

No. 774,780.

PATENTED NOV. 15, 1904.

A. M. REMINGTON.  
FRAME SAW.

APPLICATION FILED MAR. 24, 1904.

NO MODEL.

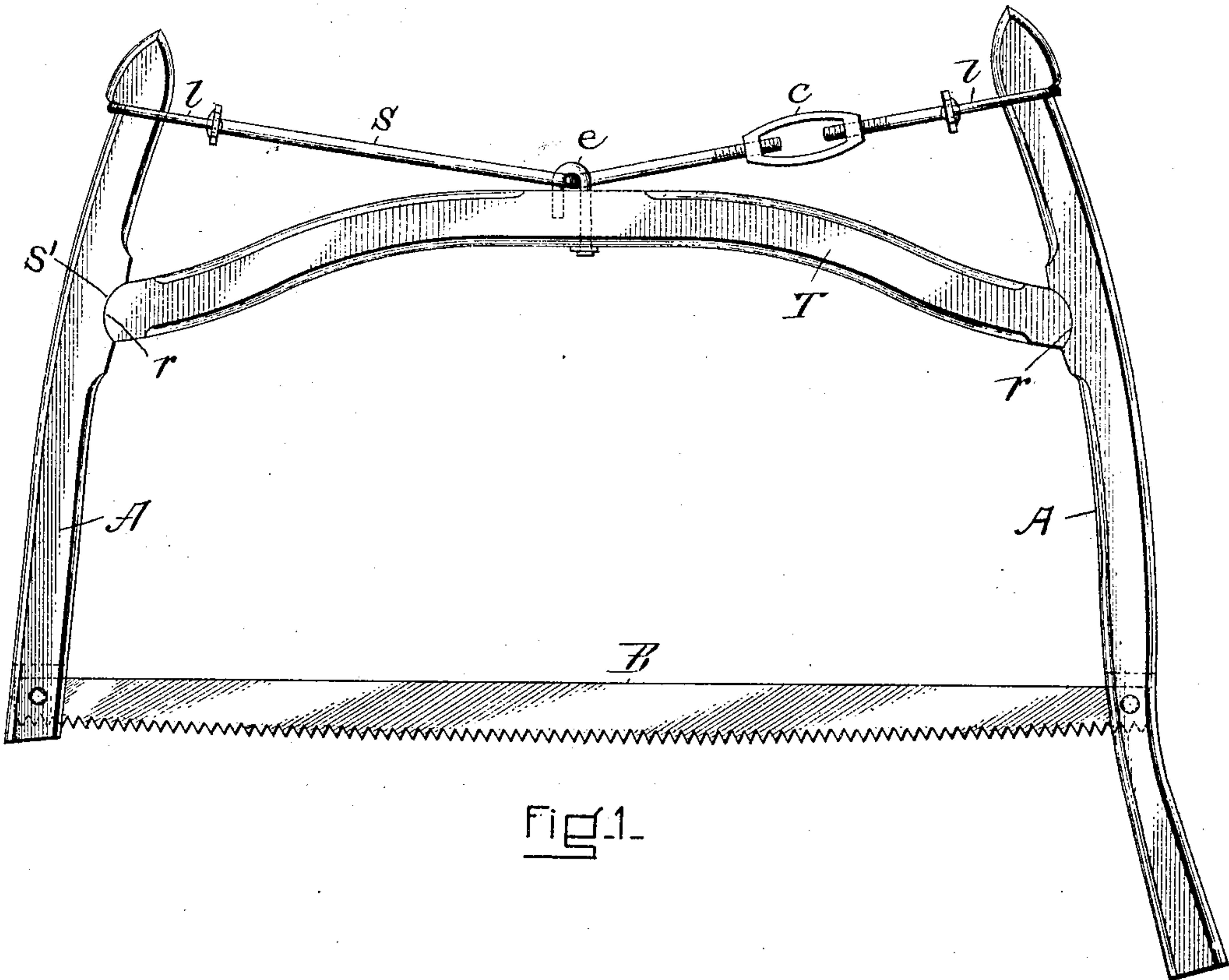


Fig. 1.

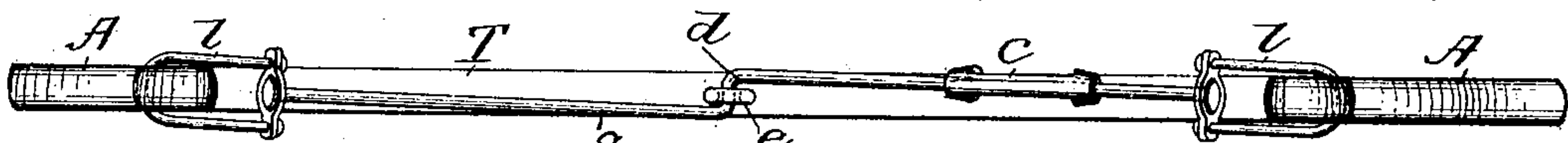


Fig. 2.

