

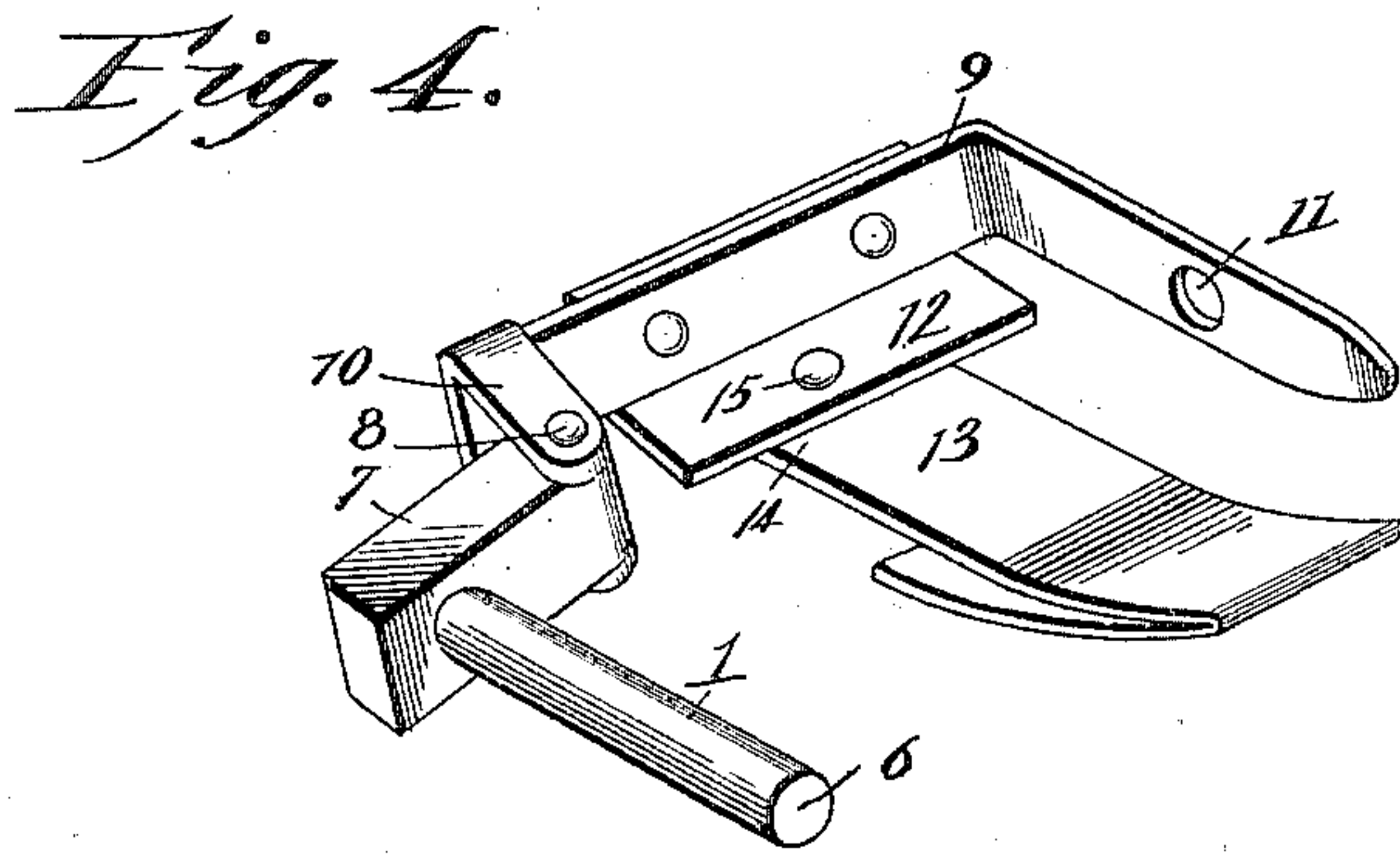
