

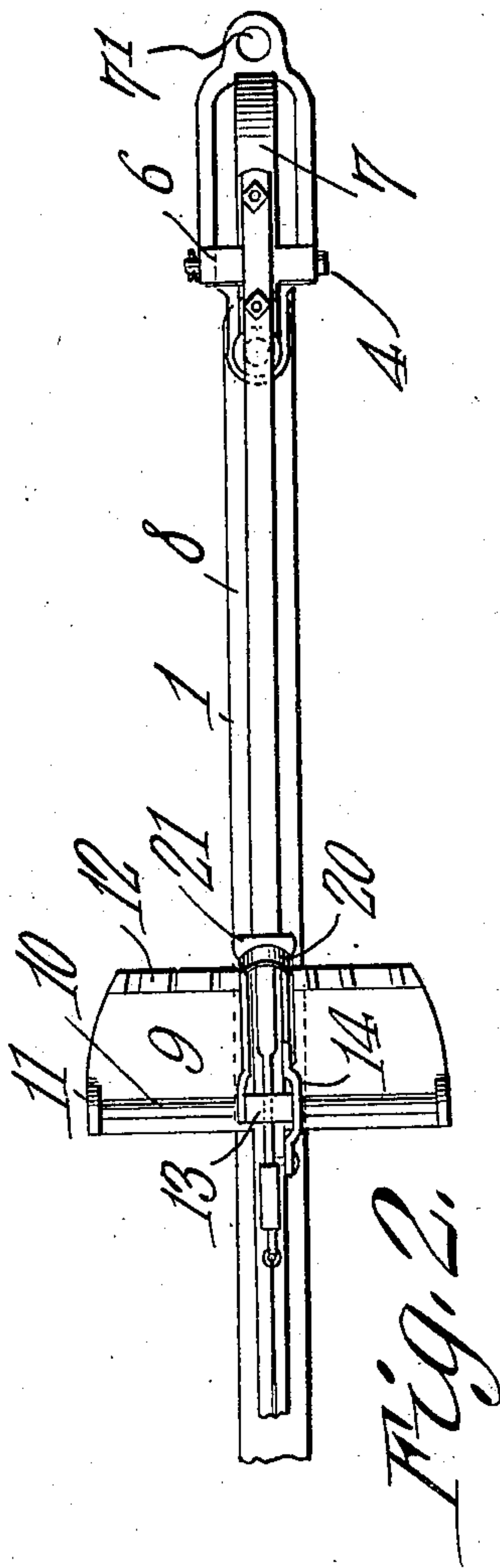
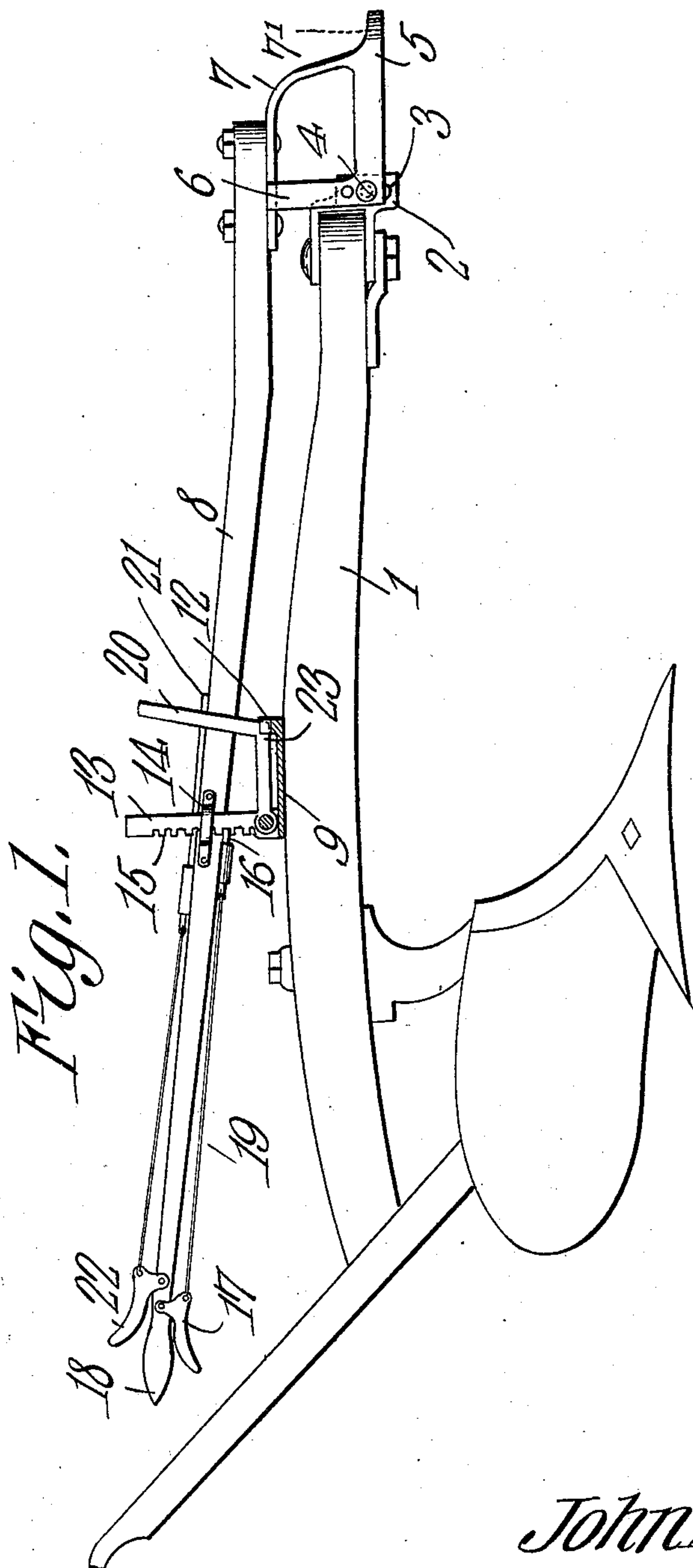
J. M. SAUSSER.
PLOW.

APPLICATION FILED NOV. 19, 1907.

Patented Nov. 10, 1908.

3 SHEETS—SHEET 1.

903,323.



WITNESSES:

E. J. H. H. H.
Robert D. Lawson

John M. Sausser,
INVENTOR.

By *C. A. Snow & Co.*
ATTORNEYS

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3 SHEETS—SHEET 2.

