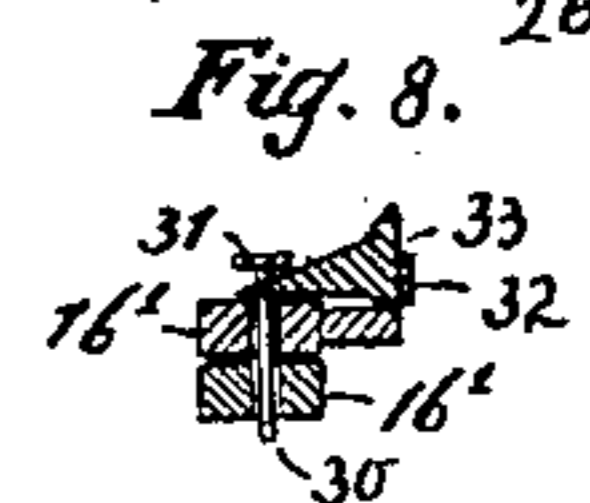
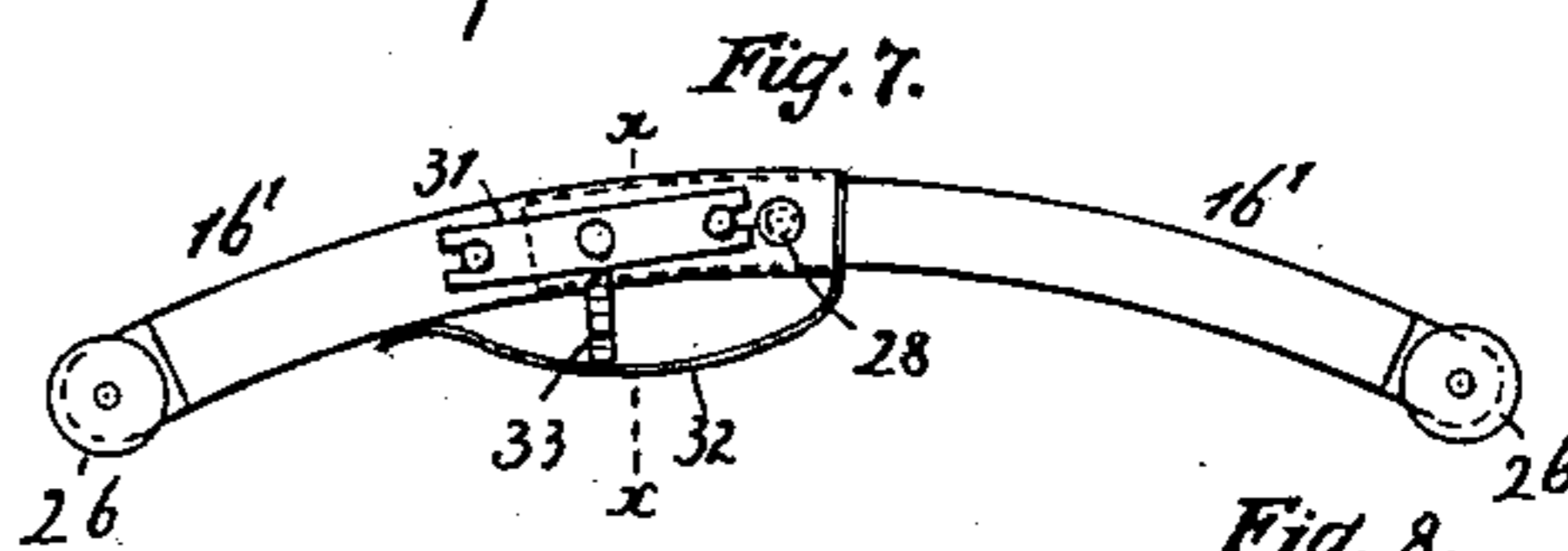
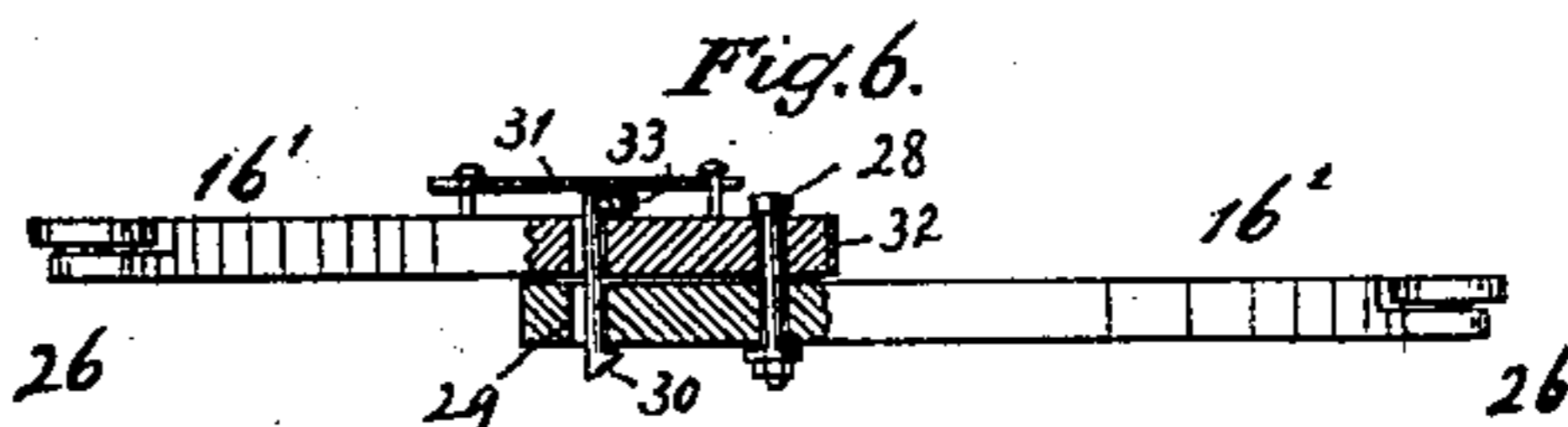
