

(Model.)

A. L. ROMANS.

THILL COUPLING.

No. 325,864.

Patented Sept. 8, 1885.

Fig. 1.

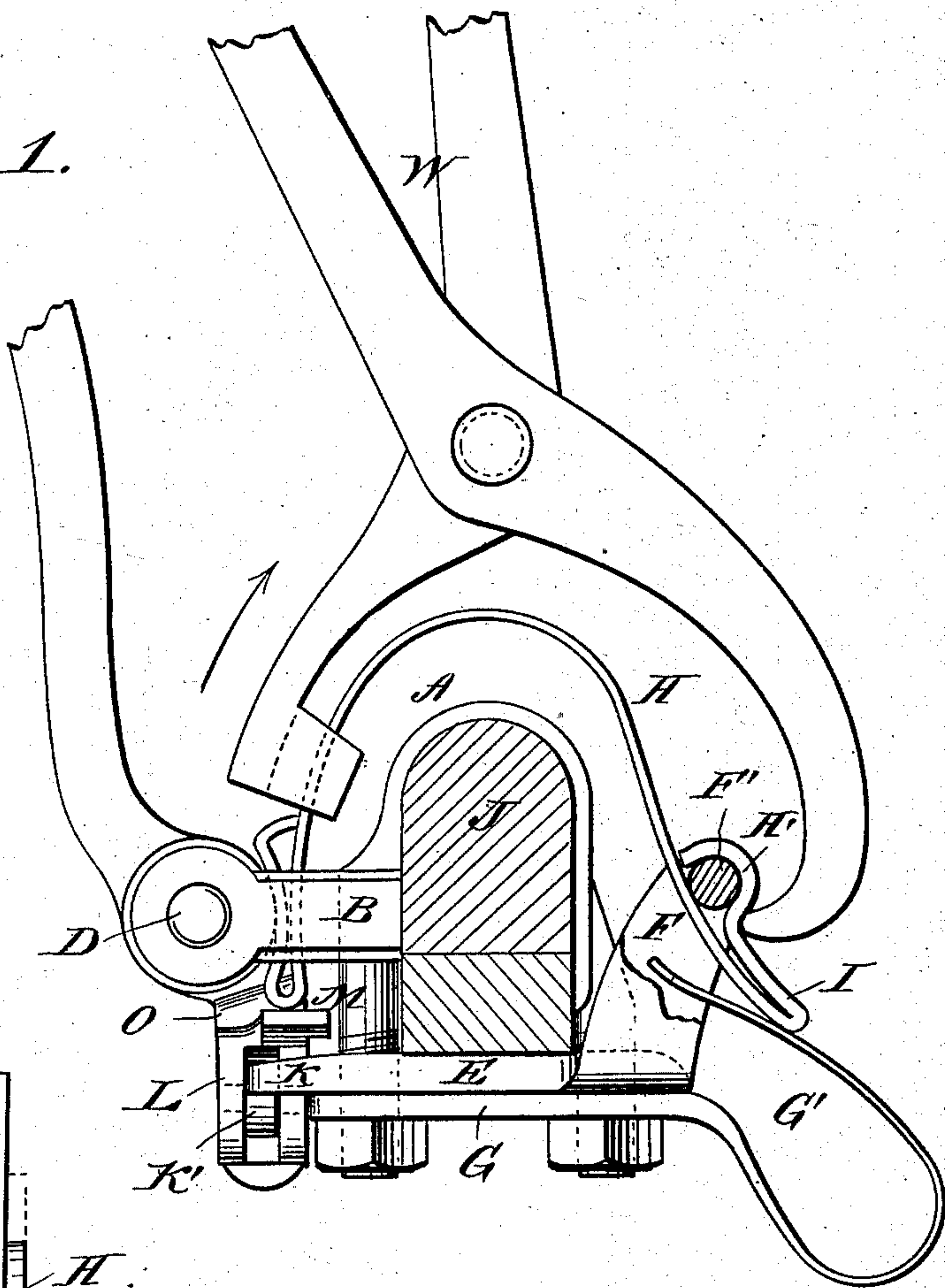


Fig. 4.

