No. 658,130. Patented Sept. 18, 1900.

G. R. L. STIMERS.

DETACHABLE SAW HANDLE.

(Application filed Feb. 23, 1900.)

(No Model.)

Fig. 1.

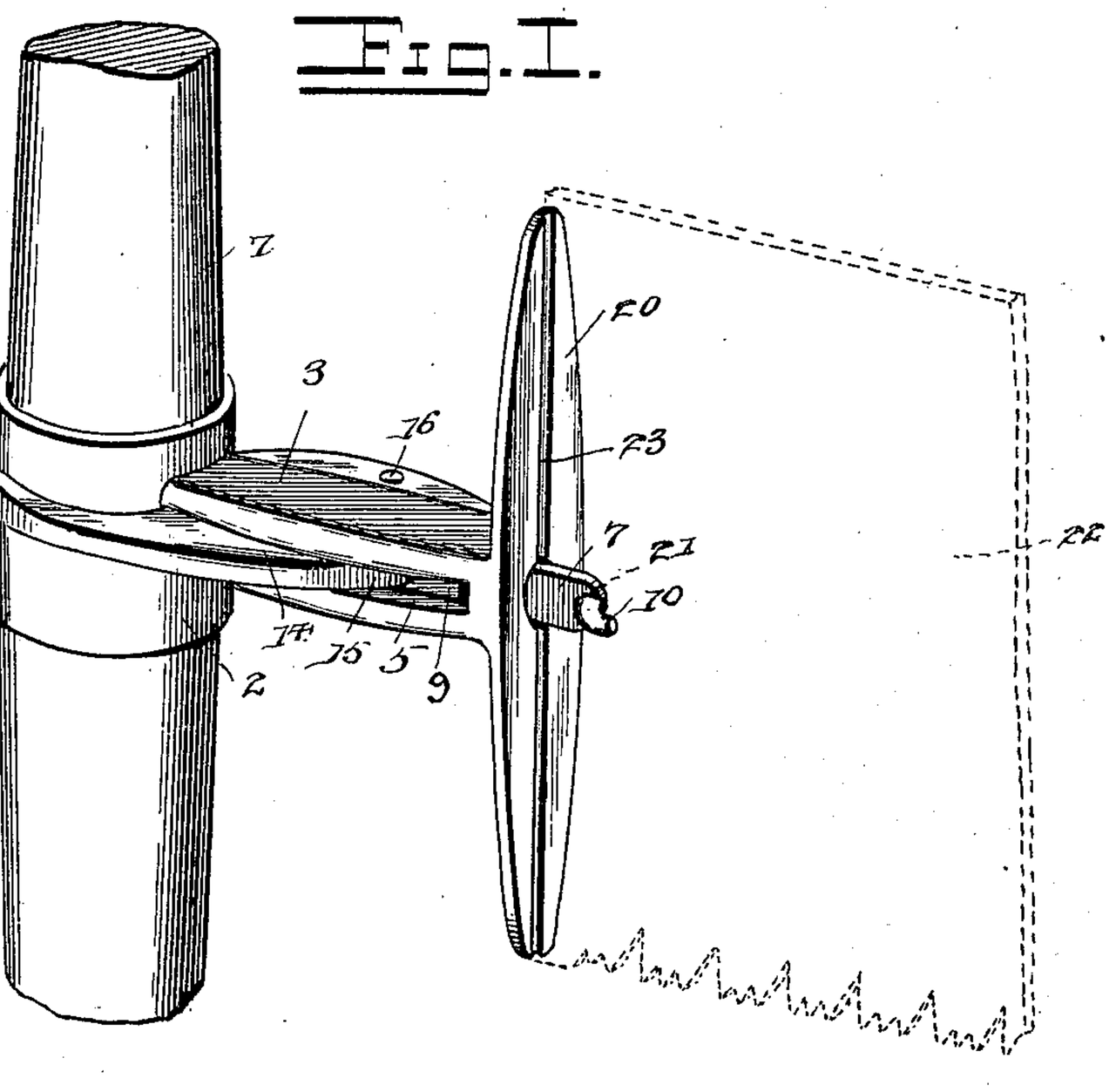


Fig. 4.

