

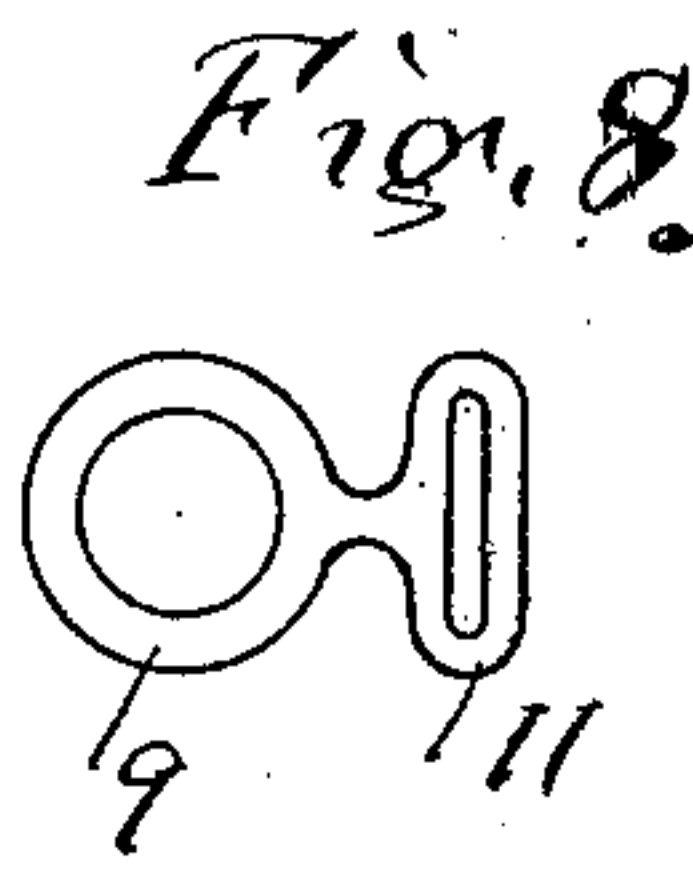
