

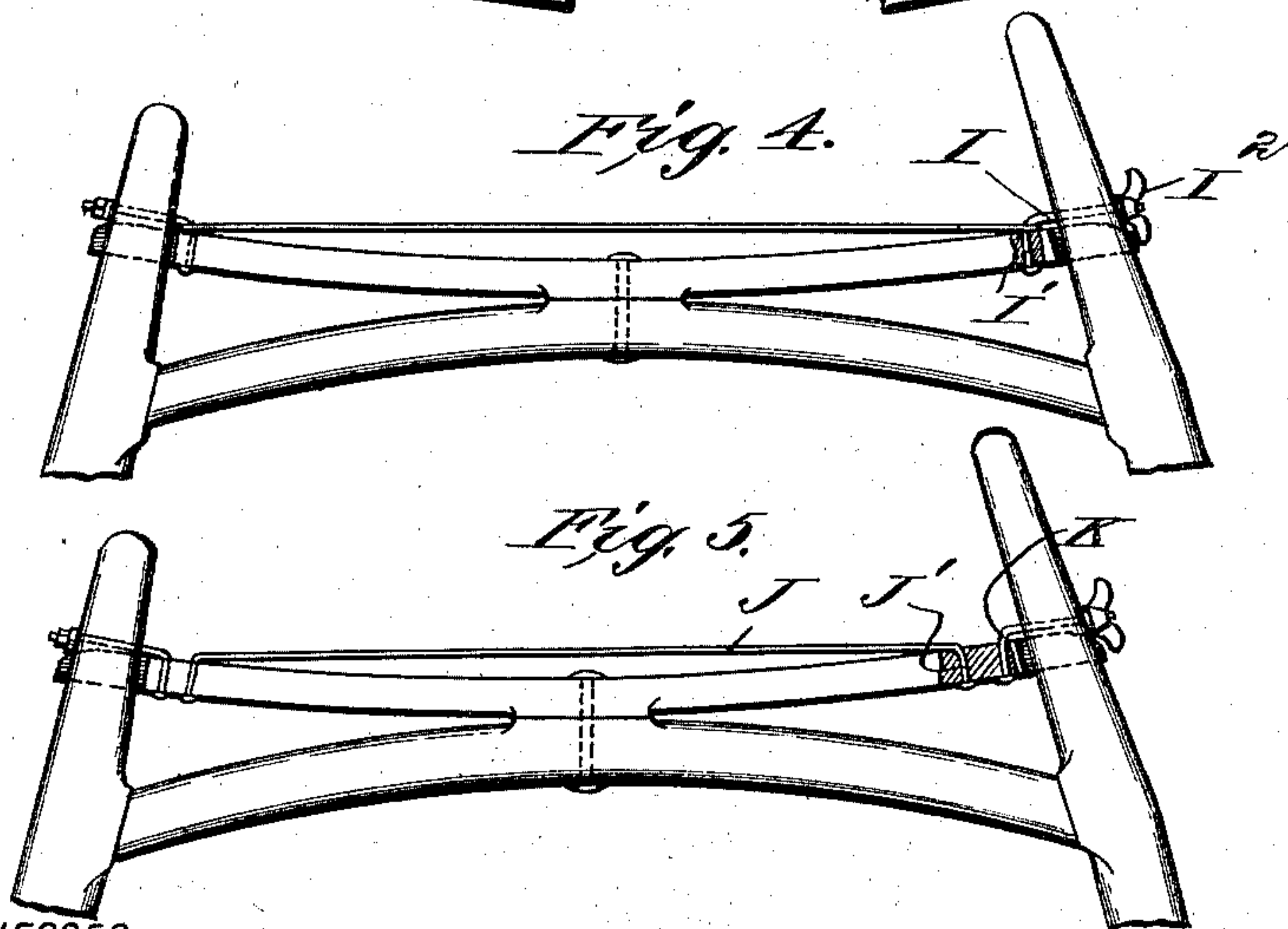
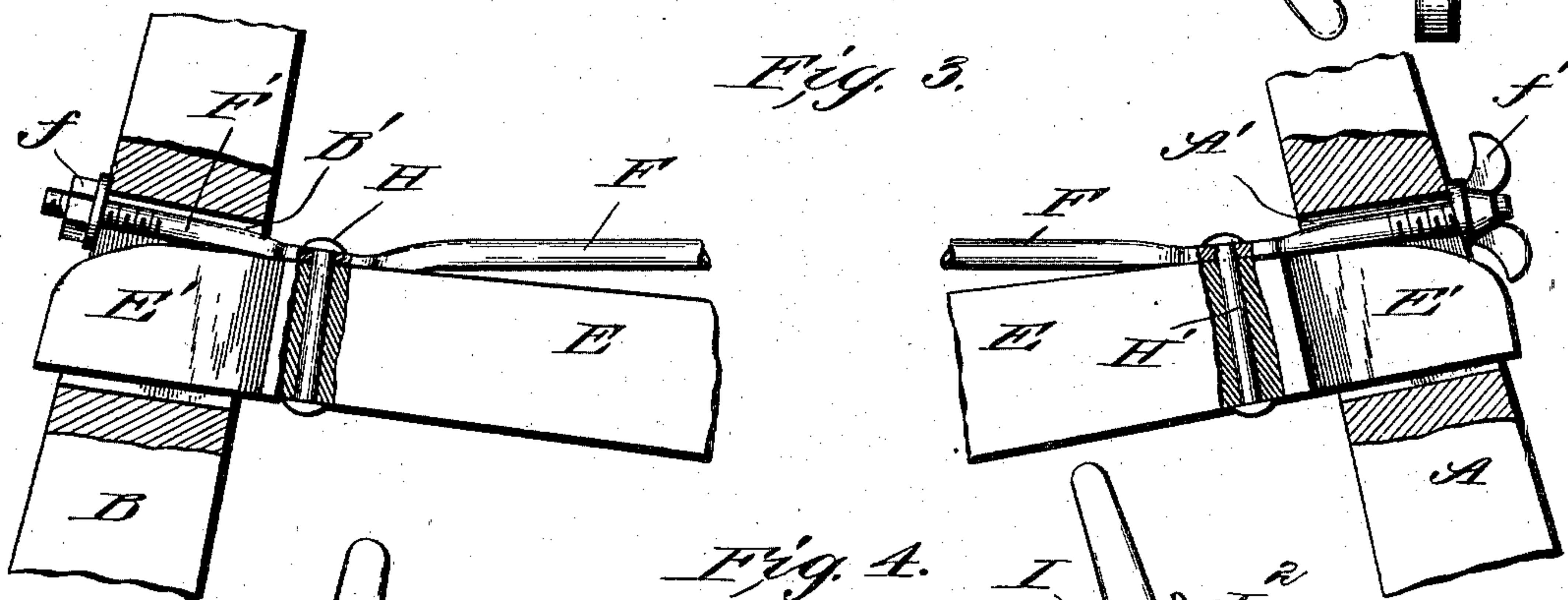
