

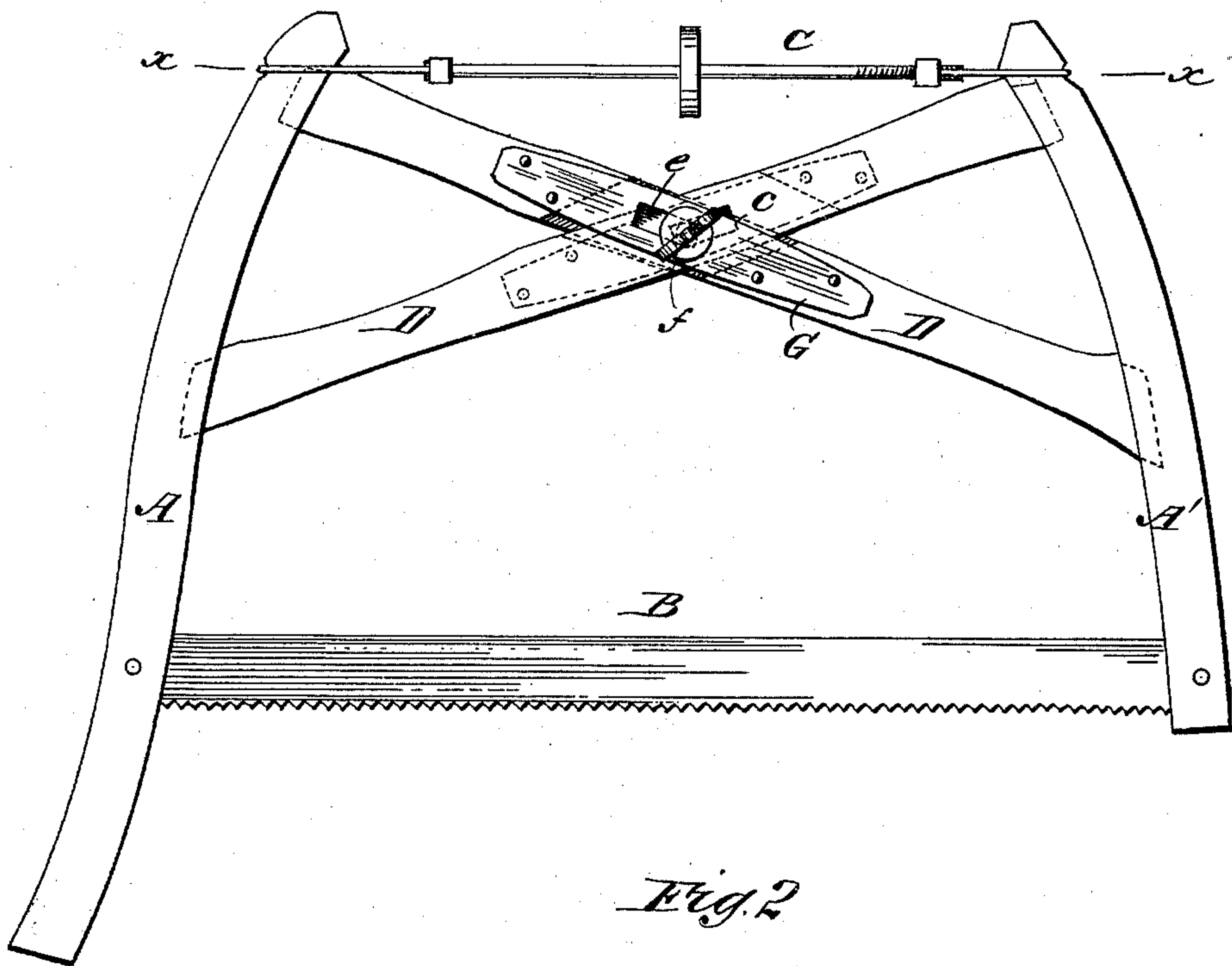
(No Model.)

