C. M. MINTON.

SAW HANDLE.

APPLICATION FILED JUNE 9, 1909.

952,923.

Patented Mar. 22, 1910.

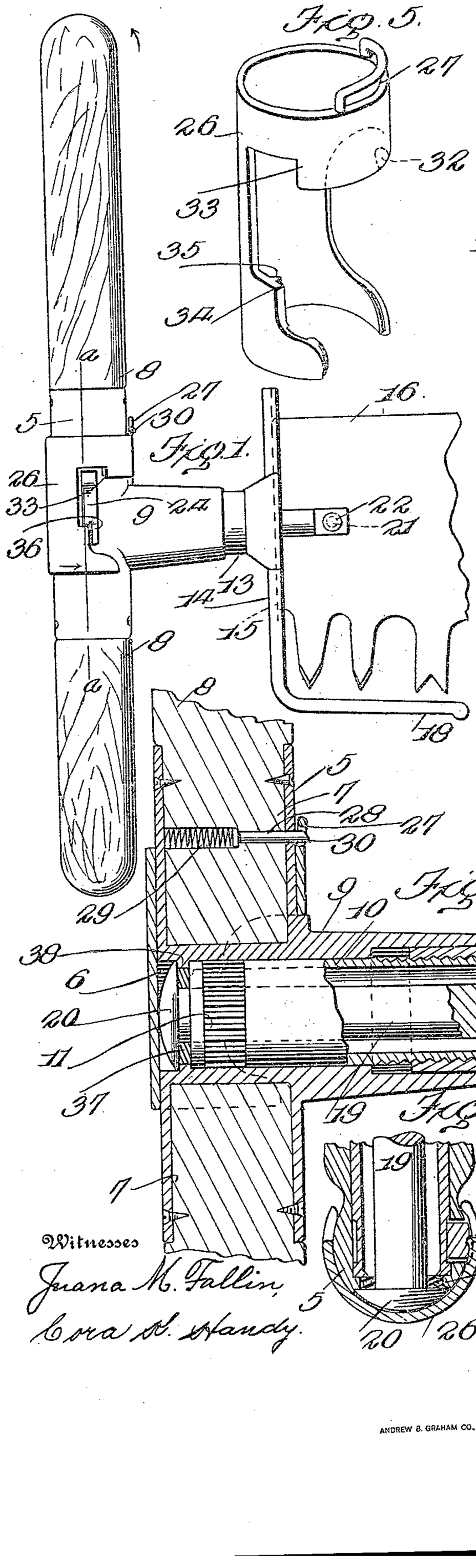

Fig. 1.

Fig. 2.

Fig. 4.

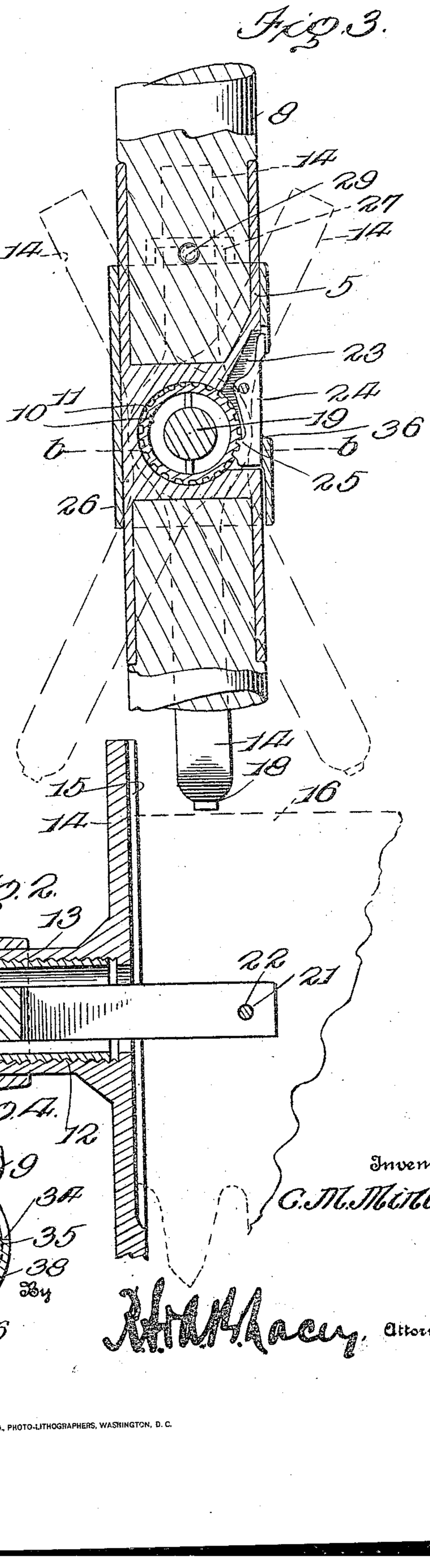

Fig. 3.

