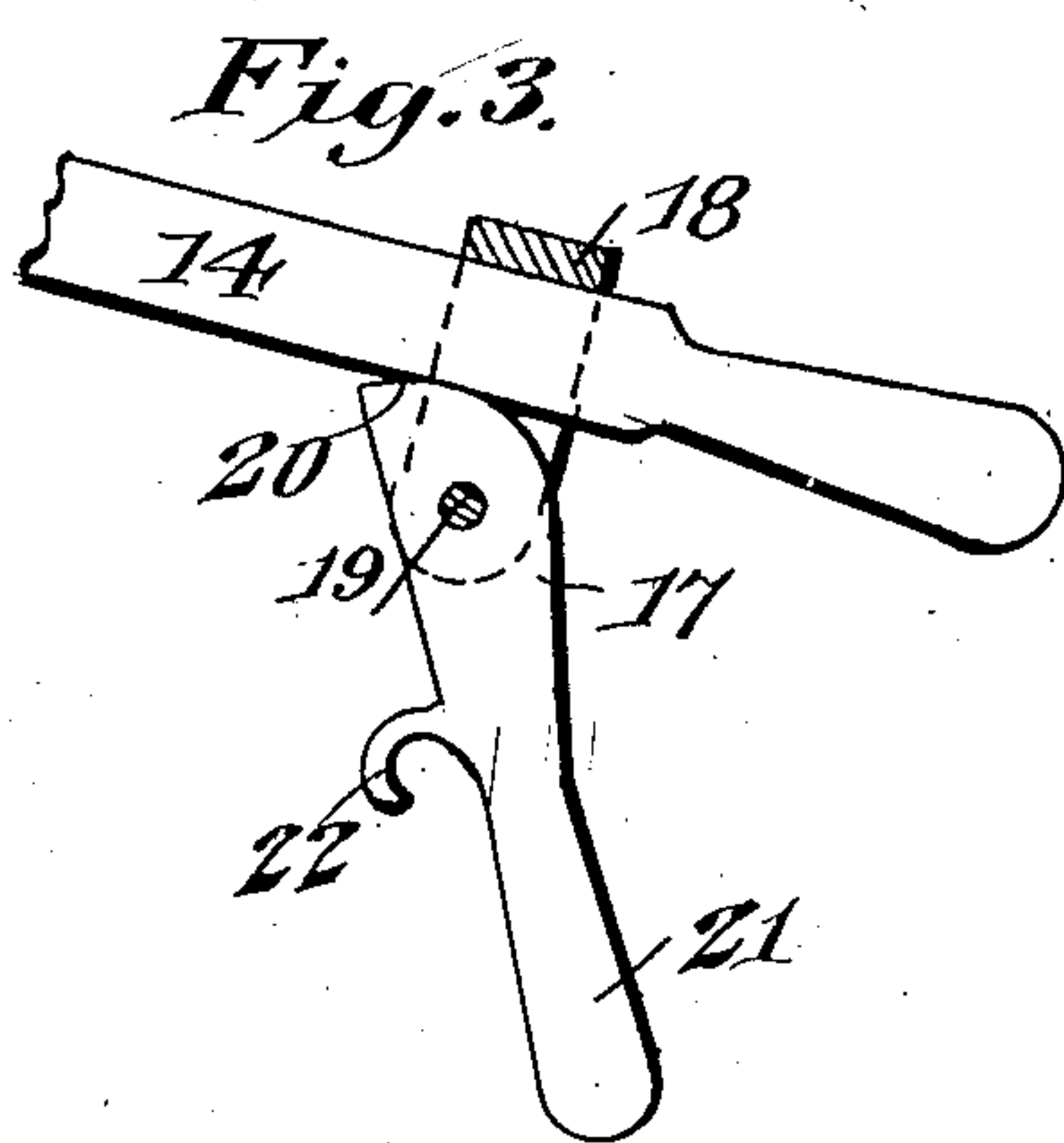
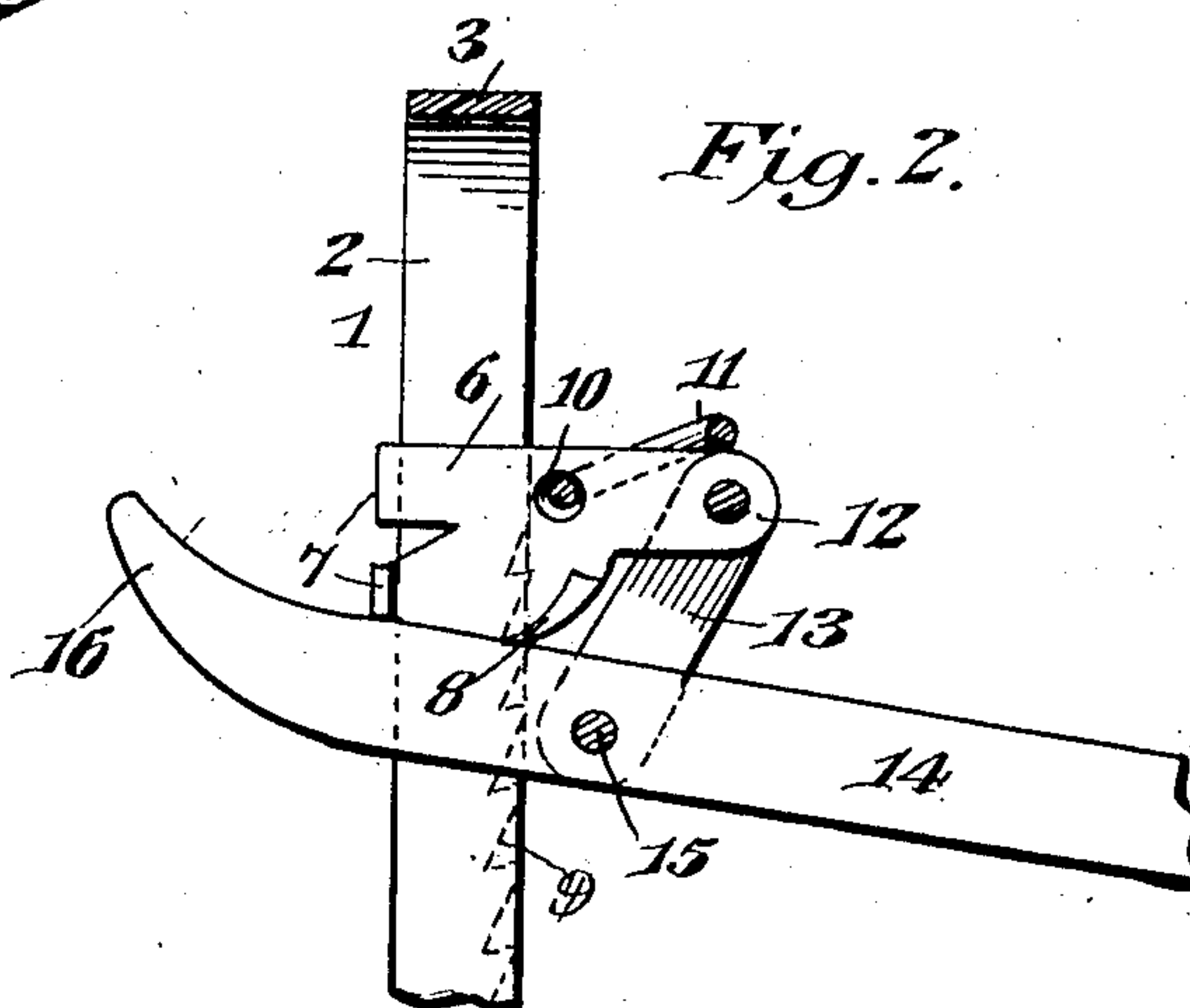
