

(No Model.)

F. SIER.
ADJUSTABLE HOLDBACK.

No. 605,020.

Patented May 31, 1898.

Fig. 1.

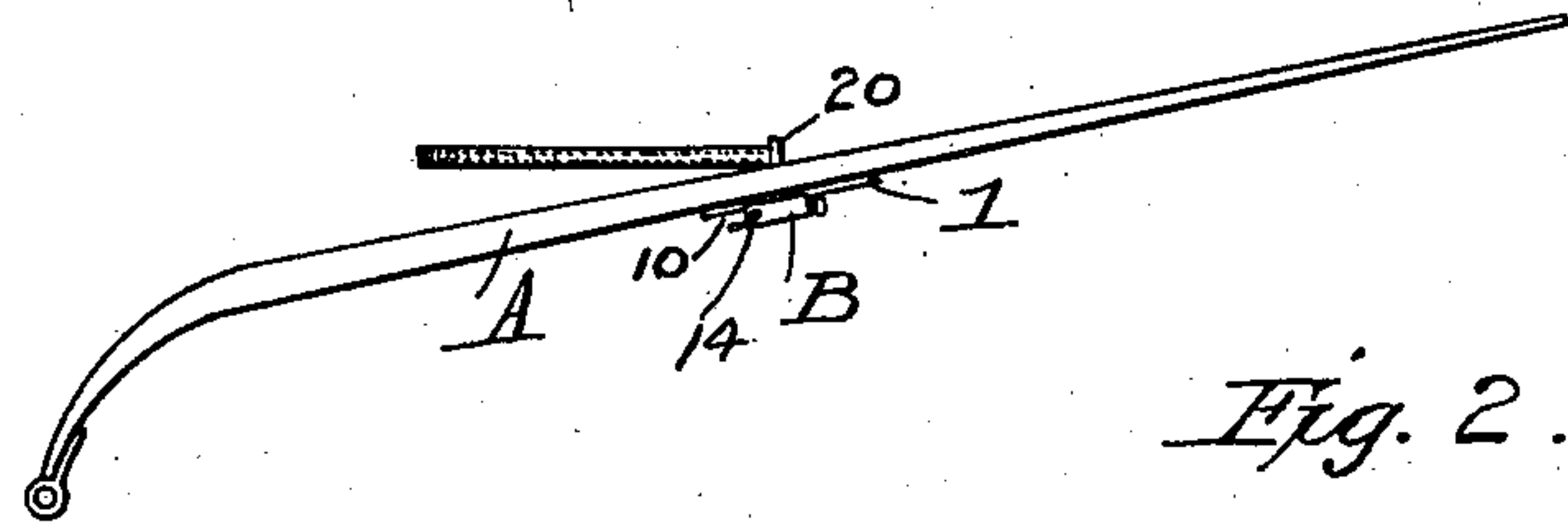


Fig. 2.