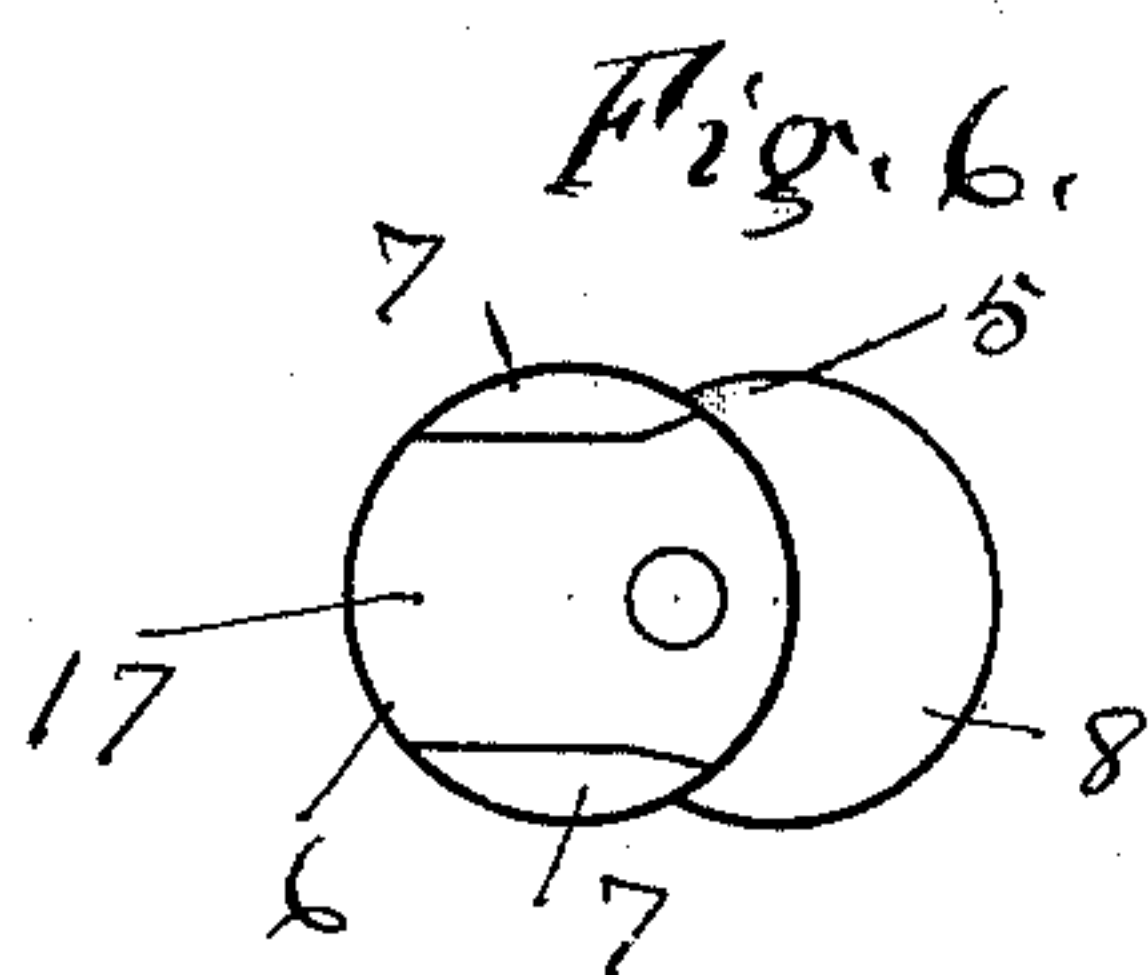
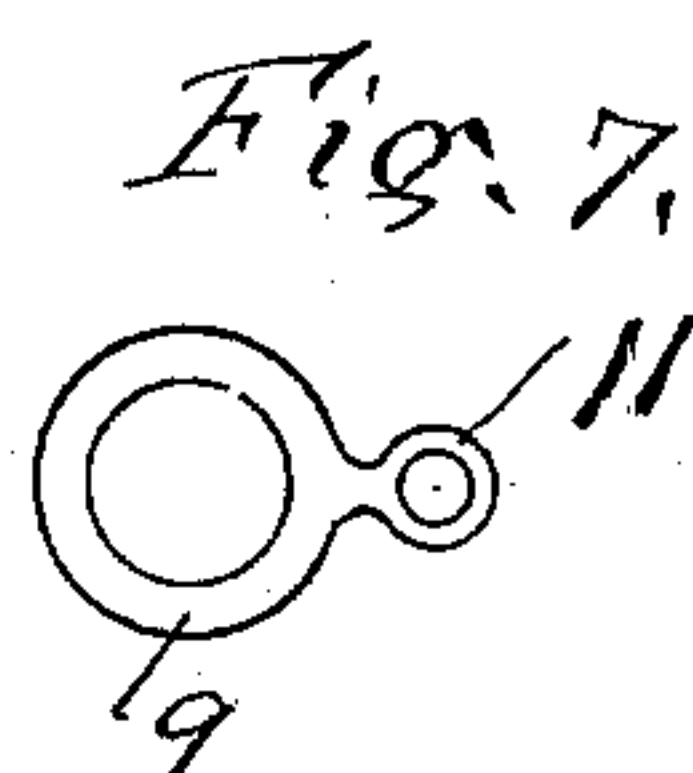
