No. 757,142. PATENTED APR. 12, 1904.

H. A. PARSON.

BOLT HOLDER.

APPLICATION FILED JULY 6, 1903.

NO MODEL.

Fig. 1.

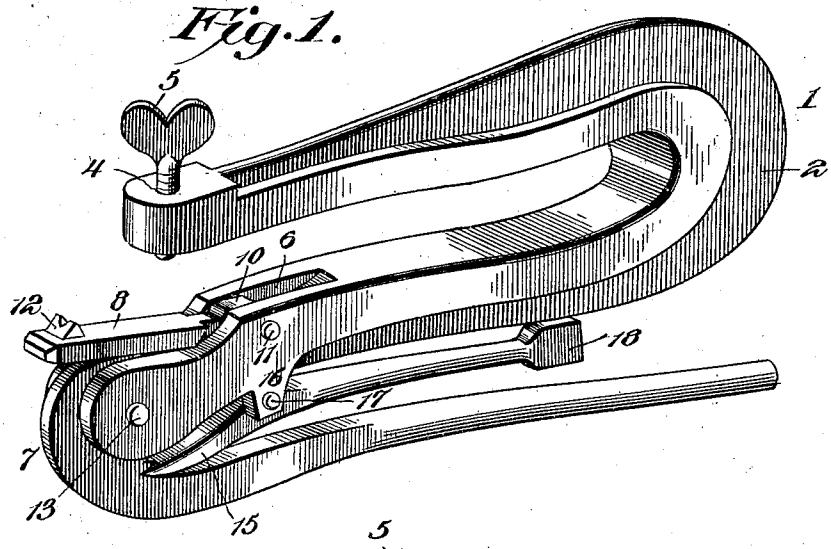


Fig. 2.

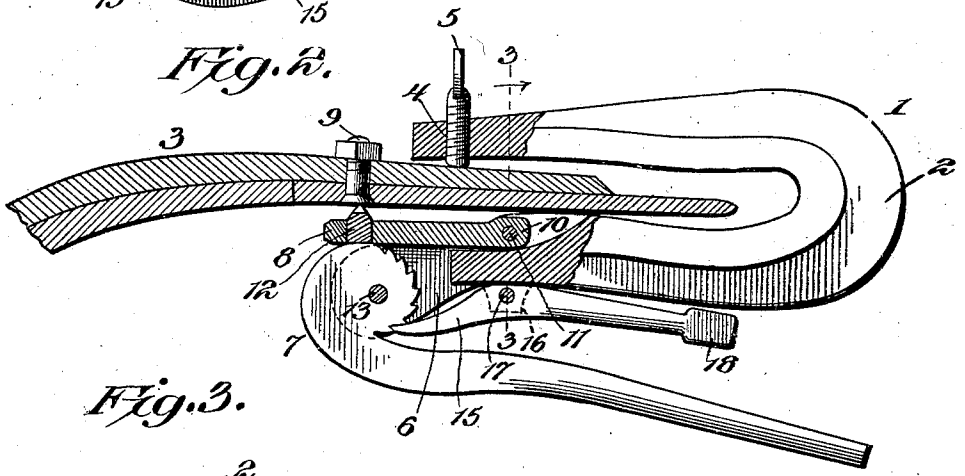


Fig. 3.

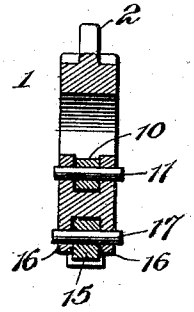
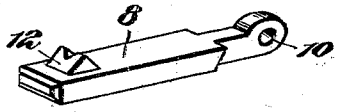


Fig. 4.



Witnesses
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No. 757,142. Patented April 12, 1904.

UNITED STATES PATENT OFFICE.

HILLMAN A. PARSON, OF REPUBLIC, IOWA.

BOLT-HOLDER.

SPECIFICATION forming part of Letters Patent No. 757,142, dated April 12, 1904.

Application filed July 6, 1903. Serial No. 164,415. (No model.)

To all whom it may concern:

Be it known that I, HILLMAN A. PARSON, a citizen of the United States, residing at Republic, in the county of Chickasaw and State of Iowa, have invented a new and useful Bolt-Holder, of which the following is a specification.

The invention relates to improvements in bolt-holders.

The object of the present invention is to provide a simple, inexpensive, and efficient device of great strength and durability designed for holding the bolts of plowshares and other devices while the nuts are being screwed on or off and adapted to be readily applied to a plowshare and capable of automatically locking itself in position and of effectually preventing a bolt from rotating while the nut thereof is being screwed on or off.