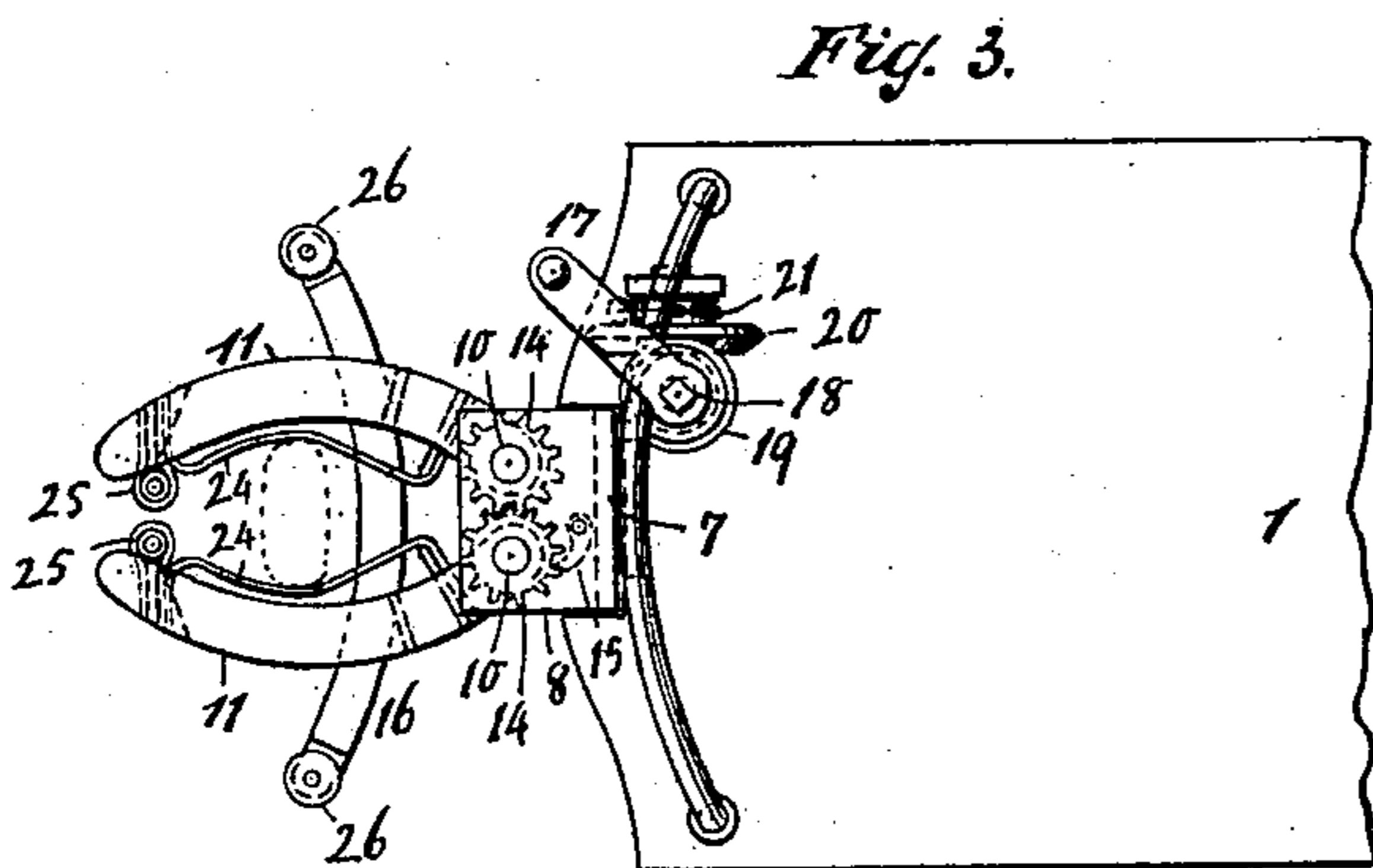
