

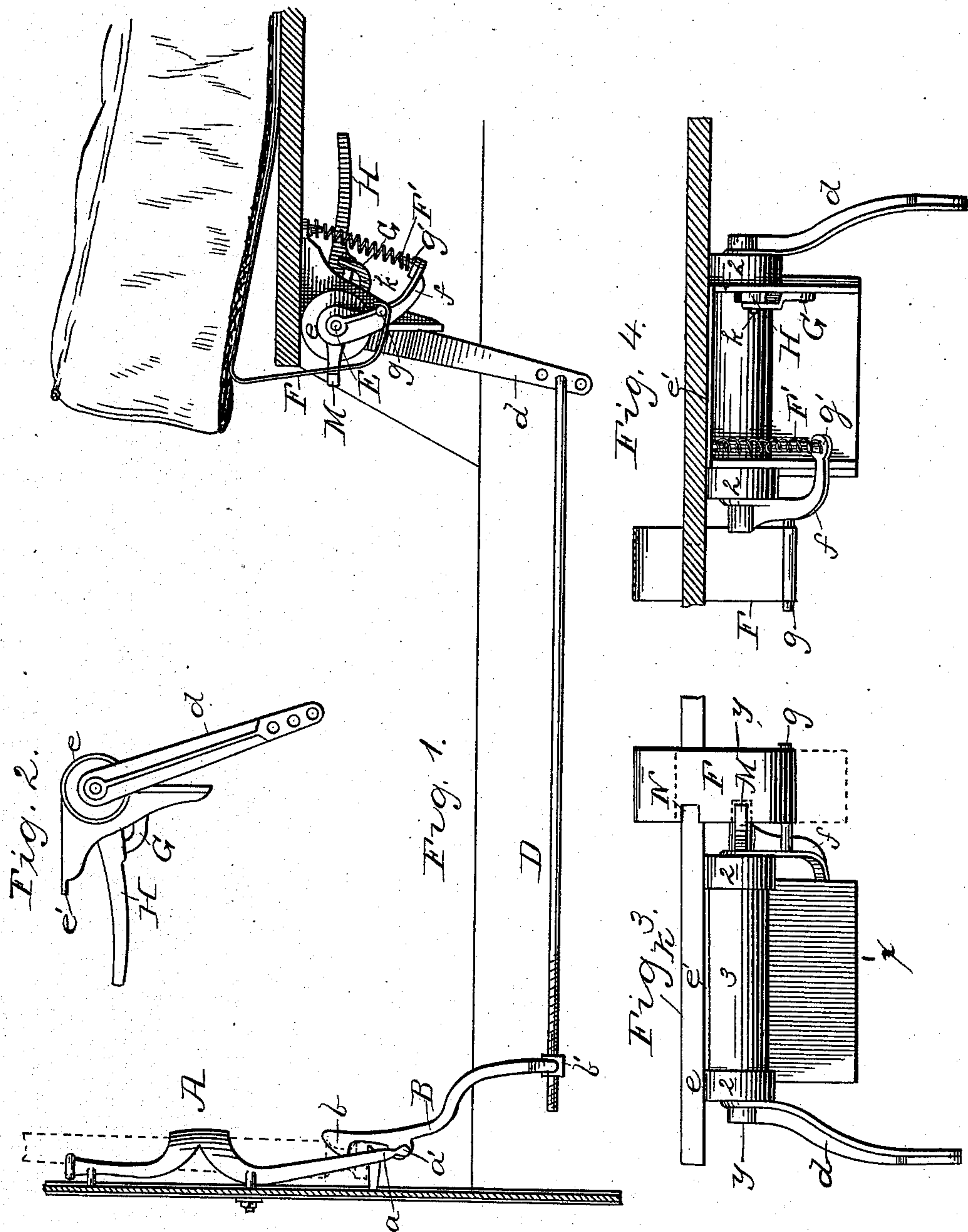
(No Model.)