Fig. 5.

Witnesses

Juana M. Fallin,

Cora A. Handy.

Inventor

C. M. Minton

By

H. H. M. Lacey, Attorneys.

ANDREW B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES M. MINTON, OF PHILOMATH, OREGON.

SAW-HANDLE.

952,923. Specification of Letters Patent. **Patented Mar. 22, 1910.**

Application filed June 9, 1909. Serial No. 501,084.

To all whom it may concern:

Be it known that I, CHARLES M. MINTON, citizen of the United States, residing at Philomath, in the county of Benton and State of Oregon, have invented certain new and useful Improvements in Saw-Handles, of which the following is a specification.

This invention relates to saw handles, and has for its object to effect certain improvements in this class of devices whereby the handle may be readily attached to or detached from the saw.

A further object of the invention is to provide a handle capable of being adjusted at any angle or inclination with respect to the longitudinal plane of the saw, thereby to facilitate the sawing of logs and the like.

A further object is to provide a handle receiving socket having a tubular extension in which is mounted for rotation, a sleeve, one end of which is provided with ratchet teeth for coöperation with a spring pressed pawl, while the other end thereof is threaded for the reception of a saw guard, there being a clamping member or bolt extending through the sleeve for connection with the saw, so that by rotating the handle in a vertical plane the bolt will be actuated to clamp the saw in engagement with said guard.

A still further object is generally to improve this class of devices so as to increase their utility, durability, and efficiency.

Further objects and advantages will appear as the description proceeds, it being understood that various changes in form, proportions, and minor details of construction may be resorted to within the scope of the appended claims.

For a full understanding of the invention and the merits thereof, and to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which;

Figure 1 is a side elevation of a saw handle constructed in accordance with my invention; Fig. 2 is an enlarged longitudinal sectional view of the same; Fig. 3 is a vertical sectional view taken on the line *a*—*a* of Fig. 1, the different positions assumed by the saw and guard with respect to the handle being shown in dotted lines; Fig. 4 is a transverse sectional view taken on the line *b*—*b* of Fig. 3; and Fig. 5 is a perspective view of the collar detached from the handle.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings, by the same reference characters.

The device comprises a casing or housing 5 having a transverse bore 6 and provided with oppositely disposed sockets 7 for the reception of the adjacent ends of a handle 8, the latter being rigidly secured within the socket by bolts, screws, or similar fastening devices, as shown.

Extending laterally from one side of the casing or handle receiving socket 5, and preferably formed integrally therewith is a tubular extension 9 the interior walls of which are preferably disposed in horizontal alinement with the walls of the bore 6 so as to form a continuation of the latter.

Mounted for rotation in the extension 9 is a tubular member or sleeve 10 having one end thereof extending within the bore 6 and provided with a circumferential row of ratchet teeth 11 and its opposite end threaded exteriorly at 12 for engagement with the interiorly threaded walls of a nipple 13 carried by a guard or shield 14. The guard or shield 14 is provided with a longitudinally disposed seating groove 15 for the reception of the adjacent end of the saw indicated at 16, the lower end of the guard 14 being bent laterally to produce an arm 18 adapted to form a housing for the teeth of the saw, and thus to prevent the latter from coming in contact with and cutting or otherwise lacerating the hand of the operator.

Housed within the tubular member or sleeve 10 is a clamping device, preferably in the form of a bolt 19, having its head 20 seated in the bore 6 and its reduced end bifurcated to form an intermediate slot for the reception of the saw 16, there being transversely alined openings 21 formed in the bifurcated end of the bolt 19 to permit the insertion of a fastening device or pin 22, which latter extends through a corresponding opening in the body of the saw, as shown.

The casing or socket 5 is formed with a recess 23 in which is seated a locking pawl 24, the teeth 25 of which are adapted to engage the teeth 11 of the tubular member 10 for the purpose of locking the tubular member against rotation when it is desired

to clamp the saw in position on the guard, as will be more fully explained hereinafter. The teeth 11 and 25 are of substantially rectangular cross sectional formation in order to insure a positive gripping action between the parts and thus effectually prevent their slipping.

