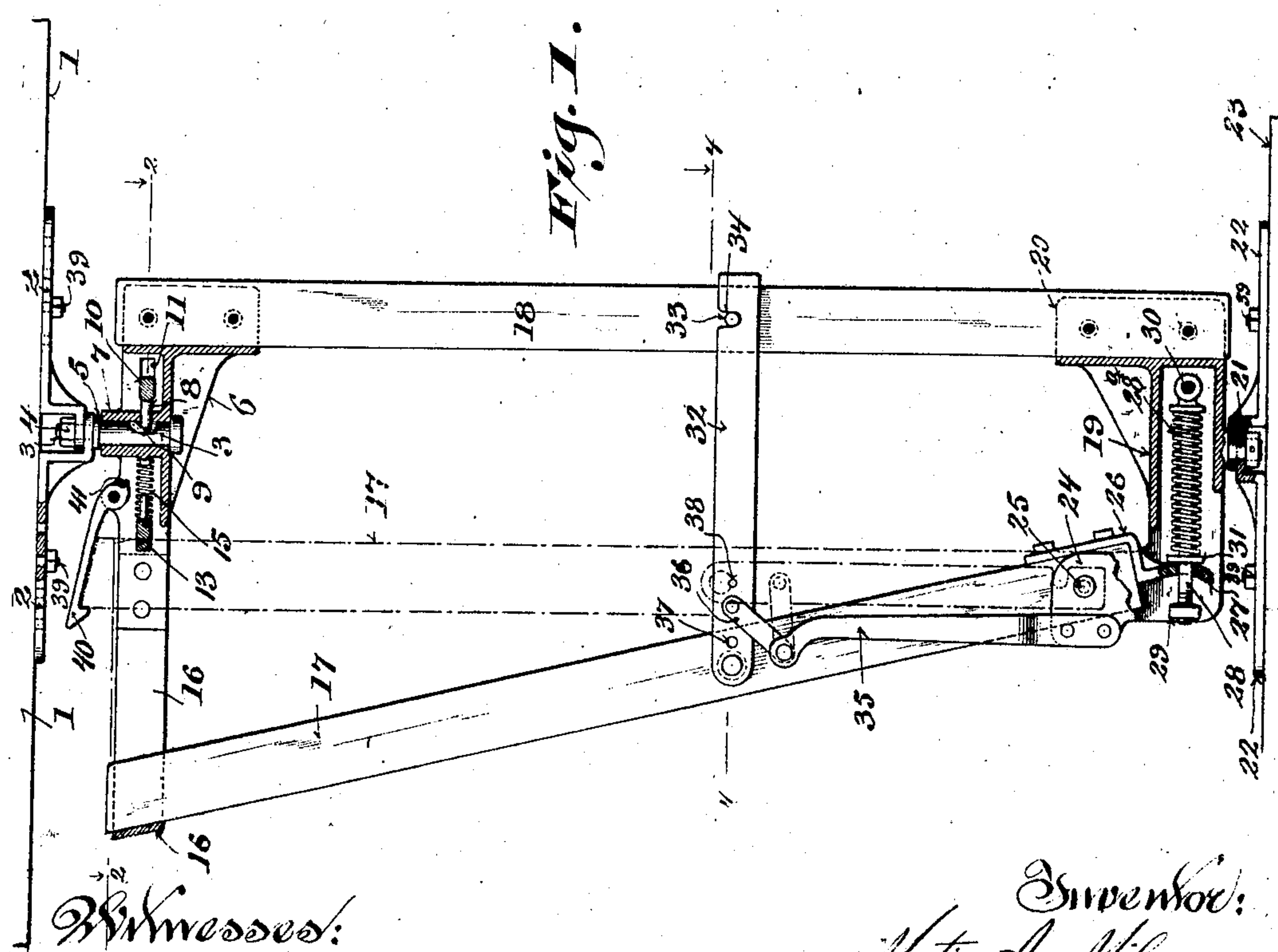
