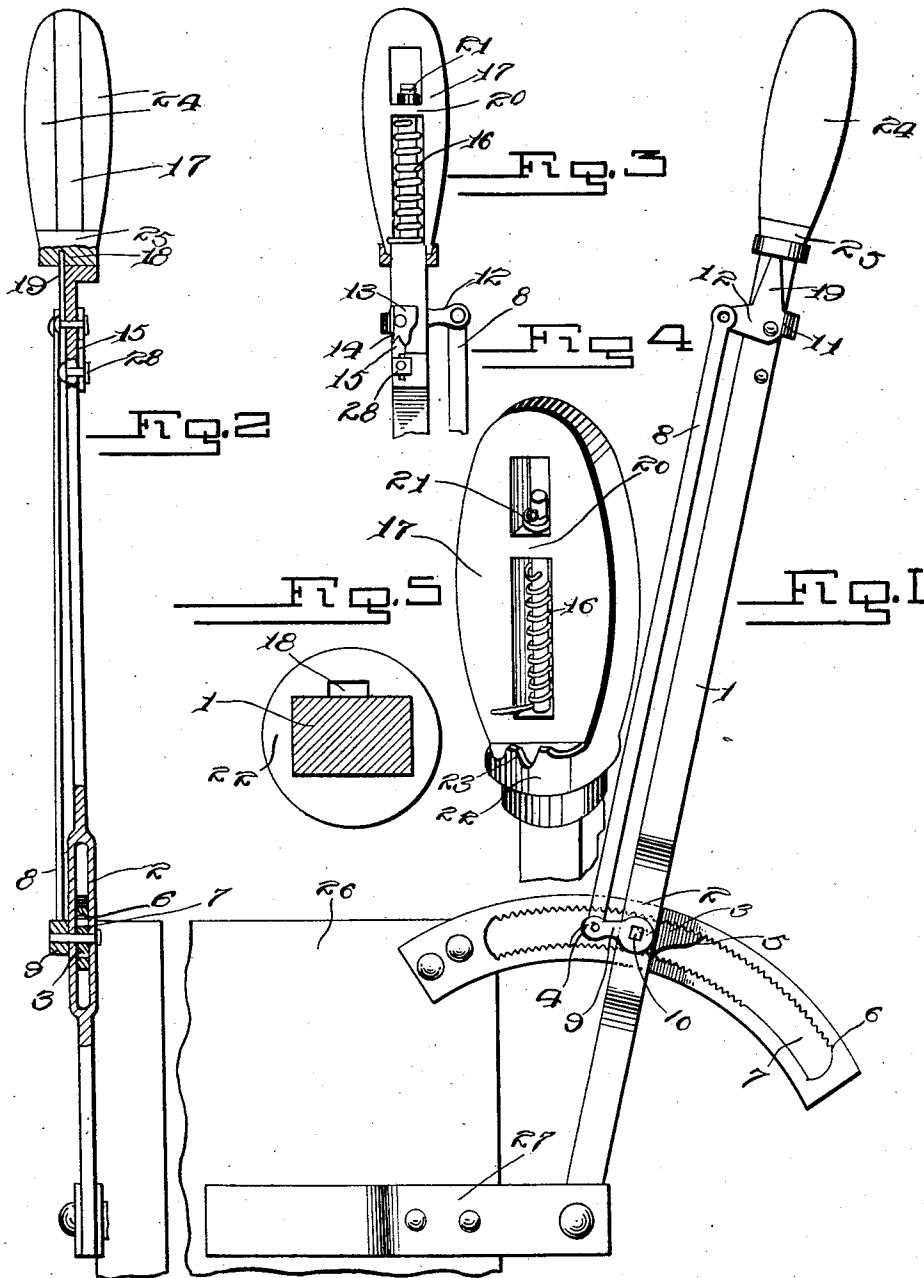


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LATCH LEVER.
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1,033,145.

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WILLIAM C. AZBILL, OF NORTH McALESTER, OKLAHOMA.

LATCH-LEVER.

1,033,145.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM C. AZBILL, a citizen of the United States, residing at North McAlester, in the county of Pittsburg and State of Oklahoma, have invented certain new and useful Improvements in Latch-Levers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to latch levers and the principal object of the same is to provide a novel type of latch for the lever and also to provide a novel type of operating mechanism for the latch.

In carrying out the objects generally stated above, it will be understood, of course, that the essential features thereof are susceptible of changes in structural arrangements and details, one preferred and practical embodiment being shown in the accompanying drawings, wherein:—

Figure 1 is a view in side elevation of the improved latch. Fig. 2 is a vertical section through the latch. Fig. 3 is a view of the end of the upper portion of the lever. Fig. 4 is an enlarged view of the upper portion of the lever shown in Fig. 3. Fig. 5 is a transverse sectional view taken through the hand grip of the levers.