A further object of the invention is to provide a bolt-holder of this character which may be quickly transferred from one bolt to another and which will afford ready access to the nut to be operated on whereby an ordinary wrench or similar tool may be employed for tightening and removing nuts.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended, it being understood that various changes in the form, proportion, size, and 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 intion.

In the drawings, Figure 1 is a perspective view of a bolt-holder constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same, the bolt-holder being applied to a portion of a plow. Fig. 3 is a transverse sectional view on the line 3 3 of Fig. 2, the plowshare being omitted. Fig. 4 is a detail view of the pivoted member or jaw for engaging the head of a bolt.

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

1 designates an approximately U-shaped frame composed of upper and lower sides and having a longitudinal opening or space between the sides, said opening or space extending inward from one end of the frame to permit the latter to be readily placed on a plowshare 3, as illustrated in Fig. 2 of the drawings. The frame is constructed of suitable metal, and it is preferably reinforced by a longitudinal exterior flange 2, as shown in Figs. 1 and 3; but it may be constructed in any other manner to secure the desired strength. The lower side of the frame 1 is extended beyond the upper side, which is provided at the end with a threaded perforation 4 for the reception of a screw 5, and the latter is adapted to be adjusted to enable the device to engage plowshares and other parts of different sizes. The lower side is provided with a slot or bifurcation 6 at its extended end for the reception of a cam-lever 7, which is adapted to engage the outer end of a pivoted jaw or member 8, whereby the same is forced into engagement with the head of a bolt 9, as clearly shown in Fig. 2 of the drawings. The jaw or member consists of a straight bar or piece, provided at its inner end with an eye 10, which is pivoted in the bifurcation 6, at the inner end thereof, by a pin 11 or other suitable fastening device, and the said jaw or member extends outward from the pivot 11 along the inner side of the bottom of the frame to a point directly above the cam-lever 7. The outer end of the jaw or member is provided with a knife 12, consisting of an oppositely-beveled head having a shank or stud which is secured in the perforation of the jaw or member. The cutting edge of the knife is notched to provide two engaging portions which are adapted to partially embed themselves in the head of a bolt, whereby the same is securely gripped and is effectually prevented from rotating while the nut thereof is being screwed on or off. The shank of the knife extends entirely through the pivoted

jaw or member, and the cam-lever engages the latter at the end of the shank of the knife, whereby the pivoted jaw or member is relieved of the strain incident to holding a bolt and the pressure is brought to bear directly upon the knife, as illustrated in Fig. 2 of the drawings. The cam-lever consists of an eccentrically-pivoted approximately circular head and a bar or handle portion, which is adapted to lie beneath the bottom of the frame in an approximately horizontal position, and it is arranged to swing downward from such position to force the movable jaw or engaging member upward or inward to clamp and hold a bolt. The pivot or pin 13, upon which the cam-lever is fulcrumed, pierces the sides of the bifurcated end of the lower side or portion of the U-shaped frame. The inner edge or periphery of the head of the cam-lever is provided with ratchet-teeth and is adapted to be engaged by an automatically-operating pivoted dog 15, whereby the clamping-lever is locked in its adjusted position to hold the device securely in position on a plowshare or other object, thereby obviating the necessity of holding the device by hand and leaving both hands of the operator free to manipulate a wrench or other tool. The bottom of the frame 1 is provided at the inner portion of the bifurcation with a pair of depending ears 16 to receive a pivot or pin 17, which passes through the dog 15 at a point between the ends thereof. One arm of the dog is shaped to engage the ratchet-teeth of the cam-lever, and the other arm is extended and enlarged to provide a weight 18, whereby the engaging arm is held normally in engagement with the head of the cam-lever. The weighted arm is adapted to be pressed upward and inward to release the cam-lever, and a spring may be substituted for a weight for holding the dog in its engaging position. When the handle portion of the cam-lever is swung downward to force the movable jaw or member in engagement with the head of the nut to be operated on, the dog automatically engages the ratchet-teeth and will lock the lever against backward movement.

The means for engaging the bolt are located at a point beyond the end of the upper side or top of the frame, (as shown in Fig. 2,) and the top of the frame terminates short of the bolt to afford free access to the nut.

In operating on the bolt of a plowshare the latter is inverted, as indicated in Fig. 2 of the drawings, to bring the nuts uppermost, and the bolt-holder is adapted to retain itself in the position shown in the said figure and does not require to be held by hand.

