No. 848,643.

PATENTED APR. 2, 1907.

W. F. FARVER & H. H. LEHMAN.

WHIP SOCKET.

APPLICATION FILED APR. 14, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

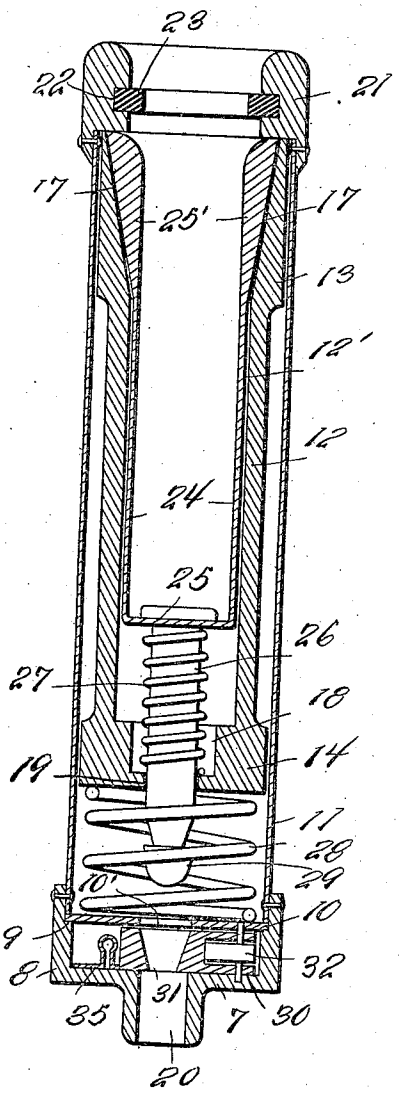
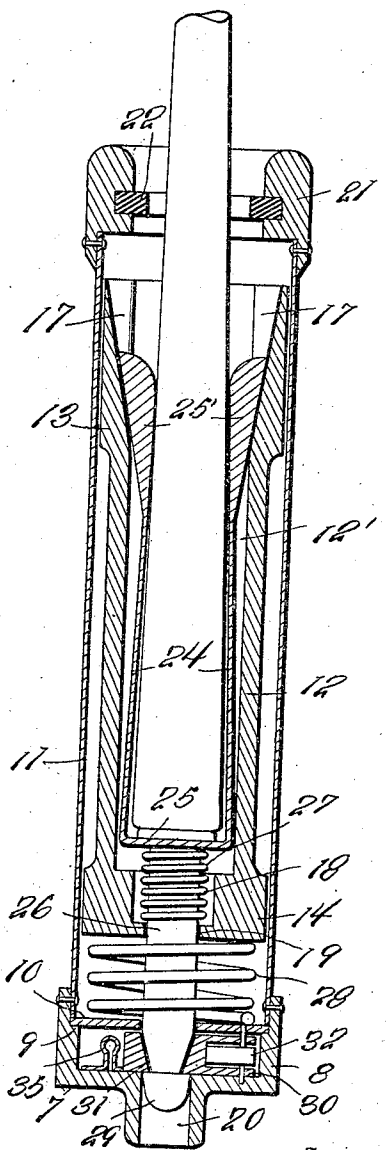


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3

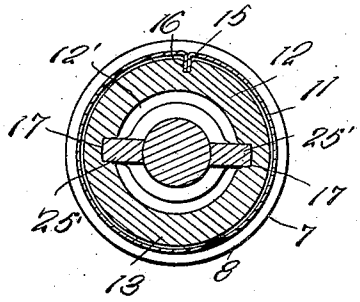


Fig. 4.

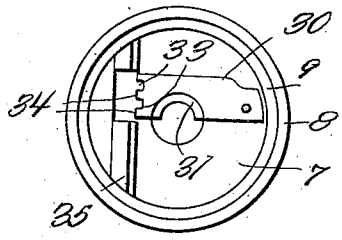
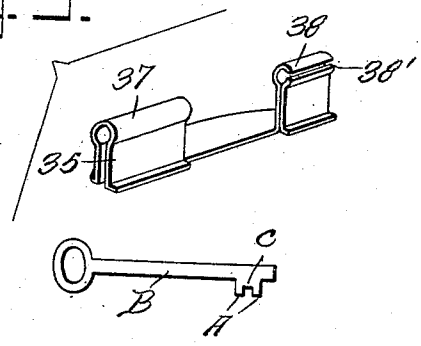


Fig. 5.



