

(No Model.)

P. WOODRING.
BUCK SAW.

No. 482,606.

Patented Sept. 13, 1892.

Fig. 1

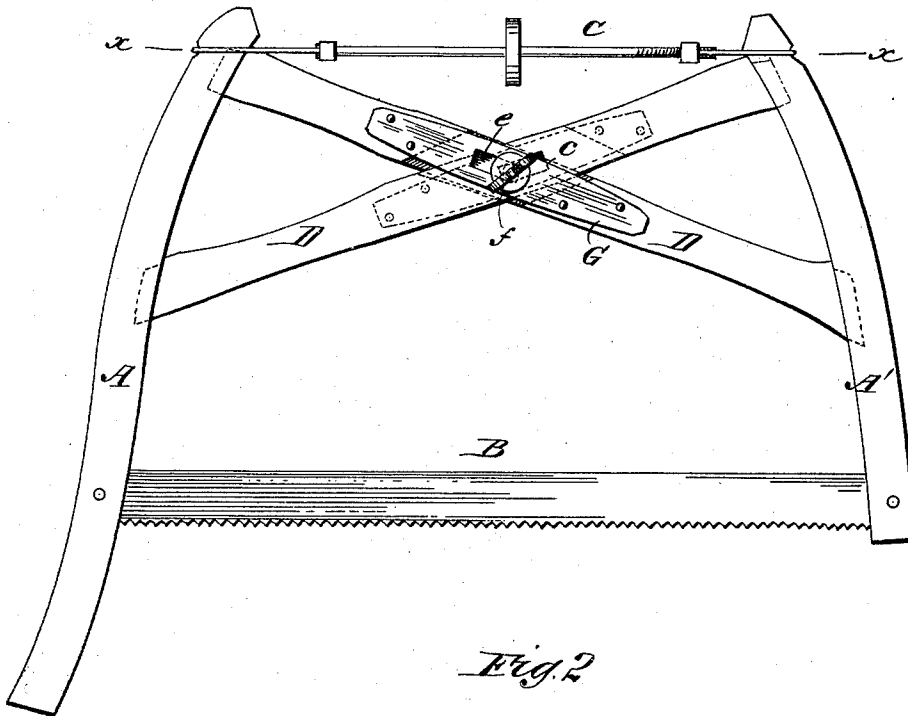


Fig. 2

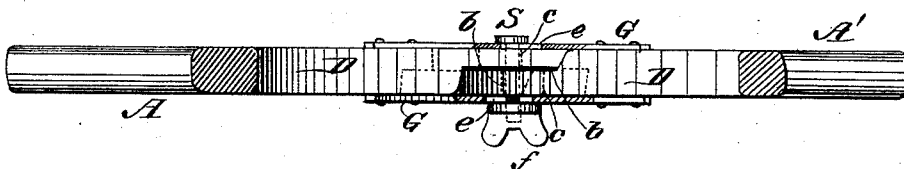
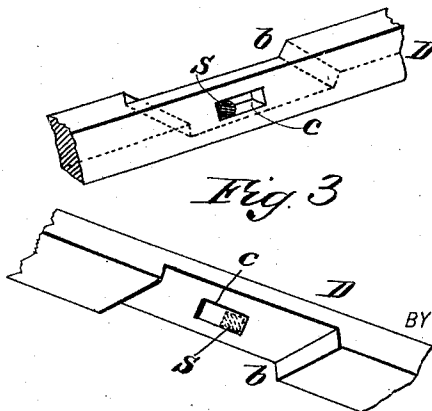


Fig. 3



WITNESSES:

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INVENTOR:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

PETER WOODRING, OF KANSAS CITY, MISSOURI, ASSIGNOR TO HIMSELF AND
JAMES M. GROSS, OF SAME PLACE.

BUCKSAW.

SPECIFICATION forming part of Letters Patent No. 482,606, dated September 13, 1892.

Application filed January 25, 1890. Renewed March 8, 1892. Serial No. 424,165. (No model.)

To all whom it may concern:

Be it known that I, PETER WOODRING, of Kansas City, in the county of Jackson and State of Missouri, have invented a new and
5 useful Improvement in Bucksaws, of which the following is a full, clear, and exact description.

This invention more immediately relates to the frames of bucksaws in which braces crossing each other diagonally between the handle
10 and bow or forward end of the saw are used in connection with the adjustable stretcher at the upper part of the frame and saw-blade at the lower end thereof. These diagonal braces
15 have mainly been used to stiffen and support the frame or end bars thereof, and by their loose, slotted, or pivoted fit where they cross each other to provide for straining or relaxing the saw by the adjustable stretcher.

20 My invention consists in a novel construction and combination of parts in a bucksaw-frame of this description, substantially as hereinafter described, and pointed out in the claims, whereby, while every facility is afforded for adjustment, a more rigid support
25 is given to the frame and the same is prevented from getting out of shape or becoming racked, strain is largely removed from the stretcher while using the saw, and the saw is
30 effectually held at its strain or stretch.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

35 Figure 1 represents a side view of a bucksaw embodying my invention; Fig. 2, a longitudinal section of the same mainly upon the line *x x* in Fig. 1, and Fig. 3 a view in perspective of the diagonal braces in part with
40 clamping thumb-screw in section.