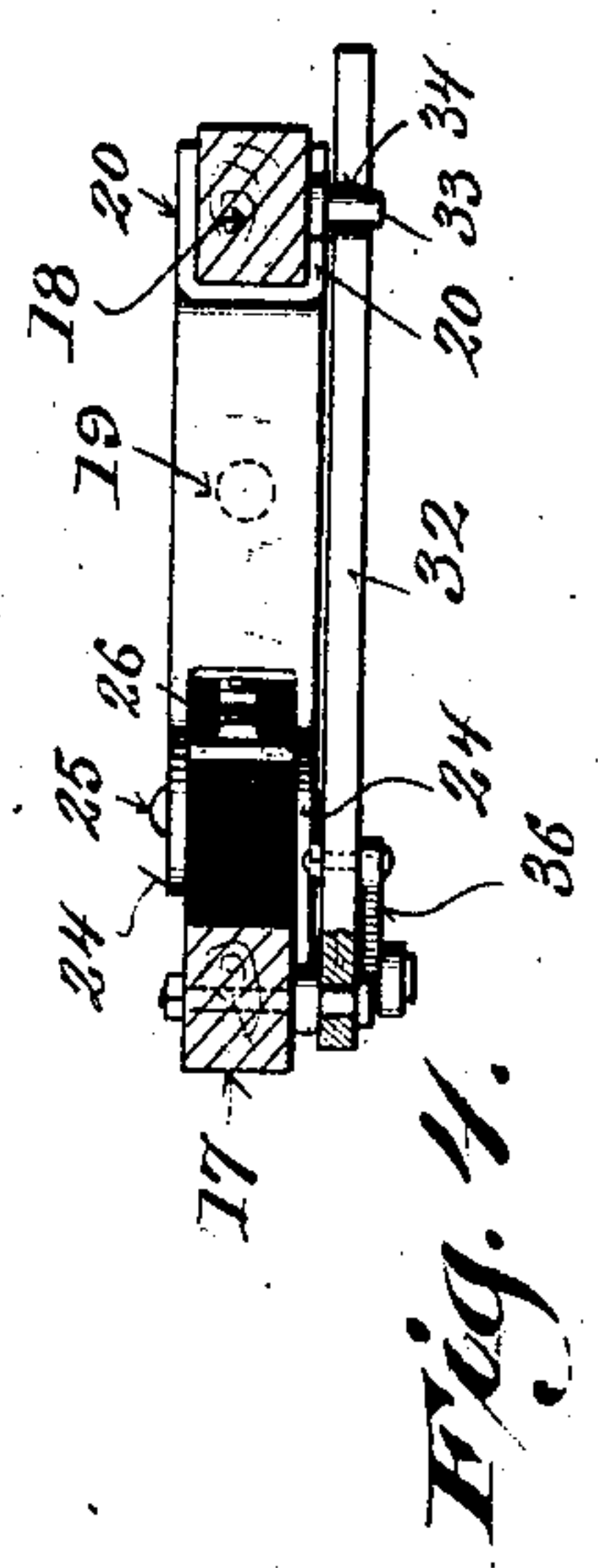