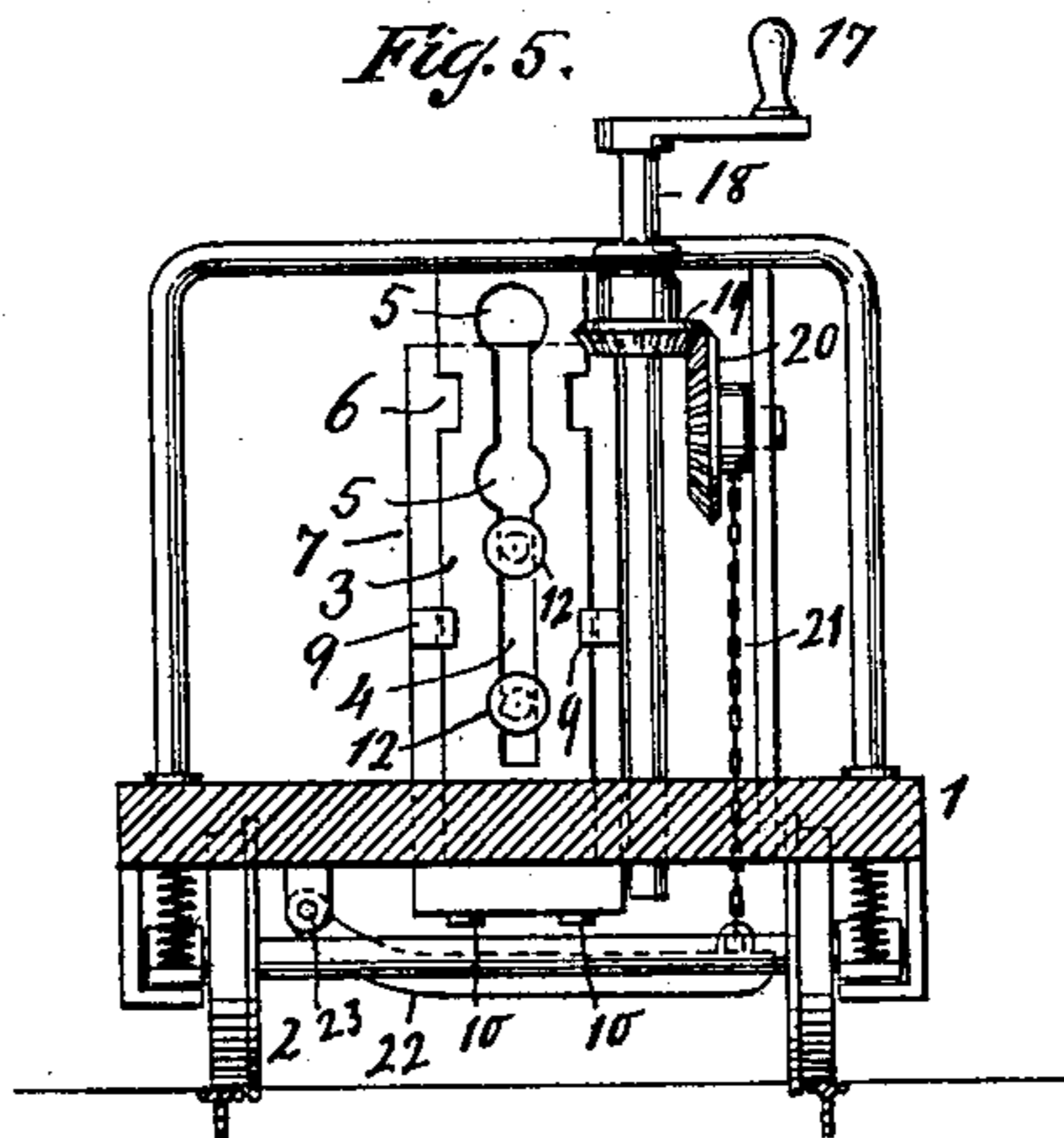
