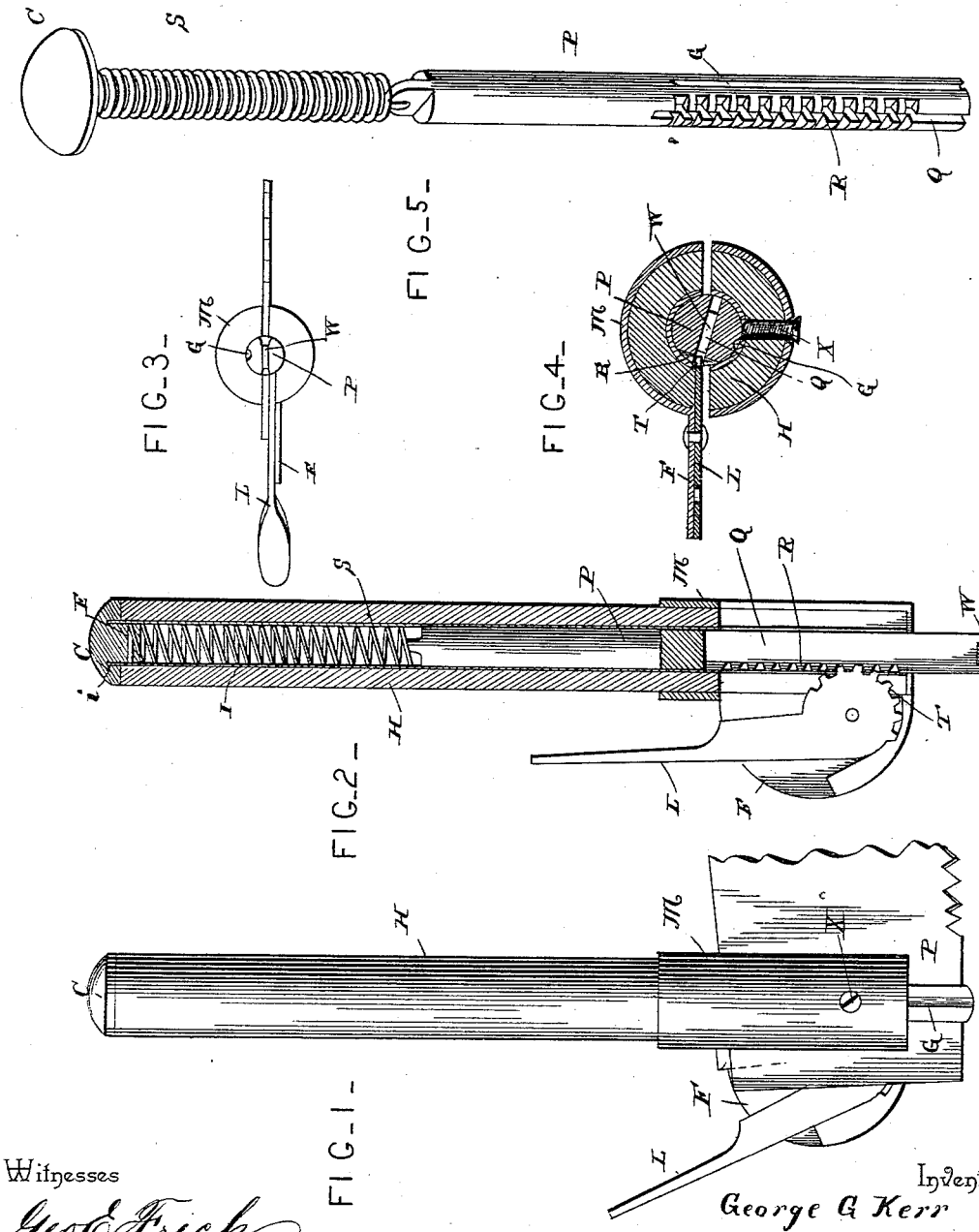
(No Model.)

G. G. KERR.

SAW HANDLE.

No. 458,292. Patented Aug. 25, 1891.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE G. KERR, OF PORTLAND MILLS, PENNSYLVANIA.

SAW-HANDLE.

SPECIFICATION forming part of Letters Patent No. 458,292, dated August 25, 1891.

Application filed March 21, 1891. Serial No. 385,848. (No model.)

To all whom it may concern:

Be it known that I, GEORGE G. KERR, a citizen of the United States, residing at Portland Mills, in the county of Elk and State of Pennsylvania, have invented a new and useful Saw-Handle, of which the following is a specification.

This invention relates to wood-working tools, and more especially to saw-handles; and the object of the same is to effect certain improvements in devices of this character.

To this end the invention consists of the specific details of construction hereinafter more fully described and claimed, and as illustrated on the accompanying sheet of drawings, wherein—

Figure 1 is a side elevation of my improved saw-handle as applied to the end of an ordinary log-saw. Fig. 2 is a central longitudinal section of the handle with the saw removed, showing the operating-lever in elevation. Fig. 3 is an end view of the handle seen in Fig. 1. Fig. 4 is a cross-section through the center of the pivot of the lever, the saw-blade being removed and the plunger being turned so as to disengage the teeth of the lever. Fig. 5 is a perspective detail of the plunger, the spring, and the cap removed.

Referring to the said drawings, the letter H designates a handle, preferably of wood and of tubular shape, and M is a metallic sheath surrounding this handle, at its lower end in the present case, although it will be understood that, if desired, the sheath may extend throughout the length of the handle. However, I prefer that the handle shall be of wood where the operator's hand comes in contact therewith for obvious reasons. Within the handle is very tightly fitted an inner tube I, which extends slightly above the upper end of the handle, as best seen in Fig. 2, and C is a cap having a circular groove in its lower face fitting upon the upper end *i* of said inner tube I and also resting upon the upper end of the handle H. The sheath, handle, and inner tube are transversely slotted for some distance from their lower ends upwardly, and adjacent this slot the sheath is provided with a projecting lip or flange F, to which is pivoted a lever L, having a toothed face T, struck on a circle around the pivot, this face extending through the slots in the sheath, handle, and tube and slightly into the central bore of the latter.