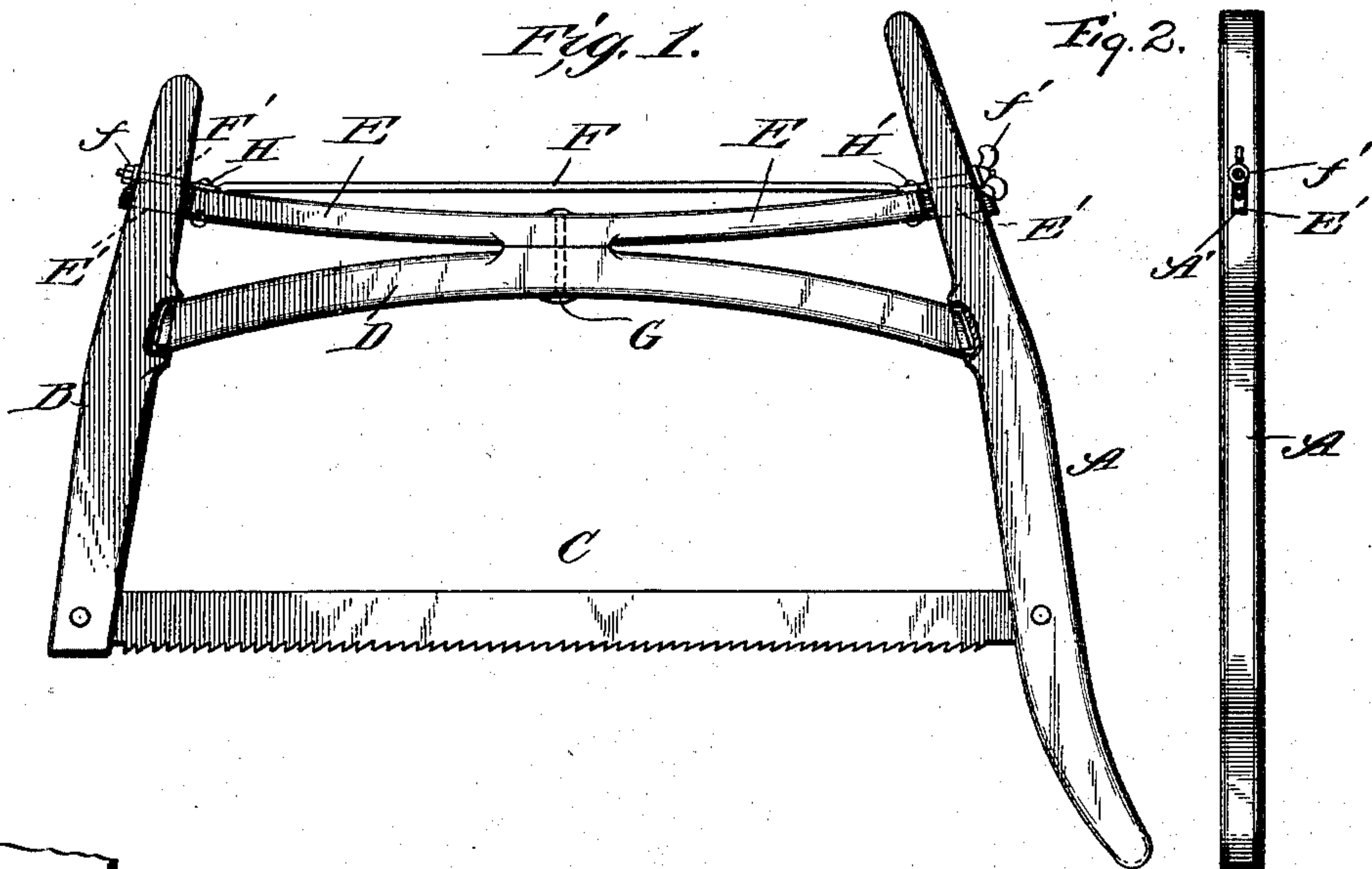
No. 731,324.