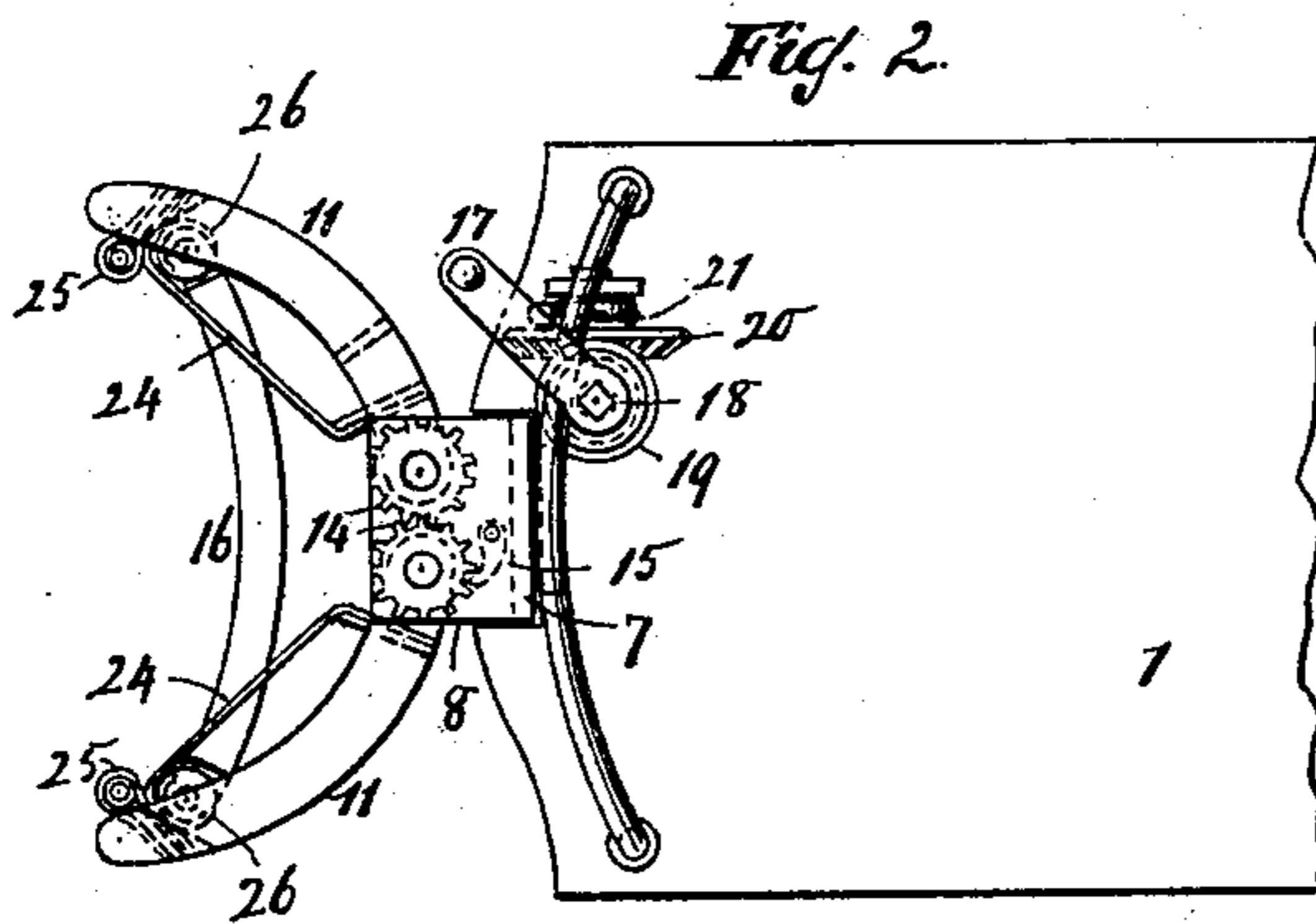
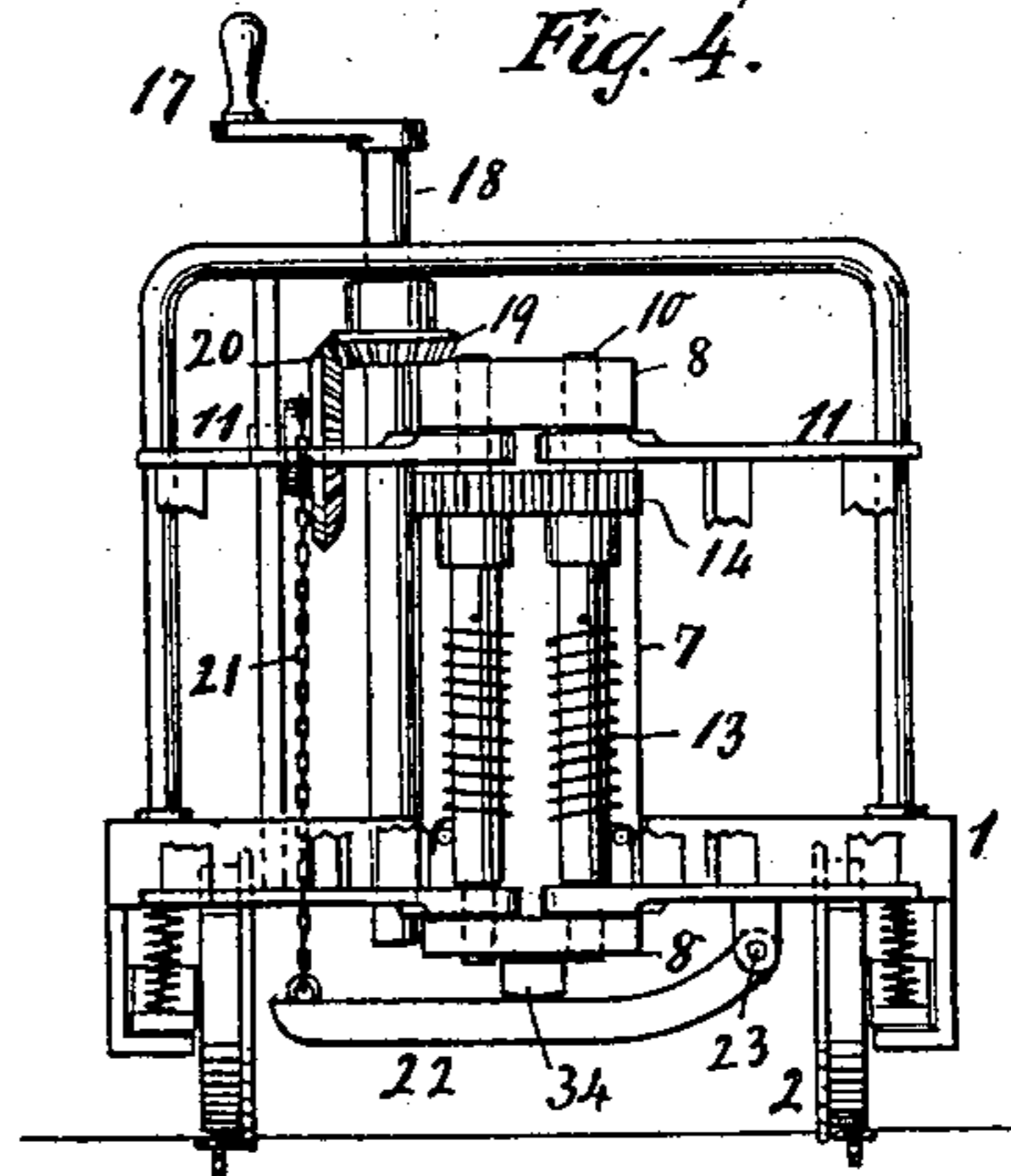