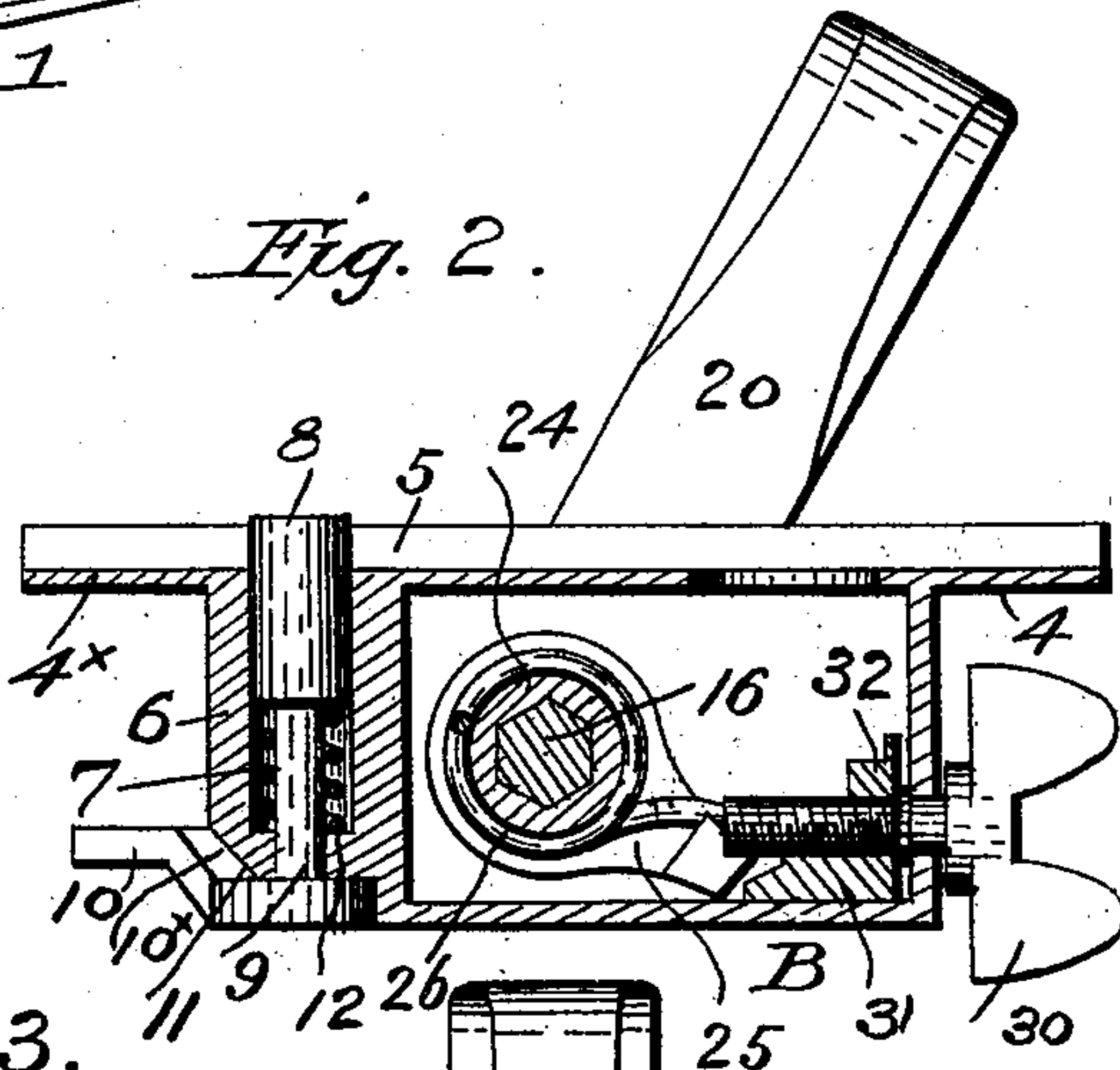


Fig. 4.

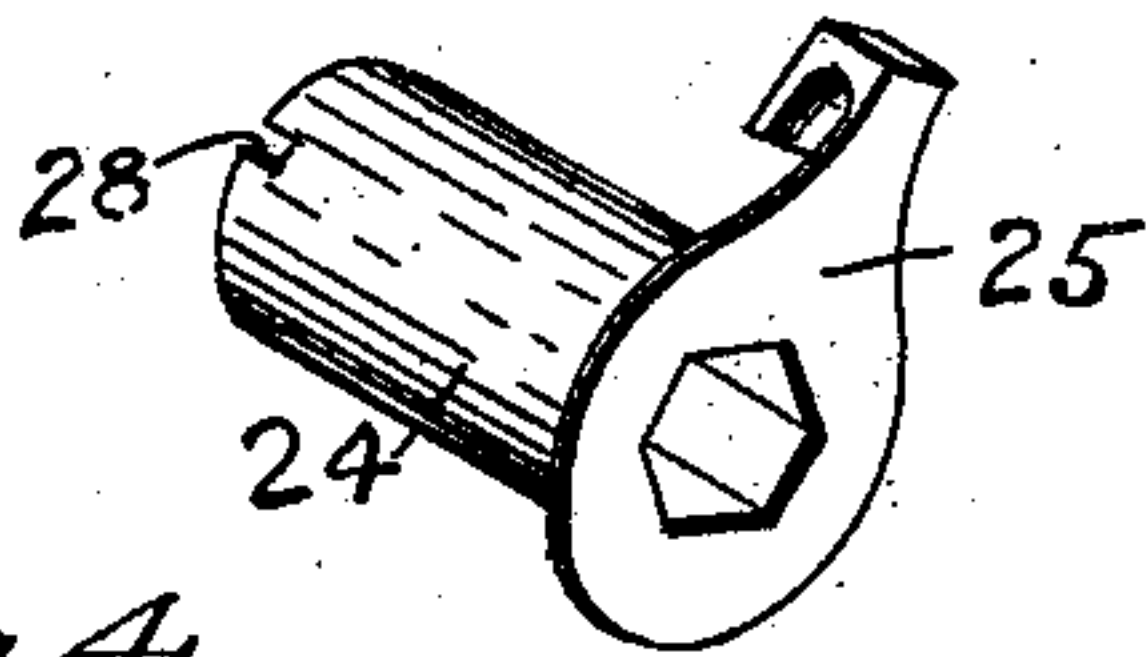


Fig. 3.