Referring to the accompanying drawings by numerals it will be seen that the improved lever comprises a bar 1 which is split intermediate its length to form a housing 2 for the latch 3. The latch is of a substantial elliptical shape and has its end portions 4 and 5 provided with teeth, the teeth of the end portion 4 being formed upon the lower face and the teeth of the end portion 5 being formed upon the upper face. A rack bar 6 passes through the housing 2 and is provided with a toothed slot 7 through which the latch passes. The latch 3 engages the teeth of the slot and is thus held in an adjusted position. A rod 8 is connected with the latch by means of a link 9 mounted upon the pin 10 extending from the latch and the upper end of the rod is in pivotal connection with a bell crank bracket 11 mounted upon the bar 1. By rocking the bell crank the arm 12 is rocked to move the rod 8 and thus bringing the teeth of the latch either into or out of engagement with the teeth of the slot 7. The arm 13 of the bracket is provided with a notched extension 14 adapted to be engaged by a catch 15, which is slidably mounted upon the bar 1 so that the

latch 3 may be locked in or out of engagement with the rack bar 6. The upper end of the bar 1 is reduced and a spring 16 is coiled about the same with the upper end passing through an opening formed through the bar. A hand grip 17 is mounted upon the upper end of the bar and the lower portion of the hand grip is provided with a socket 18 in which arm 19 of the bell crank bracket fits so that when the hand grip is turned the bell crank bracket will be rocked to raise the arm 12 and to release the latch from the rack bar. The lower end of the spring 16 engages the hand grip so that it is normally held in a position to retain the latch in engagement with the rack bar. The hand grip is provided with a bridge 20 through which the upper end of the bar 1 passes and the hand grip is held upon the bar by means of the key 21. A collar 22 is formed at the lower portion of the hand grip and is provided upon its opposite sides with lugs 23. Cushions 24 are secured to the hand grip and their lower ends are engaged by the lugs 23 so that when the hand grip is turned the cushions will not slip out of place. A sleeve 25 incloses the lugs and the lower portions of the cushions and assists in holding the cushions in place.

In using this device the rack bar is mounted upon a support 26 and the bar 1 is pivotally connected with the support by means of the bracket 27 with the latch engaging the rack bar. When it is desired to move the lever the hand grip is turned which rocks the bell crank bracket so that the rod 8 is raised thus rocking the latch and releasing said teeth from the rack bar. The lever can then be moved to the desired place and when released the spring 16 will turn the hand grip thus moving the latch into engagement with the rack bar. If it is desired to lock the lever in the adjusted position the latch 15 is moved so that it will enter the notch formed in the arm 13 and is then secured by means of the nut 28.

What I claim is:—

1. A lever, a rack for said lever, a tooth carried by said lever and adapted to engage said rack, a rod connected with said tooth, a bell crank pivotally mounted upon said lever and having one arm connected with said rod, said lever having a reduced upper end, a handgrip rotatably mounted upon the reduced end of said handle and provided with a socket in which the remaining arm

of said bell crank fits, and a spring carried by the reduced end of said lever and engaging said handgrip to normally hold said bell crank in a position to hold said tooth in engagement with said rack.

2. A lever, a rack, a tooth adapted to engage said rack, a rod connected with said tooth, a bell crank pivotally mounted upon said lever, and having one arm connected with said rod, said lever provided with a reduced upper end, a flat-sided handgrip provided with longitudinally extending openings in its central portion, a bridge separating said openings, said handgrip being mounted upon the reduced end of said lever with said lever passing through said openings, and said bridge, a collar formed at the end of said handgrip and provided with a socket in which one arm of said bell crank fits whereby the turning of said handgrip will move said bell crank, a spring mounted upon the reduced end of said lever engaging said handgrip to normally hold said handgrip in a position to bring said tooth into engagement with said rack, and cushions carried by said handgrip.

3. A lever comprising a reduced end, a spring mounted upon the reduced end of said lever, a handgrip mounted upon the reduced end of said lever and bearing against said spring, one end of said spring engaging said handgrip and adapted to rotate said handgrip upon said lever, a flange at the end of said handgrip provided with lugs, cushions carried by said handgrip, and fitting in said collar and between said lugs, said collar being provided with a socket, a bell crank pivotally mounted upon said lever and having one arm entering said socket, a rod carried by the remaining arm of said bell crank, a rack, and a tooth carried by said lever and connected with said rod and adapted to be brought into and out of engagement with said rack upon the turning of said handgrip.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

WILLIAM C. AZBILL.

Witnesses:

E. S. FENDALL,
J. C. SCHLICHT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."