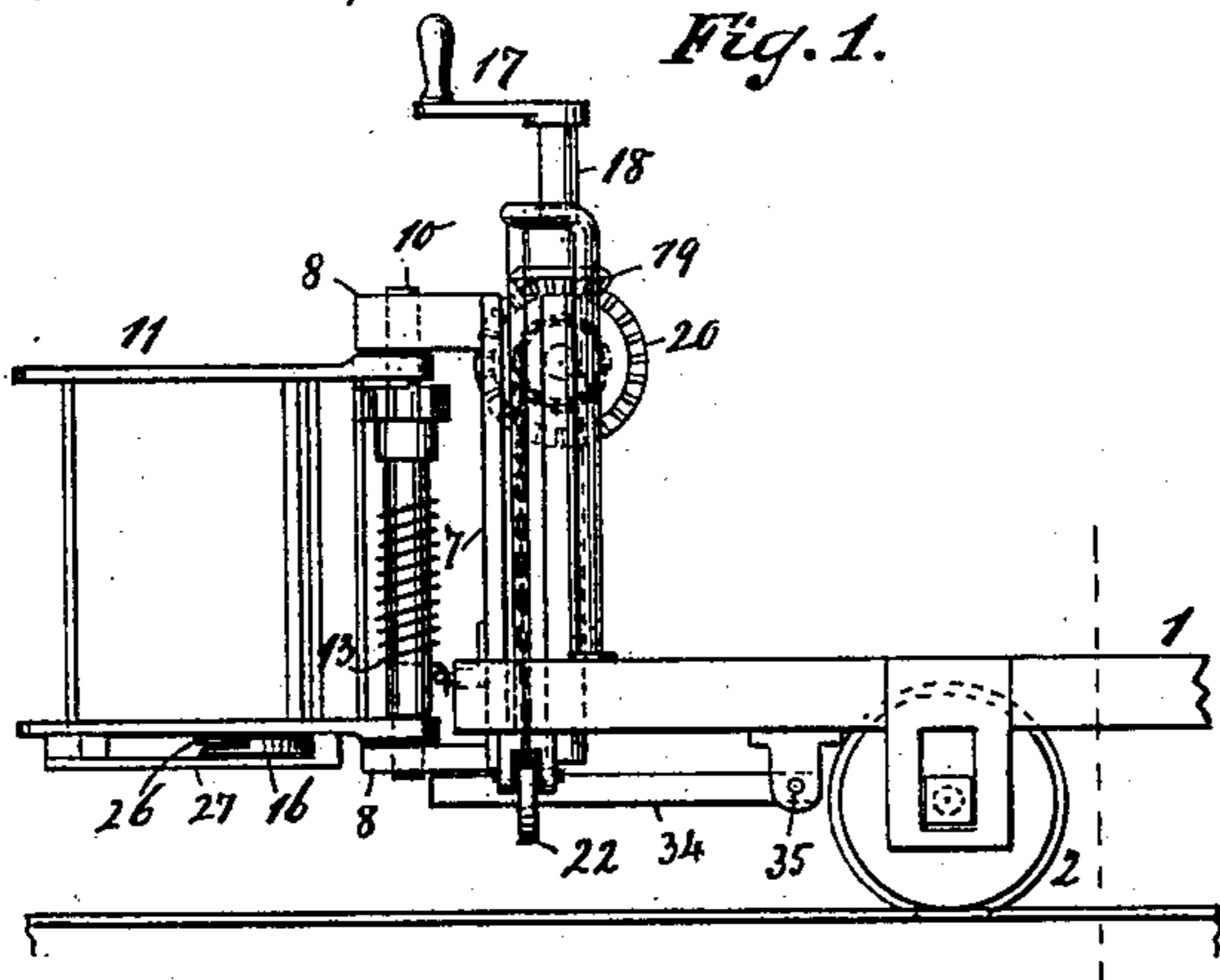