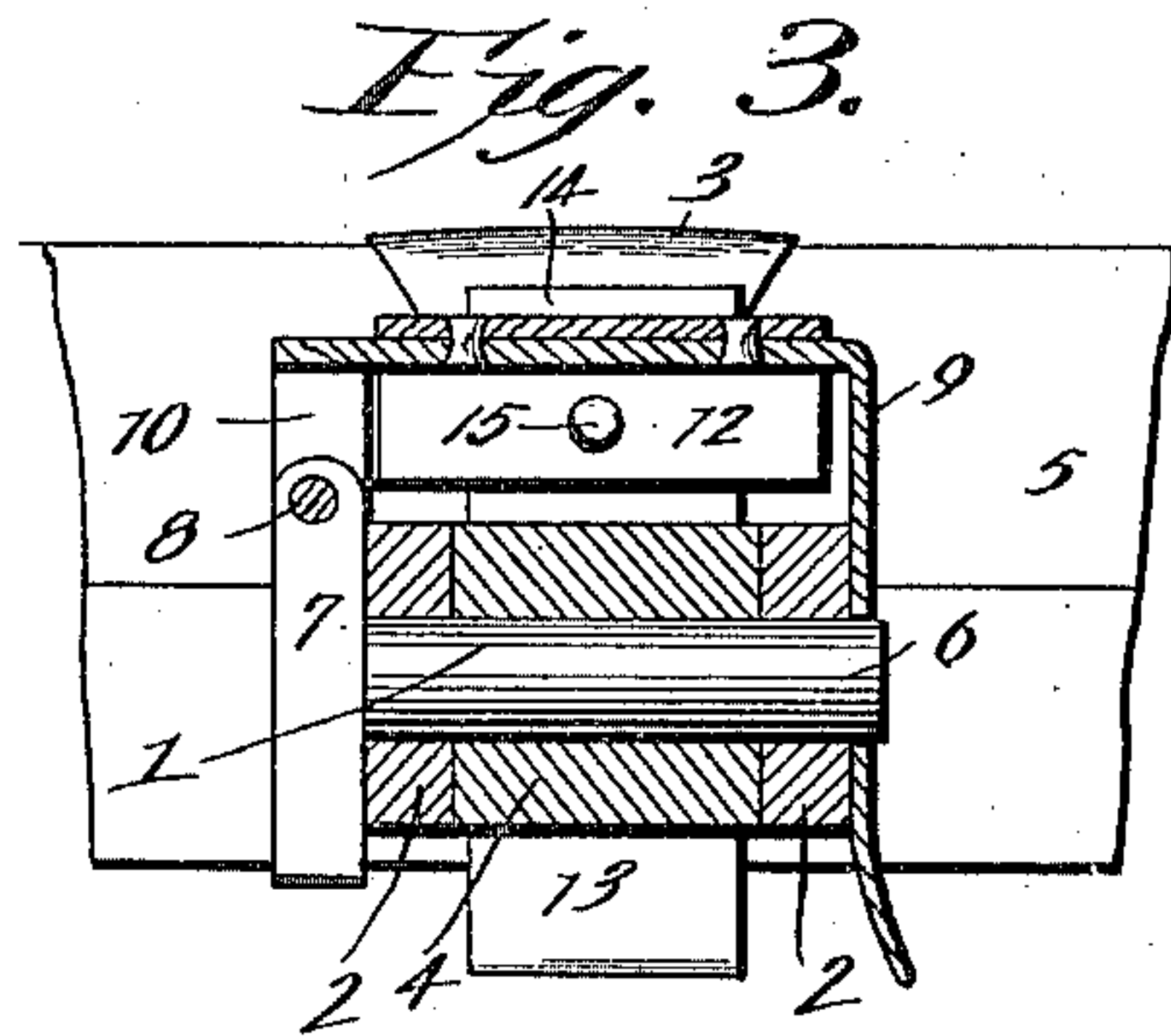