Mounted for rotation on the casing 5 is a locking collar 26 having a guiding recess or slot 27 formed in the upper portion thereof for the reception of a spring pressed pin 28. The pin 28 is normally and yieldably held within the slot 27 of the collar by a coiled spring 29, the free or projecting end of the pin being provided with an inclined or beveled portion 30, so that when positioning the collar on the saw handle said collar will engage the inclined face 30 and thus retract the pin so as to permit the passage of the collar, the spring 29 automatically returning the pin to extended position within the slot 27 and thus locking the collar against vertical movement while at the same time permitting the collar to rotate freely on the saw handle.

Attention is here called to the fact that the inner wall of the collar 26 immediately below the slot 27 is formed with a recess or depression 32 the wall of which is inclined or beveled for engagement with the correspondingly inclined end of the pin 28, so as to permit said pin to be readily depressed when it is desired to place the collar on the saw handle. One side of the collar 26 is cut away to accommodate the tubular extension 9, there being spaced lips 33 and 34 formed on the collar at the open side thereof, and adapted to engage the adjacent ends of the pawl 24 for the purpose of depressing the pawl to engage or disengage the teeth 25 from the ratchet teeth 11. The lower locking lip 34 is preferably formed with an inwardly extending rib or projection 35 adapted to engage a shoulder 36 formed on the lower end of the locking pawl 24 so that when the lip engages the pawl the co-action between the projection 34 and the shoulder 36 will prevent accidental rotation of the collar on the saw handle. A washer 37 is preferably interposed between the head 20 of the clamping bolt 19 and the adjacent head of the tubular member 18 in order to prevent accidental turning movement of the saw blade after the handle 8 has been rotated to clamp the same in engagement with the guard 14. Thus it will be seen that by rotating the collar in the direction indicated by the arrow in Fig. 1 of the drawings the lip 34 will engage the lower end of the pawl 24 and force the teeth of said pawl into engagement with the teeth 11 of the tubular member and thus lock the latter in engagement with the casing 5. By now holding the guard 14 stationary and rotating the handle 8 in the direction of the arrow indicated in the upper portion of Fig. 1, the tubular extension 9 together with the sleeve 10 will be adjusted rearwardly thus causing the clamping member 19 to force the saw 16 within its seat 15 and effectually prevent wabbling movement of the same during the sawing operation.

In order to detach the handle it is merely necessary to rotate said handle in the opposite direction which moves the fastening device 19 in the direction of the saw 16 and thus disengages the adjacent end of the saw from the groove 15 so that by removing the pin 22 the saw blade may readily be detached.

In order to adjust the handle at any angle or inclination with respect to the longitudinal plane of the saw it is merely necessary to rotate the collar 26 until the lip 33 engages the upper end of the pawl when the lower end of the pawl will be disengaged from the teeth 11 thus permitting the handle to be rotated until the desired adjustment is effected, the handle being locked in adjusted position by again rotating the collar 26 until the lip 34 of the collar forces the active end of the pawl into engagement with the teeth 11.

It will here be noted that a shoulder 38 is formed on the wall of the bore 6 for engagement with the head 20 of the clamping member or bolt 19 thus to prevent the bolt and sleeve 10 from being withdrawn from the extension 9.

The device is simple in construction and thoroughly practical in operation and will effectually clamp the handle in different positions of adjustment with respect to the saw.

Having thus described the invention, what is claimed as new is;

1. A device of the class described, including a handle receiving socket, a saw guard having a threaded portion, a sleeve mounted for rotation in the handle receiving socket and engaging the threaded portion of the guard, means for locking the sleeve against rotation and a fastening device extending through the sleeve and adapted to clamp the saw in engagement with the guard when the handle is rotated.

2. A device of the class described including a handle receiving socket, a guard having a threaded portion, a tubular member disposed within the handle receiving socket and engaging the threaded portion of the guard, means for locking the sleeve against independent rotation, and a clamping device extending through the sleeve and engaging the saw for forcing the latter in contact with the guard when the handle is rotated in one direction and for releasing the saw when the handle is rotated in the opposite direction.

3. A device of the class described includ-

ing a casing having a tubular extension, a handle carried by the casing, a guard, a tubular member mounted for rotation in the extension and provided with means for engagement with the guard, means for locking the tubular member against independent rotation, and a clamping member extending through the tubular member and engaging the saw for clamping the latter in engagement with the guard when the handle is rotated in one direction and for releasing the saw from said guard when the handle is rotated in the opposite direction.

4. A device of the class described including a casing having a tubular extension, a handle secured to the casing, a guard having a nipple projecting within the tubular extension and provided with interior threads, a tubular member mounted for rotation in said extension and having one end thereof threaded for engagement with the threaded walls of the nipple and its other end provided with ratchet teeth, a pawl carried by the casing and engaging the ratchet teeth of the tubular member, and a clamping device extending through the tubular member and engaging the saw for clamping the latter against the guard when the handle is rotated in one direction, and for releasing the saw from engagement with said guard when the handle is rotated in the opposite direction.