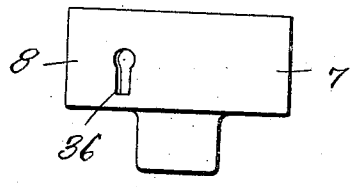


Fig. 6.

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UNITED STATES PATENT OFFICE.

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WHIP-SOCKET.

No. 848,643. Specification of Letters Patent. Patented April 2, 1907.

Application filed April 14, 1906. Serial No. 311,718.

To all whom it may concern:

Be it known that we, WILLIAM F. FARVER and HENRY H. LEHMAN, citizens of the United States, residing at Ashland, in the county of Ashland, State of Ohio, have invented certain new and useful Improvements in Whip-Sockets; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to sockets, and more particularly to whip-sockets, and has for its object to provide a device of this kind which will include means for locking a whip securely therewithin and which will be adjustable to suit whips of different sizes, the arrangement being such that the adjustment is automatic.

Other objects and advantages will be apparent from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a longitudinal section of the present invention with the parts inoperative. Fig. 2 is a vertical section showing the locking mechanism in operative position. Fig. 3 is a transverse section. Fig. 4 is a top plan view of the lock mechanism. Figs. 5 and 6 are detail views.

Referring now to the drawings, the present invention comprises a base member 7, having an upwardly-extending circular flange 8, provided with an interior shoulder 9 adjacent to its upper edge. An annular plate 10 rests at its outer edge upon the shoulder, and thus lies in parallel spaced relation to the upper surface of the base member. Secured within the flange 8 above the plate 10 there is a vertically-extending cylindrical casing 11, and slidably engaged within this casing there is a hollow cylindrical member 12, having enlargements 13 and 14, respectively, at its upper and lower ends.

The casing 11 has a seam 15 at one side, which is formed by turning the longitudinal edges of the metal from which the casing is formed inwardly and securing them together by means of suitable fastening devices, and these inwardly-turned portions forming the seam enter the vertical groove 16, formed in the lower enlargement 14 of the member 12 to prevent rotation of the member within the casing.

As stated, the member 12 is hollow, and thus has a chamber 12′ therewithin which opens through its upper end, and at the upper portion of this chamber there are formed in the walls thereof diametrically opposite grooves 17, which slant downwardly and inwardly, as shown. At its lower end the chamber 12′ is reduced to form a socket 18, and in the bottom of this socket there is an opening 19, which lies concentrically with the chamber and the socket and which registers with the central opening 10′ of the annular plate 10, these two openings registering with a passage 20, formed vertically through the base member 7.

Removably secured upon the upper end of the casing 11 there is an annular cap 21, having an interior circumscribing groove 22, which receives a resilient washer 23, projecting inwardly beyond the cap to prevent rattling of the whip.

Located within the chamber 12′ there is a jaw member of yoke shape, consisting of vertically-extending arms 24, having a connecting horizontal bight 25 at their lower ends. At their upper ends the arms 24 carry jaws 25′, which extend outwardly beyond the arms, the outer surfaces of the jaws being slanted upwardly and outwardly to conform to the slant of the grooves 17 in which the jaws lie.

A stem 26 is secured to the bight 25 and extends downwardly through the opening 19, and within the socket 18 there is located a helical spring 27, which surrounds the stem 26, resting against the bottom of the socket and against the bight 25 to hold the jaw member yieldably against downward movement and at the upward limit of its movement, at which time the jaws 25′ lie in the grooves 17, and thus at the limit of their movement away from each other. The arrangement is such, however, as will be readily seen, that when a whip is inserted in a socket its lower end will engage the bight 25. During ordinary use the whip is thus inserted; but it will be seen that if the whip be forced downwardly the jaw member will be carried therewith, and the jaws moving in the slanted grooves 17 will be brought toward each other to firmly grip the whip. Means is provided for locking the parts in this position, and it will be now described.

A helical spring 28 is located between the plate 10 and the member 12 and surrounds the stem 26, this spring thus holding the member yieldably against downward move-

ment, and, as shown, the stem 26 is provided with a head 29, having a flat upper surface extending at right angles to the stem.

Pivoted between the base member 7 and the plate 10 for horizontal movement there is a latch 30, having a downwardly-tapered recess 31 in one of its faces, and this latch is held, by means of a spring 32, with its recess in registration with the openings 10′ and 20 and with its portions adjacent to the lower end of the recess extending inwardly of these openings.