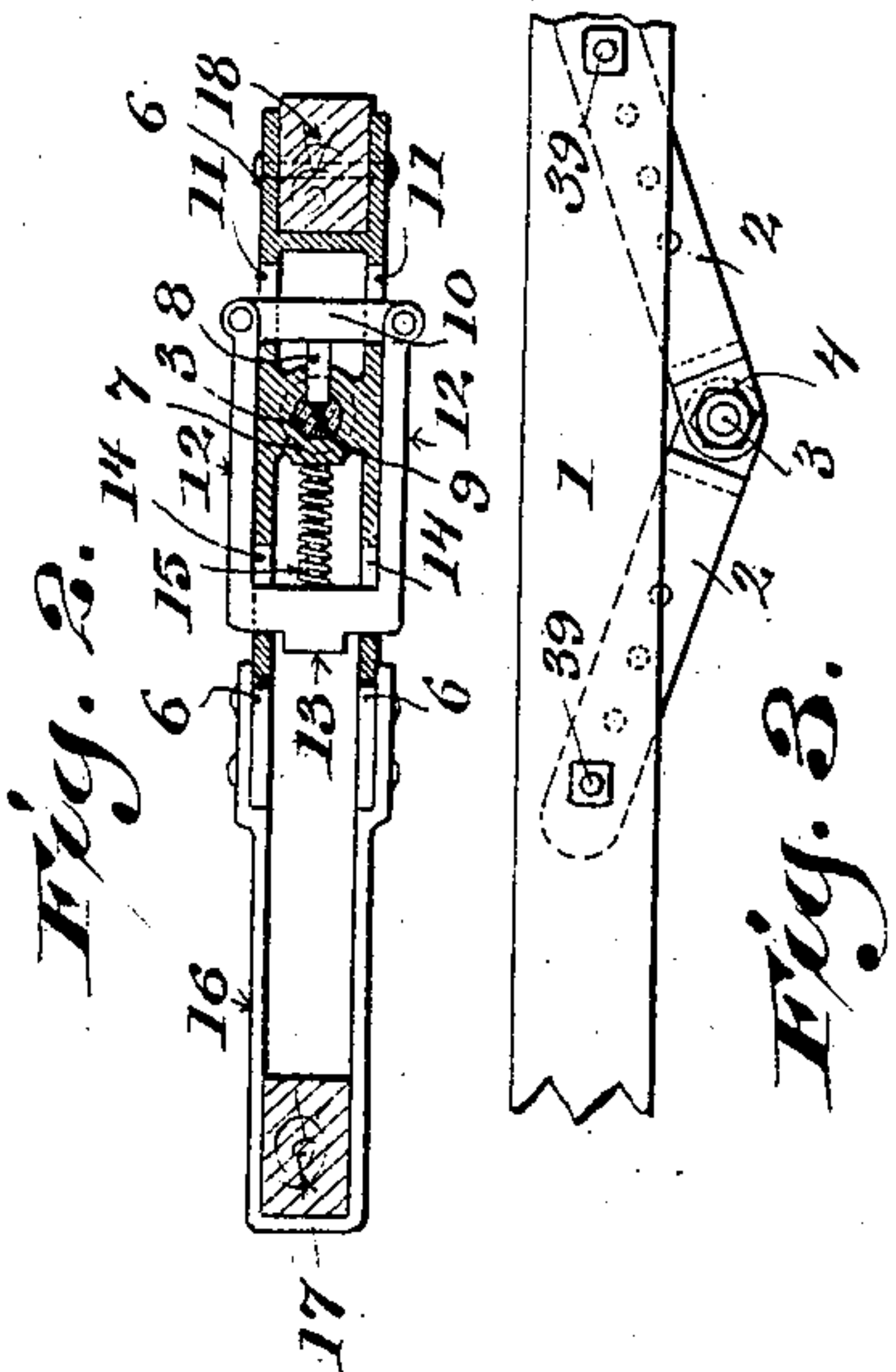