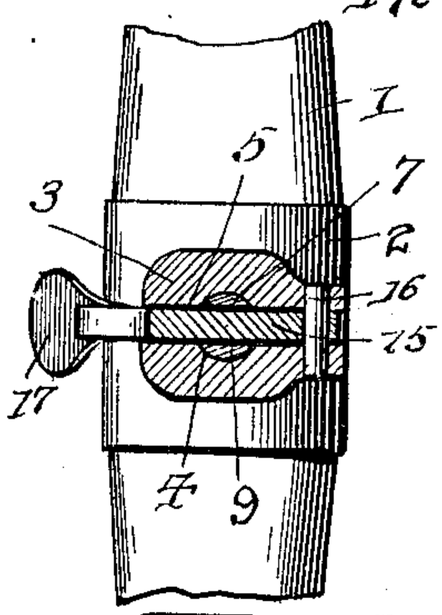


Fig. 3.

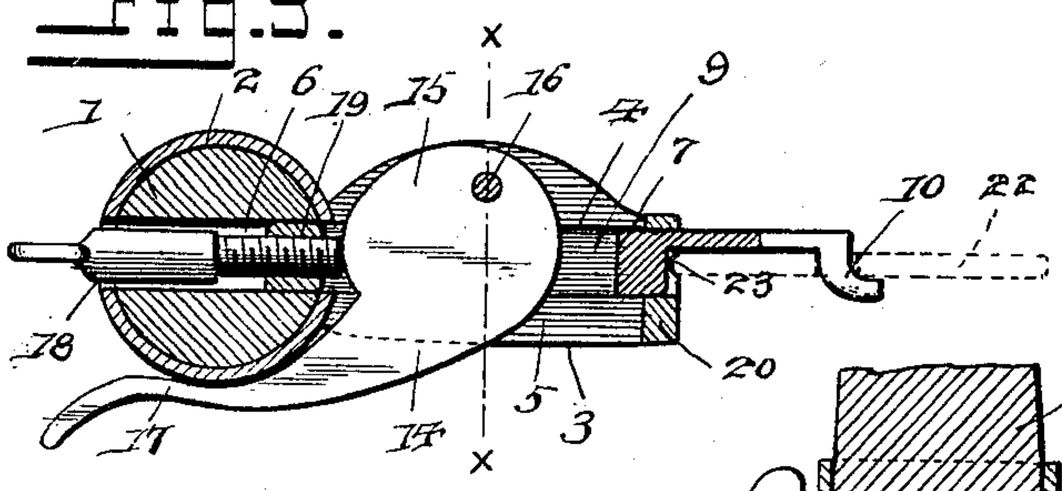
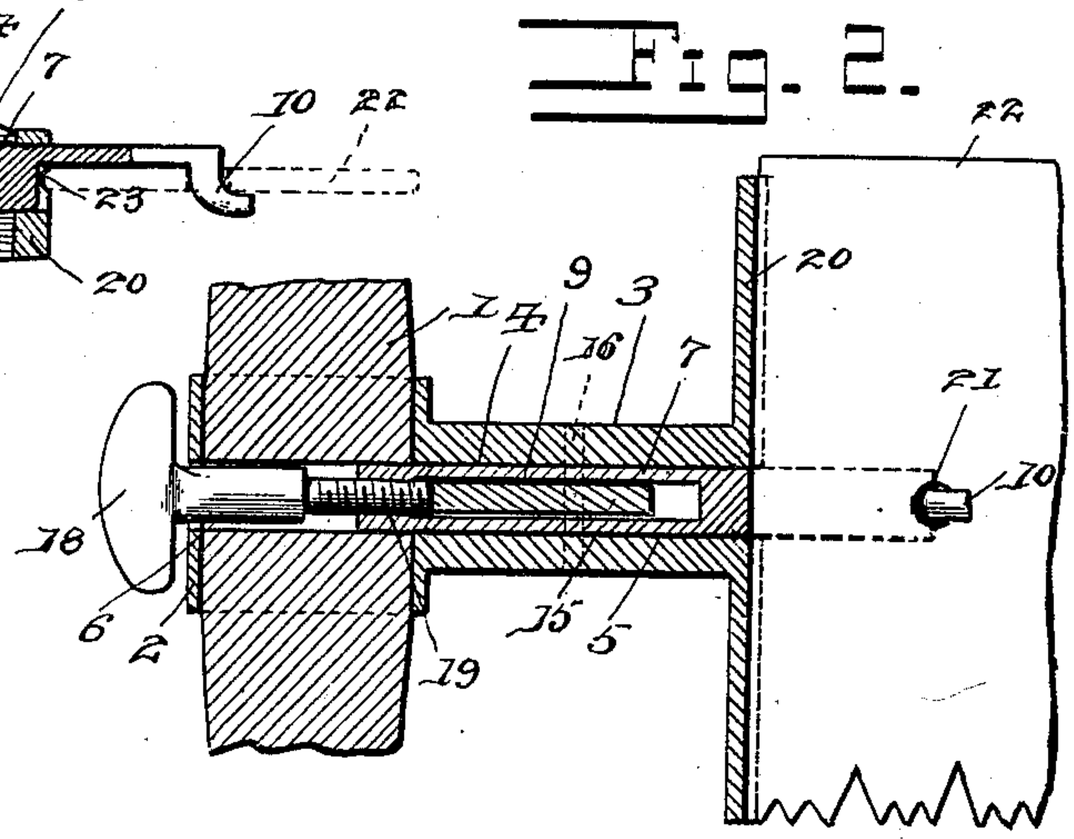


