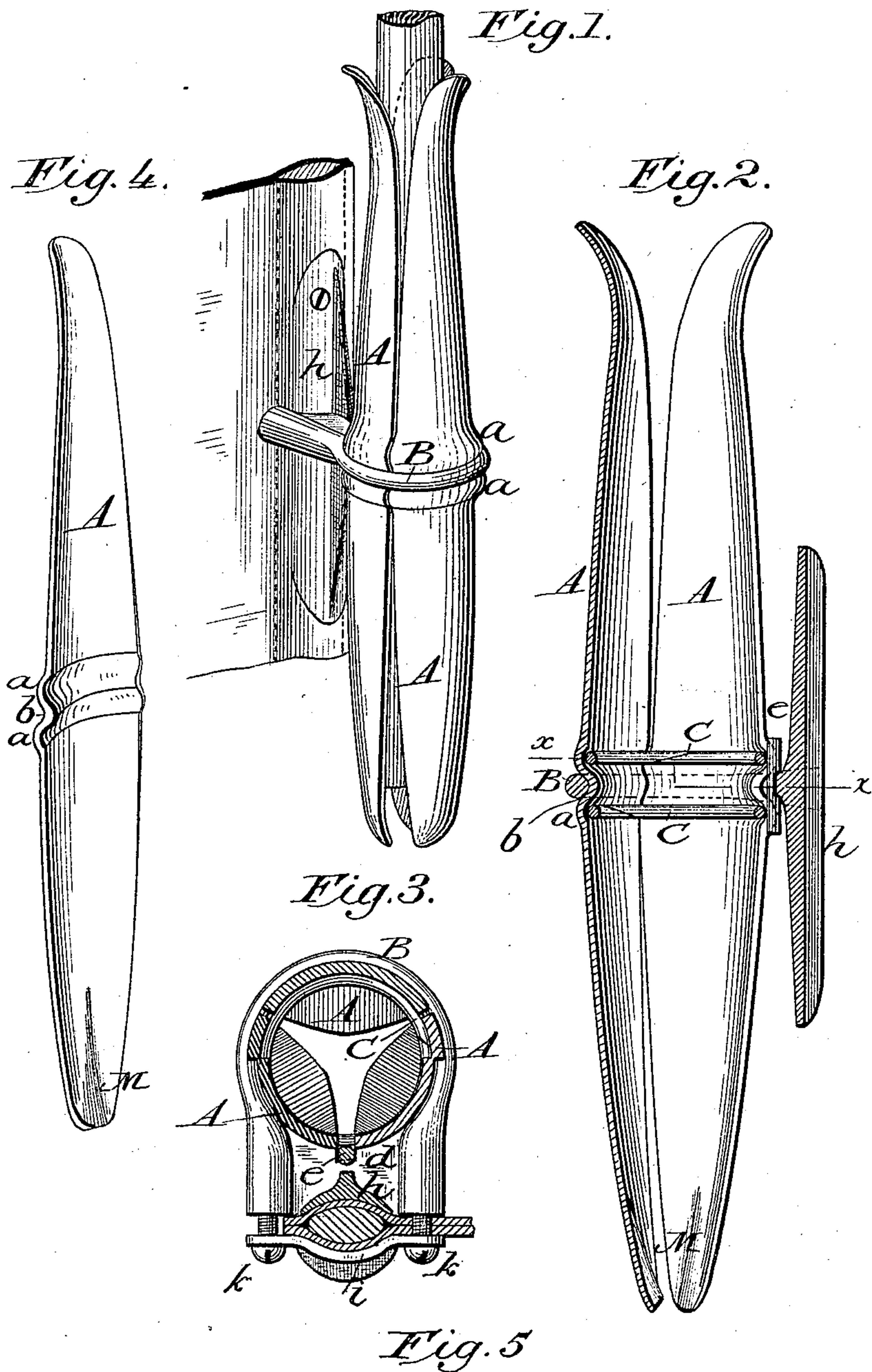


(Model.)

G. W. EDDY.
WHIP SOCKET.

No. 253,190.

Patented Feb. 7, 1882.



Attest.

Sidney P. Hollingsworth
Robt. L. Miller

Fig. 5



Inventor.

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By his Atty.
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UNITED STATES PATENT OFFICE.

GEORGE W. EDDY, OF WATERFORD, NEW YORK.

WHIP-SOCKET.

SPECIFICATION forming part of Letters Patent No. 253,190, dated February 7, 1882.

Application filed October 19, 1881. (Model.)

To all whom it may concern:

Be it known that I, GEORGE W. EDDY, of Waterford, in the county of Saratoga and State of New York, have invented certain Improvements in Whip-Sockets, of which the following is a specification.

This invention relates to that class of automatic sockets in which longitudinal staves or sections pivoted at the middle are caused to move inward and clamp the whip at their upper ends as their lower ends are forced apart by the introduction of the whip between them.

The object of the invention is to simplify and cheapen the construction of this class of sockets, to render them less liable to derangement than those now in use, and cause them to hold large and small whips with equal firmness; also, to adapt them for attachment to the dash boards and frames of all the various forms in general use.

The invention consists in mounting the staves within an encircling ring by which they are supported, and retaining them in position therein by means of a spring or springs extending around the interior; also, in the peculiar manner of inserting a key to assist in retaining the staves in position, and in various other details which will be hereinafter explained.

Referring to the accompanying drawings, Figure 1 represents a perspective view of my socket in position for use. Fig. 2 is a central vertical section of the same. Fig. 3 is a horizontal section on the line *x x*, Fig. 2. Fig. 4 is a perspective view of one of the staves or sections of the socket. Fig. 5 is a view of one of the internal rings by which the staves are held in position.