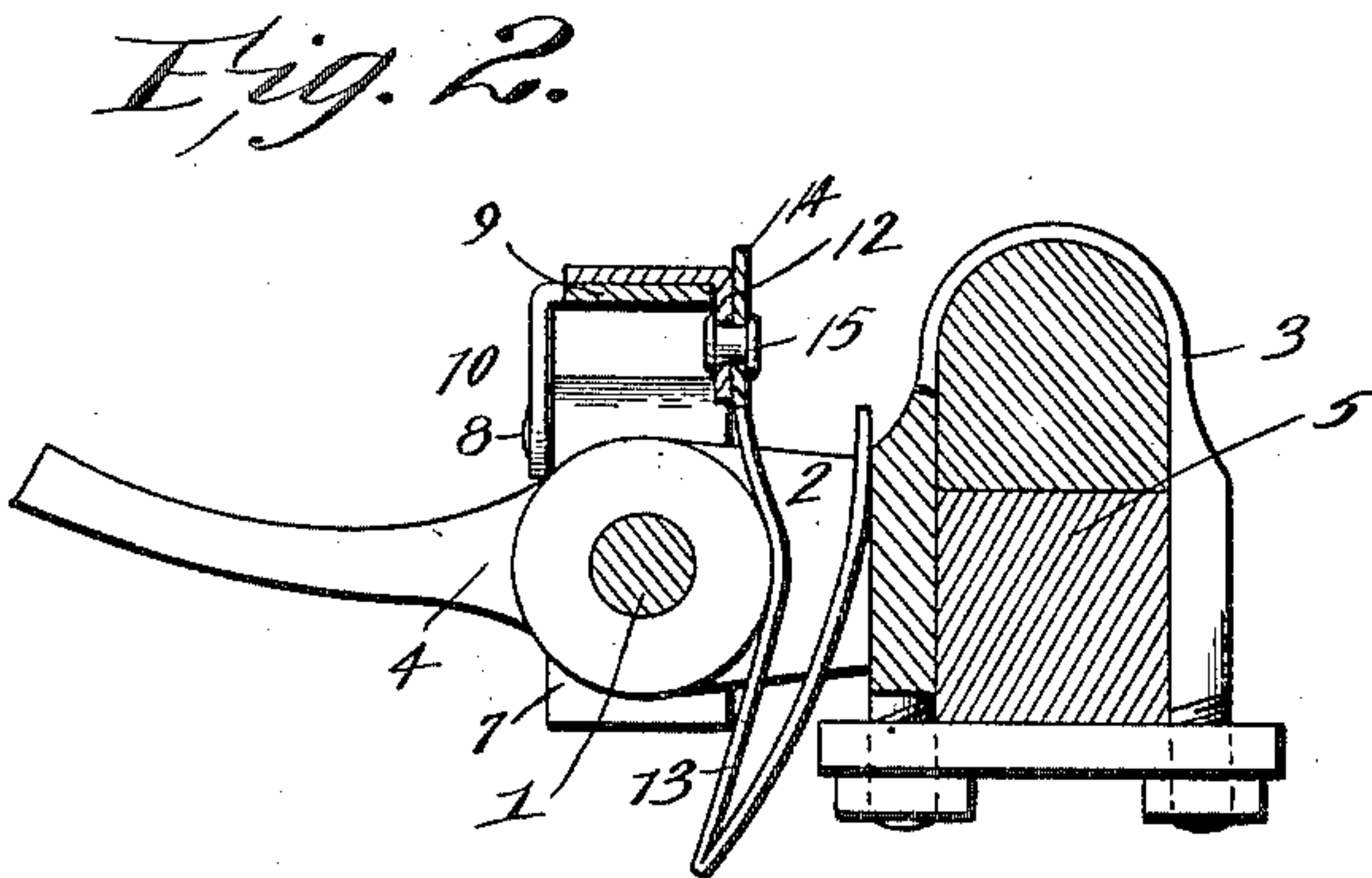
