C. W. WINNER.

LOCKING WHIP SOCKET.

APPLICATION FILED JUNE 18, 1910.

985,090. Patented Feb. 21, 1911.

FIG. 1.

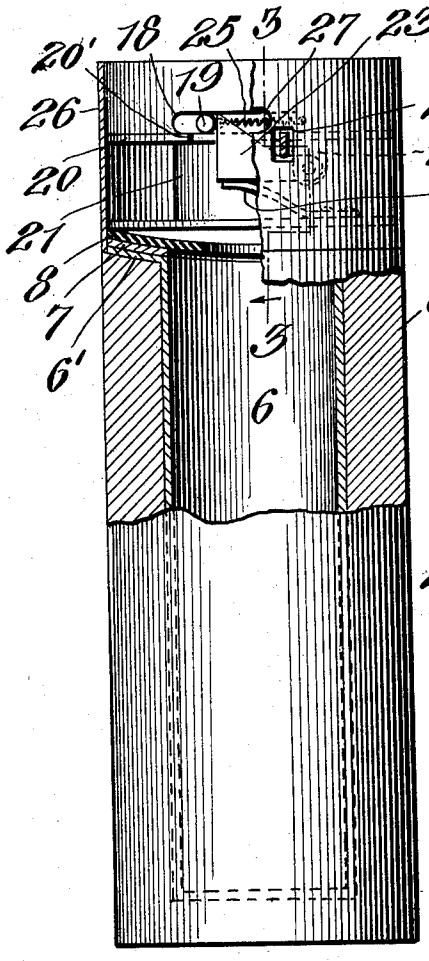


FIG. 2.

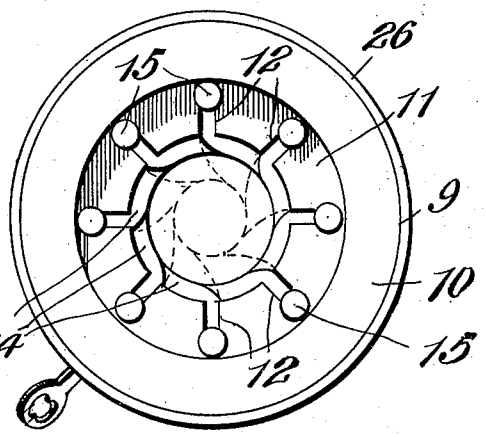


FIG. 3.

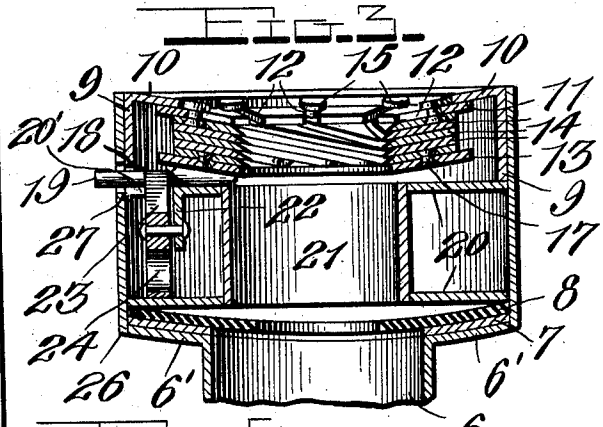


FIG. 5.

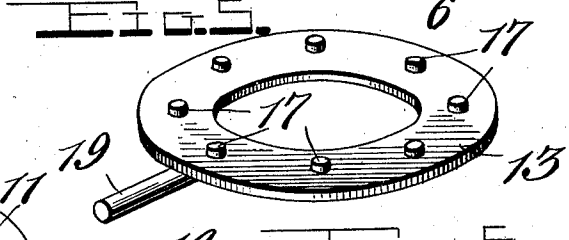


FIG. 4.

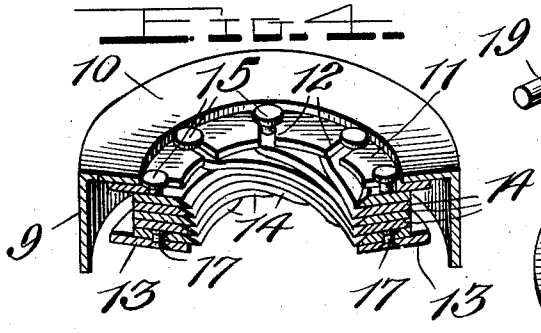
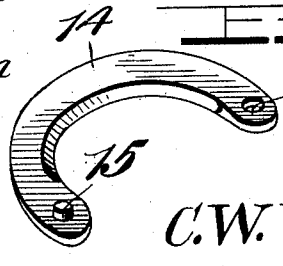


FIG. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

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LOCKING WHIP-SOCKET.