In constructing the socket I provide a series of longitudinal staves or sections, A, of such size and number that when placed together they will form a tubular body or socket, as shown. I prefer to make use of three staves, but a greater or less number may be employed. Each staff has its upper end curved outward, its lower end curved inward, and its middle provided with two transverse outwardly-extending ribs, *a*, and an intermediate groove or depression, *b*. For the purpose of supporting these staves I provide a horizontal ring, B, one side of which is broadened and fashioned into a vertical foot or support, *h*, to be hereinafter described. The ring is made of suitable in-

ternal diameter to admit of the three staves being inserted endwise therein, as shown in Figs. 1 and 2, and has on the inner side a small notch or recess, *d*. In applying the staves they are inserted endwise into the ring, side by side, and spread apart therein in such manner as to form a tubular body or socket, as shown, the staves being supported by means of the ring which is fitted into the grooves or recesses *b* in the middle of the staves.

In order to hold the staves outward against the ring and prevent them from falling out of position, I make use of two circular springs, C, such as shown in Fig. 5. These springs are inserted into the interior of the socket, and permitted to expand and seat themselves in the grooves *a* in the interior of the staves, as clearly represented in Figs. 2 and 3.

In order to secure the staves the more firmly in place and prevent them from being accidentally closed together in such manner as to escape from the ring, a key, *e*, is inserted in the seat *d* of the ring, between two of the staves, as shown in Figs. 2 and 3, thus crowding and holding the staves apart. The key *d* is notched at the middle and adapted to fit over the edge of the ring, as shown in Fig. 2, whereby it is prevented from moving vertically. It is held from slipping inward out of place by means of the springs C, which bear against its ends, as shown in Fig. 2. The key *e* is not a necessary element; but I prefer to employ it.

It will be observed that the staves inserted and expanded within the ring as above described are free to rock or tip upon the ring as a fulcrum, so they may be moved to and from each other at the upper and lower ends.

In making use of the device the butt of the whip is inserted into the upper end, as usual, and permitted to pass downward between and against the lower ends of the staves, the effect being to spread the lower ends of the staves apart and crowd their upper ends inward firmly against and around the whip, which is thus held at two points and prevented from rattling in the socket, and this equally well whether the whip be large or small in diameter.

In order to give the staves additional strength at the lower end and to adapt the socket to hold whips of exceedingly small size more effectively, each staff is provided at the lower

end with an internal vertical rib, M, as shown in Fig. 4. These ribs, which will not be encountered by large whips bearing at a higher point within the socket, will be encountered by whips of small diameter, which will be thereby enabled to operate the movable staves with greater certainty.

The important feature of construction consists in mounting the staves within and upon the ring, and securing them in place by means of the internal rings, O. While it is preferred to construct the parts in the form represented in the drawings, it is manifest that the form may be modified to any extent desired, provided the mode of operation described is retained.

If preferred, a single spring may be employed in the interior to hold the staves in position, the upper spring being used in such case in order to hold the socket normally in an open position.

The form of the internal springs may be modified, and instead of being seated in grooves, as represented, they may be otherwise secured in place.

In some cases it may be desirable to mount the staves upon the outside, instead of the inside, of the sustaining-ring, in which case the springs to retain them in place will be applied around the exterior, instead of the interior, of the staves. In order to permit this arrangement, the central groove for the sustaining-ring will be made on the inside of the staves and the seats for the retaining-springs formed on the outside.

Passing now to the means employed for attaching the socket to the carriage, it will be seen that the ring B has one side extended to form an elongated vertical foot or plate, *h*, which is curved or recessed longitudinally in the outer side, in order that it may fit over and around the frame usually employed in the edge of carriage dash-boards. By thus elongating and recessing the plate it is adapted to seat itself firmly and rigidly against the dash-frame, and to embrace the frame in such manner as to prevent the socket from tipping or turning.

In order to secure the base-plate against the dash-board, I make use of a smaller plate, *i*,

which is also grooved at the middle to fit around the dash-frame, and which is connected to the base *h* by means of two screws, *k*, which will be inserted through the dash, as represented in the drawings.

The two clamping devices constructed as above, while specially adapted for application to the ordinary dash-frames, are also suitable for application to ordinary wooden dash-boards, wagon-bodies, &c.

Having thus described my invention, what I claim is—

1. In a whip-socket, the combination, substantially as described and shown, of a horizontal sustaining-ring, a series of vertical staves pivoted thereon, and the spring or springs to retain the staves in position with reference to the ring.

2. The improved whip-socket consisting of the body staves or sections, the sustaining-ring encircling the same, and internal means, substantially as described, for holding the staves outward against the ring.

3. The combination of the external ring, the internal rocking staves supported thereon, and the two internal springs.

4. The combination of the supporting-ring, the staves, the key inserted between the staves, and the internal springs applied to hold both the staves and the key.

5. In a whip-socket, the combination of an external ring, internal rocking staves or body-sections mounted thereon, and a key inserted between two staves for the purpose of holding them in an expanded condition within the ring.

6. In combination with a whip-socket composed of longitudinal pivoted body-sections, a single circular spring arranged to bear upon all the sections and hold the socket normally in an open position.

7. The staves or body-sections and the supporting-ring provided with the extended curved foot-plate *h*, in combination with the second plate, *i*, attached thereto, substantially as shown.

GEORGE W. EDDY.

Witnesses:

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G. WALTON EDDY.