M. A. MILEY.
STANCHION.
APPLICATION FILED MAY 10, 1909.

933,775.

Patented Sept. 14, 1909.



Witnesses:
George L. Felber
Theodore H. Harkness

Inventor:
Martin A. Miley
By Charles E. Young
Attorney

UNITED STATES PATENT OFFICE.

MARTIN A. MILEY, OF LIMA, WISCONSIN.

STANCHION.

933,775.

Specification of Letters Patent. Patented Sept. 14, 1909.

Application filed May 10, 1909. Serial No. 495,144.

To all whom it may concern:

Be it known that I, MARTIN A. MILEY, a citizen of the United States, and resident of the town of Lima, in the county of Sheboygan and State of Wisconsin, have invented certain new and useful Improvements in Stanchions; and I do hereby declare that the following is a full, clear, and exact description thereof.

10 The object of my invention is to provide a simple, economical and effective cattle-stanchion, its construction and arrangement being such that when the device is opened or unlocked it cannot be rotated upon its vertical axis, being held and locked relative to
15 said axis in its correct position facing the rear of the stall, by means of a bolt in engagement with one of the stanchion-trunnions, which bolt renders it impossible for
20 the animal to swing the stanchion edgewise by thrusting its head between the sides of the stall and stanchion-rails, provision being also made whereby the animal locks said
25 stanchion by a downward movement of its head and simultaneously with this locking movement the device is automatically rendered free to swing upon its vertical axis by withdrawing the bolt from the trunnion, whereby movement of the animal's head
30 from side to side is facilitated.

The invention therefore consists in certain peculiarities of construction and combination of parts with reference to the accompanying drawings and subsequently claimed.

35 In the drawings: Figure 1, is a rear elevation of a stanchion embodying the features of my invention with parts broken away and parts in section to better illustrate certain structural features, the hanger being shown
40 in its open position; Fig. 2, is a sectional plan view, as indicated by line 2--2 of Fig. 1, showing the upper yoke and means carried thereby for locking the stanchion relative to its axis; Fig. 3, a detail plan view of
45 the upper trunnion support or axis, and Fig. 4, a cross-section as indicated by line 4--4 of Fig. 1, showing the spreader and its connections in plan.

Referring by numerals to the drawings, 1 indicates a sill having secured thereto strap-members 2, which members are hinged together by the screw-threaded reduced shank

of a trunnion 3, the trunnion being securely held against rotation therein by means of a clamping-nut 4, which is adapted to bind
55 overlapping ears of the strap-members interposed between the nut and a collar 5 constituting part of the trunnion. Mounted upon the trunnion is an upper yoke-bracket 6 having an apertured sleeve or bearing 7
60 through which said trunnion extends. A bolt 8 is fitted within a horizontally disposed aperture of the bearing 7 and arranged to engage a recess 9 formed in the trunnion, the bolt being provided with a
65 cross-head 10, which head extends through slots 11 in the side-walls of the yoke. The cross-head is connected to legs 12 of a tappet-bar 13, which bar extends through slots
70 14 of the yoke upon the opposite side of the trunnion-bearing 7 from that of the bolt. Interposed between the tappet-bar 13 and bearing 7 is a light coil-spring 15, which
75 spring is adapted to hold the bolt in its locked position within the recess of the trunnion. A looped strap 16 is secured to the side-walls of the yoke forming a keeper for a vertically disposed spring-controlled
80 hinged rail 17, the opposite end of the yoke being flanged for the reception of the upper ends of a fixed rail 18, which rail is bolted thereto. The lower end of this rail is
85 socketed into a lower yoke 19, being secured by bolts between flanges 20 of said lower yoke. This yoke also carries a trunnion 21, which is mounted within apertured overlapping ears of strap-members 22, the members being secured to a bottom sill 23. Opposite the flanges 20, the lower yoke terminates with upwardly projecting ears 24, between which ears is fitted the lower end of
90 the hinged rail 17, which rail is fulcrumed upon a bolt 25 that extends through the ears and interposed rail. The lower end of this rail is provided with a bracket 26 having an apertured tongue 27, which tongue extends
95 downward and is arranged to receive the end of a rod 28, that extends through the tongue-aperture and is threaded for the reception of a stop-nut 29. The opposite end
100 of the rod is provided with a head, which head is pivoted to the yoke 19, by a bolt 30, there being a compression-coil spring 28^a interposed between the head of said rod and a

washer 31 adapted to impinge against the adjacent face of the bracket-tongue 27. Pivoted to the hinged rail 17, intermediate of its ends, is a spreader-bar 32, which spreader-bar in the open or unlocked position of the stanchion extends crosswise thereof and engages a pin 33 carried by the fixed rail 18, the free end of the spreader-bar being provided with a notched recess 34, into which recess the pin seats. An arm 35, which is secured to the rear ear 24 of the lower yoke extends upward to a point adjacent to the pivoted end of the spreader-bar, to which bar the arm is connected by a link 36.