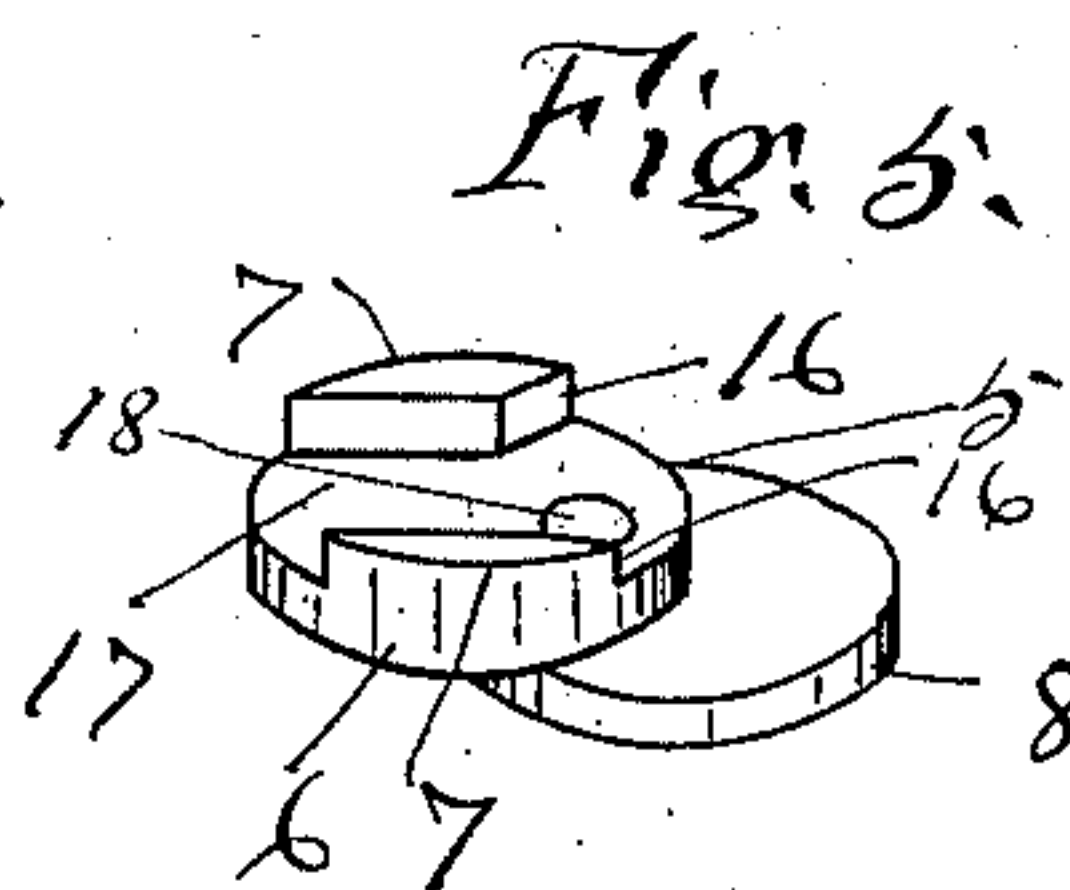