The letter P designates a plunger, which is preferably of metal and cylindrical in shape and of a size to fit closely, but loosely, within said inner tube, and this plunger has a long slot Q in its body, which, however, is closed at its lower end by a web W somewhat smaller in width than the diameter of the plunger, as best seen in Fig. 2. On one side of the plunger and at either side of said slot are teeth R, forming a rack-bar in the plunger, which teeth are of a size adapted to mesh with those in the lever above referred to. Quartering to the direction of this slot Q through the plunger, the latter is provided with a longitudinal groove, which is adapted to be engaged by the reduced tip of a screw X, that passes through the sheath, handle, and inner tube, and when so engaged the slot Q is in alignment with that through these three members and the teeth T and R are in engagement. Connected to the upper end of the plunger is a strong coiled spring S, which fits within the inner tube I and whose upper end is in turn connected with an ear E on the under side of said cap C.

With the above construction of parts the inner tube is prevented by its close fit from moving within the handle, and the sheath fits tightly upon the exterior of the handle and extends beneath the end of the same, as seen in Figs. 2 and 3, whereby it is also prevented from displacement. The plunger is let down into the tube from the upper end thereof until the cap C rests upon said upper end in the manner above described. A suitable tool is then inserted into the hole in the lower end of the sheath and engaged with the web W, after which it is twisted slightly, so that the plunger shall pass over and not engage the teeth T, and when the plunger has been drawn against the tension of the spring S to such point that the lower end of the slot Q is distant from the upper end of the slot in the sheath slightly less than the width of the saw-blade the plunger is turned to the right, so that the teeth R will engage the teeth T of the lever L and the two slots will be in alignment. The lever is then pressed toward the handle, whereby the plunger is still further drawn downwardly and the slot made

long enough to admit the saw-blade. The latter is put through the slot alongside the lever L and pressure on the latter is removed, and the spring S draws the web W very tightly against the edge of the saw-blade and holds the latter in place. The screw X is then inserted with its tip engaging the groove G, so that, even when the blade is temporarily removed, the plunger cannot turn to disengage the teeth T and R. It can be so turned, however, by removing the screw X; but this becomes desirable only when saw-blades of greater or less width are to be secured in the handle. This is effected by engaging a suitable tool with the plunger, turning it so that its slot Q will pass loosely over the teeth T, adjusting it longitudinally to the proper width of the saw-blade, and then re-turning it to re-engage the teeth T and R.

The device is susceptible of considerable modification without departing from the spirit of my invention, all of which I claim the right to make.

What is claimed as new is—

1. In a saw-handle, the combination, with a tubular handle and a metallic sheath at the lower end thereof, said handle and sheath having a transverse slot opening from their lower ends upwardly, of a cap at the upper end of said handle, a contractile spring connected thereto, a plunger within the handle connected at its upper end to said spring and having a long slot in its body with a web across its lower end, and the saw-blade removably inserted through said registering slots, substantially as described.

2. In a saw-handle, the combination, with a tubular handle, a metallic sheath at the lower end thereof, said handle and sheath having a transverse slot opening from their lower ends upwardly, a flange on said sheath adjacent one side of the slot, a lever pivoted to said flange and having a curved head projecting into the bore of the handle, and teeth on said head, of a contractile spring within and connected to the upper end of the handle, a plunger also within the handle connected at its upper end to said spring and having a long slot in its body with a narrow web across its lower end, teeth along one side of said slot adapted to engage those on the head of the lever, and the saw-blade removably inserted through the registering slots, substantially as described.

3. In a saw-handle, the combination, with a tubular handle, a metallic sheath at the lower end thereof, said handle and sheath having a transverse slot opening from their lower ends upwardly, a flange on said sheath adjacent one side of the slot, a lever pivoted to said flange and having a curved head projecting into the bore of the handle, and teeth on said head, of a cap at the upper end of the handle, a contractile spring connected thereto, a plunger within the handle connected at its upper end to said spring, having a long slot in its body with a narrow web across its lower end, and also having a longitudinal groove in one side, teeth along one side of said slot adapted to engage those on the head of the lever, the saw-blade removably inserted through the registering slots, and a screw through the sheath and handle, its tip engaging said groove when the blade is in place, substantially as described.

4. In a saw-handle, the combination, with a tubular handle, a metallic sheath at the lower end thereof, said handle and sheath having a transverse slot opening from their lower ends upwardly, a flange on said sheath adjacent one side of the slot, and a lever pivoted to said flange and having one end projecting into the bore of the handle, of a plunger within the handle having a long slot in its body and teeth along one side of the slot adapted to be engaged by the inner end of the lever when the plunger is turned axially, the saw-blade removably inserted in said registering slots, a narrow web across the lower end of the slot in the plunger, and a spring drawing the latter upwardly into the handle, as and for the purpose set forth.

5. In a saw-handle, the combination, with a tubular handle, a metallic sheath at the lower end thereof, said handle and sheath having a transverse slot, a flange on said sheath adjacent the slot, a lever pivoted thereto and having a curved head, and teeth on said head, of a plunger within said handle, said plunger having a long slot in its body with a web across its lower end, the saw-blade removably inserted in said slot, and teeth on the plunger engaging those on the head, as and for the purpose hereinbefore set forth.

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

GEORGE G. KERR.

Witnesses:
J. W. HEALY,
L. REINSBURROW.