The head 29 is tapered downwardly, and the arrangement is such that when the member 12 is moved against the action of the spring 28 the head 29 of the stem passing through the opening 10′ comes into engagement with the walls of the recess 31 and moves the latch 30 against the action of the spring 32 until the head has passed beyond the latch, when the latter returns to its normal position engaging over the head 29, which then lies within the opening 20 to prevent return movement of the member 12 and also holding the jaw member with the jaws 25′ in engagement with the whip. It will be understood that the downward movement of both the jaw members and the member 12 may be accomplished by forcing the whip downwardly within the casing 11.

The latch 30 has a free end, which is provided with a plurality of vertical grooves 33 and resultant ribs 34, and secured upon the base member 7 at right angles to the latch and adjacent to the free end thereof there is a key-guide 35, registering with a keyhole 36 in the flange 8 of the base member. This guide consists of two horizontal sleeves 37 and 38, which lie in spaced relation, the sleeve 37 having a slot along its lower portion for the reception of the leaf of a key as it is inserted through the keyhole. After the key has been inserted to bring its leaf into the space between the sleeves it may be given a quarter-turn to bring its leaf into horizontal position, when the fingers A of the leaf will enter the grooves 33 of the latch 30, the free end of the latch being located opposite to the space between the sleeves. It will of course be understood that the sleeve 37 receives the stem B of the key, and after the fingers of the leaf C have been engaged in the latch the key may be slid inwardly to move the latch against the action of its spring 32, the stem of the key at the extremity thereof passing into the sleeve 38, which is provided with a horizontal slot 38′ in one side for the reception of the leaf C of the key. It will be understood that when the latch is thus moved the springs will be released and the parts will return to their normal positions to permit of removal of the whip.

From the drawings it will be seen that when the whip is inserted and moved downwardly to move the jaw member the latter will move until the jaws grip the whip, and should this movement not be sufficient to engage the head 29 beneath the latch further downward movement of the whip will move the member 12 downwardly until the latching takes place. It will thus be apparent that whips or similar articles of varying sizes may be locked in the present holder, the latter adjusting itself automatically to compensate for the variation in size.

What is claimed is—

1. A whip-socket comprising a casing, a chambered member slidably mounted within the casing for vertical movement, means for holding the member yieldably against downward movement, a jaw member located within the chambered member for sliding movement with respect thereto and arranged for the reception of a body between its jaws, said members being constructed and arranged for coöperation to move the jaws of the jaw member inwardly when the latter is moved downwardly with respect to the chambered member, means for holding the jaw member yieldably against downward movement, and means for holding the two members in downwardly-moved position.

2. A whip-socket comprising a chambered member, a jaw member located within the chambered member for movement with respect thereto and including spaced jaws arranged for the reception of a whip therebetween, said members being arranged for cooperation to move the jaws against the whip when the jaw member is moved downwardly with respect to the chambered member, means for holding the jaw member yieldably against downward movement, means for holding the chambered member yieldably against downward movement, a stem carried by the jaw member and extending downwardly through the chambered member, a latch arranged for engagement of the stem to hold it with the two members against the action of other holding means, said latch being arranged for movement by a key out of operative position, and means for holding a latch yieldably in operative position.

3. A whip and socket comprising a base member, a casing secured to the base member, a member slidably mounted within the casing and having a chamber opening through its upper end, said member having diametrically opposite downwardly-convergent jaw-grooves in its inner surface at its upper end, a jaw member located within the chamber for sliding vertical movement and including spaced arms and a connecting-bight, said arms having jaws at their upper ends extending into the grooves and having outwardly-divergent outer faces for engagement of the slanting faces of the grooves to move the jaws inwardly when the jaw members are moved downwardly, a stem carried by the bight of the jaw member and extending down-

wardly through the chambered member, a spring arranged to hold the jaw member yieldably against downward movement, a horizontal plate located within the base member, a spring located in spaced relation to the upper surface of the base member and the plate, and arranged to hold the chambered member yieldably against downward movement, a latch pivoted between the base member and the plate for movement into and out of engagement with the stem when the latter is at the downward limit of its movement, to hold the stem with the jaw and chambered members against upward movement, and means for holding the latch yieldably in operative position.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM F. FARVER.
HENRY H. LEHMAN.

Witnesses:
C. P. WINBIGLER,
FRED MINAMYER.