P. WOODRING.  
BUCK SAW.

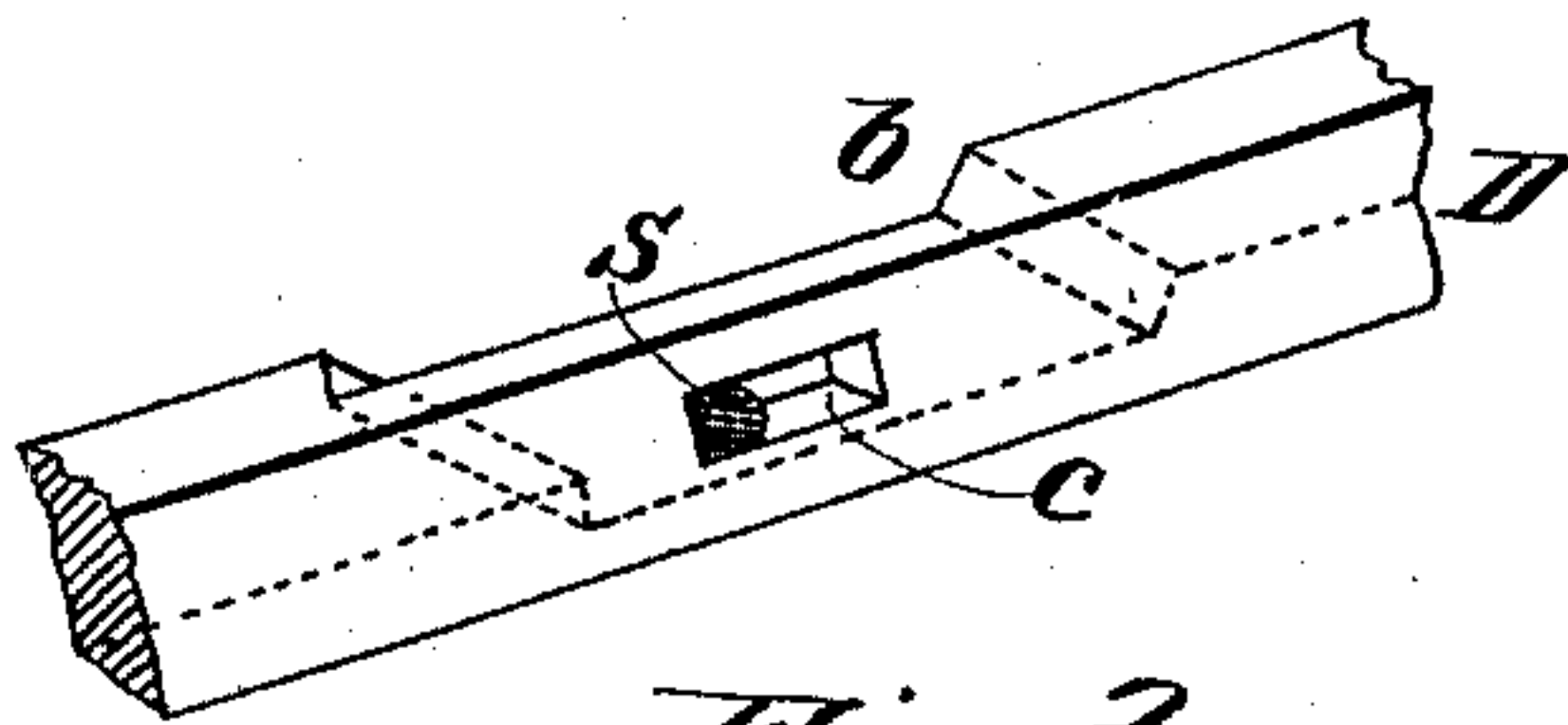
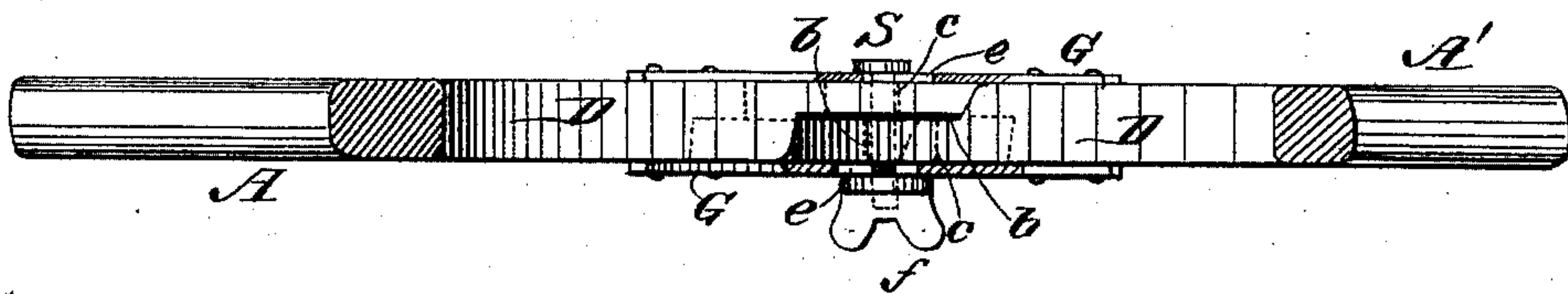
No. 482,606.

Patented Sept. 13, 1892.

*Fig. 1*



*Fig. 2*



*Fig. 3*

WITNESSES:

*P. M. Anable*  
*C. Sedgwick*

INVENTOR:

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*Munn & Co.*

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 in length than is necessary to receive the  
60 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 thumb screw-bolt S through them, and also,  
65 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 provided with a slot  $e$ , parallel with the length  
70 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 through these several slots  $c c$  and  $e e$ , and is made square or angular where it projects  
75 through the one slot  $c$  and adjacent slot  $e$  to engage therewith, but round or loose where 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  
80 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 in place where they cross each other, and constitute a useful adjunct to the clamping-  
85 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 away half of its thickness where the two braces interlock with and cross each other  
90 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 S is not a mere pivot or pin passing through  
95 the crossing-braces D D, but constitutes a fastening or adjustable tightening-up device for holding said braces together when or after tension has been put upon the saw-blade B by the stretcher C, and serves to re-  
100 lieve 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 diago-  
 nal 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-  
 ing of the diagonal bars together. Thus when 40  
 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  
 for adjusting the frame to alterations in the 45  
 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 *e e* 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.