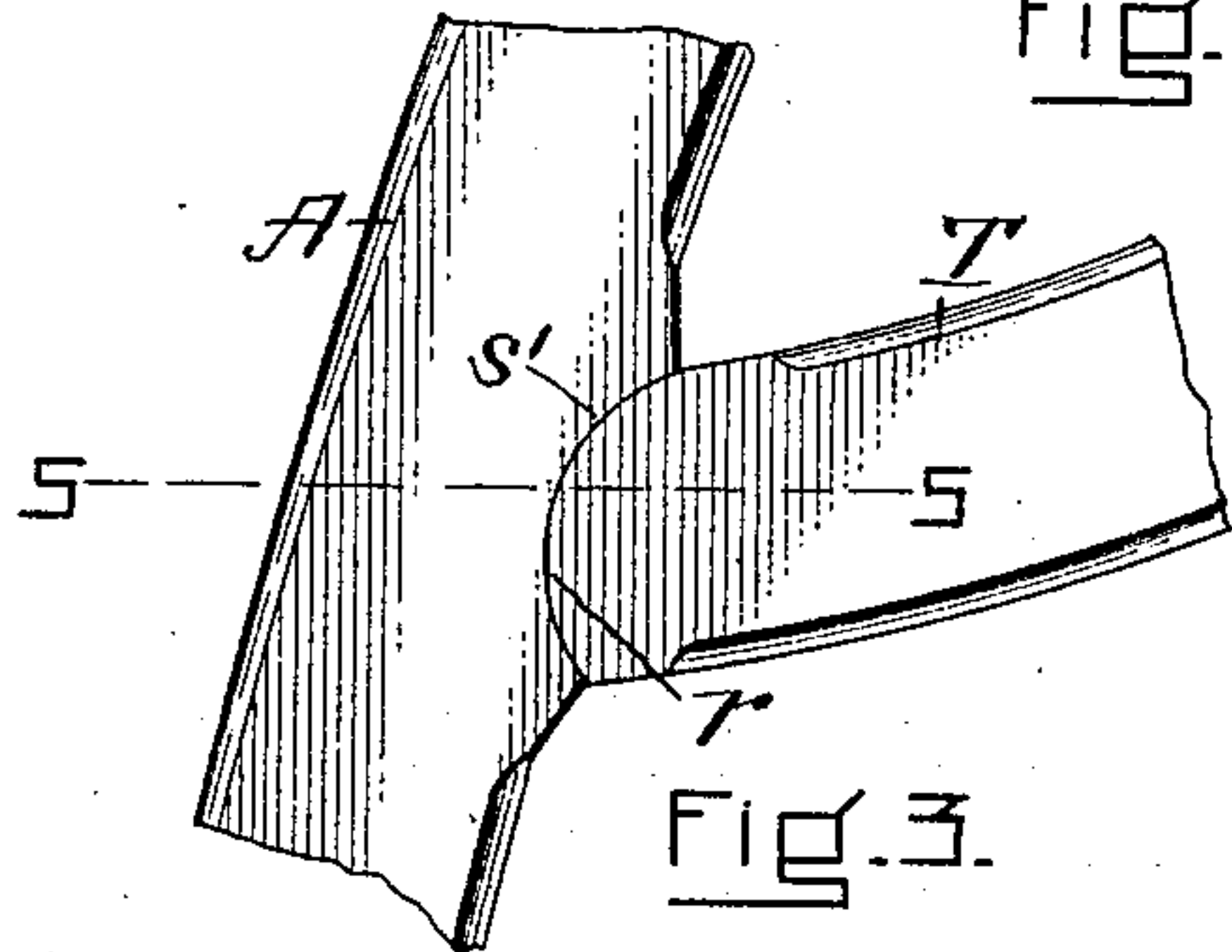


Fig. 3.