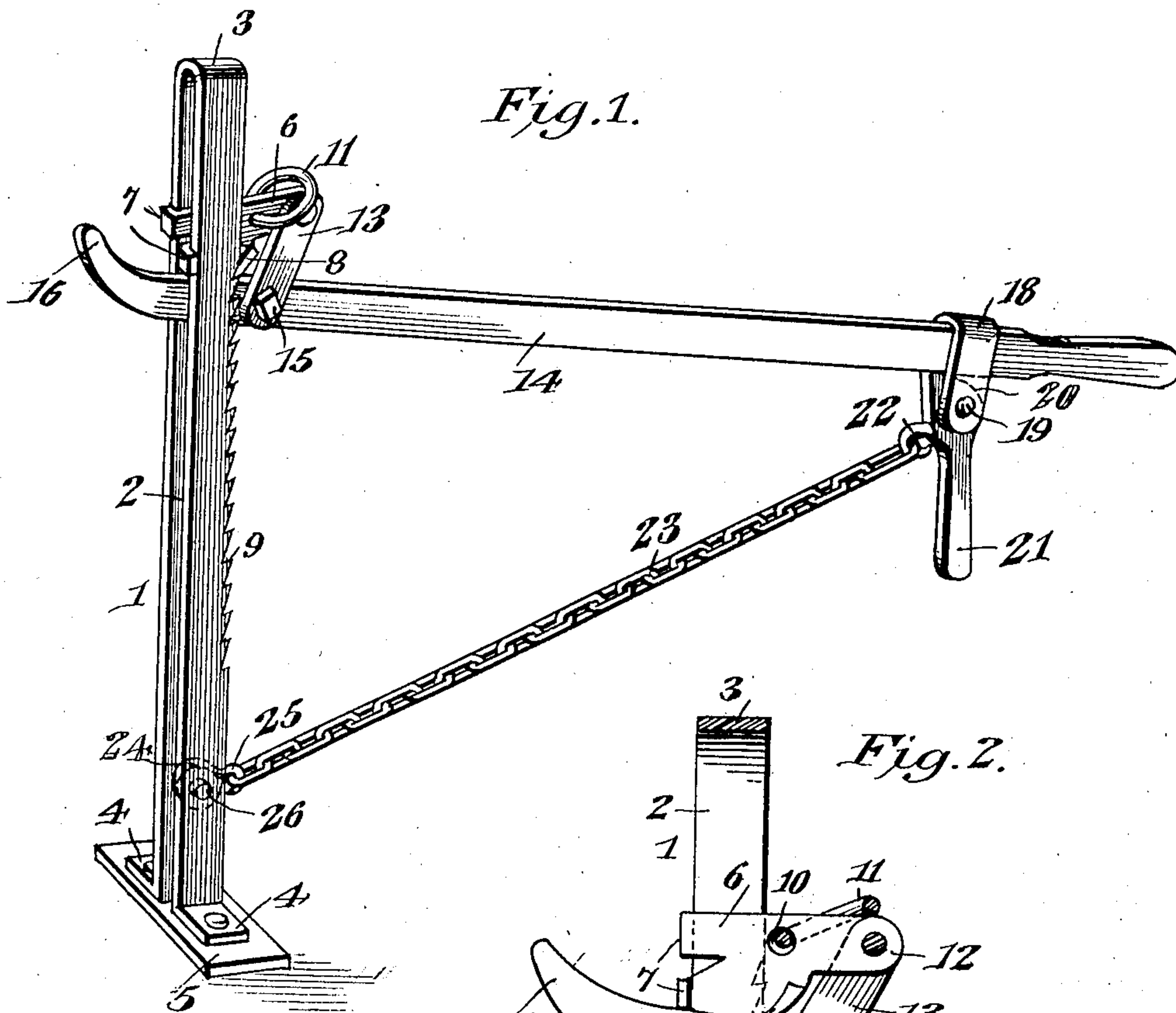


