

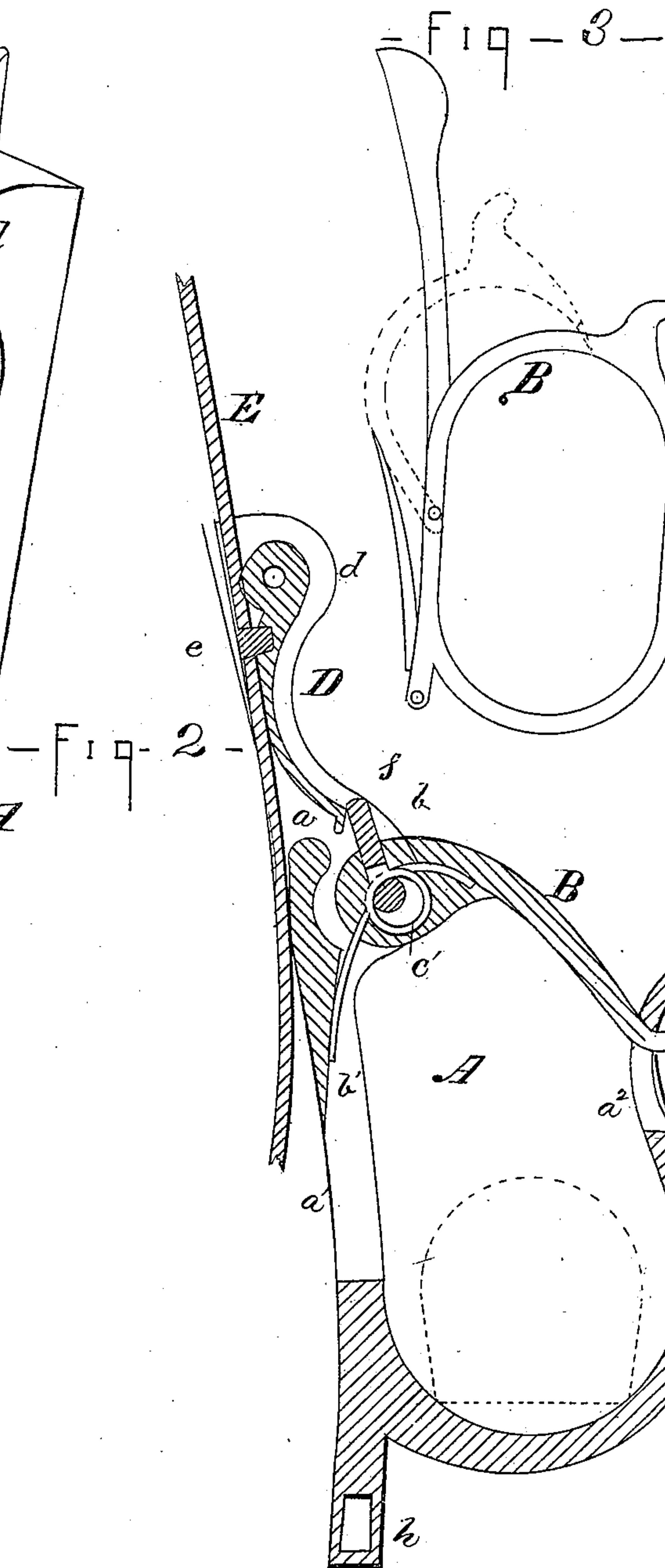
