lies under the insulating disks 22, engages the bottom of the screw shell, passes through the base and engages a contact 27 lying in a recess 28 in the base and carrying a binding screw 29.

The cap is provided at its lower end with a female thread 30 which receives thread 18 on the socket shell. Thread 30 is covered by an exterior collar 31, the lower edge of which is curved inward forming a finish for the lower end of the cap, the upper end being closed inward and locked at the upper end of the thread. This collar conceals the unsightly appearance of the thread and also reinforces and strengthens the lower end of the cap making it firm and rigid. At the upper end of the cap, in the position shown, is a bushing indicated by 32 which is secured in the cap by closing the metal about it and also by rivets if required. This bushing is provided with a downwardly extending lug 33 which engages a recess 34 in the base and prevents the base from turning in the shell. Between bushing 32 and the base is an insulating disk indicated by 35. This disk is provided with cuts 36 to permit a flap 37 to be pressed inward therefrom which lies in contact with lug 33. Between the reduced upper portion 16 of the base and the cap is an insulating ring 38 which insulates the contacts and binding screws from the cap. The upper edge of this ring engages the insulating lining disk and the lower edge engages annular shoulder 17 on the base. By reducing the diameter of the upper and lower portions of the base leaving the annular shoulder, it is rendered unnecessary to carry insulating lining 11 the entire length of the base. This enables me to reduce the diameter of the cap to the extent of double the thickness of the insulating lining, at the same time providing a shoulder which anchors the base in position through the engagement therewith of insulating ring 38 and the upper end of the screw shell.

In assembling, the screw shell and insulating lining are placed within the socket shell, the annular shoulder on the base rest-

ing on the upper end of the thread on the socket shell. The upper end of the base is then placed in the cap with lug 33 in engagement with the corresponding recess in the base. This locks the base, screw shell, insulating lining and cap against rotation relatively to each other. The male thread on the socket shell is then placed in engagement with the thread on the cap and turned to place.

The passage of the current is as follows: from binding screw 29 and contact 27 through screw 20 to the screw shell and the lamp, and returning from the center contact of the lamp through central plate 21 and contact 24 to binding screw 26.

Having thus described my invention I claim:

1. A socket comprising two metal members having a threaded connection, a base having an annular shoulder and having a screw shell secured to it, means whereby said annular shoulder is clamped when said members are screwed together, and an insulating lining interposed between said screw shell and one of said metal clamping members.

2. A socket comprising a socket shell and a cap secured together by male and female threads, a base having an annular shoulder clamped between portions of said shell and cap and having a screw shell secured to it and projecting into the socket shell, an insulating lining between said screw shell and socket shell, and means for locking the base and cap against independent rotation.

3. A socket comprising a socket shell and a cap secured together by male and female threads, a base having an annular shoulder which is engaged by the end of the male thread, a bushing secured in the cap and a lug extending from the bushing and engaging the base to retain said bushing and base against independent rotation.

4. A socket comprising a socket shell having a male thread, a cap having a female thread, a base having upper and lower portions and between said portions an annular shoulder which is engaged by the end of the male thread, a bushing in the cap having a lug engaging the base, an insulating disk between the bushing and the base and an insulating ring inclosing the upper portion of the base and lying between the insulating disk and the annular shoulder.

5. A socket comprising a socket shell and a cap secured together by male and female threads, a base having upper and lower portions and between said portions an annular shoulder, the end of the male thread inclosing the lower portion and engaging the shoulder, means for retaining the cap and base against independent rotation and an insulating ring inclosing the upper portion of the base and engaging the shoulder.

6. A socket comprising a socket shell and a cap secured together by male and female threads, a base having an annular shoulder engaged by the end of the male thread and a reduced upper portion, contacts thereon and an insulating ring inclosing said upper portion and the contacts.

7. A socket comprising a socket shell and a cap secured together by male and female threads, a base having an annular shoulder engaged by the end of the male thread and a reduced upper end, a center plate secured to the base, a contact integral with said plate, a screw shell, a contact secured to the base and connected to the screw shell and an insulating ring inclosing the upper end of the base and the contacts.

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

HARVEY HUBBELL.

Witnesses:

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