

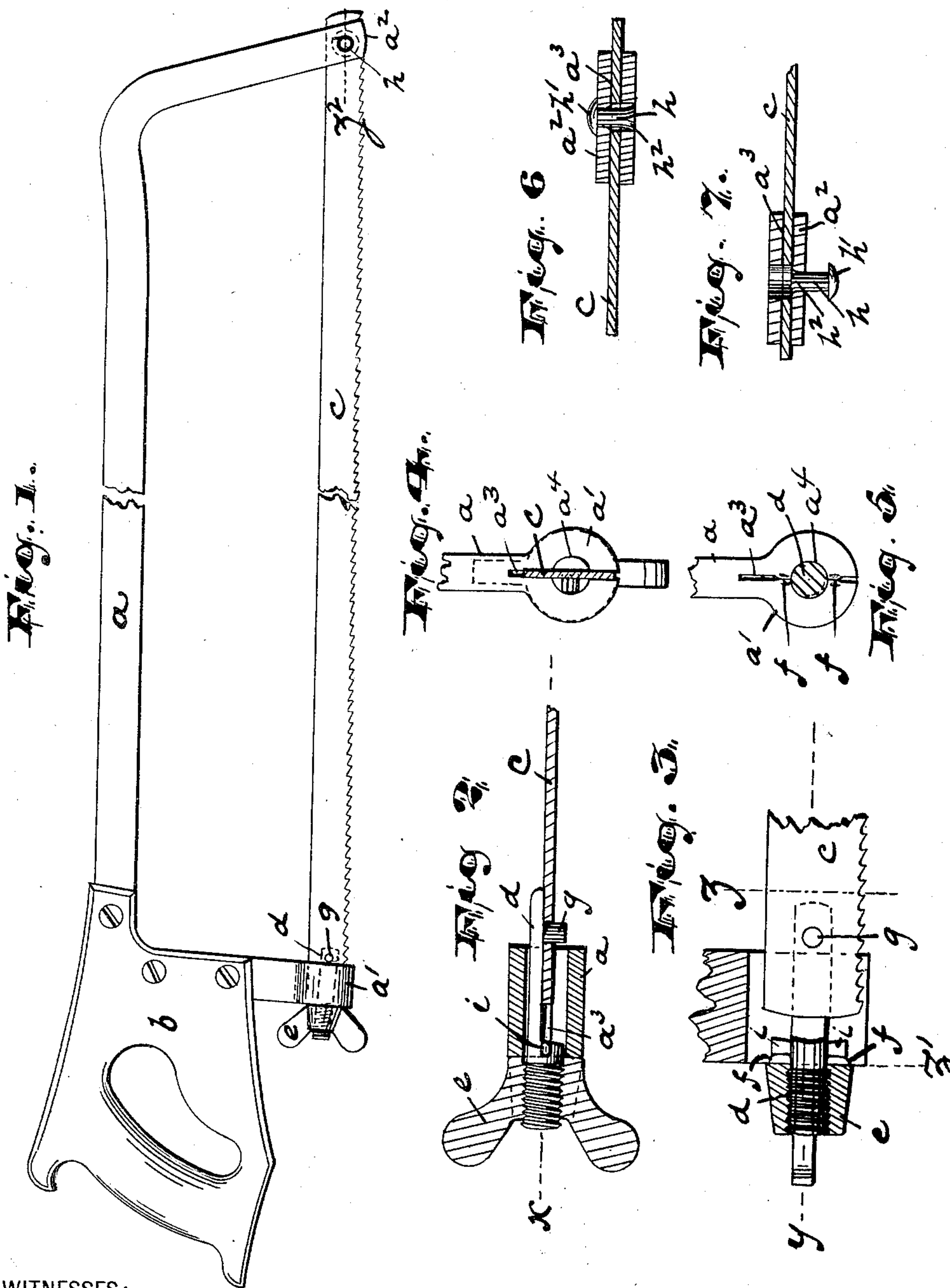
No. 686,983.

Patented Nov. 19, 1901.

R. E. MARTIN.  
BUTCHER'S SAW.

(Application filed July 31, 1901.)

(No Model.)



WITNESSES:

Henry Krug  
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# UNITED STATES PATENT OFFICE.

ROBERT E. MARTIN, OF NEWARK, NEW JERSEY.

## BUTCHER'S SAW.

SPECIFICATION forming part of Letters Patent No. 686,983, dated November 19, 1901.

Application filed July 31, 1901. Serial No. 70,371. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT E. MARTIN, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Butchers' Saws; and I do hereby 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to facilitate the application and removal of a saw-blade to and from the saw-frame and to render such application or insertion and removal more easy and convenient, to secure such objects without complication of structure or forming in said saw-frame receptacles such as will harbor injurious or otherwise objectionable organic matters, and to secure other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved saw for butchers and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several views, Figure 1 is a side elevation of a saw of my improved construction. Figs. 2 and 3 are sectional details of the saw blade and frame at the connection of said parts near the handle of the saw, the section of Fig. 2 being taken at line *y* of Fig. 3 and the section of Fig. 3 being taken at line *x* of Fig. 2. Fig. 4 is a section taken at line *z* of Fig. 3. Fig. 5 is a detail section taken at line *z'* of Fig. 3, and Figs. 6 and 7 are sections taken at line *z''* of Fig. 1.