No. 882,066.

PATENTED MAR. 17, 1908.

I. J. KEELER.  
LIFTING JACK.

APPLICATION FILED AUG. 26, 1907.



Witnesses

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# UNITED STATES PATENT OFFICE.

IRA JAMES KEELER, OF CAMERON, MISSOURI.

## LIFTING-JACK.

No. 882,066.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed August 26, 1907. Serial No. 390,185.

*To all whom it may concern:*

Be it known that I, IRA JAMES KEELER, a citizen of the United States, residing at Cameron, in the county of Clinton and State of Missouri, have invented a new and useful Lifting-Jack, of which the following is a specification.

The invention relates to improvements in lifting jacks.

10 The object of the present invention is to improve the construction of lifting jacks, and to provide a simple, inexpensive and efficient one of great strength and durability, designed for use on all kinds of vehicles, and  
15 capable of being easily operated without stooping or assuming any other cramped position.

With these and other objects in view, the invention consists in the construction and  
20 novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and  
25 minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a perspective  
30 view of a lifting jack, constructed in accordance with this invention. Fig. 2 is an enlarged detail sectional view of the upper portion of the lifting jack. Fig. 3 is a detail  
35 view, illustrating the manner of mounting the cam lever.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

1 designates a standard, consisting of a  
40 flat bar of metal, centrally bent to provide two spaced sides or portions and to form an intervening slot or opening 2. The spaced sides are connected at the top of the standard by a bend 3, and the lower terminals 4 of  
45 the sides are bent outward at right angles and are secured by rivets, or other suitable fastening devices to a base 5. The base 5, which connects the lower ends of the sides of the standard, consists preferably of a thin  
50 metallic plate, but the parts of the lifting jack are designed to be constructed of a size and strength to adapt the device to the character of the vehicle to be lifted.

The standard forms a guide for a dog or  
55 clutch 6, consisting of a metallic plate or piece, split or bent at the front-edges of the