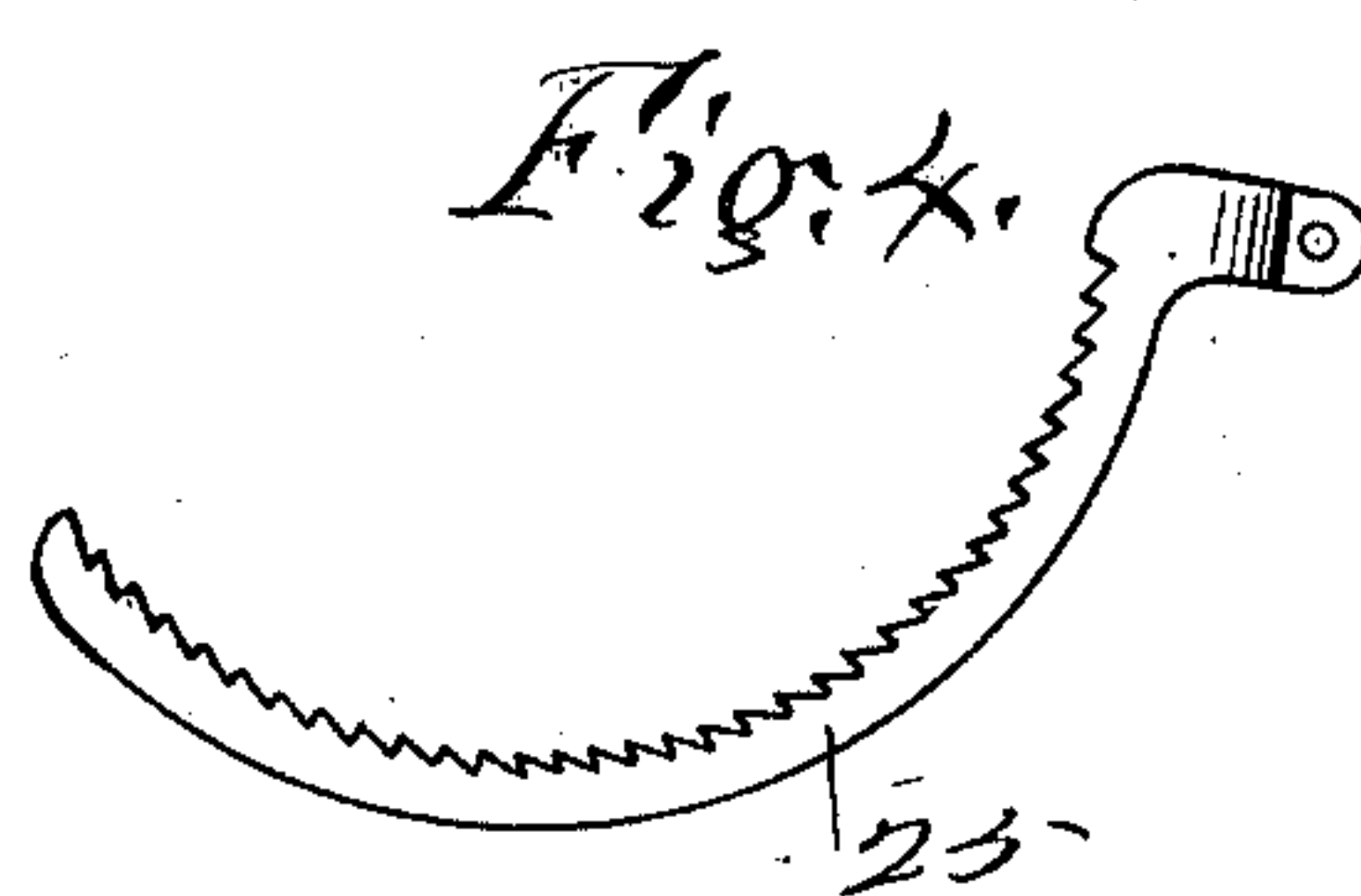
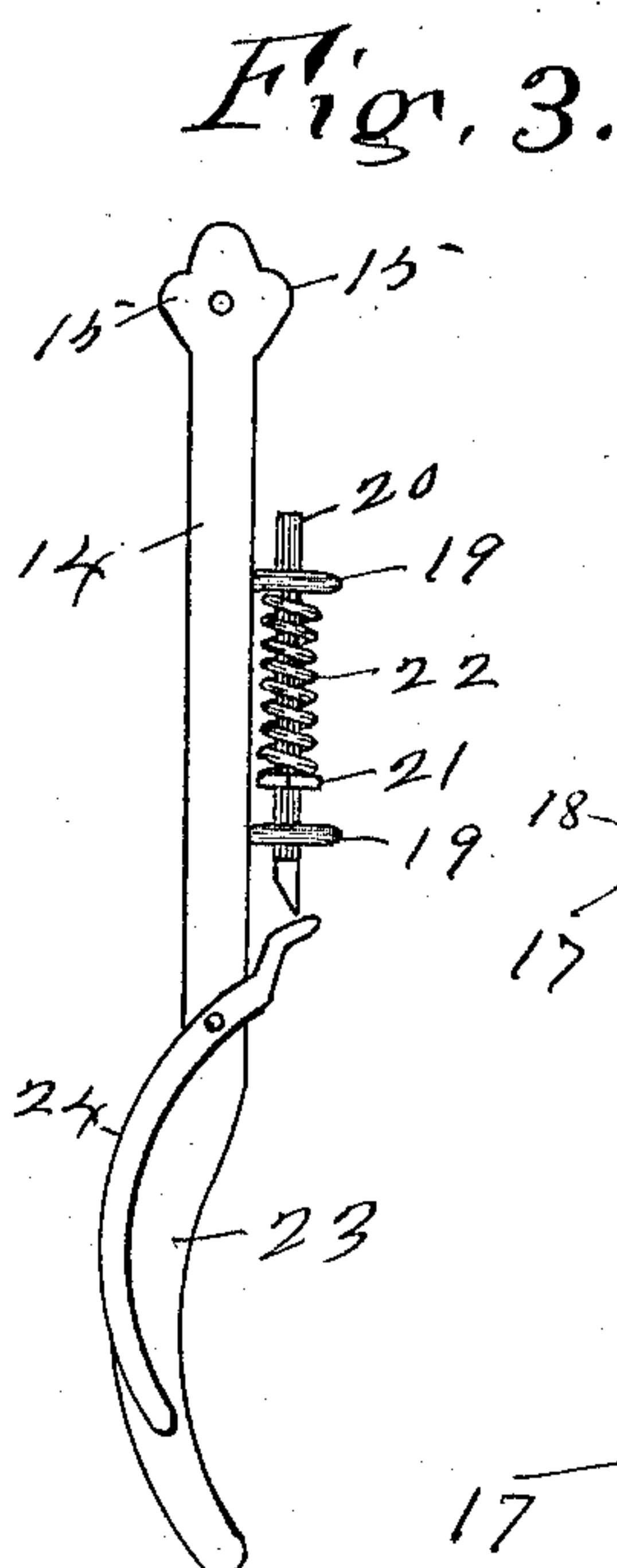