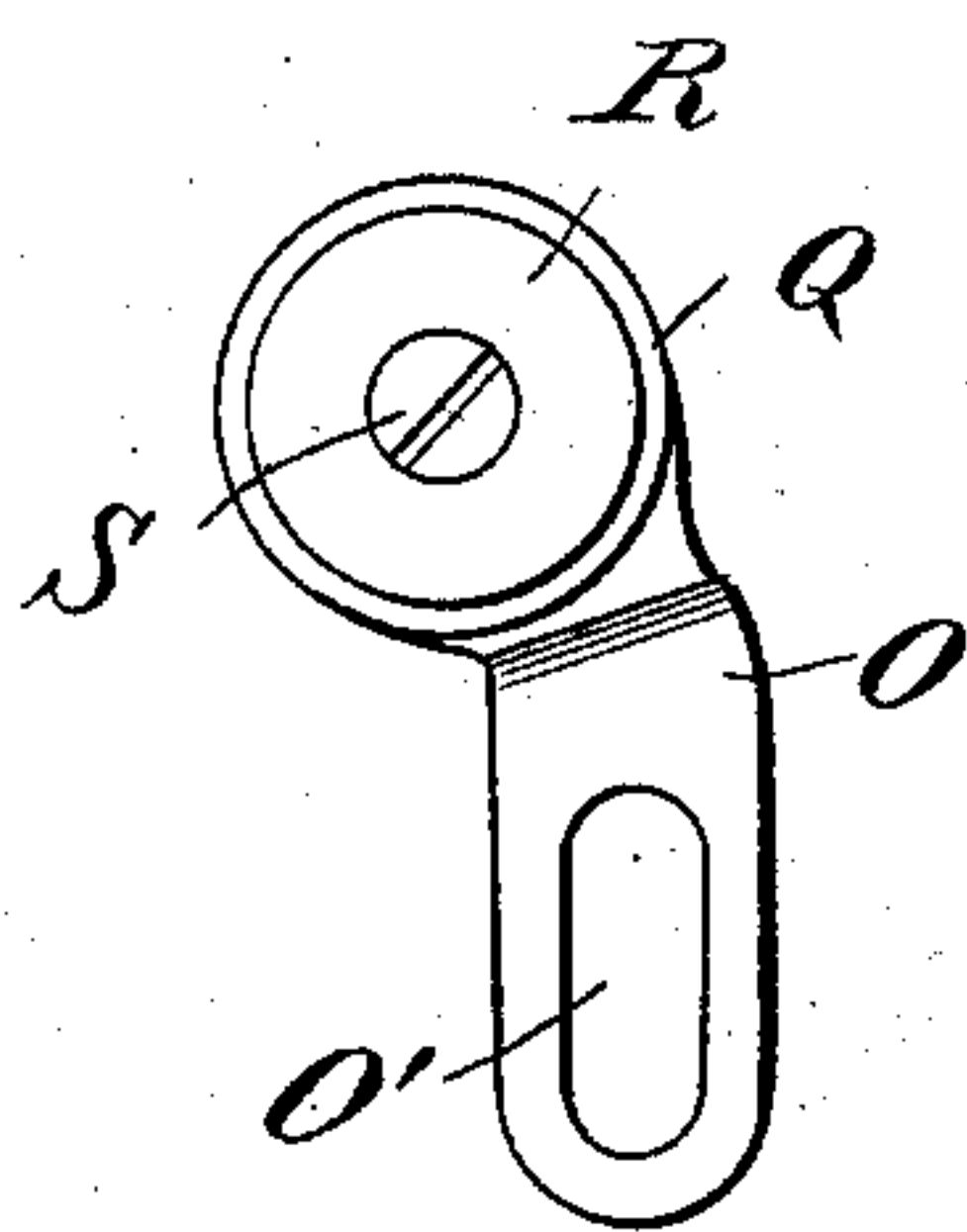