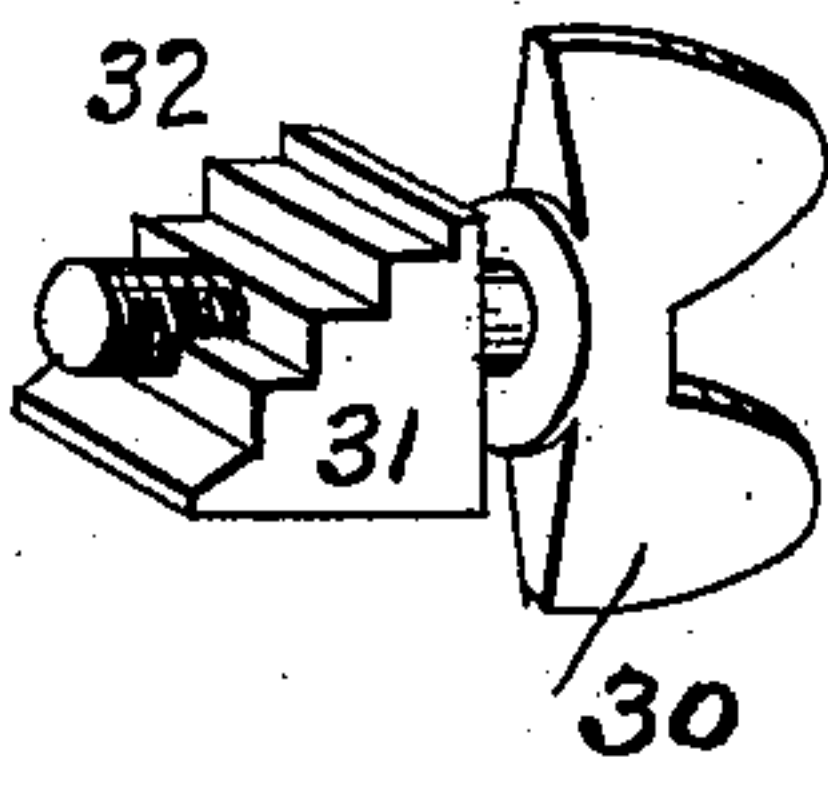


Fig. 5.