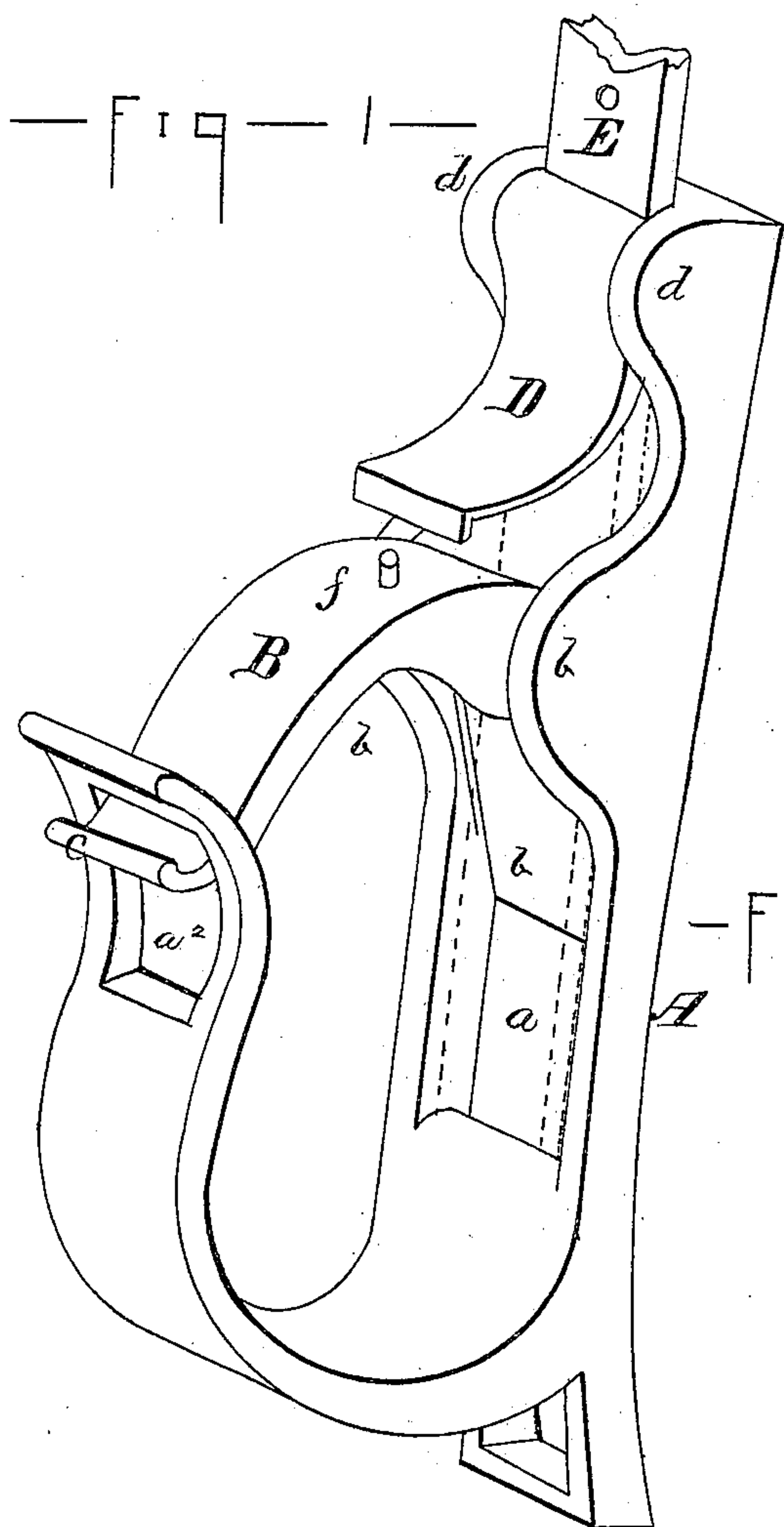
(No Model.)