(No Model.)

J. W. SUSSMAN.  
CAR FENDER.

No. 600,099.

Patented Mar. 1, 1898.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOKUB W. SUSSMAN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO  
BENJAMIN BOLEY, OF SAME PLACE.

## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 600,099, dated March 1, 1898.

Application filed November 26, 1897. Serial No. 659,904. (No model.)

*To all whom it may concern:*

Be it known that I, JOKUB W. SUSSMAN, a subject of the Emperor of Austria, residing at New York, in the county and State of New York, have invented new and useful Improvements in Car-Fenders, of which the following is a specification.

This invention relates to improvements in car-fenders and resides in certain details of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a side elevation of the fender. Fig. 2 is a plan view of the fender open. Fig. 3 shows the fender closed. Fig. 4 is a front elevation of Fig. 1. Fig. 5 is a rear elevation of Fig. 1. Fig. 6 shows a modified form of brace, partly in section. Fig. 7 is a plan view of Fig. 6. Fig. 8 is a sectional view of a wedge.

A car platform or body is indicated at 1, having wheels 2. Secured at the car front or at the dashboard or forming part of the dashboard is a plate 3, Fig. 5, slotted, as seen at 4. The slots 4 are enlarged at suitable points 5. The edges of plate 3 are also shown with cuts 6 at suitable points.

The fender-carrying frame comprises the vertical part 7, Fig. 1, and the horizontal parts or arms 8. The frame 7 8 can slide up and down on plate 3 and is suitably connected to said plate by headed studs 12, Fig. 5, engaging slot 4, and by clips or hooks 9, clasp- ing the edges of plate 3. The studs 12 and clips 9 on frame 7 8 slidably connect the frame to and steady it on the plate 3, and by lifting the frame high enough to bring the studs and clips to the releasing enlargements or cuts 5 and 6 the frame with its fender can be detached, as for connecting to another car or car end or for repair.

The frame parts or arms 8 form bearings for the pivots 10 of the fender-jaws 11, so that these jaws can swing shut, Fig. 3, or open, Fig. 2. The jaws normally close under the action of suitably applied or braced springs 13. The springs are shown applied to or about the jaw-pivots 10. By suitably gearing together the pivots 10, as seen at 14, Fig. 2, one of the springs will suffice to close both

jaws, or, in other words, the jaws will act together. A pawl or lock 15 can be suitably arranged to engage gears 14 or to hold the jaws closed after they have seized a victim. The jaws are shown held open by a suitable brace 16, Fig. 2; but the impact of a victim pushes back or frees the brace to allow the jaws to close.

The fender after having seized a victim can be lifted to prevent dragging or injury. Various well-known devices—such as a lever, screw, ratchet, or the like—suitably applied can be used to raise the fender. By having the brake mechanism suitably connected to the fender the latter can be lifted as the brake is put on.

The brake crank or handle 17 actuates the brake-shaft 18, as known. The bevel-gears 19 and 20 are actuated by this shaft. A chain 21 is wound by gear 20. This lifting-chain 21 can be made to raise the fender in any suitable way. A lifting arm or lever 22, fulcrumed at 23, engaged by chain 21 and extended under the fender, will lift the latter on the actuation of the chain. In this manner when a victim has been caught between the jaws the fender can be raised to prevent him from being dragged or injured, and by the means described this is automatically accomplished when the attendant or driver applies the brake.

When it is desired to detach the fender from the car, it is raised by hand beyond the point to which it may be raised by the brake-lever, or until the headed studs 12 12 and the clips or hooks 9 9 respectively register with the apertures 5 5 and recesses 6, when the fender may be lifted off and away from the car.