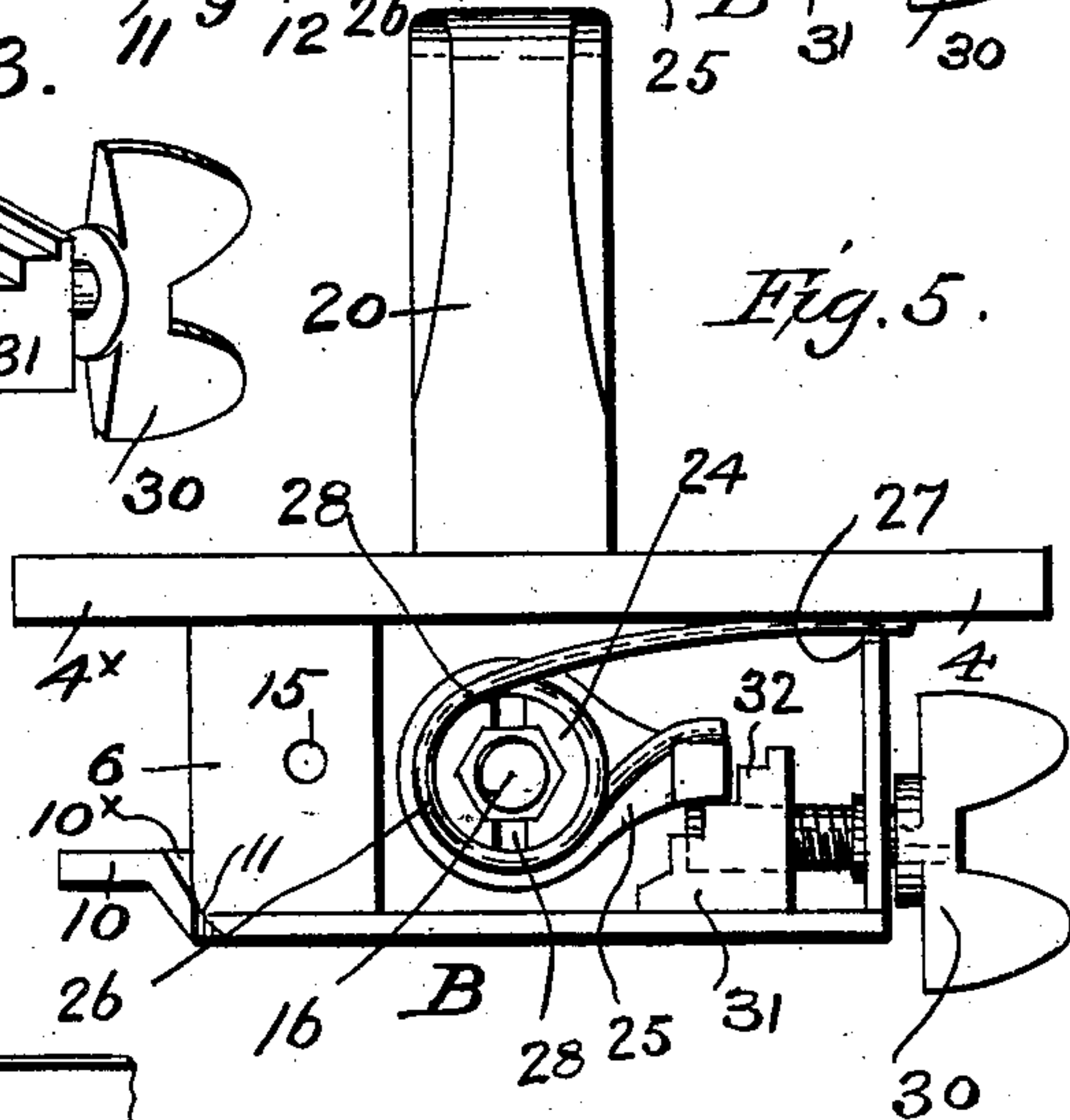


Fig. 7.