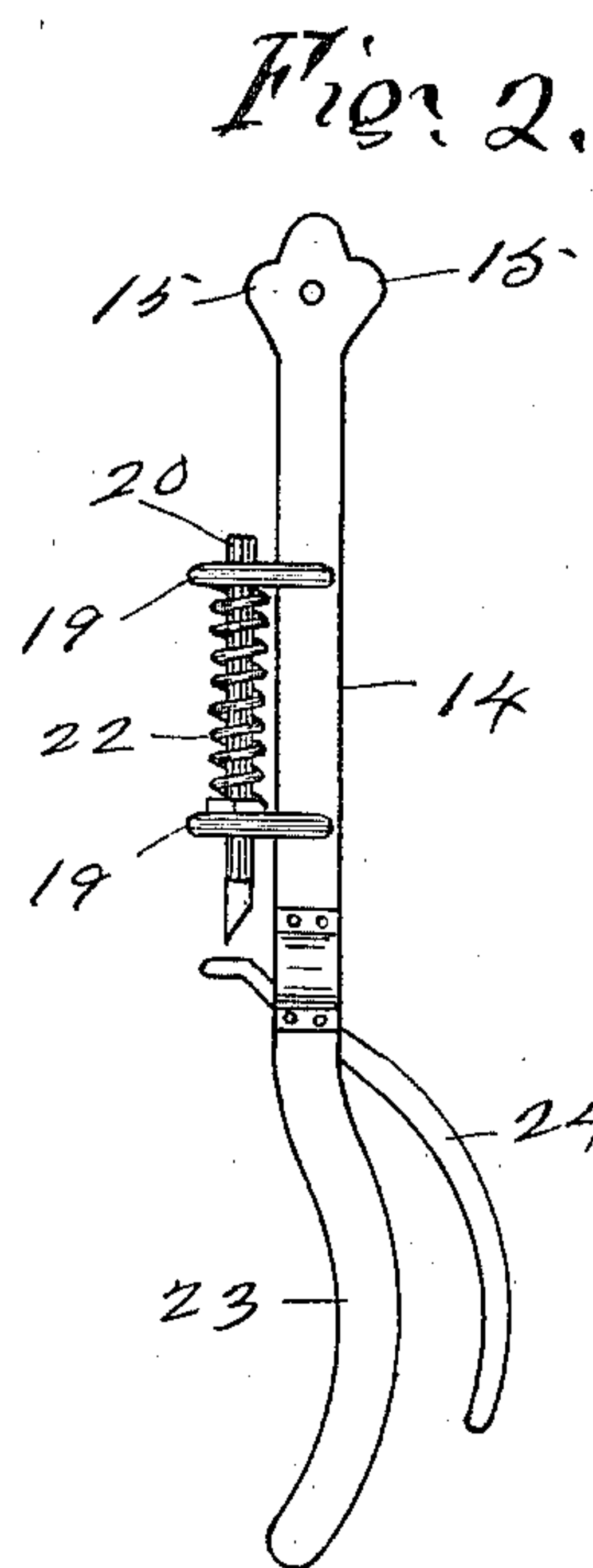
