

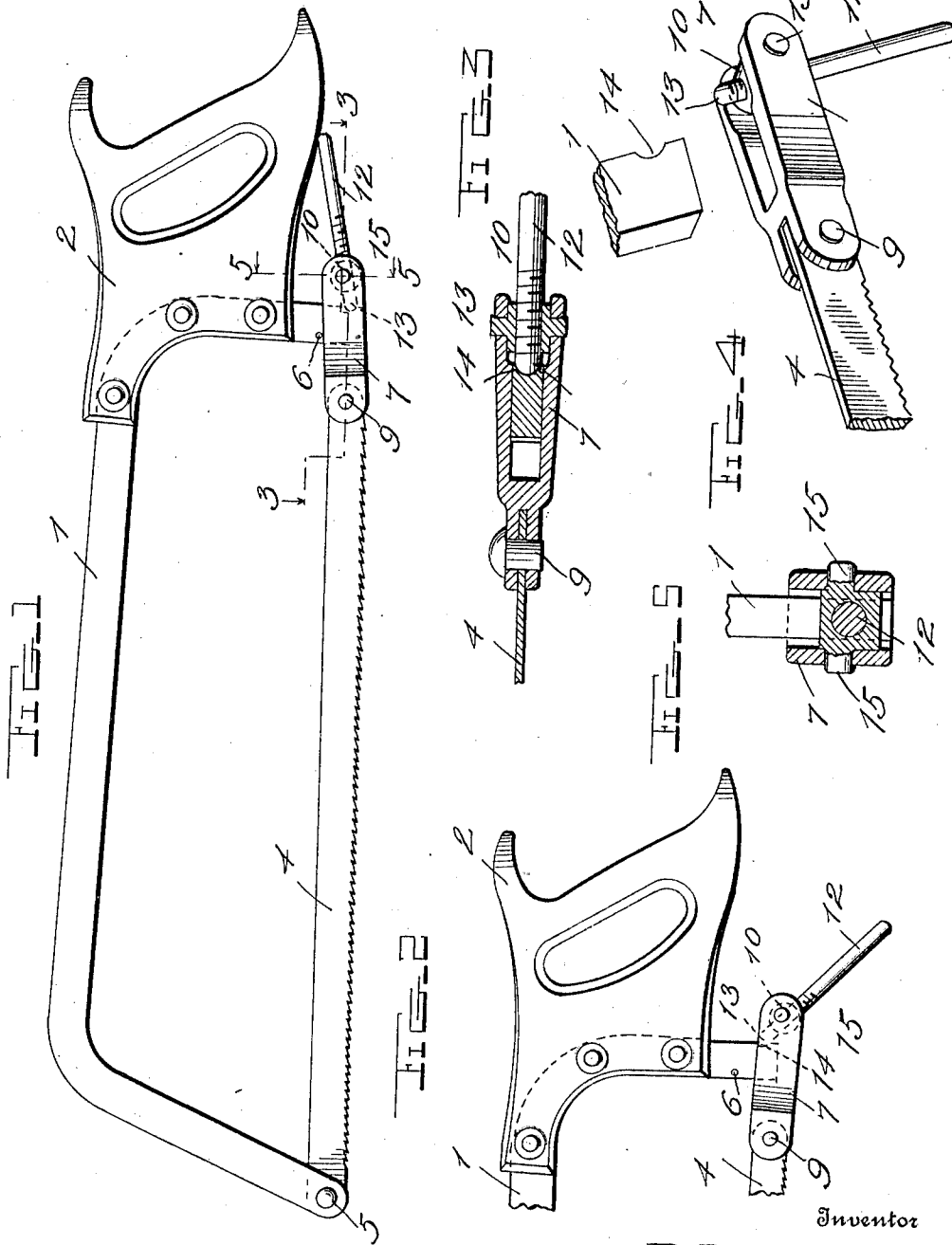
F. RODEHAVER.

SAW.

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Witnesses
A. Van Loock.
C. E. Hunt.