985,090. Specification of Letters Patent. **Patented Feb. 21, 1911.**

Application filed June 18, 1910. Serial No. 567,662.

To all whom it may concern:

Be it known that I, CLARENCE W. WINNER, a citizen of the United States, residing at Perrysville, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Locking Whip-Sockets, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in whip locks and has for its object to provide a new and novel means for locking the whip in the whip socket to prevent its removal therefrom during the temporary absence of the owner.

Another object of the invention is to provide a plurality of movable plates arranged in the upper enlarged end of the whip socket and adapted to be moved by means of a suitable operating member into binding engagement upon the whip stock, and means for locking said plates against movement to release the whip.

A further object is to provide a device of the above character which is very simple and durable in construction, may be quickly operated and is extremely efficient in use.

With these and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation partly in section illustrating a whip locking socket constructed in accordance with my invention; Fig. 2 is a top plan view; Fig. 3 is an enlarged section taken on the line 3—3 of Fig. 1; Fig. 4 is a detail sectional perspective view showing the arrangement of the whip engaging plates; Fig. 5 is a detail perspective view of the annular actuating member; and Fig. 6 is a similar view of one of the whip engaging plates.

Referring more particularly to the drawings 5 indicates a whip socket, of cylindrical form and having a sheet metal casing 6 arranged therein. The upper end of this casing is formed with a flange 6′ which extends upon the circumscribing edge of the socket body. An annular plate 7 is arranged upon the flange 6′ and on this plate a rubber or leather washer 8 is disposed.

The whip locking device comprises a short cylindrical casing 9 formed at its upper end with an inwardly disposed annular flange 10. To the under side of this flange and projecting beyond the same a plate 11 is secured. This plate is formed with a plurality of open ended radial recesses 12. An annular actuating member 13 is arranged in the lower end of the cylindrical casing 9 and is of substantially the same diameter as the annular plate 11. Between the plates 11 and 13 a plurality of semi-circular members 14 are arranged. These members are each provided in one of their ends with a stud 15, said studs being disposed in the radial recesses 12 of the plate 11. In the other ends of the members 14 an opening 16 is provided. The annular plate 13 carries a plurality of studs 17 which are disposed through the openings 16 of the members 14. As before stated, the members 14 are of semi-circular form and it will, therefore, be obvious that when the same are arranged between the plates 11 and 13, the pin 15 will be disposed in one of the recesses 12 at a point diametrically opposite to the pin 17 on the lower plate which is disposed through the opening 16 in the opposite end of the whip engaging member 14. The wall of the casing 9 is slotted, as shown at 18. Through this slot a finger-piece 19 extends, said finger-piece being secured to the lower actuating plate 13.

Between the casing 9 and the washer 8 which is disposed upon the upper end of the whip socket, a locking device is arranged which is adapted to prevent the actuation of the whip engaging members after the same have been locked upon the whip. This device comprises the spaced circular plates 20 which are formed with central openings and are connected at said openings by the vertical annular wall 21. An ear 22 depends from the upper plate 20 adjacent to its outer edge and to this ear a locking dog 23 is pivoted at one end. The free end of this dog extends through a recess 20′ in the edge of the upper plate 20. A leaf spring 24 is secured at one end to the lower plate and engages with the dog 23 to force the same upwardly through said recess. A spring 25 is secured at one end to the finger-piece 19 and at its other end to the casing 9 at one side of the opening 18 therein. When the finger-piece is moved to locking position, as shown in Fig. 1, this spring is placed under tension, said finger-piece being disposed beyond the end of the

dog and held in such position by means of the spring 24 which holds said dog normally against downward movement.

In Fig. 2 the key is shown in position to be actuated to release the finger-piece so that the spring 25 may return it to its normal position and disengage the members 14 from engagement upon the whip. An outer annular casing 26 incloses the whip locking mechanism and may be secured upon the annular flange 6′ of the interior metallic casing in any desired manner. This outer casing 26 is provided with a slot 27 and a key hole 28. The finger-piece 19 extends through the slot 27 and is movable therein while the key hole 28 is disposed immediately above the upper edge of the dog 23.

