No. 803,495. PATENTED OCT. 31, 1905.

P. E. LUND.

LIFTING LEVER.

APPLICATION FILED FEB. 23, 1904.

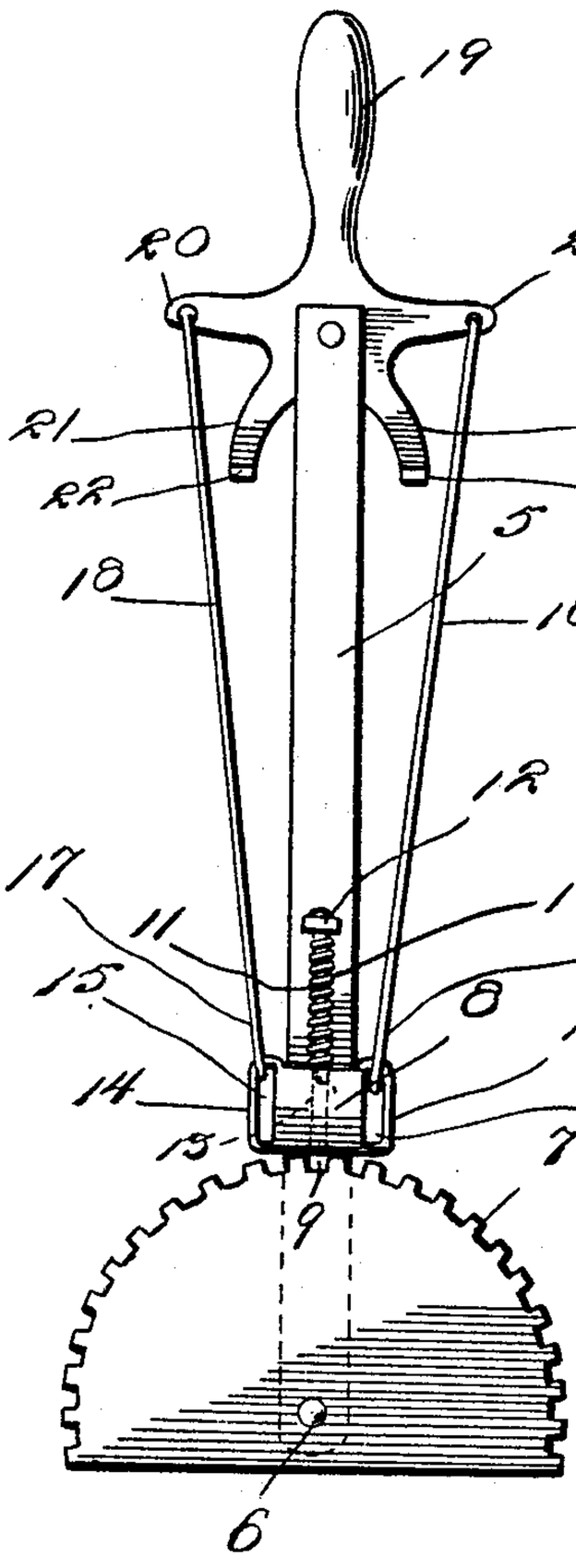


Fig. 1.

Fig. 2.

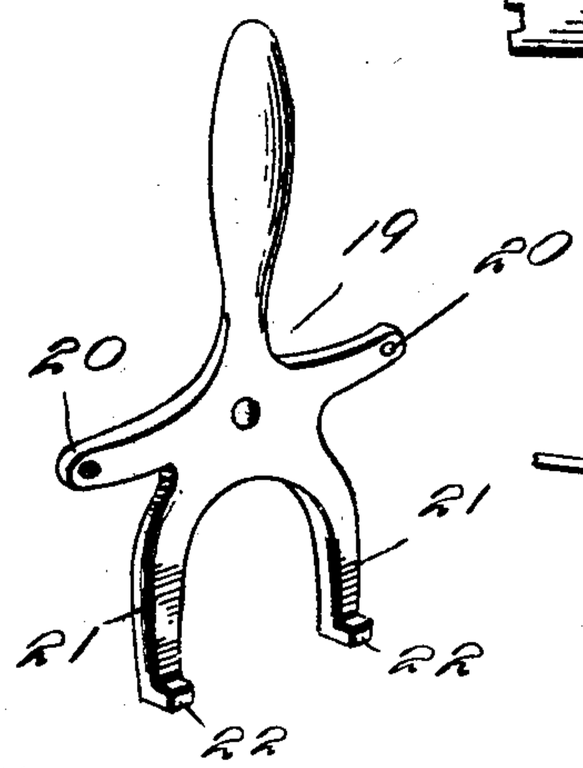
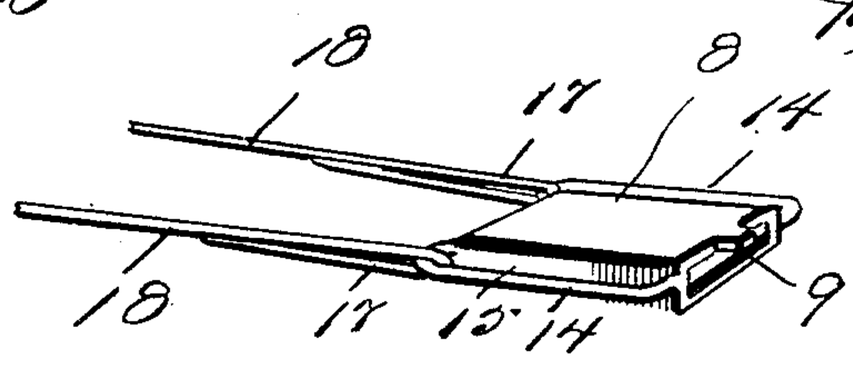