To prevent injury to the grasped victim, the fender can have a soft lining 24, such as canvas, suitably stretched in place at the inner faces of the jaws. The jaws being suitably rounded or concaved will contact only at their front ends, and these ends being suitably rounded or curved or softened, as by tubing 25, will be prevented from giving a sharp blow. For separating the closed jaws handles or hand-holds might be suitably applied, or the jaws can be grasped directly for pulling open. One of the arms 8 can be

formed in sections or otherwise arranged to allow the pivots 10 to be suitably journaled or put in place.

The brace 16 is prevented from dropping to the ground by loops or carriers 27, Fig. 1, adapted to hold or receive the brace, and the brace or bracket, as known, could be provided with friction or leaf springs exerting sufficient friction to keep the brace from accidentally slipping out or clear of the brackets or carriers.

The brace 16 in place of being a rigid piece might be jointed, so as to collapse or fold when required to let the jaws close. By having the brace-sections 16', Fig. 6, jointed or pivoted together at 28 and perforated at 29 these perforations when in corresponding position can receive a catch 30 for holding the brace-sections in alinement, or spread, or in action. The holes 29 are of sufficient size to allow the head or shoulder part of catch 30 to pass therethrough. The spring or leaf 31 tends to normally hold the catch down in the holes 29.

A spring 32, Fig. 7, carries a wedge or release 33, Figs. 7 and 8. When the spring 32 is struck or compressed by a victim, the wedge 33 is moved back, so that one of its inclined faces lifts spring 31, while the other face deflects hook 30 sufficiently to allow it to clear, so as to be free to rise in the hole 29. As soon as the catch 30 has risen clear of one of the sections 16' these brace-sections collapse or fold and allow the jaws to close. The lever 22 instead of engaging the fender direct may act against an arm 34, Fig. 1, swinging on pivot 35, which arm acts against the fender to raise the latter.

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

1. In a car-fender, the combination with a vertically-adjustable frame, of self-closing jaws pivotally attached to said frame and operating to grasp and hold a victim, means for normally holding the jaws open, and means for raising said frame vertically to lift the victim, substantially as described.

2. In a car-fender the combination with two vertical pivots and jaws fixed on said pivots and arranged to grasp and hold a victim, gears arranged on said pivots and engaging one another to cause said pivots and jaws to move in unison, a spring for turning one of said pivots to close the jaws and means for holding said jaws normally open, substantially as described.

3. A vertically-movable fender and a brake mechanism connected to the fender for lifting the latter as the brake is put on substantially as described.

4. A vertically-movable fender, a brake-

shaft, bevel-gears actuated by the shaft, a lifting-chain wound by one of the gears, and a lever actuated by the chain and made to engage the fender substantially as described.

5. A fender comprising spring-jaws, and a brace made to detachably engage its ends to the jaws to hold the latter open, said brace having rollers at its ends to allow the brace to be readily freed substantially as described.

6. A fender comprising spring-jaws, and a brace made to detachably engage its ends to the jaws to hold the latter open, said brace having rollers at its ends to allow the brace to be readily freed, and said jaws having loops or carriers for sustaining the brace after having released the jaws substantially as described.

7. A fender comprising spring-jaws, and a brace made to detachably engage its ends to the jaws to hold the latter open, said brace comprising jointed sections commonly perforated, a spring-pressed catch adapted to enter the perforations to hold the brace-sections in alinement or action, a releasing-wedge adapted to engage the catch and its spring for releasing the latter, and a spring for holding the wedge out of action, said wedge-spring being extended in front of the brace to be struck or compressed by a victim substantially as described.

8. A fender comprising jaws, gears made to connect the jaws, a spring for closing the jaws, and pawls for the gears to hold the jaws locked or closed substantially as described.

9. In a car-fender, the combination with a plate rigidly attached to the car-platform and having a longitudinal slot provided with enlargements for the passage therethrough of headed studs, and provided on its opposite edges with notches or recesses, of a frame carrying self-closing jaws, said frame being provided with hooks or clips embracing the opposite edges of the said plate and headed bolts passing through the slot in the plate, the enlargements and recesses in the plate and the bolts and hooks on the frame being so arranged relatively one to another that when the frame is raised to its greatest height the studs register with the enlargements and the hooks or clips register with the recesses or notches to enable the frame to be detached from the said plate, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOKUB W. SUSSMAN.

Witnesses:

WM. C. HAUFF,

E. F. KASTENHUBER.