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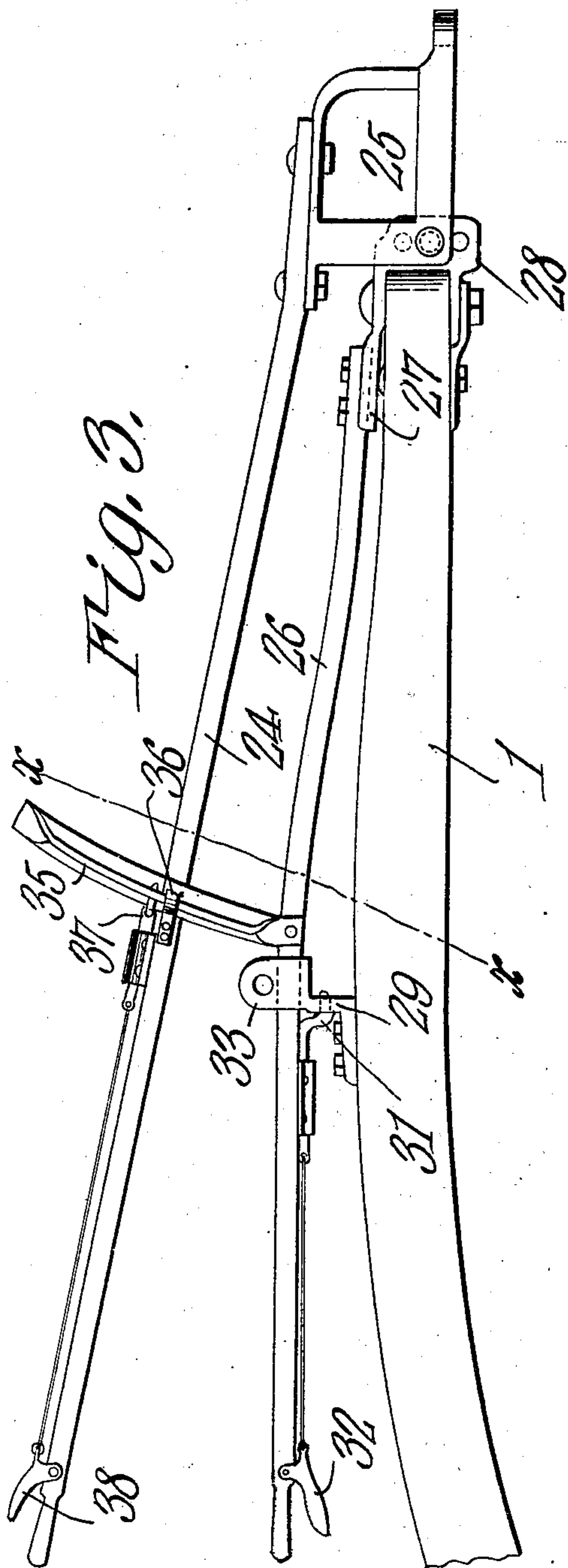


Fig. 3.

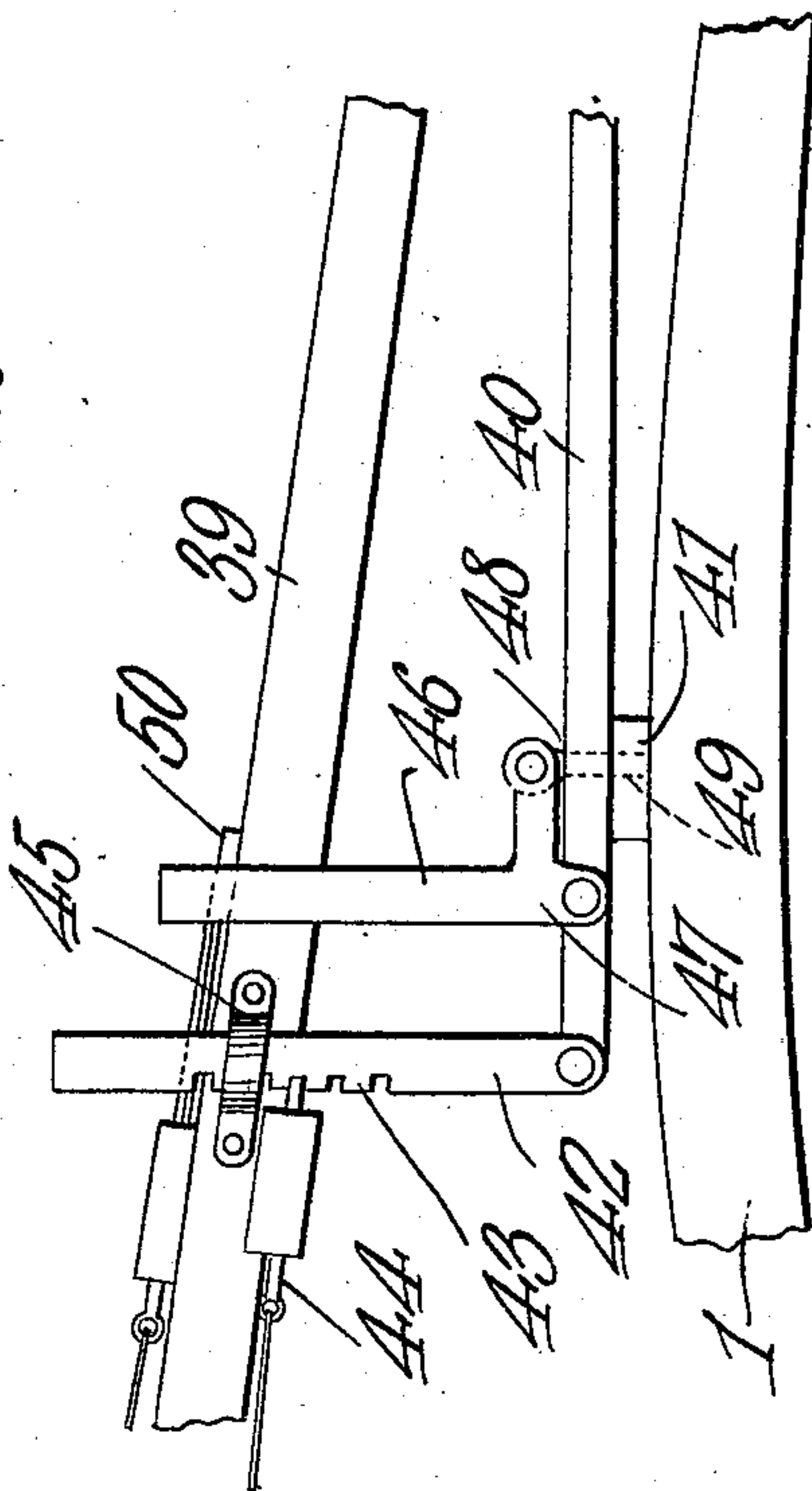


Fig. 4.