Inventor
F. Rodehaver

By *H. B. Wilson*
Attorney

UNITED STATES PATENT OFFICE.

FREEMAN RODEHAVER, OF GREENSBURG, PENNSYLVANIA.

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To all whom it may concern:

Be it known that I, FREEMAN RODEHAVER, a citizen of the United States, residing at Greensburg, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Saws; and I do 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 improvements in saws and particularly to hack saws or butchers' saws having removable blades.

One object of the invention is to provide a saw of this character having an improved construction and arrangement of blade fastening mechanism whereby the blade may be readily removed and a new blade inserted and which may be adjusted to maintain the blade at the proper tension.

With these and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings; Figure 1 is a side view of my improved saw; Fig. 2 is a similar view of the handle end of the saw showing the blade fastening mechanism released and illustrating the manner in which the same is operated to fasten and stretch the blades; Fig. 3 is a horizontal sectional view taken on the line 3—3 of Fig. 1; Fig. 4 is a detail perspective view of the inner end of the blade and the fastening mechanism thereof; Fig. 5 is a detail vertical sectional view of the inner end of the blade fastening mechanism taken on the line 5—5 of Fig. 1.

Referring more particularly to the drawings, 1 denotes the blade supporting frame and 2 denotes the handle which is secured to the inner end of the frame 1 in the usual or any suitable manner. The frame 1 may be of the usual shape employed in connection with saws of this character or may be of any suitable shape, the same being shown in the present instance as having its downwardly extending outer end bifurcated or notched as at 3 to receive the outer end of the saw blade 4 which is pivotally secured therein by a headed pin or stud 5. The downwardly extending inner end of the frame 1 projects a suitable distance below the handle to receive the fastening mechanism for the blade as hereinafter described.

In the downwardly projecting rear end of the handle frame a suitable distance below the handle is arranged a transversely disposed stop pin 6, the ends of which project a suitable distance beyond the opposite sides of this end of the frame as shown.

The blade fastening mechanism herein referred to comprises a bail or yoke shaped member 7 having on its inner end blade attaching lugs 8 between which is engaged the inner end of the blade and to which, said end is secured by a headed pin or stud 9. The rear ends of the side plates of the bail or yoke shaped member 7 are recessed on their inner sides and said plates preferably flare outwardly or diverge toward their rear ends as shown. Eccentrically mounted between the recessed rear ends of the side plates of the member 7 is a cylindrical nut or screw receiving block 10 having arranged transversely through the center thereof a threaded screw hole 11 with which is engaged the threaded inner end of an adjusting screw 12 having the extremity of its inner end reduced and rounded to form a bearing stud 13 which is adapted to be engaged with a curved notch or recess 14 in the rear edge of the inner end of the frame with which the member 7 is engaged. The outer end of the screw 12 is extended to form a lever by means of which the blade is stretched when the stud 13 is engaged with the notch 14 and the lever swung upwardly or inwardly against the handle 2 as clearly shown in Fig. 1 of the drawings. The nut 10 is pivotally secured between the rear ends of the side plates of the member 7 by bearing studs 15 which are arranged eccentrically on the opposite ends of the nut. It will be noted that the studs 15 are arranged on the nut in such manner that when the lever end of the screw 12 is in an operative position the point where the screw engages the nut will be below the pivotal connection of the latter with the side plates of the member 7 while the inner end of the lever will be considerably above the pivotal connection of the nut with the member 7 thereby forming a lock which cannot be released without springing the lever outwardly or downwardly against the resistance or spring action of the outer end of the saw supporting frame which end is sprung inwardly to a greater or less extent when the bearing stud 13 on the inner end of the

screw is engaged with the notch 14 in the inner end of the handle and the inner end of the screw forced upwardly or inwardly against the handle as hereinbefore described. The member 7 when engaged with the rear end of the saw supporting frame is limited in its inward movement and held in position while the lever end of the screw 12 is operated to stretch the blade through the cam action of the stud 13, and its engagement with the notch 14, by the stop pin 6 as shown.