Fig. 3.



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PEDER E. LUND, OF BEYROUT, NORTH DAKOTA.

LIFTING-LEVER.

No. 803,495. Specification of Letters Patent. Patented Oct. 31, 1905.

Application filed February 23, 1904. Serial No. 194,756.

To all whom it may concern:

Be it known that I, PEDER E. LUND, a citizen of the United States, residing at Beyrout, in the county of Pierce, State of North Dakota, have invented certain new and useful Improvements in Lifting-Levers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to levers, and more particularly to the means for holding them at different points of their movements and for releasing them, the object of the invention being to provide, in connection with a lever and a notched segment, a latch for locking the lever to the segment at different points of movement of the lever and means for releasing the lock automatically when pressure is initially applied to the lever in either direction of its movement.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is an elevation showing a lever and a segment and a latch or lock arranged in accordance with the present invention. Fig. 2 is a detail view of the handle of the lever. Fig. 3 is a detail view of the latch-bolt.

Referring now to the drawings, there is shown a lever comprising a straight bar 5, which is fulcrumed at one end, as shown at 6, said fulcrum being concentric with a notched segment 7.

To hold the lever at different points of its movement upon its fulcrum, a latch mechanism is provided and comprises a hollow bolt 8, which is slidably engaged with the lever 5 and at one end of which and at one side there projects a nib 9, which is disposed for engagement between the teeth of the segment at different points of the latter. The bolt 8 is held normally and yieldably in position for engagement between the teeth of the segment by means of a helical spring 10, which encircles a rod 11, mounted at one end in a bracket 12, which is mounted upon the bar 5, the opposite end of the rod being slidably engaged in a perforation 13 in the bolt. The helical spring rests with one end against the bolt 8 and the other end against the bracket 12 and is under such tension as to hold the bolt normally against upward movement.

At the sides of the bolt 8 are longitudinally-extending ears 14, which are slotted, as shown at 15, and through which slots are engaged the loops 17 at the ends of rods 18. At the power end of the bar 5 there is pivoted a handle 19, having arms 20 projecting from opposite sides thereof and with the free ends of which are pivotally connected the rods 18, so that when the handle 19 is rocked upon its pivot the rods 18 will be alternately pulled to raise the bolt 8 and disengage the nib 9 from the notched segment, it being understood that the inactive rod 18 has lost motion with respect to the bolt 8. From the handle 19 project also a pair of arms 21, having fingers 22 at their ends, which lie at opposite sides of the plate 5 and normally in spaced relation thereto, these fingers being disposed to strike the plate 5 and limit the rocking movement of the handle when the handle has been moved a sufficient distance to lift the nib 9 from the notched segment. After either finger 22 has been moved into contact with the plate 5 further movement of the handle serves to rock the lever.

With this construction it will be seen that the lever is normally locked against movement; but when the handle is grasped and operated the locking-bolt is first drawn from the notched segment and the lever is subsequently moved.

What is claimed is—

1. The combination with a pivoted lever comprising a body portion and a handle pivoted thereto, of a notched segment concentric with the fulcrum of the lever, a hollow bolt slidable upon the body portion of the lever into and out of locking engagement with the notched segment, said bolt having lateral longitudinally-slotted ears, a rod loosely engaged through the slot of each ear, said handle having laterally-directed arms to which the rods are pivoted respectively, means for limiting the pivotal movement of the handle with respect to the body of the lever, and means for holding the bolt normally and yieldably in engagement with the notched segment.

2. The combination with a pivoted lever, comprising a body portion and a handle pivoted thereto, of a notched segment concentric with the fulcrum of the lever, a hollow bolt slidable upon the body portion of the lever and provided with a depending lug for engagement with the teeth of the segment, said bolt having lateral longitudinally-slotted ears, a rod loosely engaged through the slot of each ear, said handle having laterally-directed arms

to which the rods are pivoted respectively, a spring-actuated rod arranged longitudinally of the lever and associated with the hollow bolt for moving the lug of the latter into locking engagement with the notched segment, and means for limiting the pivotal movement of the handle with respect to the body of the lever.

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

PEDER E. LUND.

Witnesses:
ANTON LUND,
JULIUS THOMPSON.