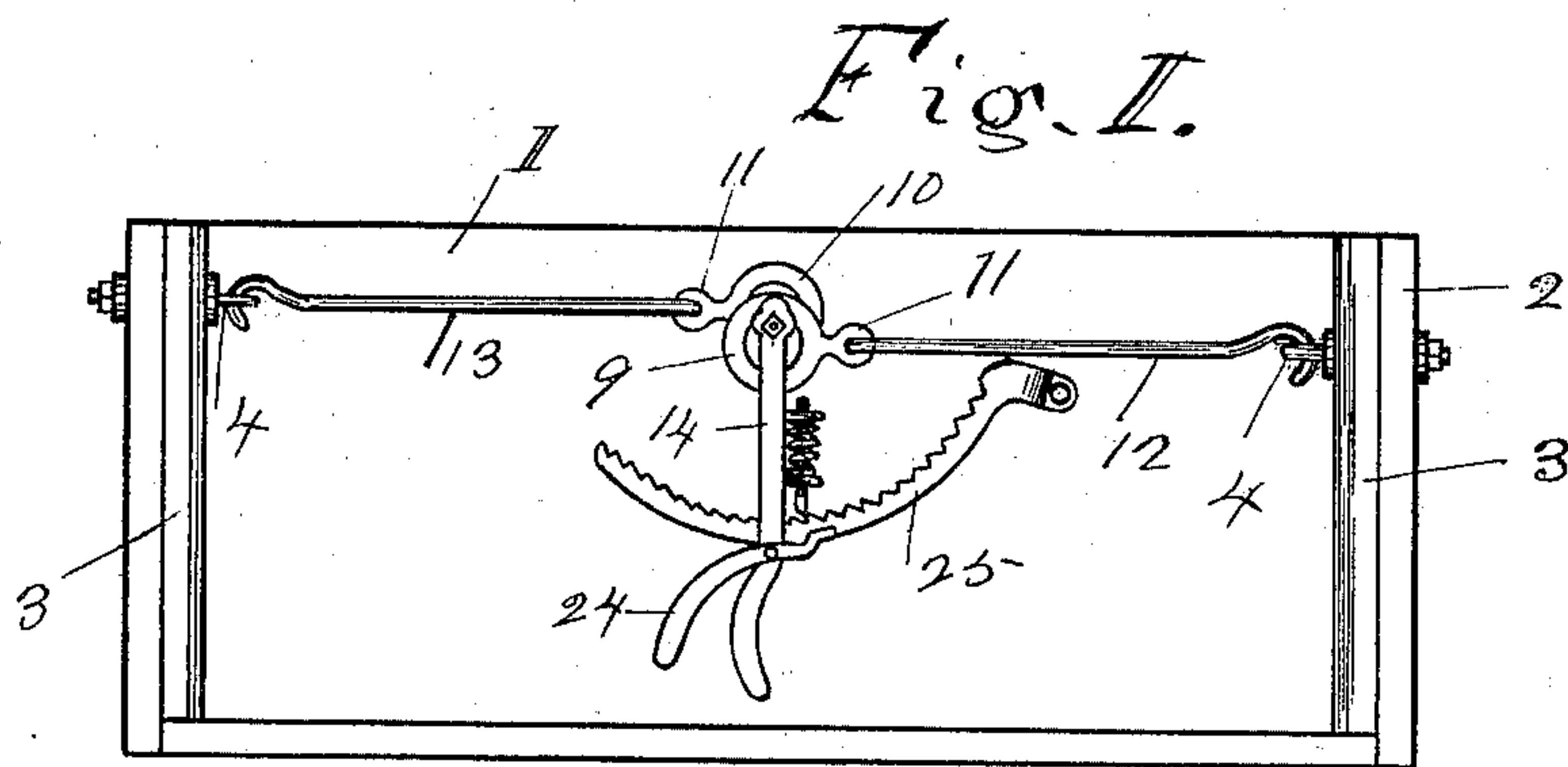
No. 656,720.