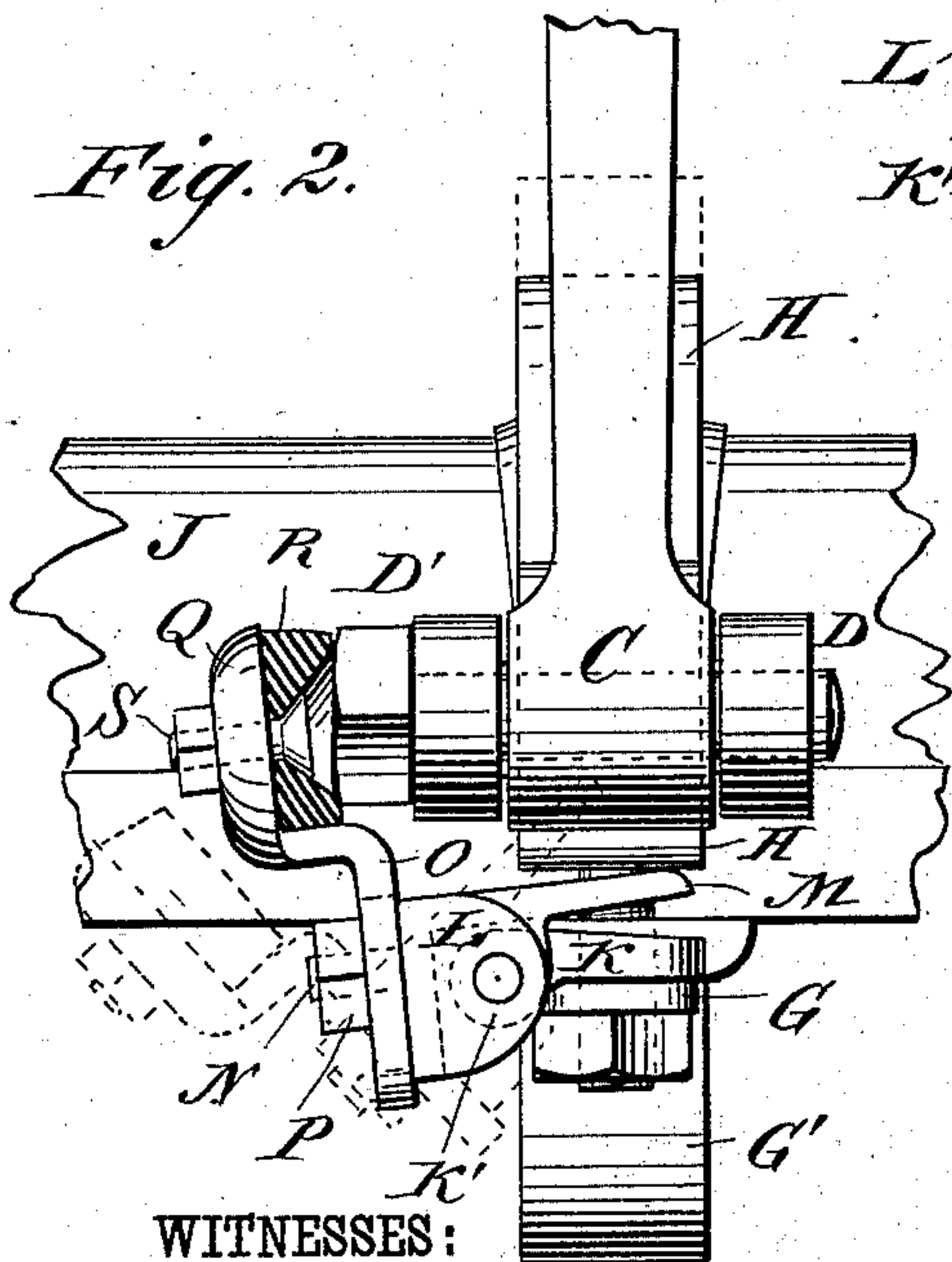