2 Sheets—Sheet 1.

G. H. SPAULDING.
WHIP SOCKET.

No. 413,633.

Patented Oct. 22, 1889.



George H. Spaulding
Inventor

Witnesses
Rodney B. Pratt
Louis S. Thomason

By his Attorney
Frank D. Thomason

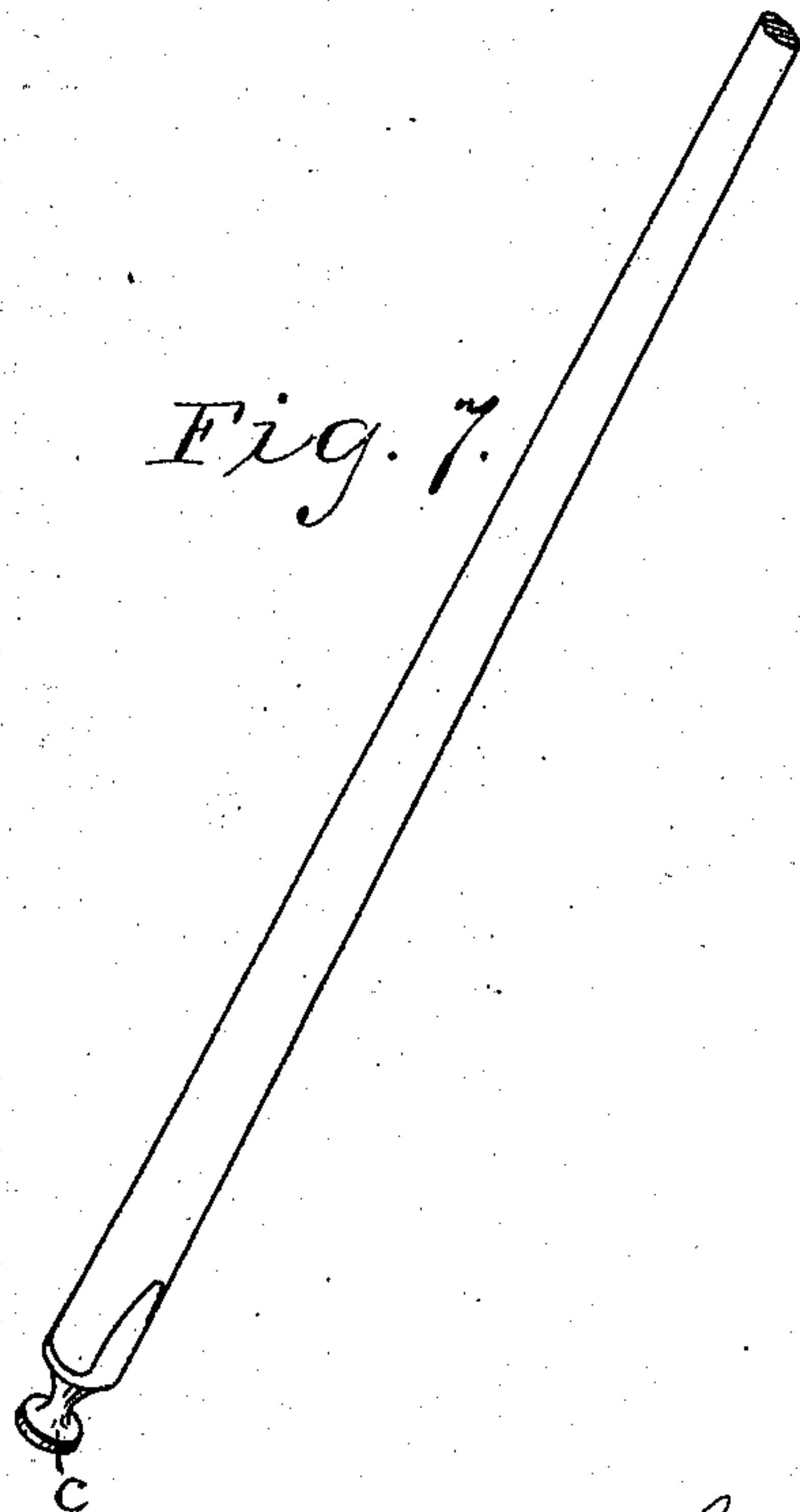
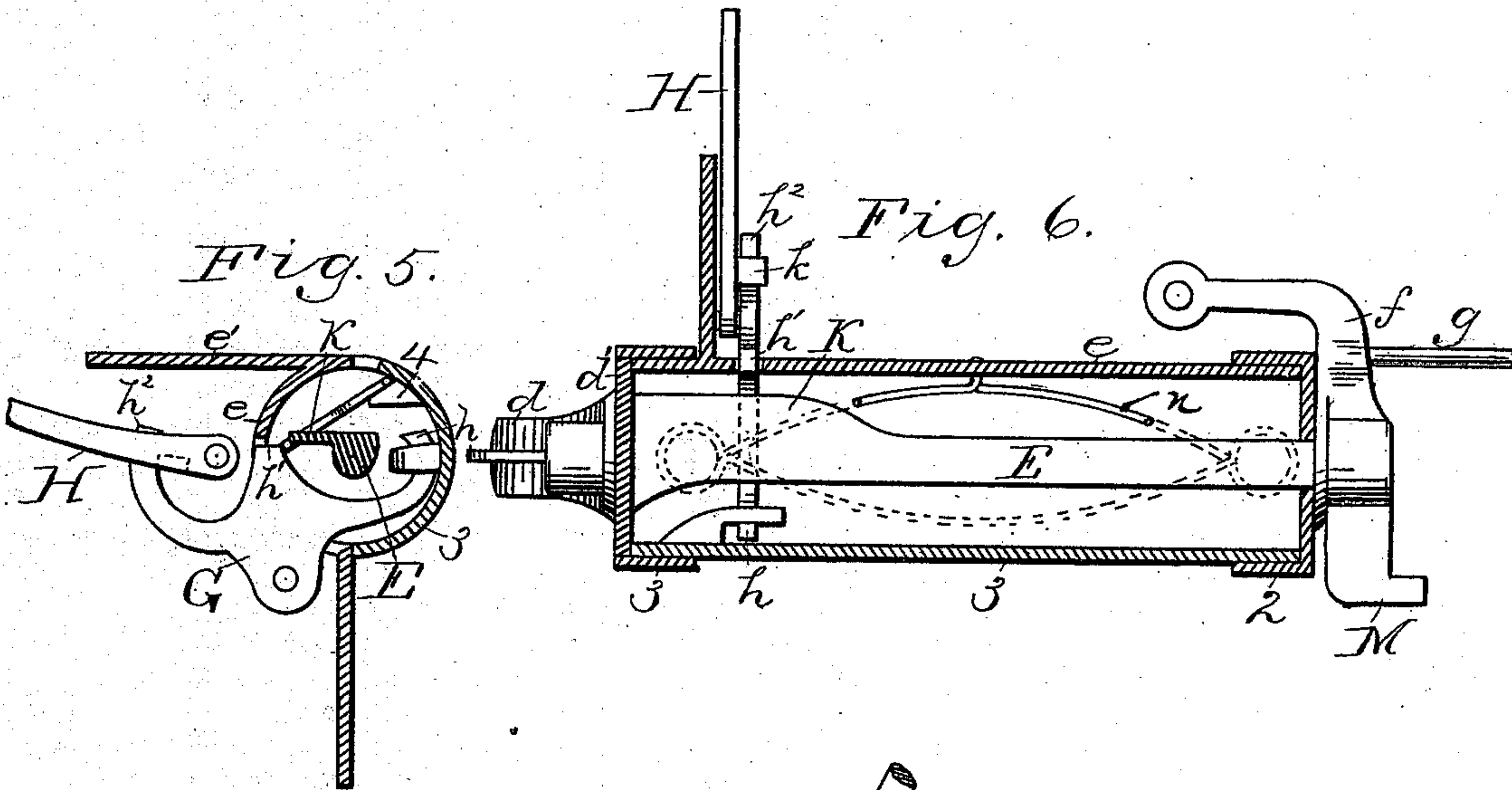
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G. H. SPAULDING.
WHIP SOCKET.