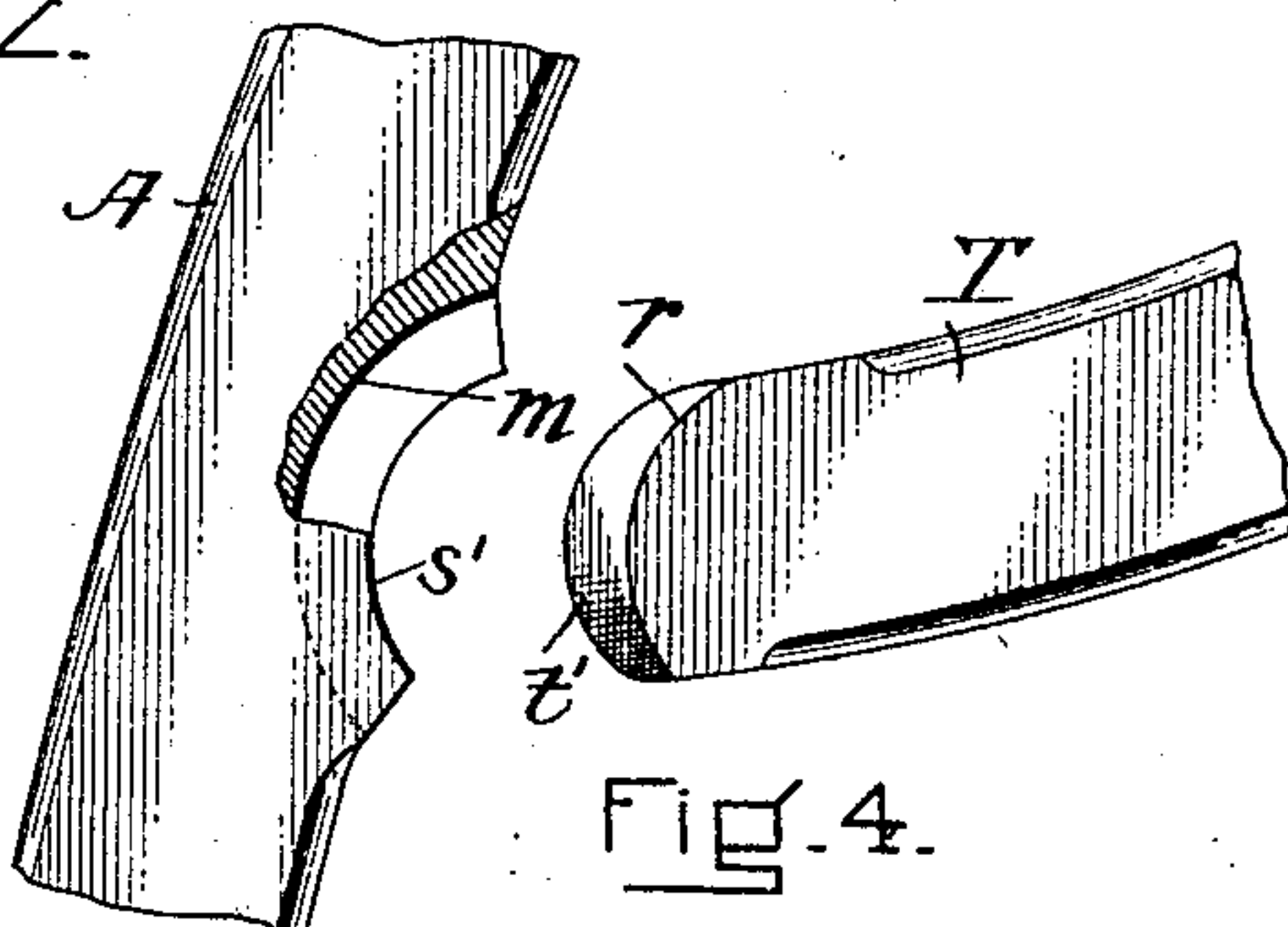


Fig. 4.

WITNESSES:  
Frank G. Parker  
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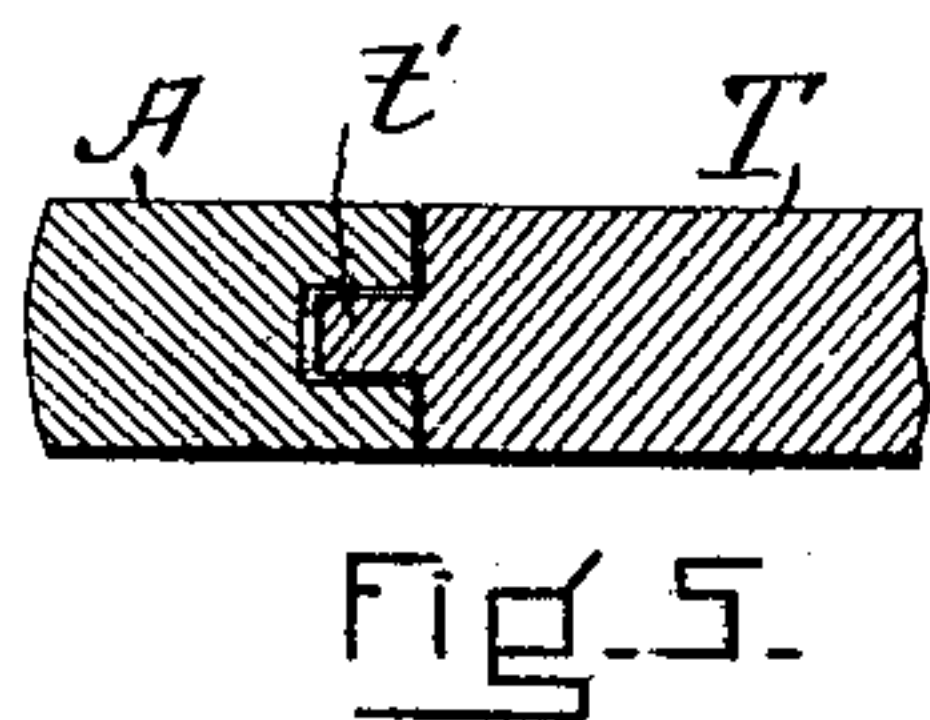