Besides holding the bolts of a plow the device can be conveniently employed for holding bolts of various machines and devices, and the open frame 1 may be constructed to adapt it to the character of the work to be performed.

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

1. A device of the class described comprising an open frame having a top and bottom adapted to receive between them the part to be operated on, the top being provided with means for engaging the same, means arranged at the bottom of the device for engaging the head of a bolt, a cam-lever fulcrumed on the frame at the bottom thereof and arranged to actuate the bolt-engaging means, and an automatically-operating dog arranged to engage the cam of the lever to lock the same in its adjusted position, substantially as described.

2. A device of the class described comprising an open frame adapted to receive the part to be operated on, means arranged at the bottom of the frame for engaging a bolt, a cam-lever fulcrumed on the frame at the bottom thereof and arranged to actuate the bolt-engaging means, and an automatically-operating dog arranged to engage the cam of the lever to lock the same in its adjusted position, substantially as described.

3. A device of the class described comprising an open frame, means located at the bottom of the frame for engaging a bolt, a cam-lever arranged to actuate the bolt-engaging means and provided at its cam with a ratchet, and an automatically-operating dog arranged to engage the ratchet for locking the lever in its adjusted position, substantially as described.

4. A device of the class described comprising an open frame, means located at the bottom of the frame for engaging a bolt, a cam-lever arranged to actuate the bolt-engaging means and provided with a curved ratchet, and an automatically-operating gravity-dog arranged to engage the ratchet of the lever, substantially as described.

5. A device of the class described comprising a frame having upper and lower portions, the lower portion being extended beyond the upper portion, means carried by the upper portion for engaging the part to be operated on, bolt-engaging means mounted on the extended lower portion of the frame and hinged to the same, and means for actuating the bolt-engaging means and engaging the same beyond the point of hinging for locking the same, substantially as described.

6. A device of the class described comprising a frame having upper and lower portions, the lower portion being bifurcated, bolt-engaging means arranged at the lower portion of the frame, a cam-lever mounted in the bifurcation of the frame and having a handle portion extended longitudinally of the latter, and a dog located between the lever and the frame and mounted on the latter and arranged

to lock the former in its adjusted position, substantially as described.

7. A device of the class described comprising a frame, a pivoted bolt-engaging jaw or member extending longitudinally of the frame, and a cam-lever fulcrumed on the frame and engaging the pivoted jaw or member at the outer side thereof, substantially as described.

8. A device of the class described comprising a frame having an opening, a bolt-engaging jaw or member located at the opening and pivoted at its inner portion to the frame and provided at its outer portion with means for engaging a bolt, and means mounted on the frame and arranged to actuate the jaw or member at the outer portion thereof, substantially as described.

9. A device of the class described comprising an approximately U-shaped frame, a jaw or member extending longitudinally thereof at the inner face of one side of the frame and provided with means for engaging a bolt, a cam-lever arranged to actuate the jaw or member, and a pivoted locking device for engaging the cam of the lever for holding the latter in its adjusted position, substantially as described.

10. A device of the class described comprising an approximately U-shaped frame, a jaw or member extending longitudinally thereof at the inner face of one side and pivoted to the same, and a cam-lever mounted on the frame and engaging the outer face of the jaw or member, substantially as described.

11. A device of the class described comprising a frame, a hinged jaw or member having a bolt-engaging device extended through it, and adjusting means operating against the jaw or member at the outer end of the bolt-engaging device, substantially as described.

12. A device of the class described comprising a frame, a jaw or member movably connected with the frame and provided with a knife having a shank extending through the jaw or member, and an adjusting device engaging the outer end of the shank of the knife, substantially as described.

13. A device of the class described comprising a frame having one side bifurcated, a cam-lever fulcrumed in the bifurcation, a dog mounted on the frame and engaging the cam-lever, and a jaw or member pivoted to the frame at the inner end of the bifurcation and arranged to be engaged by the cam-lever, substantially as described.

14. A device of the class described comprising an approximately U-shaped frame having one side extended beyond the other, means mounted on the short side for engaging the part to be operated on, a jaw or member extending longitudinally at the other side of the frame at the inner face thereof and pivoted at its inner end and provided at its outer portion with means for engaging, a cam-lever mounted on the frame and engaging the jaw or member at the outer side thereof, and means for locking the cam-lever in its adjustment, substantially as described.

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

HILLMAN A. PARSON.

Witnesses:

TIM DONOVAN,

GRANT M. BIGELOW.