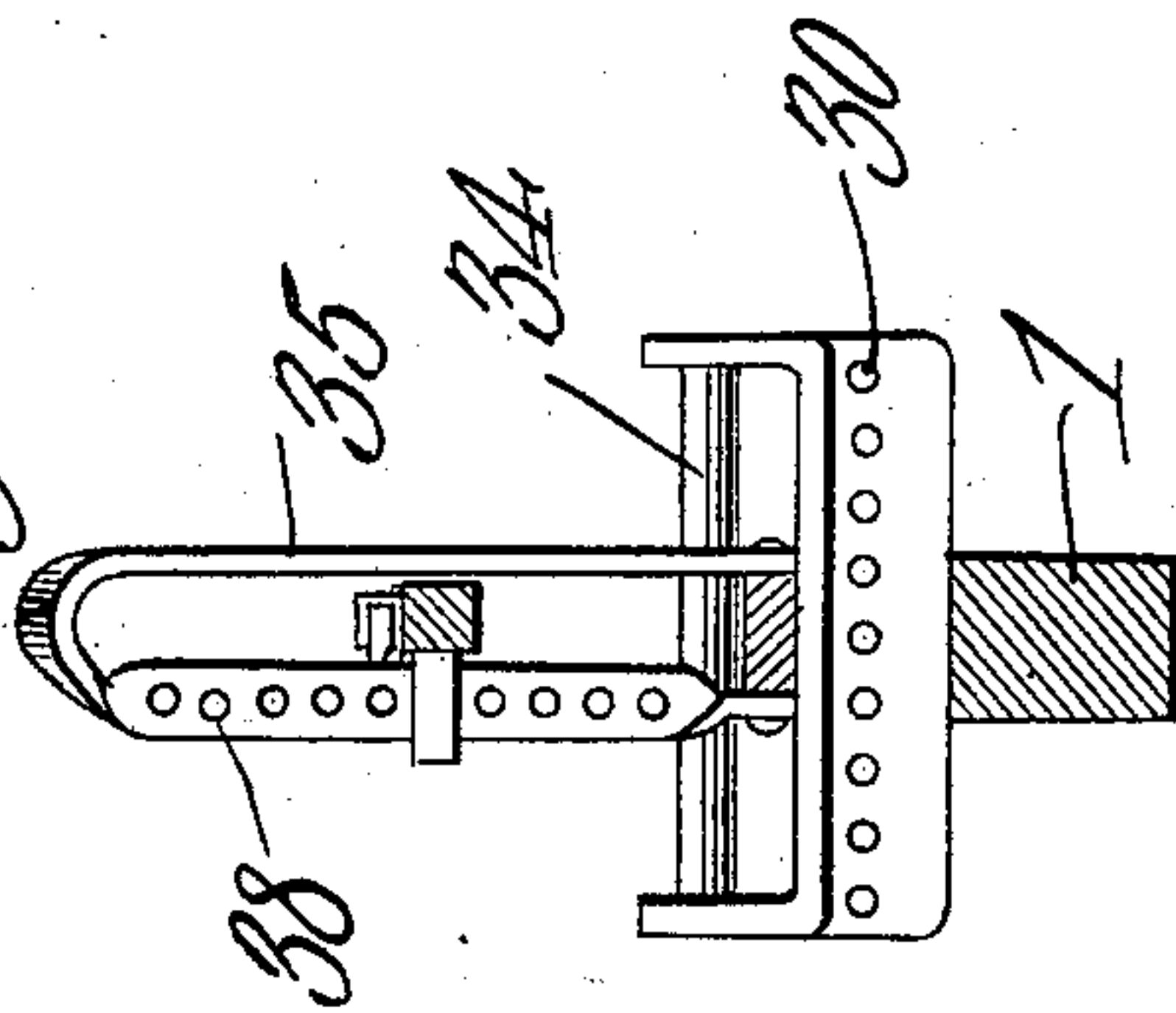


Fig. 5.

WITNESSES:

E. J. Hume
Robert D. Lawson

John M. Sausser,
INVENTOR.

By *Chas. Snow & Co.*
ATTORNEYS

J. M. SAUSSER.

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3 SHEETS—SHEET 3.

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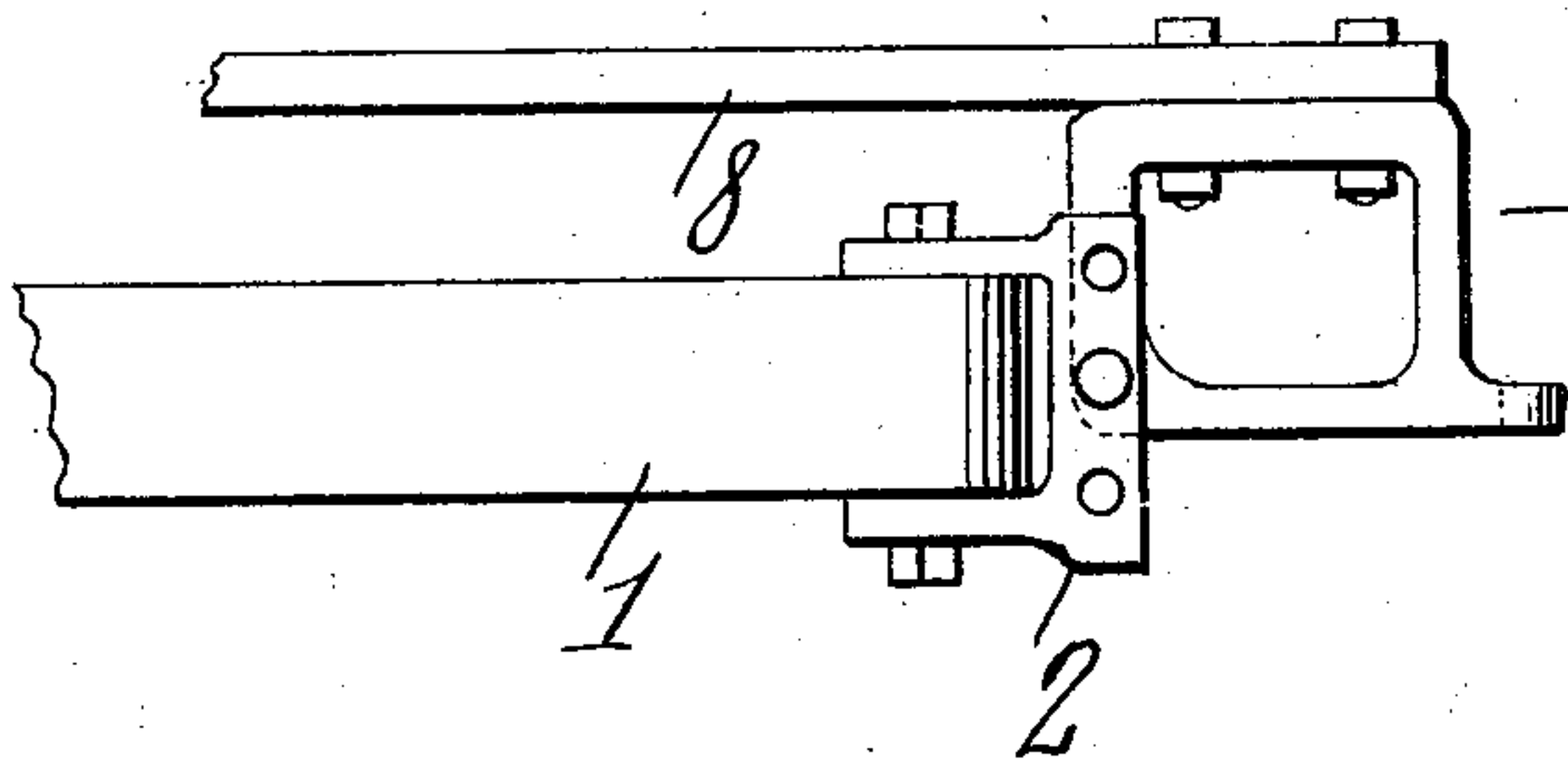