Fig. 2.



Witnesses
F. E. Alden.
C. E. Shepard.

George R. L. Stimers, Inventor
By Its Attorneys,
Cushman & Co.

UNITED STATES PATENT OFFICE.

GEORGE REDICK LAWSON STIMERS, OF LOYALTON, CALIFORNIA.

DETACHABLE SAW-HANDLE.

SPECIFICATION forming part of Letters Patent No. 658,130, dated September 18, 1900.

Application filed February 23, 1900. Serial No. 6,239. (No model.)

To all whom it may concern:

Be it known that I, GEORGE REDICK LAWSON STIMERS, a citizen of the United States, residing at Loyalton, in the county of Sierra and State of California, have invented a new and useful Detachable Saw-Handle, of which the following is a specification.

This invention relates to handles for crosscut-saws, and has for its object to provide improved means for detachably securing the handle to the saw, so that the former may be conveniently applied to saw-blades of different sizes. It is furthermore designed to secure a tight connection between the parts, so that the handle may not work loose, and also to lock the conection against accidental release, while at the same time permitting of the convenient detachment of the handle whenever desired.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a saw-handle constructed in accordance with the present invention. Fig. 2 is a longitudinal sectional view thereof. Fig. 3 is a transverse sectional view taken at right angles to Fig. 2. Fig. 4 is a transverse sectional view taken on the line $x\,x$ of Fig. 3.

Corresponding parts in the several figures of the drawings are designated by like characters of reference.

Referring to the drawings, 1 designates the handle or hand-grasp proper, which is preferably formed of wood in the usual shape and of a size to suit the saw-blade to which it may be connected. Embracing the handle at a point midway of its opposite ends is a sleeve or collar 2, having a flat laterally-projecting shank or stem 3, that is provided with a longitudinal bore 4, extending throughout the entire length of the stem and opening at opposite ends thereof. Intersecting the bore longitudinally is a slot 5, which terminates adjacent to the opposite ends of the stem and opens throughout its entire length at the opposite longitudinal edges of the stem. The handle is provided with a slot or perforation 6, which is alined with the inner end of the bore, so that the latter extends through the stem and the handle.

Housed within the bore of the stem and slidable longitudinally thereof is a saw-engaging bolt 7, which is provided with a longitudinal slot 9, that terminates short of the opposite ends of the bolt and opens at opposite longitudinal sides thereof, so as to communicate with the slot 4 in the stem. The outer end of the bolt forms the saw-engaging head thereof and is provided at its outer end with a laterally-disposed hook-shaped lug 10 for engagement with the saw-blade. The shank portion of this head is flat and much thinner than the bolt proper and is offset laterally upon the same side of the shank as is the hook-shaped lug.