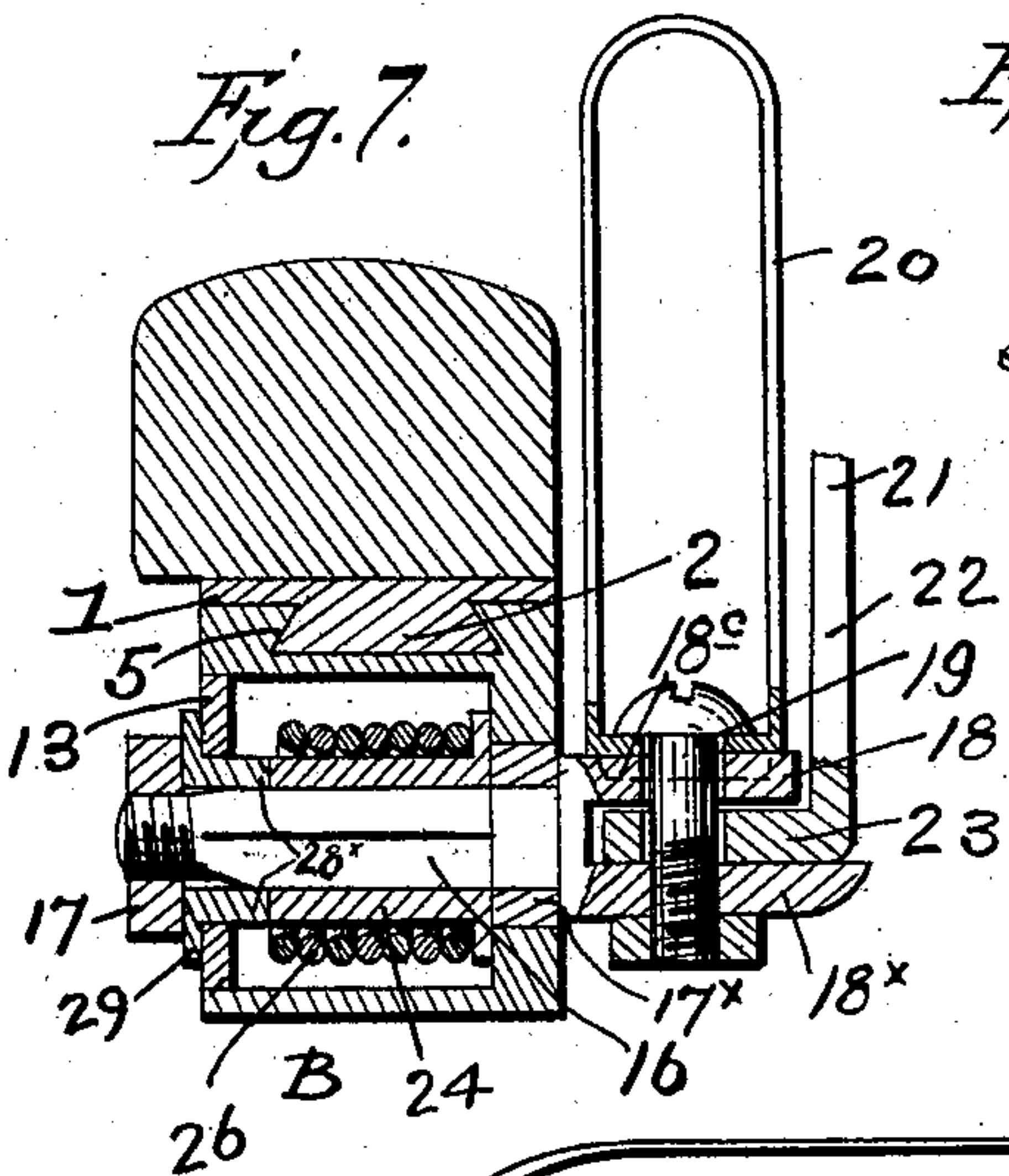


Fig. 9.