PATENTED JUNE 16, 1903.

C. T. REDFIELD.
BUCKSAW.

APPLICATION FILED FEB. 17, 1903.

NO MODEL.



WITNESSES:

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BUCKSAW.

SPECIFICATION forming part of Letters Patent No. 731,324, dated June 16, 1903.

Application filed February 17, 1903. Serial No. 143,772. (No model.)

To all whom it may concern:

Be it known that I, CHARLES TREADWELL REDFIELD, a citizen of the United States, residing at Glenhaven, in the county of Cayuga and State of New York, have made certain new and useful Improvements in Bucksaws, of which the following is a specification.

My invention is an improvement in bucksaws; and it consists in certain novel constructions and combinations of parts whereby the saw-frame can be strongly braced and will be rigid in use, as desired; and the invention consists in certain novel constructions and combinations of parts, as will be herein-
after described and claimed.

In the drawings, Figure 1 is a side view of a saw embodying my invention. Fig. 2 is an edge view thereof. Fig. 3 is a detail view showing, on an enlarged scale, the connection between the chord-rod and the end bars of the frame; and Figs. 4 and 5 illustrate somewhat different constructions.

The saw-frame, as shown in Fig. 1, has the handle-bar A and the front bar B, between which extends the blade C. The bars A and B are braced by means of the main arch-bar D, the brace arch-bar E, and the chord-rod F.

The arch-bar D curves upwardly toward its middle and seats at its ends in the bars A and B.

The brace-bar E curves downwardly toward its middle and is held at its middle, preferably by means of the rivet G, to the middle or crown of the arch-bar D, such rivet securing the bars D and E rigidly together at their centers, as shown in Fig. 1. The arch-bar E is provided at its ends with tenons E', which fit slidably in mortises A' and B' in the bars A and B, (see Fig. 3,) so the bar E can be drawn at its ends within the mortises A' or B', as will be understood from Fig. 3 of the drawings.

In connection with the downwardly-curved arch-bar E, I provide a chord-rod F, which is arranged within and crosses the arch E and is secured to said arch near the ends of the latter and operates, in connection with straining devices, for drawing the ends A and B toward each other, as will be understood from Figs. 1 and 3. In the construction shown in Figs. 1 and 3 the chord-rod F is secured by rivets H to the arch-bar E, when the ends

of the latter are provided with extensions F' beyond said rivets and extending through the end bars A and B and preferably through the recesses A' and B' and receiving the nuts for f', as desired. By tightening these nuts it will be noticed a tensile strain can be exerted upon the arch-bar E in drawing the same strongly toward the end bars A and B in tightening up the saw-frame.