A and A' indicate the usual side or end pieces of the frame, A being the handle-piece and A' the bow or front piece. B is the saw-blade, secured at its opposite ends to said
45 side or end pieces A A' in the usual or any suitable manner.

C is the adjustable screw-threaded stretcher connecting the upper ends of the pieces A A' for putting tension on or straining the saw-
50 blade. This stretcher may be of the ordinary or any approved construction.

D D are the diagonal braces arranged to cross each other in the center of the length of the bucksaw and having a tenon fit at their ends in the back and front pieces A A'. These
55 diagonal cross-braces are cut away or reduced one-half of their thickness in their middle on adjacent sides where they cross each other, such reductions *b b* being somewhat greater
60 in length than is necessary to receive the crossing brace within them. Furthermore, said braces D D have longitudinal slots *c c* made in their crossing central portions for the purpose of receiving a clamping set or
65 thumb screw-bolt S through them, and also, preferably, but not necessarily, through plates G G, riveted one to each brace D upon the sides of the braces which have the reductions *b* in them. These plates are also each
70 provided with a slot *e*, parallel with the length of the brace, to which the plate is secured and crossing the slot *c* in the adjacent brace. The shank of the clamping screw-bolt S passes
75 through these several slots *c c* and *e e*, and is made square or angular where it projects through the one slot *c* and adjacent slot *e* to engage therewith, but round or loose where
80 it passes through the other slots *c* and *e*, to prevent said bolt from turning when tightening up or slackening it by the turning of the thumb-nut *f* upon the one end of said bolt. The plates G G serve as covers to the reductions *b b* to keep the interlocking braces D D
85 in place where they cross each other, and constitute a useful adjunct to the clamping-bolt S, as well as to strengthen the braces, and do not materially add to the thickness of the combined braces, each of which being cut
90 away half of its thickness where the two braces interlock with and cross each other lies in one and the same plane. The plates G G in a measure constitute washers for the clamping-bolt, and ordinary washers might be substituted for them. The clamping screw-bolt
95 S is not a mere pivot or pin passing through the crossing-braces D D, but constitutes a fastening or adjustable tightening-up device for holding said braces together when or
100 after tension has been put upon the saw-blade B by the stretcher C, and serves to relieve said stretcher, to a great extent at least, of strain when the saw is in use. My im-

5 improvement accordingly gives a direct tension
 to the saw with no reaction on the stretcher.
 The braces where they are mortised in the
 end pieces can be placed at only such a dis-
 10 tance from the saw proper as to give great
 strength and a good lever-power to the ten-
 sion. The braces will not spring outward and
 the whole frame will keep its shape, and the
 frame will be less liable to fall apart when
 15 the saw-blade is removed. A wide spread is
 obtained at the saw end by a limited number
 of turns of the stretcher, and the frame will
 never spring enough to cause the stretcher to
 be shortened. When the clamping-bolt S is
 20 loosened, said bolt can be slid or the braces
 be moved in a proper direction for adjust-
 ment without binding or friction, and when
 the thumb or clamping screw is set the diag-
 onal braces cannot get out of shape or spring
 25 apart or bend out either way, the connection
 then virtually being a rigid one at the point
 of intersection of the braces. The set or
 clamping screw is accordingly a vital part of
 the invention, as by means of it the frame
 30 can never get out of shape or rack. Were it
 not for this rigid central connection as ob-
 tained by the set-screw, the tension or strain
 upon the diagonal braces would bend them out-
 ward and in time would throw the frame out
 35 of shape, and the slotted plates or washers on
 the outside of the braces also tend to make said
 screw form an effective clamp-fastening and to
 give great strength and rigidity to the frame
 after a proper tension is secured. As herein-
 40 before observed, also, the set or clamping
 screw when screwed down serves to remove
 the strain from the stretcher when the saw is

in use and causes the frame to take the strain
 upon itself to a very great extent by the bind-
 40 ing of the diagonal bars together. Thus when
 the diagonal bars are thus clamped the
 stretcher might be removed and the saw would
 still retain its tension, and the clamp being
 an adjustable one every facility is afforded
 45 for adjusting the frame to alterations in the
 tension by the stretcher and for taking out
 the saw-blade without the falling apart of the
 frame.

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

1. In a bucksaw, the combination, with the
 frame composed of the side or end pieces A
 A' and the centrally interlapping and crossing
 diagonal braces D D, having slots *c c*, of a
 55 clamping set-screw passing through said slots
 and adjustable from the exterior of the braces
 for operation in connection with an adjustable
 stretcher and the saw-blade, substantially as
 specified. 60

2. In a bucksaw, the combination of the
 plates G G, having slots *ee* in them, the di-
 agonal crossing-braces D D, having central
 reductions *b b* in their adjacent surfaces and
 slots *c c*, the clamping set-screw S, the end
 65 frame-pieces A A', and the adjustable stretcher
 C, for operation in relation with each other
 and with the saw-blade, essentially as set
 forth.

PETER WOODRING.

Witnesses:

L. T. BROWN,
 F. P. LYMAN.