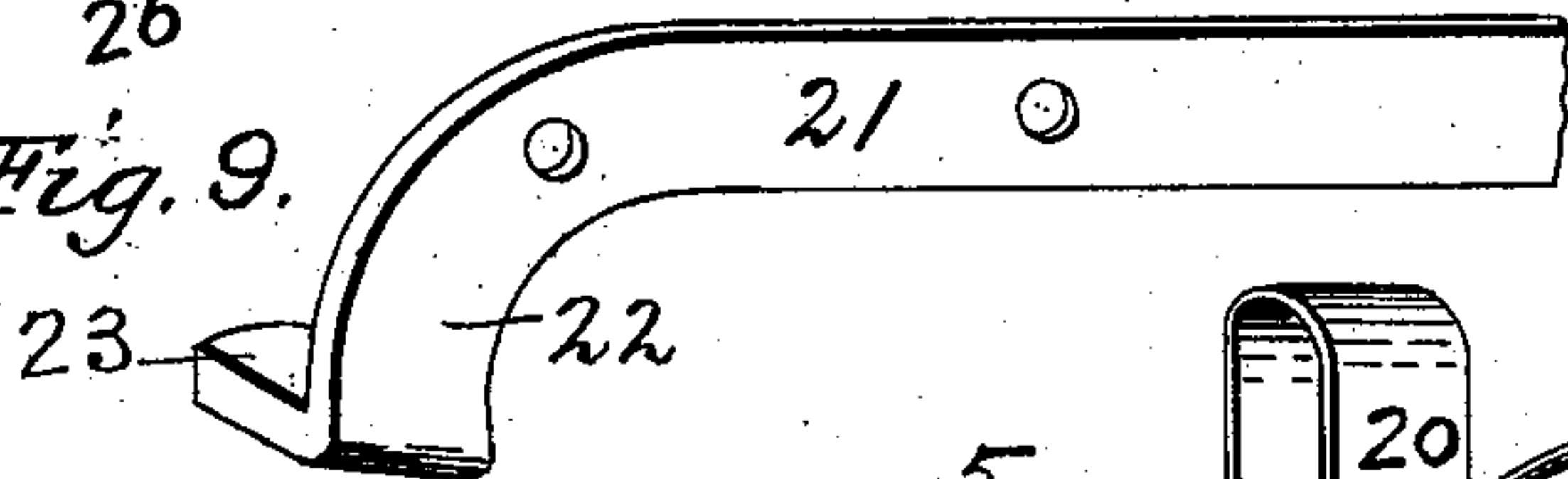
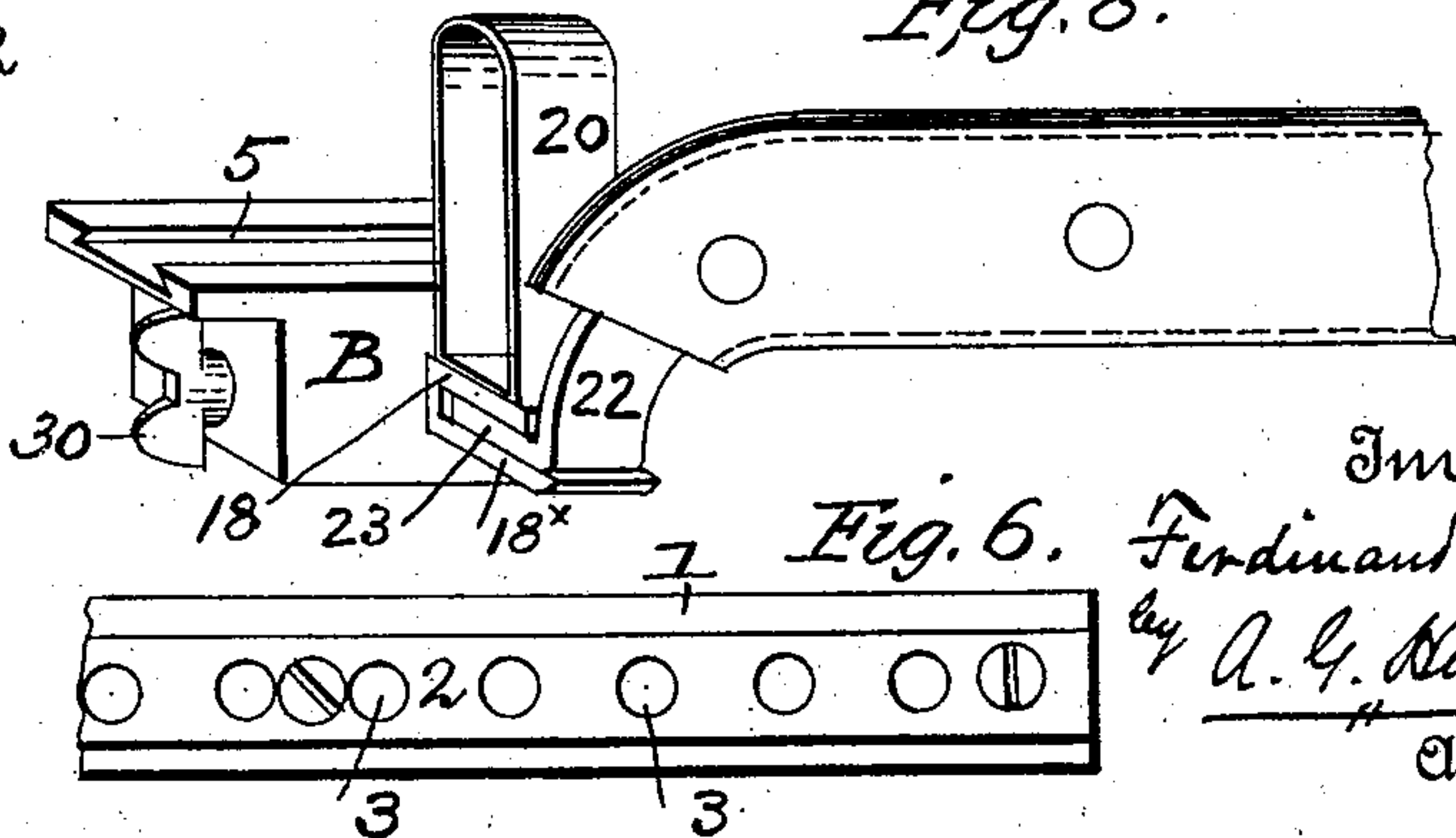


Fig. 8.



Witnesses
H. L. Orvand.
George J. Miller.

Fig. 6.

Inventor
Ferdinand Sier
by A. G. Keylman
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UNITED STATES PATENT OFFICE.

FERDINAND SIER, OF ALLENTOWN, PENNSYLVANIA.

ADJUSTABLE HOLDBACK.

SPECIFICATION forming part of Letters Patent No. 605,020, dated May 31, 1898.

Application filed August 31, 1897. Serial No. 650,073. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND SIER, a citizen of the United States of America, residing at Allentown, in the county of Lehigh, in the State of Pennsylvania, have invented a new and useful Adjustable Holdback, of which the following is a statutory specification.