Fig. 6.

Fig. 8.

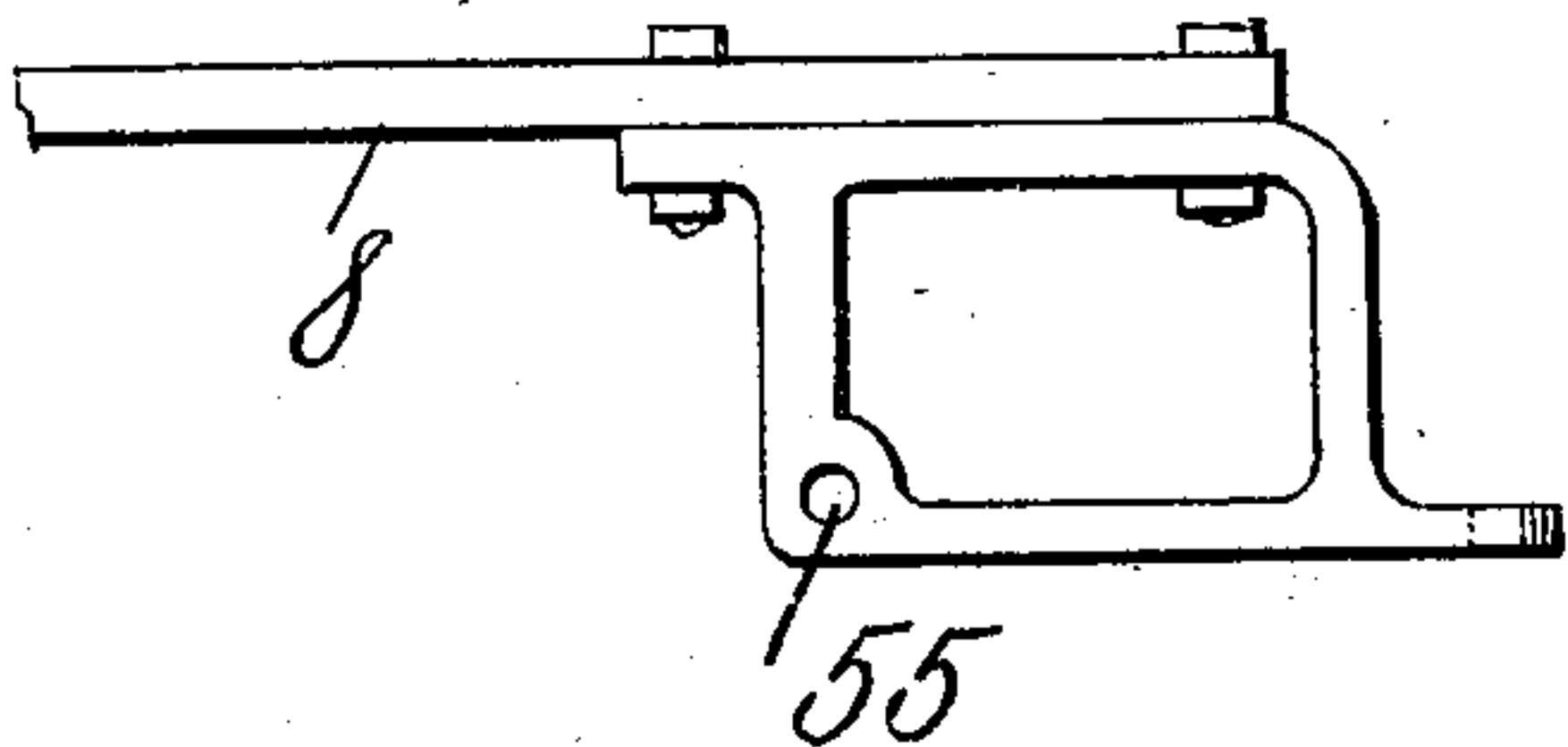


Fig. 7.