Patented Aug. 28, 1900.

H. KELLER.
END GATE FASTENER.

(Application filed Dec. 1, 1899.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY KELLER, OF FORT WAYNE, INDIANA.

END-GATE FASTENER.

SPECIFICATION forming part of Letters Patent No. 656,720, dated August 28, 1900.

Application filed December 1, 1899. Serial No. 738,798. (No model.)

To all whom it may concern:

Be it known that I, HENRY KELLER, a citizen of the United States, residing at Fort Wayne, in the county of Allen, in the State of Indiana, have invented certain new and useful Improvements in End-Gate Fasteners; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in end-gate fasteners.

The object of my invention is to provide a cheap, simple, and efficient wagon-end-gate-fastening device which can be quickly and conveniently operated and which is securely locked when in position.

My improvement consists of an eccentric pivotally mounted on the outer face of the end-gate, approximately midway of its ends and near the upper edge thereof, a pair of rods connected therewith and adapted to form a holding engagement with eyes upon the wagon-body, adjacent to the ends of said end-gate, a pendent operating-lever having its upper end rigidly secured to said eccentric, a curved rack-bar rigidly fixed on said end-gate in coöperative relation with said lever, and means for rigidly securing the said lever in a locked engagement with said rack-bar.

In the accompanying drawings, in which similar reference-numerals indicate like parts, Figure 1 is a view in elevation of my improvement in position on an end-gate. Figs. 2 and 3 are views from opposite sides of the operating-lever in detail. Fig. 4 is a detail of the curved rack-bar. Figs. 5 and 6 are perspective and plan views, respectively, of the eccentric. Fig. 7 is a detail of one of the rings to which the inner end of the end-gate hooks is secured. Fig. 8 is a detail of a modified form of the same for use with leather straps instead of hooks.

The end-gate 1, of the usual construction, is secured in a proper wagon body or box 2 by upright cleats 3 in the usual manner. At a proper point on the inner face of said cleats and near the upper end thereof are rigidly fixed in any proper manner the eyes 4, adapt-

ed to receive and holdingly engage the outer ends of said rods. At a point on said end-gate at or near the middle of its length is pivotally mounted the double eccentric 5, whose outer portion 6 is provided with the opposite lugs 7, adapted for an interlocking engagement with the upper end of the operating-lever, hereinafter described. On the integral sections 6 and 8 of said eccentric are loosely mounted the rings 9 and 10, respectively, as shown in Fig. 1. These rings are each provided with an apertured lateral lug or eye 11, in which the inner ends of the rods 12 and 13 are loosely secured, the former rod being then secured to the eye 11 of the ring 9 and the latter rod to the eye of the ring 10.

The operating-lever 14 has its upper end provided with the opposite lateral lugs 15, adapted to form an actuating engagement with the faces 16 of the said lugs 7, Fig. 5, while the upper end of the said lever rests in the space or recess 17 between the said lugs 7 and is rigidly fixed in such position by the pin, bolt, or pivot which passes through the opening 18 of the eccentric and by which it is pivotally supported. The said lever 14 has a pair of apertured lateral lugs 19 in vertical alinement, in which is loosely mounted a latch 20, having an annular lug 21, between which and the upper one of said lugs 19 is arranged a coiled spring 22, of proper tension, on said latch, by which it is normally held in the position shown in Fig. 2. The lower end of the lever 14 is formed into a curved handle 23, on which is pivoted a lever 24 for elevating the latch 20 by engaging the lower end thereof for the purpose hereinafter described. At a proper point on the end-gate in coöperative relation with said latch 20 is rigidly fixed the curved rack-bar 25, whose curvature is coincident with the arc of a circle having the pivot of the said eccentric as a center. This rack-bar is arranged at the rear of the operating-lever and is normally in a lock engagement with said latch in the tension of the coiled spring 22.