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George H. Spaulding
Inventor

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UNITED STATES PATENT OFFICE.

GEORGE H. SPAULDING, OF LAKE VIEW, ASSIGNOR OF ONE-HALF TO
WILLIAM J. LUKENS, OF COOK COUNTY, ILLINOIS.

WHIP-SOCKET.

SPECIFICATION forming part of Letters Patent No. 413,633, dated October 22, 1889.

Application filed December 26, 1888. Serial No. 294,583. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. SPAULDING, of Lake View, Cook county, Illinois, have invented a certain new and useful Improvement in Automatic Whip-Socket Locks, of which the following is a full, clear, and exact description, reference being had to the drawings and to the letters of reference marked thereon.

Heretofore great difficulties have been experienced by the possessors of horses and road-vehicles in retaining possession of their whips, particularly when traveling from place to place, because of the excellent opportunity afforded sneak-thieves to snatch the whip from the holder or socket when the owner's back is turned.

The object of my invention is to provide a lock or catch which will automatically lock the whip in the socket when it is placed therein, when the owner is away from his rig, and which permits the easy extraction of the whip from socket when in the same, substantially as hereinafter fully described and as illustrated in the drawings, in which—

Figure 1 is a side elevation of a whip-socket, showing my improved devices for locking the whip therein, and showing the means for automatically actuating said locking devices. This view is taken as if inside the body of a vehicle, looking outward, and shows outlines of a part of the dash-board and seat. Fig. 2 is an end view of the means employed to automatically control the whip-locking devices. Figs. 3 and 4 show front and rear elevations of the same. Fig. 5 is a transverse vertical section taken on line $x x$, Fig. 3. Fig. 6 is a longitudinal horizontal section taken on line $y y$, Fig. 3. Fig. 7 is a perspective view of a whip used in connection with my improved whip-socket lock.

Referring to the drawings, a skeleton whip-socket A is secured to the dash-board, consisting of a casting the two sides of which are connected at their upper ends by a semicircular web which curves to the rear and which extend downward, forming a loop the bend of which bulges outward, as shown, and serves as a guide to prevent the whip from falling toward the rear of the vehicle. From this bend there extend backward and downward, with a graceful curve, parallel legs a , which a

suitable distance below the bend of the upper loop-shaped frame of the socket are connected by a platform upon which the butt of the whip rests. These legs extend a short distance below said platform, where they are connected by a transverse bar a' , which forms a journal for the fulcrum of the lever B. The upper end of this lever extends but a short distance above the platform, connecting said legs, and is provided with an arrow-shaped head b , the two barbs of which are bent toward the dash-board, and when the whip is in the socket clamps it between said legs. As this shaped head would not hold a whip the stock of which all the way to the butt was cylindrical as well as it would a whip the butt of which was specially constructed with reference to it, I make a button c on the end of a whip, as shown. With this construction or a similar one the barbs of head b , when oscillated so as to clamp the whip, pass to either side of the neck, so that when it is attempted to remove the whip from the socket the button on its end prevents removal.