My invention has relation to improvements in holdbacks for attachment to harness and connection to the shafts of a road-vehicle whereby the breech-strap will be held in position for service or use and connected to the shafts in such a manner and by such means as that the breeching may be adjusted and adapted to any sized animal; and the object is to provide an improved device of the kind named and for the purpose intended which is simple in construction, reliable in use and operation, and which is universally adjustable in position relatively to the shafts and to the animal.

The invention is fully and clearly illustrated in the accompanying drawings, wherein—

Figure 1 is a side view showing the device as applied in actual use. Fig. 2 is a central longitudinal section through the holdback. Fig. 3 is a detail view of the adjustable holding-block with swiveled screw. Fig. 4 is a detail view of the spring-holdingsleeve. Fig. 5 is a side view with the plate removed. Fig. 6 is a plan view of the under side of the slide-plate which is secured to the under face of the shaft, showing the pin-holes or sockets in which the holding pin or bolt engages. Fig. 7 is a transverse section through the slide-plate and top wall of the holdback, showing their flanged connections. Fig. 8 is a perspective view of one of the holdbacks with the one end of the breeching connected thereto. Fig. 9 is a detail view of one of the breech-supporting levers removed from the breeching.

Referring to the drawings, A designates the shafts, to each of which, on the under faces thereof, is secured a substantial slide-plate 1, formed with a board track 2, having suitably-flanged edges, with which the counterpart flanges of the holdback engage. These slide-plates are provided with a series of holes or

sockets 3, in which the locking pin or bolt of the holdback engages to lock it in any position desired on the plate. The slide-plates are made of such length as to permit the movement of the holdback for accommodating the breeching to different-sized animals.

B designates the holdbacks, one arranged on each shaft, and consisting of a substantial metal casing of such dimensions as to take in and hold the respective elements essential to effect its practical uses. The ends of the upper wall of the casing are preferably extended, as at 4 4^x, and lengthwise in the upper face of the casing is formed a way or groove 5, having flanged edges adapted to engage with their counterpart flanges on the slide-plates, and thus hold the holdback strongly to the plate. The vertical rear wall 6 of the casing is made thick enough to have formed therein a vertical way 7, in which the locking-pin 8 is disposed. This locking-pin 8 is formed with a stem 9, of smaller diameter than the body of the pin, which stem is projected through and slides in an aperture in the wall of the casing and is provided with a lever-handle 10, bent down at about its middle, as at 10^x, the inclines of the bent portion engaging in a cam-recess 11, formed in the bottom end portion of the casing. On the stem of the locking-pin within the casing is arranged a spiral spring 12, the force of which holds the locking-pin in engagement with any hole in the slide-plate and against the force of which the locking-pin may be withdrawn from such engagement by turning the lever-handle in either direction, when the inclines 10^x will ride up the face of the cam-recess 11 and lift the locking-pin, and when the locking-pin is so withdrawn it is held in such position by the lever-handle resting on the face of the casing, the force of the spring keeping it in that position. When the locking-pin is in the withdrawn position, the casing may be moved in either direction on the slide-plate, and when in the desired place the lever-handle is turned from its lodgment on the casing toward the cam-recess, and when that is reached the force of the spring snaps the locking-pin home into the hole in the slide-plate. A removable plate 13 is secured to the casing

by means of a fastening-screw taking in a screw-threaded socket 15 in the thick end wall of the casing.

Through the side wall of the casing is projected a bolt 16, extending transversely through the removable plate 13 and held clamped in position by a nut 17 on its projecting threaded end, substantially as shown. The nut 17 also firmly holds the plate 13 in place. A washer 17^x is shrunk on the neck of the bolt 16 and has its bearing in the wall of the casing. On the inner projecting end of the bolt 16 are formed two flat lugs or plates 18 18^x, with a space between them, and each provided with a bolt-hole, the two holes registering, and through which is passed a fastening-bolt 19, for the purpose hereinafter specified. The lower lug or plate 18^x is longer than the lug 18 to afford a proper seat or rest for the pivoted or adjustable end of the breech lever or carrier.

20 designates the trace guard or carrier, consisting of an elongated metal frame having a rounded upper end and a flat or square lower end, which stands upon the upper face of the lug 18, a flange 18^c being formed along the lower edge of the base of the carrier and at its rear to set against the edge of the lug and hold the carrier from turning in its seat. The trace is carried through this carrier 20 and is held by it from sagging and vibrating when slack.