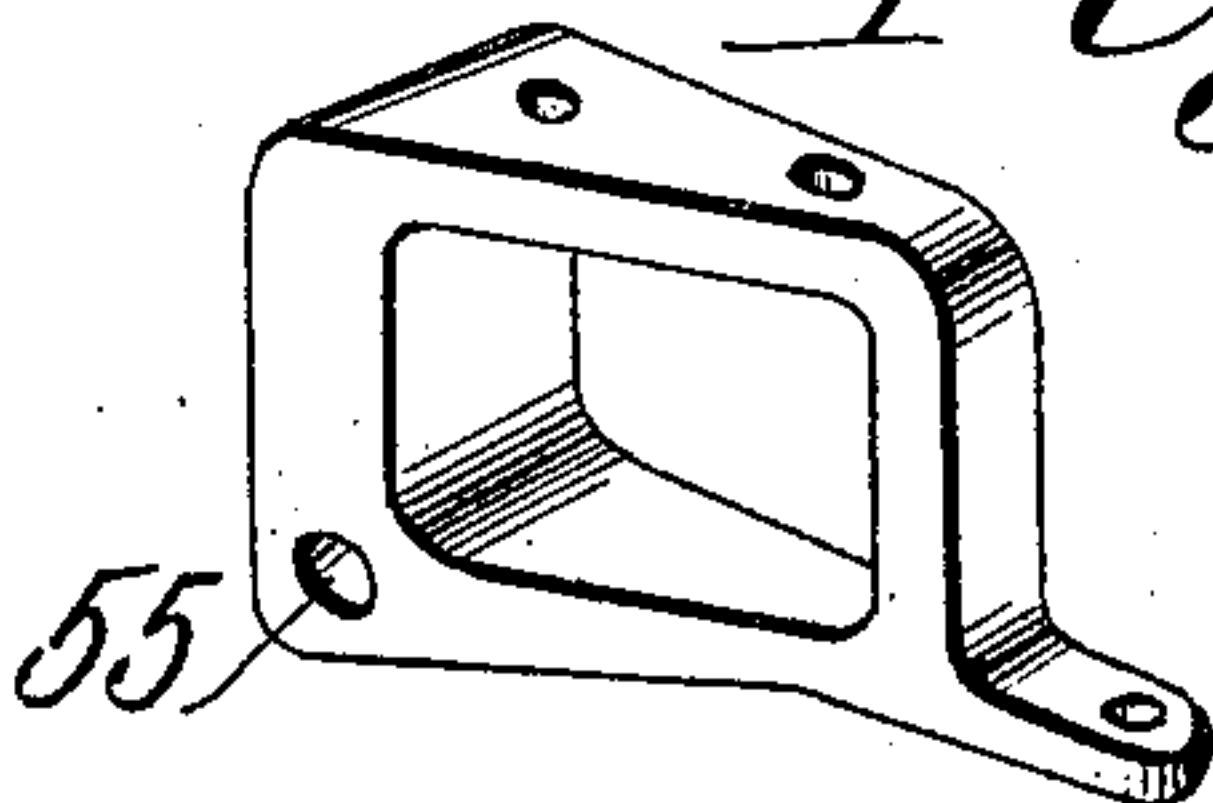


Fig. 9.

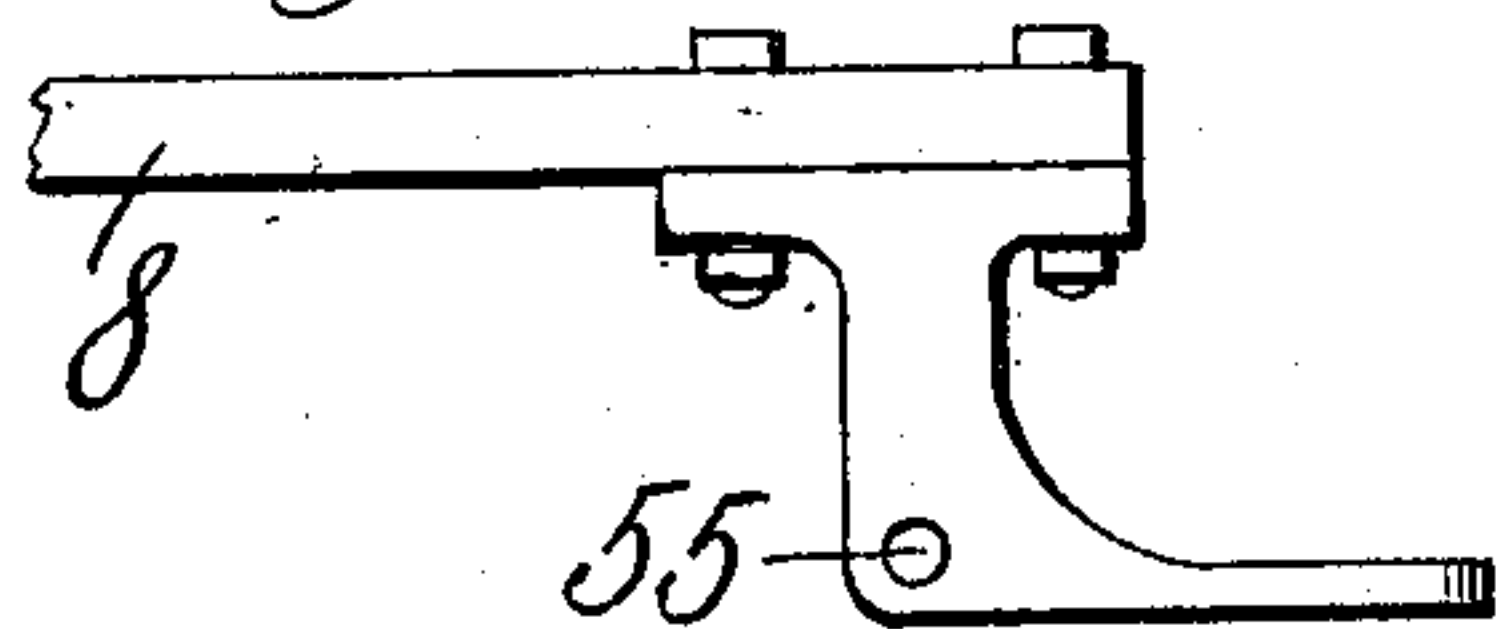


Fig. 10.