By reference to Figs. 2 and 3 of the drawings it will be seen that the bolt is operated by means of a cam-lever 14, the head 15 of which is received within the combined slots of the bolt and the stem and is eccentrically pivoted to the latter by means of a suitable pivot-pin 16. The finger portion 17 of the cam-lever extends outwardly through one side of the combined slots, so as to be in convenient position for operation, and is bowed so as to fit transversely against the handle, as indicated in Fig. 3, when the connection is locked. It will now be apparent that the cam-head is designed to engage alternately against the opposite end walls of the bolt to slide the latter longitudinally of the stem.

To lock the cam-lever and the bolt against accidental movement there is provided a set-screw 18, which is loosely received through the outer end of the perforation in the handle and engages the screw-threaded opening 19, which is formed longitudinally in the rear end of the bolt and communicates with the slot therein, so that the inner end of the set-screw may bind against the cam-head, as best shown in Fig. 3, thereby to prevent operation of the cam-lever and likewise the bolt. In the application of the device the set-screw is loosened so that the cam-lever may be thrown forward, so as to extend the saw-engaging head

of the bolt to its limit beyond the transverse head or plate 20, which is formed integral with the outer end of the stem and is disposed at substantially right angles to the slot therein. The hook-shaped lug 10 is then engaged through an opening 21, formed in the saw-blade 22, and the adjacent end edge thereof is received within the longitudinal groove 23, formed in the outer face of the head or plate 20, after which the cam-lever is operated to draw the bolt within the stem, thereby forcing the saw-blade firmly against the head-plate 20. It will now be seen that the saw-engaging head of the bolt is flattened and offset laterally, so as to rest flush against one side of the saw-blade and permit the latter to be disposed centrally with respect to the handle and the connecting parts thereof. After the cam-lever has been forced against the handle the set-screw is operated to bind against the cam-head, whereby the connection is locked, and the handle is connected to the saw-blade in a manner to prevent the former from working loose.

From the foregoing description it will be apparent that the present invention provides a simple and durable means for connecting a handle to a saw-blade and also facilitates the application and removal thereof. Moreover, it provides simple and efficient means for locking the connection against working loose during the operation of the saw.

What I claim is—

1. A detachable saw-handle, having a longitudinally-slotted stem or shank, a longitudinally-slotted saw-engaging bolt slidable within the stem or shank, and a cam-lever mounted upon the stem or shank, and received within the combined slots of the stem and bolt, to alternately engage the opposite end walls of the slot in the bolt.

2. A detachable saw-handle, having a stem or shank, a saw-engaging bolt slidable upon the stem, a cam-lever mounted upon the stem and in operative relation to the bolt, and a set-screw carried by the handle and arranged to bind against the cam-lever to lock the latter.

3. A detachable saw-handle, having a stem or shank, a longitudinally-slotted saw-engaging bolt mounted upon the stem, and provided with a longitudinal opening communicating with the slot, a cam-lever mounted upon the stem and operating within the slot of the bolt, and a set-screw carried by the handle and extending through the opening in the bolt and into the slot thereof, to bind against the lever.

4. The combination with a saw-handle, of a lateral longitudinally-slotted stem or shank, having a longitudinal bore intersecting the slot, a transverse plate or head at the outer end of the stem, a longitudinally-slotted saw-engaging bolt slidable in the bore of the stem and projecting beyond the outer end thereof, a cam-lever received within the combined slots of the bolt and the stem and mounted upon the latter, and a set-screw extending through an opening in the handle, and engaging a screw-threaded opening in the bolt, which opening communicates with the slot in the bolt, and said set-screw being adapted to engage the cam-lever to lock the latter.

5. The combination with a saw-handle, having an opening or perforation formed therethrough, of a stem or shank, having a longitudinal bore opening at opposite ends of the stem and communicating with the opening in the handle, and a longitudinal slot intersecting the bore and terminating short of the opposite ends of the stem, a longitudinally-sliding saw-engaging bolt mounted within the bore of the stem and having a longitudinal slot, which terminates short of the opposite ends of the bolt and also communicates with the slot in the stem, and a screw-threaded opening communicating with the rear end of the slot in the bolt, a cam-lever received within the combined slots of the bolt and the stem and mounted upon the latter, and a set-screw loosely slidable through the opening in the handle and engaging the screw-threaded opening in the bolt, to bind against the cam-lever.

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

GEORGE REDICK LAWSON STIMERS.

Witnesses:
THOS. A. BATTELLE,
SAMUEL B. PARISH.