In some instances, it is not necessary that the hinged rail should be opened to its full extent this being the case when small cattle are handled and in such instances, the pivot-bolt of the spreader-bar may be removed from the position shown and inserted in an aperture 37, the hinged rail 17 being connected to the spreader-bar through this aperture, it will be seen that in its opening movement the distance between the rails will be proportionately lessened. When this adjustment is effected, it follows that the link 36 must also be connected to the spreader-bar in a relatively proportioned distance, the said spreader-bar being provided with an aperture 38 for this purpose, and while I have shown only a single set of apertures for this adjustment, it is apparent that a series of such apertures may be provided.

Both the upper and lower strap-members, in which the stanchion is trunnioned are provided with a series of apertures, into any pair of which may be fitted the retaining bolts 39. By this arrangement, as best shown in Fig. 3, the trunnions of the stanchion may be adjusted back and forth from the center-line of their supporting-sills, whereby said stanchion is brought in the correct position relative to the rear of the stall in order to accommodate the device to the varying lengths of cattle, it being understood for sanitary reasons, it is desirable that the excrement from all the animals should be deposited within the line of a fixed trough to the rear of the stall.

The several parts of the stanchion being in the position shown in Fig. 1, the animal can readily insert its head within the space between the upper yoke and trip-bar. In lowering its head, the animal causes the bar 32 to be disengaged from the pin 33, whereby the compression coil spring 28^a is released, and its power will thus swing the hinged rail inward to the locked position as indicated by the dotted lines. This movement of the hinged rail also causes the trip-bar to swing down, as shown in the dotted position due to the link-connection between said trip-bar and arm 35. The upper end

of the hinged rail in moving over to the locked position engages the nose of a dog 40, which dog drops over the rail and locks the same in this position, the dog being pivoted between the side-walls of the upper yoke as shown. Simultaneously with the engagement of the rail and dog, the inner edge of said rail strikes the tappet-bar 13 and thereby disengages the bolt 8 from its locked position with relation to the trunnion 3, thus rendering the stanchion free to swing about its axis, it being understood that the upper and lower trunnions are axially alined.

While I have shown and described the bolt 8 as being spring controlled, in some instances, the spring may be dispensed with and when the operator pushes the hinged rail to its unlocked or open position, he may at the same time manually operate the bolt so as to effect a locking operation between the stanchion and its upper trunnion, it being also understood that the operator is required to lift the dog 40 prior to unlocking the stanchion, said dog being held in engaging position relative to the hinged rail by a stop-pin 41, as shown. It will also be observed that the locking movement of the spring-controlled hinged rail is limited by means of the stop-nut 29, which nut is preferably adjustable and arranged to be engaged by the tongue 27 in opposition to the tension of the released compression spring 28^a, which spring is preferably housed by the upper wall of the lower yoke to insure the same against accumulations of foreign matter.

I claim:

1. A stanchion comprising upper and lower yokes, a fixed rail secured to the yokes, axially alined trunnions for the yokes, a spring-controlled rail in hinge-connection with said lower yoke, and a locking-bolt carried by the upper yoke arranged to engage its trunnion, means in connection with the locking-bolt arranged to be actuated by the hinged rail, whereby said bolt is disengaged from the trunnion, and a spreader-bar interposed between the fixed and hinged rails in opposition to the spring-pressure exerted upon said hinged rail, the spreader-bar being arranged to be actuated in one direction by the animal.

2. A stanchion comprising upper and lower yokes, a fixed rail secured to the yokes, axially alined trunnions for the yokes, a spring-controlled rail in hinge-connection with the lower yoke, a pivoted spreader-bar interposed between the fixed and hinged rails, an arm extending from the lower yoke, a link connecting the arm and spreader-bar, a locking-dog for the hinged bar carried by the upper yoke, a spring-controlled bolt carried by said upper yoke, the bolt being

adapted to engage a recess in the upper yoke trunnion, and means in connection with the bolt arranged in the path of travel of the aforesaid hinged rail, whereby the latter effects a releasing movement of the bolt relative to its seat in the recess of the trunnion.
In testimony that I claim the foregoing I

have hereunto set my hand at Milwaukee in the county of Milwaukee and State of Wisconsin in the presence of two witnesses.

MARTIN A. MILEY.

Witnesses:

GEO. W. YOUNG,
GEORGE G. FELBER.