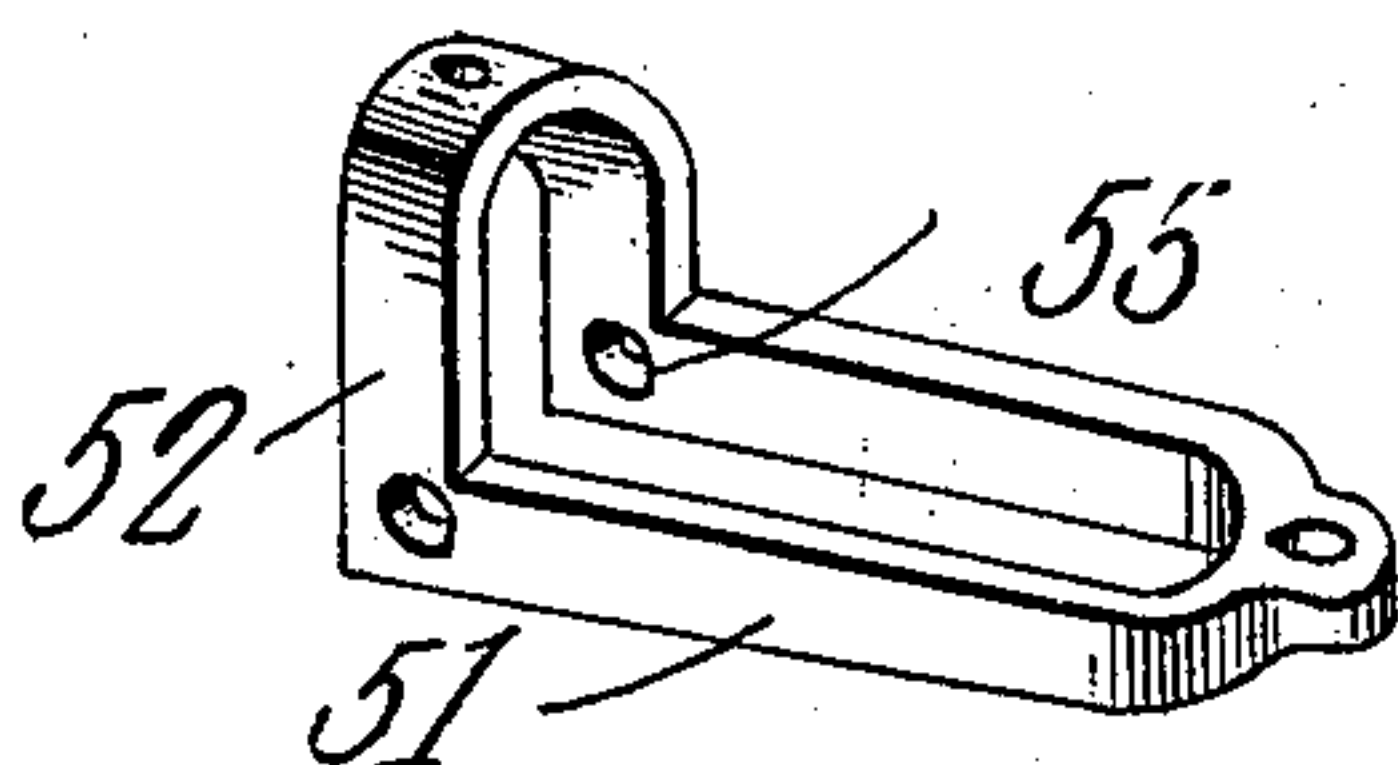
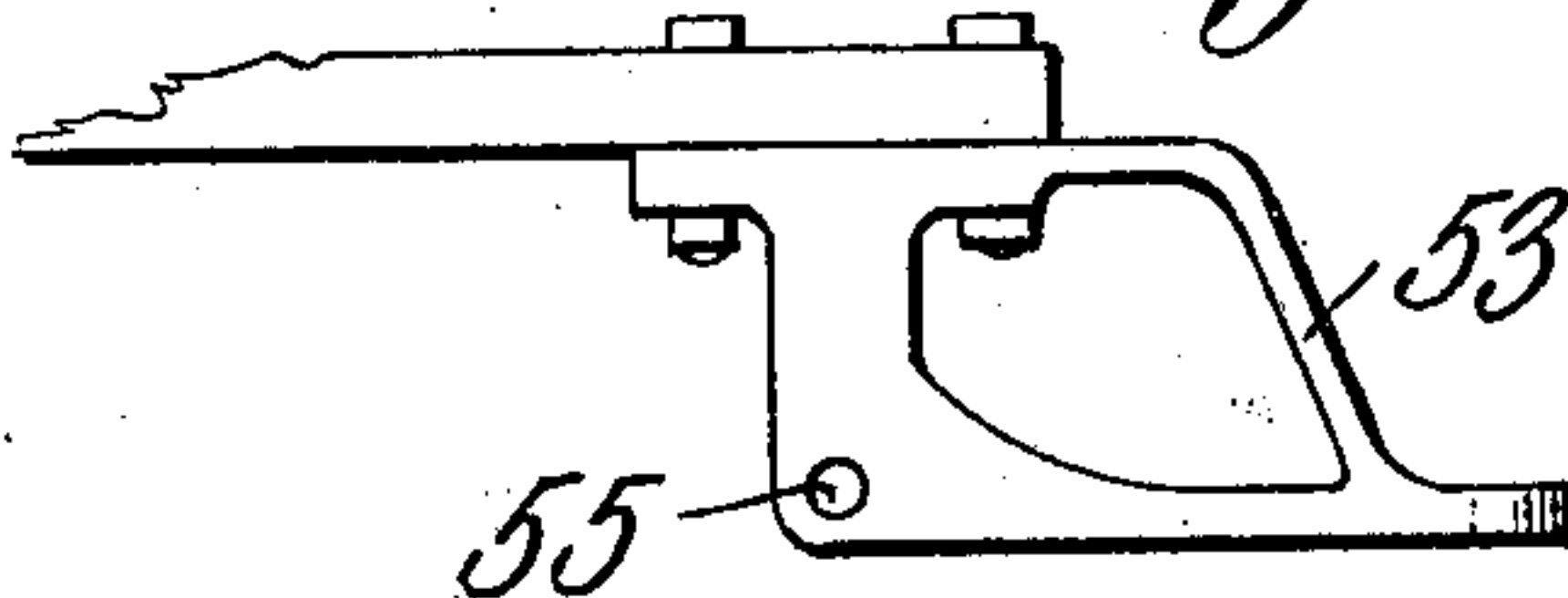


Fig. 11.