5. A device of the class described including a casing having a transverse bore, a handle secured to the casing, a guard, a tubular member journaled in the bore and provided with means for engagement with the guard, a locking device carried by the casing and adapted to engage the sleeve for locking the latter against independent rotation, a clamping device extending through the sleeve and engaging the saw for forcing the latter against the guard when the handle is rotated in one direction, and a collar mounted for rotation on the casing and adapted to release the locking device from engagement with the tubular member.

6. A device of the class described, including a casing, having a transverse bore provided with a shoulder, a guard having a nipple, the exterior walls of which are threaded, a tubular member journaled in the bore and provided with threads for engagement with the threaded walls of the nipple, a bolt extending through the sleeve and having one end thereof provided with a head adapted to bear against the shoulder and its other end provided with means for engagement with the saw, means for locking the tubular member against independent rotation, said bolt being actuated to clamp the saw in engagement with the guard when the handle is rotated in one direction and to release the saw when the handle is rotated in the opposite direction.

7. A device of the class described, including a casing having a transverse bore, a handle secured to the casing, a guard having a threaded nipple, a tubular member journaled in the bore and provided with a threaded portion engaging the threads of the nipple, a bolt extending through the sleeve and provided with means for engagement with the saw, a pawl pivotally mounted on the casing and adapted to engage the sleeve for locking the latter against independent rotation, a sleeve journaled on the casing and provided with oppositely disposed lips for moving the pawl to operative and inoperative positions said bolt being actuated to clamp the saw in engagement with the guard when the handle is rotated in one direction and to release said saw when the handle is rotated in the opposite direction.

8. A device of the class described including a casing having a transverse bore and provided with a tubular extension registering with said bore, a handle carried by the casing, a guard having a threaded nipple extending within the tubular extension of the casing, a tubular member having one end thereof threaded for engagement with the threads on the nipple and its opposite end provided with ratchet teeth, a clamping device extending through the tubular member and provided with means for engagement with the saw, a pawl pivotally mounted on the casing, and a collar mounted for rotation on the casing for moving the pawl into or out of engagement with the teeth of the tubular member, said clamping device being actuated to hold the saw in engagement with the guard when the handle is rotated in one direction and to release said saw from engagement with the guard when the handle is rotated in the opposite direction.

9. A device of the class described, including a casing having a bore provided with a shoulder, a handle secured to the casing, a spring pressed pin carried by said casing, a guard having a threaded nipple, a tubular member mounted for rotation in the bore and having one end thereof provided with circumferential teeth and its other end threaded for engagement with the threads of the nipple, a bolt extending through the tubular member and having its head bearing against the shoulder and its reduced end provided with means for engagement with the saw, a collar mounted for rotation on the casing and provided with a slot for the reception of the pin, a pawl adapted to engage the teeth of the tubular member for locking the latter against independent rotation, and means carried by the collar for engaging and disengaging the pawl from

said teeth, the bolt being actuated to clamp the saw in engagement with the guard when the handle is rotated in one direction and to effect the release of the saw when the handle is rotated in the opposite direction.

10. A device of the class described, including a handle receiving socket having a transverse bore, and provided with a tubular extension registering with said bore, a guard having a threaded nipple slidably mounted within the extension, a tubular member having one end thereof provided with circumferential teeth and its opposite end threaded for engagement with the threads of the nipple, there being a shoulder formed on the walls of the bore, a clamping bolt having its head adapted to bear against the shoulder and its reduced end bifurcated to receive a saw, a pin extending through the bifurcated end of the bolt and engaging the saw, a pawl pivotally mounted on the socket for engagement with the teeth of the tubular member, one end of said pawl being provided with a shoulder, and a collar slidably mounted on the socket and provided with oppositely disposed lips adapted to engage the pawl for moving said pawl into and out of engagement with the teeth, one of said lips being provided with an inward projection adapted to engage the shoulder in the pawl.

11. A device of the class described including a casing having a bore, a handle carried by the casing, a guard, a tubular member journaled in the bore and provided with means for engagement with the guard, means for locking the sleeve against independent rotation, and a clamping device extending through the sleeve and engaging the saw for forcing the latter against the guard when the handle is turned in one direction and for releasing the saw when the handle is turned in the opposite direction.

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

CHARLES M. MINTON. [L. S.]

Witnesses:

B. R. WATSON,

C. A. RAINWATER.