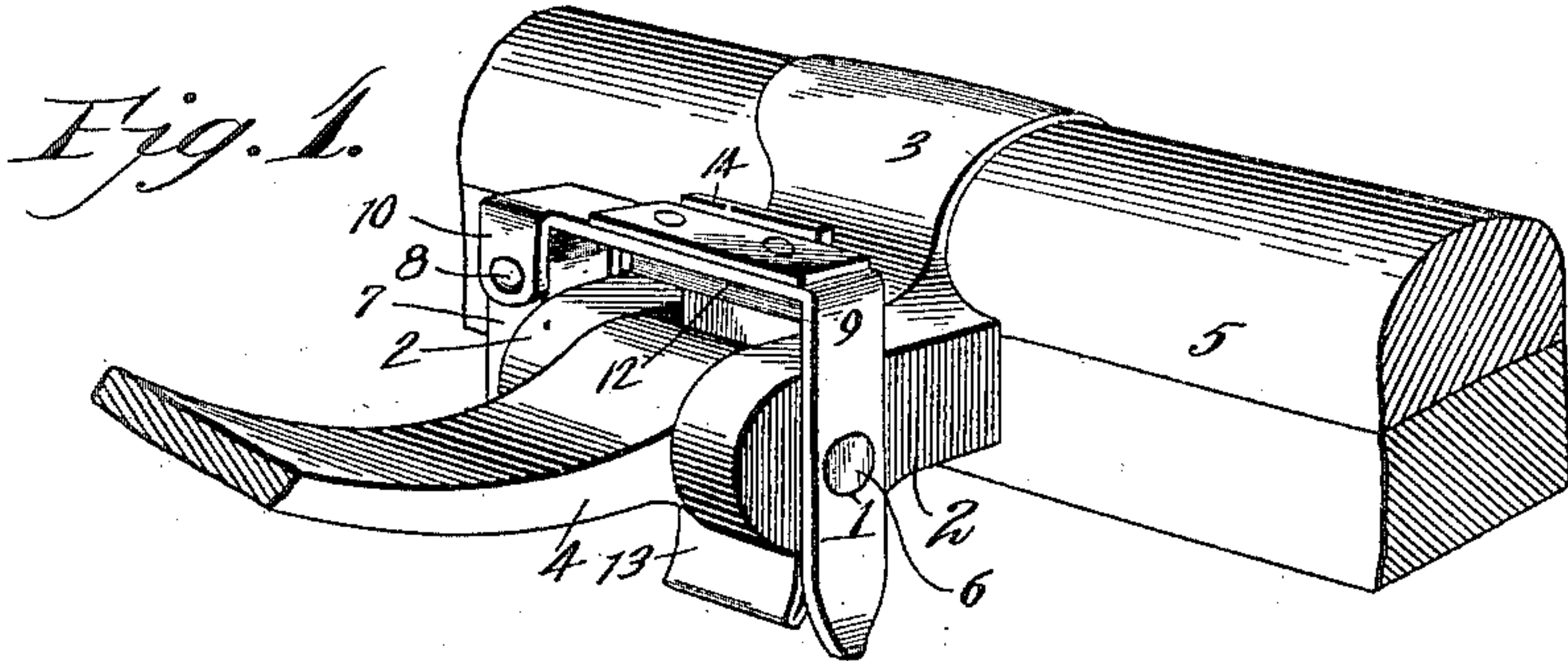
No. 659,893.