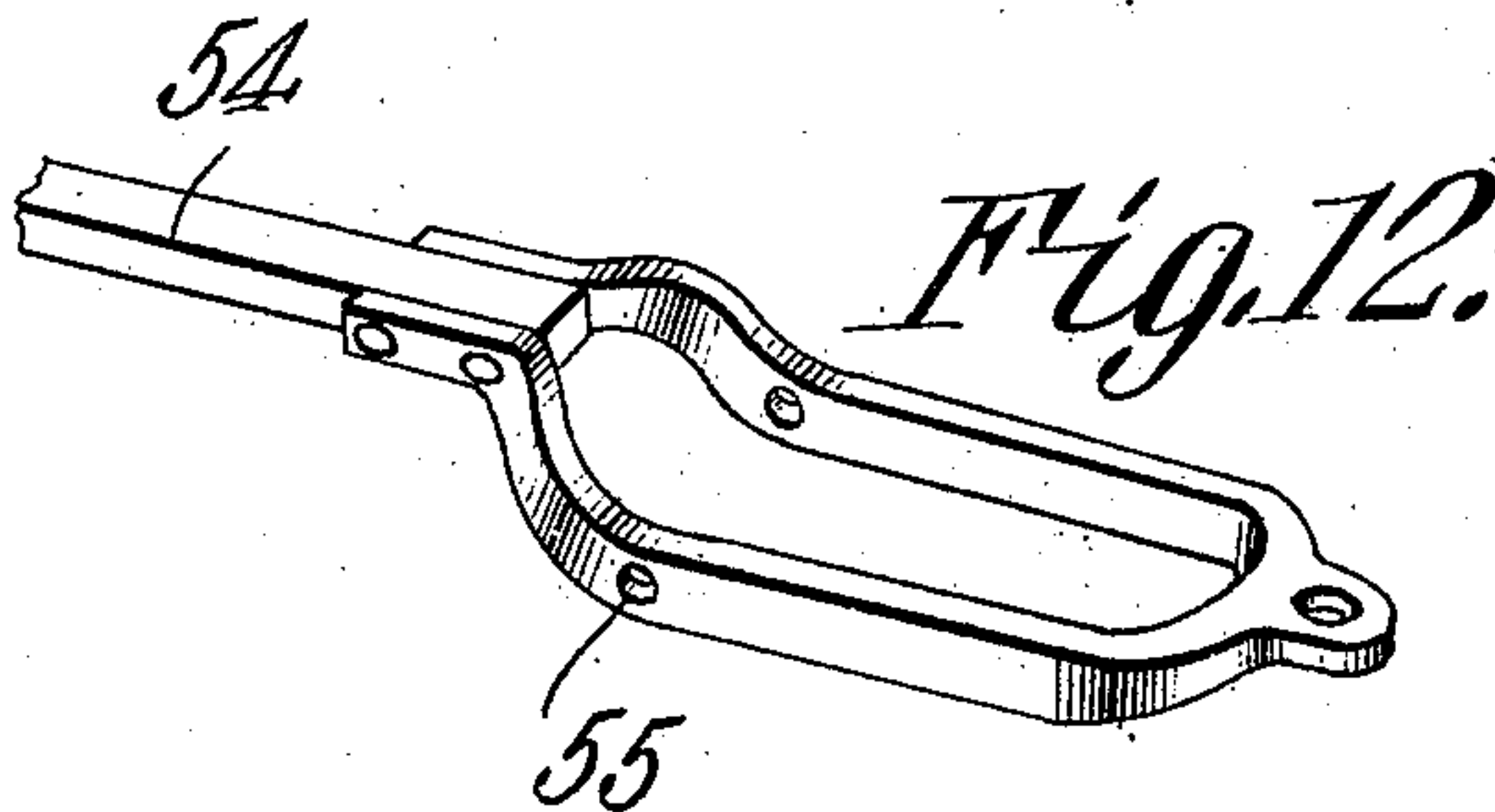


Fig. 12.

WITNESSES.

E. J. Stewart
Herbert D. Lawson

John M. Sausser

INVENTOR

By

C. A. Snow & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN MARK SAUSSER, OF OSNABURG, OHIO.

PLOW.

No. 903,323.

Specification of Letters Patent.

Patented Nov. 10, 1908.

Application filed November 19, 1907. Serial No. 402,872.

To all whom it may concern:

Be it known that I, JOHN MARK SAUSSER, a citizen of the United States, residing at Osnaburg, in the county of Stark and State of Ohio, have invented a new and useful Plow, of which the following is a specification.

This invention relates to plows and one of its objects is to provide means whereby the width of a furrow to be cut by the plow can be regulated at the will of the operator and during the operation of the plow.

Another object is to provide simplified means for regulating the depth of the cut.

A still further object is to provide means whereby either or both the width and the depth of the cut can be adjusted in a simple and efficient manner.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a side elevation of a plow embodying the present improvements, the guide plate of the adjusting attachment being shown in section; Fig. 2 is a plan view of the adjusting mechanism of the plow; Fig. 3 is a side elevation showing a modified form of adjusting mechanism in which two levers are employed; Fig. 4 is a section on line $x-x$, Fig. 3; Fig. 5 is a side elevation showing another modified construction; and Figs. 6 to 12 inclusive are detail views of modified forms of depth regulators which may be used in lieu of the forms shown in Figs. 1, 2 and 3.

Referring to the figures by characters of reference, 1 is the beam of a plow to the front portion of which is pivotally connected a laterally movable width regulating clevis 2 having a plurality of openings 3 therein any one of which is adapted to receive a laterally extending pivot bolt 4 which extends through the ends of a yoke 5 constituting the base portion of the depth regulating clevis of the plow. Another yoke 6 extends upward from the apertured end of the yoke 5 and the top thereof is connected with the forward portion of the yoke 5 by means of a curved brace 7. An eye 7' projects beyond the yoke 5 and constitutes means whereby the draft appliances can be readily fastened to the clevis. Bolted or otherwise secured to the

brace 7 is the forward end of a lever 8 which extends longitudinally above the beam 1 to a point within convenient reach of the operator.

Secured upon the beam 1 is a laterally extending guide plate 9 having a rod 10 supported thereabove in any preferred manner as by means of ears 11. Teeth 12 are formed upon one edge of the plate 9 and are disposed in a line parallel with the rod 10. Slidably mounted on the rod is an upstanding guide loop 13 which straddles the lever 8 and has a guide strap 14 extending from one side of the loop 13. This loop is formed with rack teeth 15 designed to be engaged by a spring pressed plunger 16 mounted on the lever 8. The plunger is disposed to be retracted by means of a small lever 17 pivotally connected to lever 8 near its handle 18 and attached to the plunger by means of a rod 19.

Slidably and pivotally mounted on the rod 10 and embracing the lower portion of the loop 13 is an L-shaped loop 20, the upstanding portion of which is designed to be frictionally engaged by a spring controlled head 21 which is slidably mounted on the lever 8 and designed to be manually operated by means of a small lever 22 connected to the lever 8 near the handle 18. The elbow 23 of the loop 20 normally rests by gravity in engagement with the teeth 12. It is to be understood that the plunger 16 normally engages the teeth on the loop 13 while the head 21 is normally out of engagement with the loop 20 and is disposed to frictionally engage the same when lever 22 is depressed.