By constructing and arranging the blade fastening and stretching mechanism as herein shown and described it will be seen that in order to fasten the inner end of the blade and to simultaneously stretch or impart the proper tension thereto it is simply necessary to engage the bail shaped member 7 with the projecting inner end of the frame 1 and to engage the studs 13 on the screw 12 with the notch 14 in said end of the frame and force the lever end of the screw upwardly into engagement with the inner edge of the handle. It will be understood that the screw 12 has been previously adjusted to project the inner end thereof a sufficient distance beyond the nut to provide the necessary cam action for stretching the blade. In order to release the blade it is simply necessary to swing the lever end of the screw outwardly past the point of engagement of the inner end or stud 13 thereof with the notch 14 in the end of the handle frame whereupon the bail shaped fastening member 7 will slip off the rear end of the handle frame, thus releasing the blade and permitting the studs which fasten the same to the handle frame to be readily removed and the blade taken out and a new blade inserted to take the place of the one removed.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

Having thus described my invention, what I claim is;

1. In a saw of the character described, a supporting frame having on one end a handle, said handle end of the frame projecting downwardly below the lower edge of the handle and formed with a transverse notch, a saw blade having its outer end pivotally secured to the forward end of said saw frame, a yoke-shaped fastening and stretching member pivotally and detachably secured to the inner end of said blade and adapted to be swung into engagement with the downwardly projecting rear end of the frame, said yoke shaped member having on

the inner surfaces of its outer end portions oppositely disposed recesses and transversely aligned pivot openings, a nut having on the opposite sides thereof integrally-formed, outwardly projecting and eccentrically arranged pivot studs to rotate in said pivot openings whereby the nut will be eccentrically pivoted in said recessed portions of the yoke, a blade stretching and fastening screw arranged in said nut and formed on its inner end with a bearing stud to engage the notch on the rear end of the frame, the outer end of the screw forming a lever whereby the screw may be adjusted in the nut and also swung on the pivot studs of the latter.

2. In a saw of the character described, a blade supporting frame having on one end a handle, said handle end of the frame projecting downwardly below the lower edge of the handle, a blade pivotally secured at its outer end to the forward end of the handle, a bail shaped blade fastening and stretching member pivotally secured to the inner end of the blade and adapted to be engaged with the inner end of the blade supporting frame, a nut eccentrically pivoted between the rear ends of the bail shaped blade fastening member, a screw having a threaded engagement with said nut eccentric to the pivotal connection thereof with the blade fastening member, said screw having on its inner end a bearing stud adapted to be engaged with the adjacent end of the saw frame, and a lever formed on the outer end of the screw and adapted to be forced inwardly whereby the stud on the inner end of the screw is brought into operative engagement with the inner end of the frame, and the saw thereby stretched and fastened at its inner end to the frame.

3. In a saw of the character described, a blade supporting frame having on its inner end a handle, said inner end of the frame projecting downwardly below the handle and having therein a notch, a stop pin arranged in said projecting end of the handle frame, a saw pivotally connected at its outer end to the outer end of said frame, a bail shaped fastening and stretching member pivotally and detachably secured to the inner end of the saw blade and adapted to be swung into engagement with the projecting rear end of the blade supporting frame and into engagement with the projecting ends of the stop pin arranged therein, a nut arranged between the rear ends of said bail shaped attaching members and having on its ends eccentrically disposed bearing studs adapted to pivotally engage the rear ends of the bail shaped member, a blade stretching and fastening screw having an eccentric threaded engagement with said nut, a bearing stud on the inner end of said screw to engage the notch in the

rear edge of the blade stretching frame, and
a lever on the outer end of said screw where-
by the latter is adjusted and operated to
bring the stud on the inner end of the screw
5 into operative engagement with the notch in
the end of the saw supporting frame where-
by the saw is stretched and locked in a
stretched or operative position.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit- 10
nesses.

FREEMAN RODEHAVER.

Witnesses:

H. A. SHUTT,
E. E. VAN DYKE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents
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