By the described construction it will be noticed I provide braces for a saw-frame including an upwardly-curved lower arch-bar and downwardly-curved upper arch-bar secured at its middle to the crown and the lower bar and a chord-rod crossing the upper arch and means for straining the upper arch in connection with end bars of the frame. In Fig. 1 this is carried out by extending the ends of the chord-rod through the end bars of the frame. In Figs. 4 and 5 I show somewhat different constructions embodying some of the principles of my invention. Thus in Fig. 4 the chord-rod is in the form of a flat plate extending across the upper arch and having openings near its ends through which pass the bolts I, which are formed with wings I', extending through the upper arch-bar near its ends, and the outwardly-extending wing I², which projects through the mortise in the end bar of the frame and receives the straining-nuts. In Fig. 5 the chord-rod J has at its ends wings J', which pass down through the upper arch-bar near its ends and connect directly with the arch-bar, the wing-bolts K passing directly through the upper arch-bar and being disconnected from the chord-rod. In these constructions, as in that shown in Fig. 1, I have combined with the upper and lower arch-bars a chord-rod which extends across the upper arch and braces the same in the strongest manner and furnishes, in connection with such arch-and-chord construction, means for securing the upper arch adjustably in the saw-frame or between the end bars of the frame, as before described.

By the described construction the straining devices put a tensile strain instead of a push or pressure on the ends of the upper arch-bar, thus carrying the strain on to the lower arch-bar, giving a strong leverage in tightening up the frame and putting a powerful drawing strain on the upper bar, which

renders it impossible for either the upper or lower bar to move up or down or to carry it sidewise. The saw-frame when so constructed cannot rack on the joints, will always remain in perfect alinement, and can be strained to great rigidity without any danger of breakage, and by arranging the chord-rod to form the brace for the upper arch a free handhold may be provided at the upper ends of the end bars A and B, as shown in Fig. 1. It will also be seen that the saw can readily be shipped knocked down and will include when so arranged but three parts—the brace-frame, consisting of the arch-bars and the chord-rod, and the end or handle bars A and B.

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

1. The improvement in saws herein described, comprising the end bars provided with mortises for the upper arch-bar and below the same with seats for the main arch-bar, the main arch-bar curving upwardly to its middle, the upper arch-bar curving downwardly to its middle and secured at such point to the crown of the main arch, and having at its ends tenons fitting slidably in the mortises of the end bars, the chord-rod extending lengthwise and above the upper arch-bar and secured thereto near the ends of said bar and having extensions beyond such point, such extensions projecting through the mortises in the end bars, and the nuts on such extensions, substantially as set forth.

2. The combination in a saw-frame with the lower bar, and the upper downwardly-curved arch-bar, of the chord-rod arranged lengthwise and above and connected with such arch-bar, and means for straining the arch-bar in connection with the end bars of the frame, substantially as set forth.

3. The combination in a saw-frame, with an upper arch-bar curved downwardly, of a chord-rod lengthwise and above said arch-bar and secured thereto adjacent to its ends, substantially as set forth.

4. The combination in a saw-frame with the end bars and the downwardly-curved arch-bar, of the chord-rod, lengthwise and above the arch-bar and secured thereto near

its ends, and means for straining said arch-bar in connection with the end bars of the frame, substantially as set forth.

5. The combination with the end bars and the upwardly-curved arch-bar, of the downwardly-curved upper arch-bar, secured at its middle to the crown of the upwardly-curved bar, the chord-rod lengthwise and above the upper arch and secured thereto near its ends, and the nuts securing the upper arch-bar in connection with the end bars of the frame, substantially as set forth.

6. The combination with the end bars having mortises, of the downwardly-curved arch-bar having at its ends tenons slidable in said mortises, the chord-rod lengthwise and above said arch-bar, and secured thereto near its ends, of the bolts extending from the arch-bar through the mortises in the end bars and receiving the nuts, substantially as set forth.

7. The combination with the downwardly-curved arch-bar having tenons at its ends, and the end bars having mortises receiving said tenons, of the chord-rod lengthwise and above the arch-bar, the rivets securing the chord-rod to the arch-bar near its ends, extensions beyond said rivets and forming bolts projecting through the mortises in the end bars and the nuts on said extensions or bolts, substantially as set forth.

8. The combination in a saw, of the end bars, the lower arch-bar curved upwardly, the upper arch-bar curved downwardly toward its middle and secured at its middle to the crown of the lower arch-bar, and straining devices secured to the upper arch-bar and operating in connection with the end bars, substantially as set forth.

9. The combination of the end bars, the lower bar, the upper bar curved downwardly, to its middle and secured at such point to the lower bar, the chord-rod lengthwise and above and secured to the upper downwardly-curved bar, and straining devices, substantially as set forth.

CHARLES TREADWELL REDFIELD.

Witnesses:

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