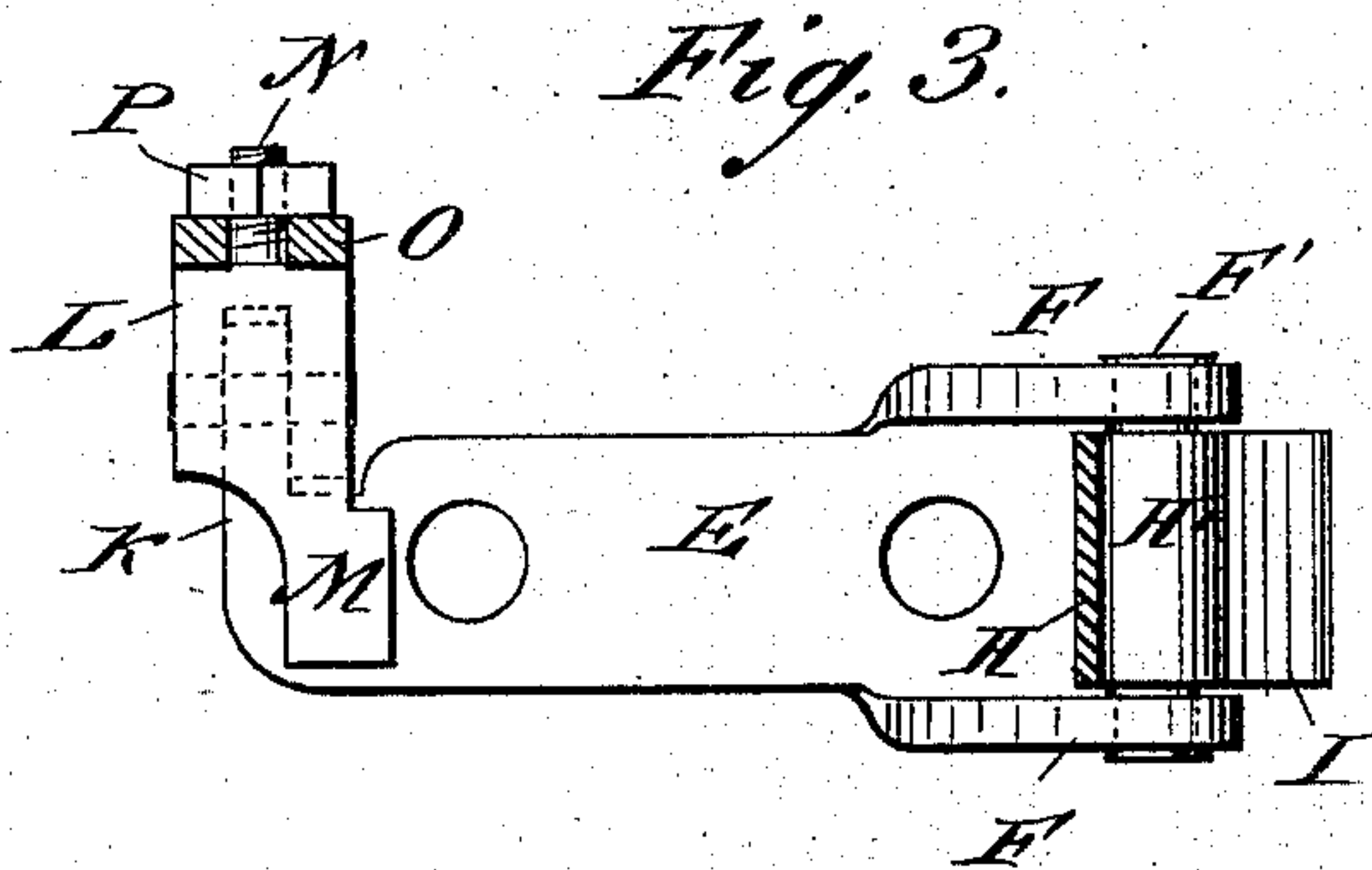
Fig. 2.