The manner of employing my invention thus described is briefly stated as follows: When it is desired to firmly secure the end-gate in position, the operator grasps the handle 23 of the operating-lever 14 and also the auxiliary 24, elevates the latch 20 out of its

engagement with the rack-bar, and moves the free end of the operating-lever to the right, thereby so rotating the eccentric as to shorten the distance between the lugs 11 and the eyes 4, after which the rods 12 can readily be either engaged or disengaged at their hooked outer ends with the eyes 4. He now moves the lower end of the operating-lever back or to the left into the position shown in Fig. 1, which so rotates the eccentric as to tighten the rods 12 and 13, the operating-lever 14 being firmly secured in that or any other desired position by the engagement of the spring-pressed latch or pawl 20 with the rack-bar. It is thus obvious that in the use of my improvement the end-gate can readily and conveniently be securely locked in position or removed therefrom.

Instead of the rods 12 and 13 leather straps may be employed, in which case the eye of the lug 11, in which the inner ends of the straps are secured, is elongated, as shown in Fig. 8, the other end of said straps being provided with proper metal hooks to holdingly engage the eyes 4.

What I claim as new, and desire to secure by Letters Patent, is—

1. An end-gate-fastening device consisting of a double eccentric pivotally mounted on the end-gate midway its ends; rings arranged on said eccentric and which are moved in opposite directions by the turning of the double eccentric; rods pivoted in said rings and provided upon their outer ends with a hook adapted for a holding engagement with eyes in the wagon-body; a curved rack-bar arranged as described; an operating-lever whose upper end is fixed in the face of said eccentric and adapted to oscillate the same and provided with means for forming a locked engagement thereto.

2. In an end-gate fastener, the combination of a double eccentric pivotally mounted as shown; a pair of rings arranged on said eccentric and which are moved in opposite directions by the turning of the double eccentric; rods connected with said rings and adapted to holdingly engage the wagon-body; a curved rack-bar arranged as shown; an operating-lever fixed to said eccentric and in co-operative arrangement with said rack-bar, and provided with a spring-pressed pawl adapted to normally engage said rack-bar, all substantially as described.

3. The combination in an end-gate-fasten-

ing device, of a double pivoted eccentric; rings arranged on said eccentric and provided with apertured ears and which rings are moved in opposite directions; rods secured in said ears for the purpose specified; a curved rack-bar as shown; a pendent hand-lever having its upper end fixed in the said eccentric and adapted to oscillate the same; a spring-pressed pawl or latch mounted on said lever and adapted for a holding engagement with said rack-bar; and means for releasing the said pawl from its engagement.

4. In an end-gate-fastening device, a double eccentric, formed in a single part, and which are out of line with each other, the rings applied to the said double eccentric and which are moved in opposite directions thereby, the outer one of the two eccentrics being provided with lugs, and the rods which are connected to the outer ends of the rings, combined with a lever which is secured to the pivot upon which the two eccentrics turn, and which catches between the two lugs, the spring-actuated catch secured to one edge of the lever, the lever for operating said catch, and a curved rack-bar secured to the tail-board, and with which the said spring-actuated catch engages, substantially as shown and described.

5. In an end-gate-fastening device, a double eccentric formed in a single part, the outer one of which is provided with lugs 7, having inclined faces 16, the pivotal bolt upon which the two eccentrics move, the rings applied to the said eccentrics, and which are moved in opposite directions, and the rods connected to the outer ends of the rings, combined with the lever provided with lateral lugs 15, to engage with the faces 16, upon the lugs 7, and which lever is secured to the pivotal bolt upon which the eccentrics turn, and catches between the lugs 7, a spring-actuated catch secured to the lever, a lever for operating said spring-actuated catch, and also pivoted upon the lever, and a curved rack-bar secured to the tail-board, and with which the spring-actuated catch engages, substantially as described.

Signed by me at Fort Wayne, Allen county, State of Indiana, this 28th day of November, A. D. 1899.

HENRY KELLER.

Witnesses:

ADELAIDE KEARNS,
ADA CRAWFORD.