Fig. 5.

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# UNITED STATES PATENT OFFICE.

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## FRAME-SAW.

SPECIFICATION forming part of Letters Patent No. 774,780, dated November 15, 1904.

Application filed March 24, 1904. Serial No. 199,709. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED M. REMINGTON, a citizen of the United States of America and a resident of Fitchburg, in the county of Worcester and Commonwealth of Massachusetts, have invented new and useful Improvements in Frame-Saws, of which the following is a specification.

The invention relates to frame-saws, commonly known as "bucksaws;" and it consists in the improved construction of the joint between the thrust-brace and the side bars of the frame, and the straining-rod by which tension is put upon the saw-blade.

Heretofore in the usual construction of saw-frames where a single thrust-brace was employed the ends thereof have been connected with the side bars by mortise and tenon which had substantially rectangular bearings, one upon the other, so that when strain was put upon the ends of the side bars sufficiently great to change the angles at which the ends of the thrust-brace and the side bars rest one or the other surface, or both, would be crushed and frequently broken. There have also been used two bowed thrust-braces attached together at the middle, in which the shoulder or relish at either side of the tenon at the ends of the braces were of curved form; but these curved surfaces bore upon the straight inner edges of the side bars or the tenons bore upon long curved grooves, and when the straining-rod was shortened to put tension on the saw-blade the curved ends of the brace-bars would slip and slide along the surface of the side bar, which was an objectionable feature, and besides the double braces produced a saw of small capacity—that is, a small space between the blade and the lower brace, so that only sticks of small diameter could be sawed. Also toggle-joint thrust-bars with curved ends and curved sockets therefor in the side bars have been employed; but this was an expensive and cumbrous construction.

By the improved construction the single

thrust-brace may be placed the maximum distance from the saw-blade. The straining-rod is of improved construction, simple, and economical, and there is no tendency to crush or abrade the joint between the side bars and thrust-brace by the action of the straining-rod, and all the advantage of curved ends on the thrust-bar and corresponding sockets therefor in the side bars are obtained without the objectionable features of double braces or toggles.

In the drawings, Figure 1 is a side elevation of a buck-saw with all the improved parts assembled. Fig. 2 is a plan looking down upon the saw-frame. Fig. 3 is an enlarged detail, in side elevation, of the joint between one end of the thrust-brace and the side bar. Fig. 4 shows the same parts detached and a portion of the mortise in the side bar broken away. Fig. 5 is a sectional view on line 5 5 in Fig. 3.

In the drawings, A A are the side bars of the frame; T, the thrust-brace, with the shoulders or relishes *r* and the tenons *t'* at each end of the brace formed in arcs of circles, and the seat or bearings *s'* for each relish in the side bars is also formed in a curve of the same radius as the curve of the relish *r*. The bottoms of the mortises *m* are also of curved form; but by preference the tenons *t'* are made short enough to prevent their bearing upon the bottoms of the mortises, so that the whole strain is borne by the curved joint between the relishes *r* and the side bars A, upon which joint the parts turn as upon a journal.

B is the saw-blade, and S the straining-rod, provided with loops *l* at its ends to encircle the upper ends of the side bars A and with a turnbuckle *c* to adjust the tension of the blade. The middle portion of the straining-rod is a continuous piece with a short portion *d* bent at right angles to the remainder of the rod, or what may be called a "Z-bend." This portion *d* passes through a loop or staple *e*, secured to the thrust-brace.

I claim—

In a frame-saw, the combination with the side bars, of a single thrust-brace the shoulders or relishes at the ends of which are  
5 formed in arcs of circles, correspondingly-curved seats therefor in the side bars, and an adjustable straining-rod with a Z-bend near

the middle of its length for connection with the thrust-brace, and end loops which surround the upper ends of the side bars.

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Witnesses:

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