In said drawings, *a* indicates the frame or body of the saw, which is bowed, as usual, and provided with a handle *b* and bearings for the saw-blade *c*. The said bearings *a'* and *a''* at the opposite ends of the said bowed frame are provided with cuts or slits *a'''* of a width corresponding with the thickness of the saw-blade, so that said saw-blade may enter

therein and be held rigidly and firmly. The bearing *a'* is also provided with a bolt-aperture *a''*, extending lengthwise of the slit *a'''* of said bearing and midway of its sides, as indicated in Fig. 3, to receive a winged bolt *d* for drawing the saw taut and rigid on its bearings, said bolt being provided with the usual finger-nut *e*, which bears against the outside of the bearing *a'*, as usual. Said bolt is at one side cut away, as shown in Fig. 2, to a line coincident with the slit *a'''*, where it provides a flat bearing for the saw, so that said saw lying in said slit will also bear against said bolt. At said flat side said bolt is provided with a pin *g*, adapted to enter a perforation near the extremity of the saw-blade, and thus enable said blade to be drawn into the slit *a'''* when the finger-nut is turned. To prevent said bolt from turning in the slot and at the same time to avoid the formation of cavities in the bearing *a'* other than the necessary slit for the saw, I provide the said bolt with opposite wings *i i*. (Shown clearly in Fig. 3.) These are of a thickness such as will permit an entrance and free sliding thereof into said slits. Thus said wings hold the pin *g* of the bolt in position to stand erect when the saw-frame is turned sidewise in position ordinarily assumed when inserting or removing the blade. Said wings also serve as stops to engage cooperating stops *f*, formed on the side walls of the slit *a'''* at the outer end thereof, said wings and stops *f* cooperating to prevent the outdropping of the bolt from the frame when said bolt is released from the saw-blade. Said stops *f* are preferably formed by a simple punching operation in which the metal of the bearing *a'* is forced into the slit to close or partly close the said slit, as indicated in Fig. 5.

The saw-frame bearing *a''*, which is also slitted to receive the saw-blade, is transversely perforated to hold the pin *h*, the perforation at one side of the slit being larger than at the other, as clearly shown in Figs. 6 and 7. The blade-holding pin is headed, as at *h'*, at one end, where it lies outside of the frame, and at the opposite end upset, as at *h''*, after insertion in the frame, so as to enlarge the end and prevent withdrawal through the small part of the perforation. Thus said pin is permitted only a limited movement, such as will



enable an automatic engagement and disengagement of the saw-blade to be obtained, it being understood that by inserting the saw-blade in the horizontally-disposed slit, which  
 5 saw-blade is provided with a pin-hole large enough to permit the passage of the upset end of the pin, so that the saw-blade pin-hole coincides with the perforation in said frame, the pin will drop by gravity into or  
 10 out of the saw-blade, and thus render manipulation by the fingers unnecessary.

Having thus described the invention, what I claim as new is—

1. The combination with the frame *a*, having slitted bearings *a'*, *a''*, to receive the opposite ends of the saw-blade and having a handle *b*, and one of said bearings having a bolt-aperture, of a bolt fitting said aperture and at one end cut away or recessed to a point  
 15 in line with one side of the slits, whereby the flat blade may extend from slit to slit in the bearing through the bolt-aperture, said bolt being provided with wings to enter the saw-blade slit and with a pin at the cut-away  
 20 side, adapted to receive the blade as it lies in the slits of the bearing, substantially as set forth.

2. The combination with the saw-frame having bearings to receive the opposite ends  
 30 of the saw-blade, said bearings having slits into which the said blade may neatly fit, one of said bearings being provided with a bolt-aperture and the other with a transverse per-

foration and a pin held in said perforation, a bolt and nut and wings arranged on said bolt  
 35 adapted to enter the slit and prevent the bolt from turning, substantially as set forth.

3. In a saw, the blade-bearing having a bolt-aperture and a saw-blade slit at one side thereof, the walls of the slit being upset to  
 40 form a stop near the end of the slit, a bolt having a pin to hold the saw-blade within the slit and a wing to enter said slit and engage the stop, substantially as set forth.

4. In a saw, the bearing *a'*, having a bolt-aperture with saw-blade slits at the opposite  
 45 sides, a bolt recessed in line with said slits and adapted to hold the saw within said slits and having wings lying with said saw-blade in said slits and a nut engaging said bolt and  
 50 bearing to draw the saw-blade into said slits, said parts being combined, substantially as set forth.

5. In a saw, the combination with the bearing having the bolt-aperture and a saw-blade  
 55 slit at one side thereof, of a saw-blade holding a bolt having a wing lying with said saw-blade in said slit and a nut engaging said bearing and bolt, substantially as set forth.

In testimony that I claim the foregoing I  
 60 have hereunto set my hand this 26th day of July, 1901.

ROBERT E. MARTIN.

Witnesses:

CHARLES H. PELL,  
 C. B. BITNEY.