21 designates the breeching lever or support, consisting of a substantial plate of metal extending a determined distance to the rear of the holdback to sustain the breeching in proper position and is firmly secured between the plates or layers of the leather composing the breech-strap. The projecting end 22 of this lever or support is curved or bent downward, as indicated, and formed with a lateral flat lug 23, which is provided with a bolt-hole and lies in between the lugs 18 18^x, being arranged on the bolt 19, so as to have a limited pivotal movement to permit the breech band or strap to have the requisite play to accommodate it to the lateral motions consequent on the movements of the animal and the shafts.

The stem or body of the bolt 16 is made angular and has removably fitted thereon a metal sleeve 24, formed with an arm 25, having a lateral lug at its free end formed with a seat in its upper edge or face, in which is anchored and held one end of a strong spiral spring 26, coiled about the sleeve 24 and having its other end extended to reach into and lodge in a notch 27 in the edge of the end wall of the casing. In the free end of the sleeve 24 are cut oppositely-disposed notches 28, in which lugs 28^x on a loose flanged washer 29 engage, the washer 29 having its bearing in a hole in the detachable plate of the casing. This washer 29 sustains and maintains the bolt 16 in horizontal position, and by its engagement with the sleeve is made to turn

with it when the levers are moved to higher or lower position. A screw 30 is swiveled through the rear end wall of the casing and carries on its inner portion a cam-block 31, seated on the floor of the casing and formed on its upper face with a plurality of steps 32, on any one of which the end of the arm 25 may lodge, and thus hold the breeching at a higher or lower position. It will be perceived from the foregoing description, taken in connection with the drawings, that when it is desired to carry the breeching at an increased elevation to accommodate it to a tall animal the swiveled screw is turned to withdraw the stepped cam-block 31 from under the arm, and the arm by the tension of the spring is then carried down the incline or steps of the block, and then when the desired height is arrived at the block is screwed into lodgment by turning the swiveled screw, and the breeching will then be securely held against being accidentally lowered. When it is desired to lower the breeching, the lever is utilized to turn the bolt and sleeve, and thus lift the arm of the sleeve to the desired position, and then the stepped block is moved up until the arm lodges on one of the steps, and then, the block being screwed up tight, the arm is firmly fixed in its seat on the block.

The breeching and holdbacks may remain attached to the shafts or they may be removed by withdrawing the locking-pins and sliding the holdbacks off the slide-plates.

What I claim is—

1. In a holdback, a casing secured to the shaft, a bolt having a limited rotation transversely projected through the casing and formed with lugs extending at the side of the casing, a breeching, means to hold the bolt in adjusted position against rotation, a lever-bar in the end of the breeching and formed with a laterally-extending lug to set between the lugs on the bolt, and a fastening-bolt in the casing and the breech-lever bar.

2. In a holdback, a casing adapted to be secured to the shaft of a road-vehicle, a bolt extended transversely through the casing, a breech-carrier connected to the bolt, a metal sleeve on the bolt formed with an arm, and a spiral spring on the sleeve having one end lodged on the said arm and the other end lodged in the casing.

3. In a holdback, a casing adapted to be secured to the shaft of a road-vehicle, a bolt extended transversely through the casing, a breech-carrier connected to the bolt, a metal sleeve on the bolt formed with an arm, a spiral spring on the sleeve having one end lodged on the end of the said arm and the other end lodged in the casing, and a movable block in the casing to engage under the arm of the sleeve and adjust the position of the breech-carrier.

4. A holdback, comprising a casing adapted to be secured to the shaft of a road-vehicle, a bolt extended transversely through the cas-

ing, a breech-carrier connected to the bolt
whereby the bolt may be turned with its con-
nections, a trace carrier and guide on the
bolt, a metal sleeve on the bolt within the
5 casing, a spiral spring on the sleeve against
the torsional force of which the bolt and sleeve
have a limited rotation, a movable cam-block
to hold the sleeve and bolt in adjusted posi-

tion, and a swiveled screw to move the cam-
block.

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

FERDINAND SIER.

Attest:

B. ZELLNER,
F. K. MOYER.

It is hereby certified that in Letters Patent No. 605,020, granted May 31, 1898, upon the application of Ferdinand Sier, of Allentown, Pennsylvania, for an improvement in "Adjustable Holdbacks," an error appears in the printed specification requiring correction, as follows: In line 47, page 1, the word "board" should read *broad*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 14th day of June, A. D., 1898.

[SEAL.]

WEBSTER DAVIS,
Assistant Secretary of the Interior.

Countersigned:

C. H. DUELL,
Commissioner of Patents.