The lower end of lever B extends downward, and is deflected laterally and then downward, so as to clear the side of the body of the vehicle and to get on the inside thereof, and its lower extremity is bifurcated, and has pivoted between said bifurcations, by means of trunnions projecting therefrom, the nut b' . Screwed into and through this nut b' is the forward end of the connecting-rod D. The rear end of this rod is pivotally connected to the end of an arm d , which is secured to the end of a rock-shaft or spindle E. This spindle is journaled in a cylindrical case e , one head of which is made integral with the circular bands composing the ends of the cylinder, and the other head of which is made of a circular plate d' , of suitable diameter, secured concentrically to said spindle next the end thereof, from which arm d projects. The cylindrical case e consists of two semicircular plates, one of which forms the rear of the case, and is cast in one piece with a screw-plate e' , by which it is secured to the under surface of the seat, preferably near the front edge and nearest the side of the body on which the whip-socket is located. From

the lower edge of this rear semicircular plate is an apron, which is connected to said screw-plate by brackets. Secured to the ends of this rear semicircular plate of the case are
5 circular end bands 2 2, into which the front semicircular plate 3 of the case is slipped endwise and held so as to prevent its falling out when the spindle E is passed longitudinally therethrough, as shown.

10 Now, as will be observed, the arm *d* must oscillate forward when it is desired to release the whip from its socket. Therefore it is the oscillations of the spindle E, to which it is secured, that must be controlled in order to
15 control the whip-socket lock. This I accomplish in the following manner:

On the end of the spindle opposite to that which arm *d* is secured I secure an L-arm *f*, the horizontal part of which is parallel with
20 the axis of said spindle, and which extends back of case *e* a short distance. Projecting from near the angle of this arm *f* in a direction parallel with spindle E is stud *g*, which, when there is no one sitting on the seat, is
25 caught by the hook-shaped end of the spring F. This spring is secured to the upper surface of the seat in the same transverse vertical plane on said stud. It raises from said seat as it approaches the front edge thereof,
30 being sufficiently powerful to lift the seat, cushion, (should there be one,) and it is depressed by the weight of the driver when in the seat. From a point immediately in front of the front edge of the seat the spring
35 pursues a downward course, and when nearly to the plane of said stud it is bent back under said stud with its end upturned. Should the attempt be made to oscillate arm *d* forward when the driver or other person is off the
40 seat, the stud *g*, striking against spring F, prevents it. The extremity of the L-arm *f* is pressed downward by a coil expansion-spring *g'*, the upper end of which is lodged against the screw-plate, as shown.

45 I prevent beyond the possibility of a doubt the turning of the spindle E, so as to unlock the whip, by means of a transversely-oscillating tumbler G, which is pivoted to the inner side of the bracket connecting the screw-plate
50 and shield of the case nearest arm *d*. This tumbler oscillates through a slot in the rear semicircular plate of case next said bracket, and it is provided with three spurs *h*, *h'*, and *h*². Spur *h* extends forward under spindle E
55 to and under the horizontal longitudinal arm of an F-shaped lug projecting in transverse register therewith from the inner surface of the front plate 3 of the case. When the tumbler is oscillated to the rear, it slides the front
60 plate 3 upward (its width being sufficient to permit this) until its upper edge strikes against the corresponding edge of the rear curved plate of the case and limits the rear oscillations of the tumbler, in order to restore the plate 3 to its normal position—i. e., so that
65 its lower edge will bear against the corresponding edge of the rear plate. I provide

an elliptical or suitably-shaped spring *n*, which is fastened centrally to the rear plate, and which bears down upon a lug 4, projecting inward from about the center of
70 length of said plate 3, near its upper edge. Pivoted at one end to the same bracket as said tumbler G is a lever H, which is provided with a lug *k* projecting therefrom between the central spur *h'* and the rear spur
75 *h*² of the tumbler. The tumbler is deflected outward from near the pivot thereof a suitable distance, so as to get the spurs on the outside of the lever. When said lever is in
80 the position shown in Fig. 5, the tumbler will be in such position that its central spur will be out from under a shelf K, which, when said spindle is in its normal position, projects
85 horizontally to the rear from the upper surface thereof, and when the lever is in this position the spindle is free to oscillate so that arm *d* and rod D can be moved, so as to permit the unlocking of the whip from the socket. In order to prevent this oscillation, the lever
90 H is oscillated so that spur *h'* moves under said shelf.