sides of the standard and bent laterally in opposite directions to form lugs 7. The dog or clutch 6 is provided at its lower rear portion with an inclined laterally projecting  
60 tooth 8, tapered downwardly and arranged to engage a ratchet 9, consisting of teeth located at the rear edge of one of the sides of the standard and shouldered at their upper  
65 edges. In practice a light ratchet formed by comparatively small recesses will be sufficient to hold the dog or clutch at any adjustment. The dog or clutch is provided at its upper portion with an opening 10 in which  
70 is linked a ring 11, forming a combined guide and hold. The ring is adapted to engage the rear-edges of the sides of the standard to limit the forward movement of the upper portion of the dog or clutch, and it forms a  
75 convenient means to be grasped by the operator for enabling the dog or clutch to be readily lifted to arrange the same at the desired elevation. The dog or clutch is also provided at its upper portion with a rearwardly extending ear 12 to which is pivoted  
80 a pair of depending links 13, and the latter form a support or hanger for a lifting lever 14. The lifting lever 14, which is pivoted between the lower ends of the links 13 by a  
85 rivet 15, or other suitable fastening device, extends through the opening between the sides of the standard, and has an upwardly curved engaging end 16. The links 13 are connected with the lever at a point adjacent to the engaging portion 16, and the downward  
90 swinging of the rear arm of the lever moves the engaging arm 16 upwardly, which will raise the axle and one of the wheels of a vehicle clear of the ground.

The lifting lever is held in engagement  
95 with an axle by means of a cam lever 17, pivoted between the sides of an approximately U-shaped cuff or slide 18, which embraces and slides on the rear arm of the lifting lever. The transverse connecting portion or bend of the cuff or slide 18 rests upon  
100 the upper edge of the lifting lever, and the sides of the said cuff or slide extend below the lower edge of the lifting lever and are pierced by a rivet 19, or other suitable  
105 fastening device for pivoting the cam lever to the cuff or slide. The cam lever is provided at its upper end with a rounded engaging edge 20; its lower portion 21 is shaped into a handle, and it is provided at an intermediate point with an eye 22, located at a  
110 point below the pivot of the cam lever and



connected with the upper end of a chain 23. The chain 23 is secured at its lower end to the lower portion of the standard by means of a plate or piece 24, having an eye 25, which is linked into the lower end of the chain. When the chain is placed under tension, it automatically swings the cam lever into engagement with the lifting lever. The engaging edge 20 of the cam lever is arranged eccentrically with the pivot, and it is adapted to clamp the cuff firmly in its adjustment on the lifting lever. The plate or piece 25 is secured between the sides of the standard by means of a rivet 26, or other suitable fastening device.

To lift a vehicle wheel clear of the ground, move the slide or cuff to the inner end of the long or inner arm of the lifting lever; then raise the rear arm of the lifting lever slightly above a position at right angles to the standard and with the ring raise the clutch and lever until the point or engaging end of the lever comes in contact with the bottom of the axle. Then swing the rear arm of the lever downwardly to lift the axle and slide the cuff outwardly on the rear arm of the lifting lever. The lifting lever may then be released and the tension on the chain will automatically engage the cam lever with the lifting lever and hold the slide or cuff against inward movement.

The rear end of the lifting lever is shaped into a handle or grip. The lifting jack, which is comparatively light in weight, is adapted to be either manufactured or repaired by an ordinary blacksmith.

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

1. A lifting jack comprising a slotted standard, a vertically movable clutch slidable in the slot of the standard and provided with means for engaging the same, a lifting lever passing through the standard and having an engaging end, a link connecting the lever with the clutch, and means for holding the lever.

2. A lifting jack comprising a standard having spaced sides forming an opening, said standard being also provided with a ratchet, a clutch slidable in the space between the sides of the standard and provided with a

tooth for engaging the said ratchet, a lever connected at an intermediate point with and carried by the clutch, and means for holding the lever.

3. A lifting jack comprising a standard having spaced sides and provided with a ratchet, a clutch operating in the space between the sides of the standard and provided with a tooth for engaging the said ratchet, said clutch being also provided with oppositely disposed lugs, a ring mounted on the clutch and spaced from the standard, which is located between the ring and the lugs, and a lifting lever carried by the clutch.

4. A lifting jack comprising a standard having a vertical opening, a clutch slidable in the opening and provided with means for engaging the standard, a lever extending through the opening of the standard, and an oscillatory link connecting the lever with the clutch.

5. A lifting jack comprising a standard, a lifting lever, means for fulcruming the lifting lever, a slide mounted on the lifting lever, a cam lever carried by the slide and arranged to engage the lifting lever, and flexible means for connecting the cam lever with the standard.

6. A lifting jack comprising a standard, a lifting lever, a slide mounted on the lifting lever, a cam lever carried by the slide and arranged to engage the lifting lever, and a flexible connection extending from the cam lever to the standard and arranged to automatically swing the former into engagement with the lifting lever when the said flexible connection is subjected to strain.

7. A lifting jack comprising a standard, a lifting lever, a slide mounted on the lifting lever, a cam lever pivoted at an intermediate point to the slide and having an upper portion and a lower handle portion, and a flexible connection extending from the standard to the cam lever and secured to the latter at a point below the pivot thereof.

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

IRA J. KEELER.

Witnesses:

ADAM HANSOM,  
J. H. BOTTHOFF