Patented Oct. 16, 1900.

J. MARVIN.
THILL COUPLING.

(Application filed Feb. 15, 1900.)

(No Model.)



Witnesses

L. M. Walker.
H. J. Riley

By *his* Attorneys,

John Marvin. Inventor

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JOHN MARVIN, OF MARENGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS,
TO F. EARLE FAY, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 659,893, dated October 16, 1900.

Application filed February 15, 1900. Serial No. 5,311. (No model.)

To all whom it may concern:

Be it known that I, JOHN MARVIN, a citizen of the United States, residing at Marengo, in the county of McHenry and State of Illinois, have invented a new and useful Thill-Coupling, of which the following is a specification.

The invention relates to improvements in thill-couplings.

One object of the present invention is to improve the construction of thill-couplings and to provide a simple, inexpensive, and efficient device capable of being readily applied to ordinary thill-couplings without necessitating any alteration in the construction thereof and adapted to prevent the parts from rattling.

A further object of the invention is to obviate the necessity of employing nuts and similar fastening devices and to enable the thill or coupling iron to be readily attached to and disconnected from an axle, to facilitate the removal of thills and poles, and to enable one to be readily substituted for the other.

The invention consists in the construction and novel combination and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a thill-coupling constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of the device detached.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a smooth pivot extending through perforated ears 2 of an axle-clip 3 and through a coupling or thill iron 4 and connecting such parts, whereby a pair of thills or a pole is coupled to a front axle 5. The smooth pivot has its end 6 projecting beyond the adjacent perforated ear, and its other end is provided with an upwardly-extending arm 7, which is perforated at the upper end for the reception of a pintle 8 for hinging a resilient locking device or spring 9 to the arm. The locking-spring 9, which is substantially L-shaped, consists of a horizontal trans-

versely-disposed top portion and a depending vertical portion, and it is provided with depending perforated ears 10, receiving the pintle and arranged at the adjacent end of the horizontal top portion of the spring. The depending arm of the L-shaped spring is provided with an opening 11, receiving the projecting end 6 of the pivot when the parts are arranged as illustrated in Figs. 1 and 3 of the accompanying drawings, and when the locking-spring is in engagement with the pivot the latter is securely locked in the perforations of the ears and the coupling-iron and there is no liability of its becoming accidentally displaced.

The locking-spring is provided at the rear edge of the horizontal top portion with a depending flange 12, preferably consisting of an L-shaped plate riveted or otherwise secured to the spring; but an integral flange may be employed, if desired. The depending flange forms a support for a pivotally-mounted substantially V-shaped antirattler-spring 13, interposed between the back of the coupling-iron and the front portion of the axle-clip and adapted to effectually prevent the parts from rattling. The upper end 14 of the front side of the antirattler-spring is extended above the rear side and is perforated for the reception of a rivet 15 or other suitable fastening device, which constitutes the pivot of the spring 13. The pivot 15 passes through a perforation of the depending flange of the top of the locking-spring, and it permits the antirattler-spring to be arranged at an angle to the said top portion of the locking-frame in introducing the antirattler-spring into the space between the coupling-iron and the axle-clip and in removing it therefrom, whereby the parts may be readily assembled.

It will be seen that the device is simple and comparatively inexpensive in construction, that it is adapted to be employed on an ordinary axle-clip and coupling-iron, and that it detachably connects the parts without employing a nut or similar locking device. It will also be apparent that the pivotal connection between the antirattler-spring and the locking-spring permits said antirattler-spring to be arranged at an acute angle to

the top portion of the locking-spring, so that the antirattler-spring can be readily placed in position back of the coupling-iron, and that when the antirattler-spring is in operative position, as illustrated in Fig. 2 of the drawings, it retains the locking-spring and the upwardly-extending arm of the pivot in position and prevents those parts from swinging forward. The front side of the antirattler-spring is slightly bowed and presents a concave face to the eye of the coupling-iron, and by this construction the antirattler-spring is held against any tendency to move upward in the space in rear of the coupling-iron.

What is claimed is—

1. In a device of the class described, the combination with an axle-clip provided with a pair of perforated ears, and a coupling-iron having an eye arranged between the ears, of a pivot passing through the eye and through the perforations of the ears, a resilient locking device hingedly connected with one end of the pivot and extending over the ears and detachably engaging the other end of the pivot, and the spring arranged between the eye and the axle-clip and forming an antirattler and pivoted to the locking device and retaining the same in an upright position, the pivot of the spring permitting the lock-

ing device and the spring to be arranged at an angle to each other in unlocking the pivot, substantially as described.

2. In a device of the class described, the combination with an axle-clip having perforated ears, and a coupling-iron having an eye, of a pivot passing through the eye and through the perforations of the ears, a resilient locking device provided with ears connected with one end of the pivot, said locking device extending over the perforated ears of the axle-clip and detachably engaging the other end of the pivot, a flange depending from the upper portion of the locking device, and a spring arranged between the eye and the axle-clip and pivotally connected with the said flange and adapted to be arranged at an angle to the locking device, said spring serving as an antirattler and also retaining the locking device in an upright position, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN MARVIN

Witnesses:

F. W. BENJAMIN,
E. D. SHURTLEFF.