As it is not always convenient to move lever H every time the occupant leaves his rig so as to lock the whip, I have provided automatic means for preventing the spring from
95 oscillating. To do this I extend horizontally forward from the boss of arm *f* an F-shaped lug M. The outer horizontal arm passes in front of spring. When the spring is in its
100 normal position, this lug, striking the spring, prevents the rocking of the spindle so as to permit the unlocking of the whip. When the spring is depressed, a recess N, cut in its side, comes back of said lug M and permits the
105 necessary oscillation without interference.

The locking devices, as hereinbefore described, are so hid in by the seat-cushion and the curtain hanging down from the front edge of the seat that unless one has knowledge of
110 the combinations it is impossible to unlock the whip.

It is evident that an eye could be secured to the inner surface of the side of the body of the vehicle, into which the hooked rear end of
115 rod D could be caught, thus dispensing with the automatic locking devices described. I prefer their use, however.

If desired, the spring and arm, with the stud, could be dispensed with and the tumbler and conjunctive devices be relied upon
120 wholly to lock spindle E, and, on the other hand, it is equally true that the tumbler and conjunctive devices could be dispensed with and the arm *f*, having the stud *g* projecting
125 therefrom, and a spring F' be used. I prefer to use all the devices hereinbefore described, however.

What I claim as new is—

1. The combination, with a whip-socket
130 having its lower end above the platform, upon which the whip rests open and having the legs *a a* extending parallel downward therefrom and connected at their lower ends by a trans-

verse bar, of the lever B, having barbs projecting laterally and inward from either side of its upper end and fulcrumed on said transverse bar, so that when properly oscillated its upper end passes into said open lower end of the whip-socket and bites or embraces the whip, and the rod D, pivotally connected to the lower extremity of said lever and extending horizontally backward a suitable distance, as and for the purpose set forth.

2. A whip-socket constructed as described, in combination with lever B, fulcrumed in the lower end of said socket and oscillating through the lower open end of said socket, so as to lock the whip therein, a rod D, arms *d*, spindle E, case *e*, in which said spindle is journaled, arm *f*, having a stud *g* projecting therefrom in a direction parallel with said spindle, and spring F, which is secured transversely to the upper surface of a vehicle-seat, arising therefrom as it approaches the forward edge thereof, then pursuing a downward course in front of said seat, and having its lower end hooked and pressed upward against said stud *g*.

3. A whip-socket constructed as described, in combination with lever B, fulcrumed so that its upper end oscillates through lower end of said socket and locks the whip therein, rod D, spindle E, arm *d*, projecting from one end of spindle and to the end of which the rear end of said rod is pivotally connected, case *e*, in which said spindle is journaled, arm *f*, spring *g'*, stud *g*, projecting from said arm *f*, and spring F, the hooked lower end of which presses upward against said stud *g*, as and for the purpose set forth.

4. A whip-socket constructed as described, in combination with lever B, the upper end of which, when properly oscillated, locks the whip in the socket, rod D, arm *d*, spindle E, having a shelf projecting laterally therefrom, case *e*, in which said spindle is journaled, and tumbler G, substantially as and for the purpose set forth.

5. A whip-socket constructed as described, in combination with lever B, the upper end of which, when properly oscillated, locks the whip in said socket, rod D, arm *d*, spindle E, having a shelf projecting laterally therefrom, case *e*, spring within said case in which said spindle is journaled, the laterally-oscillating tumbler G, having spurs *h'* and *h*², and lever H, as and for the purpose described.

6. A whip-socket constructed as described, in combination with lever B, the upper end of which, when properly oscillated, locks the whip in the socket, rod D, arm *d*, spindle E, having a shelf projecting laterally therefrom, case *e*, in which said spindle is journaled, having a front semicircular plate of suitable width, which plate has an *F* projecting therefrom and a spring for keeping it in position, transversely-oscillating tumbler G, having spurs *h*, *h'*, and *h*², and lever H, having lug *k* projecting therefrom, substantially as and for the purpose set forth.

GEORGE H. SPAULDING.

Witnesses:

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