When the plow is being pulled forward and it is desired to adjust the depth of a cut this can be best accomplished by changing the line of draft. This change can be readily effected by releasing the plunger 16 from engagement with the rack teeth 15 and swinging the lever 8 vertically so as to move the depth regulating clevis upon its pivot 4. The loops 13 and 20 will act as guides for the lever during this operation and will be prevented from moving laterally because the elbow 23 engages the teeth 12. Should it be desired to change the width of the cut the head 21 is thrown against the loop 20 so as to swing it backward out of engagement with the teeth 12 whereupon the lever 8 can be swung laterally so as to cause the loops to travel along the rod 10. This will result in both of the clevises 2 and 5 swinging laterally upon the pivot of the clevis 2. As soon as the desired lateral adjustment has been

obtained the head 21 is released and the loop 20 drops by gravity into engagement with the teeth 12 thereby locking the parts in adjusted position. Obviously both the depth and the width of the cut can be simultaneously adjusted by disengaging plunger 16 from the teeth 15 and pulling backward on the head 21. The lever 8 can then be moved vertically and laterally and by releasing the plunger and the head said lever will be positively locked in the position to which it is adjusted.

In Fig. 3 has been shown adjusting mechanism in which two separate levers are employed, one being provided for the depth adjustment and the other for the width adjustment of the plow. This arrangement will be deemed most acceptable to some persons because less skill is necessary to operate it. It will be seen by referring to this modified construction that the lifting lever 24 is connected to the depth regulating clevis 25 in the same manner as in Fig. 1, whereas the width adjusting lever 26 is secured to a tongue 27 extending rearwardly from the pivoted width regulating clevis 28. The two levers extend rearwardly above the beam 1 and the lower lever 26 rests upon an angular guide bar 29 secured to the beam 1 and extending transversely thereof. The upstanding portion of this bar has a series of apertures 30 therein any one of which is disposed to receive a spring pressed plunger 31 connected to the lever 26 and adapted to be retracted by means of a small lever 32. Ears 33 extend upward from the ends of the bar 29 and support a guide rod 34 which extends transversely above the lever 26. A guide loop 35 is pivotally connected to the lever 26 and straddles the lifting lever 27. This guide loop and the lifting lever are held in proper relation to each other preferably by means of a guide strap 36. A spring pressed plunger 37 is connected to lever 24 and is designed to project into any one of a series of apertures 38 formed in one side of the loop 35. This plunger 37 may be withdrawn from engagement with the loop by means of a small lever connected to the lever 24. When it is desired, with this modified construction, to regulate the depth of the cut, the plunger 37 is disengaged from the loop 35 and the lever 24 is swung with the pivot of clevis 25 as its fulcrum. The front end of said clevis will therefore be raised or lowered as may be desired. To swing the clevis laterally so as to regulate the width of the cut plunger 31 is disengaged from the bar 29 and lever 26 is swung laterally so as to cause the clevis 28 to swing upon its pivot.

In Fig. 5 I have shown another modified construction in which a lifting lever 39 and a width regulating lever 40 are used. Only the lifting lever 39 extends backward to points adjacent the handles of the plow,

however, and the lever 40 terminates adjacent a transversely extending guide bar 41. This lever 40 has a guide loop 42 connected to the end thereof and provided with rack teeth 43 designed to be engaged by a spring pressed plunger 44 upon lever 39. The loop 42 straddles lever 39 and is held in proper relation thereto by a strap 45. An L-shaped loop 46 is provided with lugs 47 at its heel portion which straddle the lever 40 and the bottom member of this loop has a locking pin 48 pivotally connected to it and mounted to reciprocate within lever 40. This pin normally engages one of a series of apertures 49 formed with the bar 41. A spring controlled pawl 50 is slidably mounted on lever 39 and is normally held out of contact with the loop 46. With this construction when it is desired to regulate the depth of the cut the plunger 44 is disengaged from loop 42 and lever 39 swung vertically and when it is desired to regulate the width of the cut the head 50 is drawn against loop 46 so as to withdraw pin 48 from engagement with bar 41. Lever 39 can then be swung laterally a desired distance and will carry the lever 40 therewith.

Although the depth regulating clevis is preferably constructed as shown in Figs. 1, 2 and 3 it is to be understood that clevises of other forms may be utilized without affecting the operation of the device. For instance, in the form of clevis shown in Fig. 11 the brace 7 is eliminated and instead the base yoke 51 and the upstanding yoke 52 constitute the entire clevis. Instead of forming the clevis of yokes, the same can be made up of solid strips as shown in Figs. 6, 7 and 8 or, if preferred, the clevis can be angular in elevation as in Fig. 9, which construction can be provided with a reinforcing brace 53, as shown in Fig. 10. In Fig. 12 the clevis consists of nothing more than a looped strap having one end portion curved upward and designed to lap an object secured to one end of a lifting lever 54. In all of these modified constructions apertures 55 are provided whereby they can be pivotally connected to the width regulating clevis which has been shown at 2 and 28 in Figs. 1 and 3 respectively.

It will be seen that a plow having adjusting mechanism such as herein described can be quickly regulated to increase or diminish the width and depth of a furrow without the necessity of stopping the operation of the plow. The mechanism can be conveniently manipulated and owing to its simplicity will not readily get out of order.

What is claimed is:

1. The combination with a plow beam; of a clevis movably connected thereto for lateral and vertical swinging movement, and a lever fixedly connected to the clevis, the bearings of the clevis constituting the fulcrums of the lever.

2. The combination with a plow beam; of
a clevis movably connected thereto for lat-
eral and vertical swinging movement, a lever
5 immovably connected to the clevis and ex-
tending rearwardly therefrom and above the
beam, and means upon the beam for locking
said lever in any position to which it may be
adjusted, the bearings of the clevis consti-
tuting the fulcrums of the lever.
10 3. The combination with a plow beam and
a clevis pivotally connected thereto; of a
guide loop movably mounted above the
beam, a lifting lever fixedly connected to the
clevis and slidably mounted within the loop,
15 and means upon the lever for engaging the
loop to lock the lever against movement, the
pivot of the clevis constituting the fulcrum
of the lever.

4. The combination with a plow beam and
a clevis pivotally connected thereto; of a lat- 20
erally adjustable guide loop supported above
the beam, means for locking the loop in ad-
justed position, a lifting lever fixedly con-
nected to the clevis and movably mounted
within the loop, and means carried by the 25
lever for engaging the loop to lock the lever
against vertical movement, the pivot of the
clevis constituting the fulcrum of the lever.

In testimony that I claim the foregoing as
my own, I have hereto affixed my signature 30
in the presence of two witnesses.

JOHN MARK SAUSSER.

Witnesses:

W. O. WERNTZ,
ANNA A. SEYMOUR.