WITNESSES:

Donn Twitchell.
W. Sedgwick

Fig. 3.



INVENTOR:

A. L. Romans

BY

Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ABIJAH L. ROMANS, OF SINCLAIRVILLE, NEW YORK.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 325,864, dated September 8, 1885.

Application filed May 12, 1885. (Model.)

To all whom it may concern:

Be it known that I, ABIJAH L. ROMANS, of Sinclairville, county of Chautauqua, New York, have invented a new and Improved Thill-Coupling, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved device for coupling thills securely to axles and preventing rattling.

The invention consists in the combination, with an axle-clip, of a spring held on the same and of a latch pivoted to the clip and acted upon by the said spring, which latch prevents withdrawing the bolt.

The invention also consists in the combination, with the said spring, of an additional spring acting on it, all as will be fully described and set forth hereinafter.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of my improved thill-coupling and the pliers for opening it. Fig. 2 is a plan view of the thill-coupling. Fig. 3 is a sectional plan view of the bottom plate. Fig. 4 is a side view of the latch.

The axle-clip A, of the usual construction, has the two jaws B, between which the thill-eye C is passed, and which jaws have apertures for receiving the coupling-bolt D, having a head, D', on one end.

Directly below the axle J a flat metal bar, E, is held by the ends of the shanks of the clip, and is provided at its rear with two upwardly-projecting jaws, F, in which a pin, F', is held.

Below the bar or plate E a spring-bar, G, is held by the ends of the clip A, and has a bend at the rear end, the end of the said bend being between the jaws F.

A spring-bar, H, is provided at one end with a loop, H', through which a pin, F', passes, and from the said loop it is bent downward to form a lip, I, which rests upon the free end of the spring G'.

The spring H is carried over the axle J, and its free end is between the jaws B and rests against the thill-eye C.

The bar or plate E is provided at the front end with the laterally-projecting lug K, having an eye, K', on its end, on which eye a

forked piece, L, is pivoted, which is provided with a lug, M, resting against the free front end of the spring H.

The forked piece L also has a screw-stem, N, which is passed through a longitudinal slot, O', in a latch, O, held on the piece L by a nut, P.

The latch O is provided at its top with a cup, Q, in which a recessed rubber cushion, R, is held by a bolt, S, and nut.

The operation is as follows: The rubber cushion R rests on the head of the bolt D, and thus prevents withdrawing the said bolt. The front end of the spring H rests on the lug M, and this prevents swinging down the latch O from the end of the bolt D. The front end of the spring H, resting against the thill-eye, prevents rattling of the coupling. The free rear end of the spring G, acting on the lip I of the spring H, presses the said lip upward, and thereby presses the front end of the spring H against the thill-eye and on the lug M.

To uncouple, the pliers W are used in the manner shown in Fig. 1, the end of one jaw being placed against the loop H' and the other jaw against the spring H, and, pressing the handles of the pliers together, the free end of the spring H is pressed from the thill-eye and raised up from between the jaws B, which permits of swinging down the latch O, the lug M swinging upward, so as to permit withdrawing the bolt D.

The rubber cushion R also prevents rattling.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with an axle-clip having jaws for holding a thill-coupling bolt, of a spring secured to said clip and having one end rested against one end of a spring extending over the axle, and having its other end rested against the thill-eye, substantially as herein shown and described.

2. The combination, with an axle-clip, of the plate E, having jaws F, the spring H, held on the said jaws, and projecting over the axle and resting against the thill-eye, and the spring G', held on the bottom of the clip and having its free end rested against the spring H, substantially as herein shown and described.

3. The combination, with an axle-clip, of the plate E, having the jaws F, the pin F', held on the same, the spring H, having the loop H',

and the lip I, the front end of the spring H resting against the thill-eye, and the spring G', held by the clip and having its free rear end rested against the lip I, substantially as herein shown and described.

4. The combination, with an axle-clip having jaws between which the thill-eye is pivoted, of a spring resting against the thill-eye, and of a latch pivoted to a plate held by the clip, the latch resting against the end of the coupling-bolt, and of a lug projecting from the latch and resting against the end of the spring resting against the thill-eye, substantially as herein shown and described.

15 5. The combination, with the axle-clip A, having the jaws B, of the spring H, resting against the thill-eye, the pivoted forked piece L, having the lug M, and the latch O, held on

the forked piece L, and having the cushion R, substantially as herein shown and described. 20

6. The combination, with the axle-clip A, having the jaws B, of the spring G', the plate E, having jaws F, and the spring H, having the latch I, acted on by the spring G', substantially as herein shown and described. 25

7. The combination, with the axle clip A, having jaws B, of the plate E, having jaws F, the spring G', the spring H, on which the spring G' acts, the pivoted forked piece L, having the lug M, and the latch O, secured 30 to the forked piece, substantially as herein shown and described.

ABIJAH L. ROMANS.

Witnesses:

ALTON D. TOWER,
ADELBERT D. BENTLEY.