In the operation of the device, the driver of the vehicle when leaving the same inserts his whip into the socket and forces the finger-piece to the left to move the lower annular plate 13. It will be noted from reference to Fig. 4 that the members 14 are arranged in superposed relation and have their ends pivoted in advance of each other at diametrically opposite points as previously described. Thus, when the lower plate 13 is moved, these members will be drawn inwardly, as shown in dotted lines in Fig. 2, to impinge their inner edges upon the periphery of the whip stock. The locking dog 23 prevents any reverse movement of the finger-piece after the whip has been thus locked in the socket. The withdrawal of the whip during the absence of the owner is accordingly rendered impossible as the members 14 will bind very closely thereon and, owing to the usual tapering construction of the whip stocks, the attempt to withdraw the same will only bind said members closer thereon. When it is desired to release the whip the operator has only to insert his key above the dog 23 and turn the same to force said dog downwardly against the tension of the spring 24. The spring 25 then immediately contacts and moves the finger-piece to its normal position whereby the members 14 are moved outwardly between the plates 11 and 13 to enlarge the whip receiving opening and thereby permit the easy and quick removal of the whip. The rubber washer 8 is provided with a central whip receiving opening of slightly smaller diameter than the opening formed by the inner edges of the members 14 when the same are disposed in open positions. Thus the whip is held in spaced relation to the edges of said members so that contact of the same therewith is prevented and liability of scratching and marring the appearance of the whip is obviated.

From the foregoing it is believed that the construction and operation of my invention will be clearly understood without requiring any further description. The device is simple, may be manufactured at a comparatively low cost and is extremely durable and efficient in practical use. The danger of the whip being stolen during the absence of the owner is entirely eliminated as the whip may be very easily and quickly locked in its socket and as readily unlocked to permit its removal therefrom. The arrangement of the whip engaging plates and the means for locking the same against movement is especially novel and effectually prevents the unauthorized removal of the whip from its socket.

While I have particularly described the preferred embodiment of my invention, it will be understood that the same is susceptible of many minor modifications without departing from the essential features or sacrificing any of the advantages thereof.

I claim:

1. A device of the character described comprising a lock casing arranged upon the upper end of a whip socket, a plurality of semi-circular members pivoted in said casing at one of their ends, a movable annular plate in said casing, the other ends of said members being pivoted on said plate, the movement of said annular plate moving said members inwardly into binding engagement upon the periphery of a whip and means for locking said annular plate against movement to release the whip.

2. A device of the character described comprising a lock casing arranged upon the upper end of a whip socket, a movable annular plate arranged in the casing, a plurality of semi-circular members pivoted to said casing and to the plate, said members being arranged in superposed relation and having their pivoted ends disposed at diametrically opposite points, means for moving said annular plate, the movement of said plate impinging the members upon the periphery of a whip to prevent its withdrawal from the socket, and means for locking said plate against movement to release the whip.

3. A device of the character described comprising a lock casing arranged upon the upper end of a whip socket, an annular movable plate arranged in the casing, a plurality of curved members arranged in superposed relation pivoted to said plate at one of their ends, an annular plate secured to the casing, the other ends of said members being pivoted to said secured annular plate and in spaced relation, a finger-piece secured to the movable plate extending through the lock casing, the movement of said plate impinging the curved edges of said members upon the periphery of a whip to prevent its removal from the socket, and means for locking said plate against movement to release the whip.

4. A device of the character described comprising a cylindrical lock casing, an an-

nular movable plate arranged in said casing, an annular flange secured to the casing extending inwardly therefrom in spaced relation to said plate, a plurality of substantially semi-circular members arranged in superposed relation between said plate and flange, one end of said members being pivoted to the flange in spaced relation to each other, studs carried by the movable annular plate, openings in the other ends of said members to receive said studs, the inner edges of said members being disposed in the same plane as the inner edge of said annular flange when in normal position, a finger-piece secured to the annular plate extending through the opening in the lock casing adapted to be actuated to move said members inwardly to engage their inner edges upon the periphery of a whip, and a spring actuated locking dog engaging said finger-piece to prevent movement of the same to release the whip.

5. A device of the character described comprising a lock casing, a movable plate arranged in said casing, an annular plate carried by the casing disposed in spaced relation to the movable plate, means movably disposed between said plates and pivoted thereto at their ends, said last named means being actuated by the movement of said movable plate, a finger-piece secured to the movable plate and extending through the lock casing, and spring actuated locking means arranged in the casing to engage said finger-piece to prevent movement of the movable plate, substantially as and for the purpose set forth.

6. The combination with a whip socket, of an inner metallic casing for said socket having an annular flange at its upper end, a flexible washer arranged on said flange, a lock casing arranged upon the washer, a plurality of curved plates arranged in said casing in superposed relation, a movable member in the casing, said plates being pivoted at one of their ends to said movable member to be moved by the same, a finger-piece secured to said movable member and extending through an opening in the casing, a spring secured to the casing and to said finger-piece to yieldingly hold the same in its normal position, a locking dog pivotally mounted beneath said movable member for engagement with said finger-piece to hold the same against movement after it has been actuated to move said plates into binding engagement with a whip, and means engaging said dog to release said movable member and permit the spring to return it to its normal position and release the whip.

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

CLARENCE W. WINNER.

Witnesses:

MAX H. SROLOVITZ,

J. V. BROOKS.