S. H. HAAS & G. BEISNER.

THILL LUG.

No. 246,307.

Patented Aug. 30, 1881.



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UNITED STATES PATENT OFFICE.

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THILL-LUG.

SPECIFICATION forming part of Letters Patent No. 246,307, dated August 30, 1881.

Application filed July 1, 1881. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL H. HAAS and GEORGE BEISNER, of Chicago, Cook county, Illinois, have invented a certain new and useful Thill-Lug, of which the following is a specification.

Our invention relates to thill-lugs for harness, in which a spring-actuated tongue is employed for closing the lug and for confining the thill after the thill is dropped to place in the lug, and which is provided with further means for attachment to the harness.

The objects of our invention are, first, to provide against the detachment of the tongue when in an operative position by a horizontal pressure against its end; second, to have the tongue swing clear of the throat of the lug, to provide an unobstructed access for the thill; and, finally, to enable the lug to be attached and detached and also adjusted to the suspending-strap, but securely locked to said strap when once adjusted. We attain these objects by devices illustrated in the accompanying drawings, in which—

Figure 1 is a perspective of a thill-lug embodying our invention; Fig. 2, a longitudinal section taken through the center of width of the same, and Fig. 3 a side elevation of a modification of the same.

Similar letters of reference indicate the same parts in the several figures of the drawings.

A represents a thill-lug, the shank of which is slotted at $a a'$ and the hook at a^2 , the purposes of which slots will presently be described. Between the slots $a a'$ are ears $b b$, between which is pivoted a downwardly-extending tongue, B, provided upon its free end with an upturned hook, c , adapted to catch when in an operative position, as shown in Fig. 2, upon the outer face of the hook end of the lug after passing through the slot a^2 . Tongue B is actuated to swing its free end outwardly by a coiled spring, c' , upon its pivot, having straight arms impinging respectively against the tongue and the shank of the lug. The back of this shank, between the slots $a a'$, is grooved at b' the width of the tongue, and on an incline to the slot a' , to enable the tongue to swing backwardly substantially clear of the inner face of the shank, so that the thill may be dropped in almost a vertical line into the throat of the

hook, the hook extending sufficiently below to enable the thill to clear the end of the tongue, and the tongue to automatically spring through the slot a^2 and engage with the hook. 55

At the upper end of the shank, and between ears $d d$, is pivoted a cam-lever, D, between which and the lug is passed the harness-strap E, from which the thill-lug is suspended, the free end of the strap passing outwardly through the slot a and lying flat against the back of the lug. 60

Underneath the cam-lever, and in the shank of the lug, is secured a stud or pin, e , passing through one of a series of perforations in the strap, and entering a corresponding depression or perforation in the cam-lever when the latter is depressed, as shown in Fig. 2, to pinch or clamp the strap to the lug. 65

Cam-lever D is prevented from accidental detachment from the strap by a stud or pin, f , upon the butt of the tongue, which pin is released from the lever by swinging the tongue downwardly and out of its operative position for closing the lug. 70

The series of perforations in the suspending-strap enables the vertical adjustment of the lug, and the pin e insures against any slipping of the strap between the lug and cam-lever, and is an auxiliary to the latter both in holding and locking the strap to the lug. 75

It will be observed that when in the position shown in Fig. 2, the hook c upon the end of the tongue extends sufficiently above the top wall of a^2 to prevent a pressure exerted in a horizontal line against said hook from swinging the tongue downwardly and detaching it from the hook of the lug, as would be the case if the end of the tongue were straight. As shown, the shape of the hook is sufficient to illustrate our invention, but in practice it may be more abrupt and somewhat longer to make its bearing more positive, and a curved, but flat, spring, g , (shown in Fig. 2,) may be used to hold up and support the end of the hook, to prevent its displacement by an outside pressure. 80 90 95

The lower end of our thill-lug is provided with the usual slotted extension, h , for connecting it with the strap passing under the animal.

In Fig. 3 is shown a modification of our thill-lug, in which the tongue, when in its closed position, impinges against the inner face of the 100

hook end of the lug, and is swung backwardly for detachment for inserting the thill, as indicated in dotted lines, the slot in the shank of the lug being sufficiently long to enable the tongue to swing through and substantially clear the inner face of the shank of the end of the tongue, so that the thill may be dropped, as before described. In this construction a curved spring secured near the base of the shank is the means for automatically actuating the tongue to close the lug.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination, in a thill-lug provided at its hook with a slot, of a spring-actuated tongue having a hook upon its free end and adapted to pass through said slot and engage with the outer face of the thill-lug, substantially as and for the purpose described.

2. The combination, in a thill-lug slotted in its shank, of a spring-actuated tongue pivoted

upon said shank and adapted to swing through said slot to clear the lug for the vertical insertion of the thill, as set forth.

3. The combination, with a thill-lug, of a pivoted cam-lever adapted to pinch the suspending-strap to the lug, substantially as and for the purpose described.

4. The combination, with a thill-lug and with the pivoted cam-lever, of a stud, *e*, passing through a perforation in the suspending-strap and engaging with said cam-lever, substantially as described and shown.

5. The combination, with the thill-lug, the pivoted cam-lever, and the tongue, of the stud upon said tongue adapted to engage with and lock the cam-lever, substantially as and for the purpose described.

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