S. F. WESNER.

Plotters.

No. 110,316. Patented Dec. 20, 1870

Fig. 1

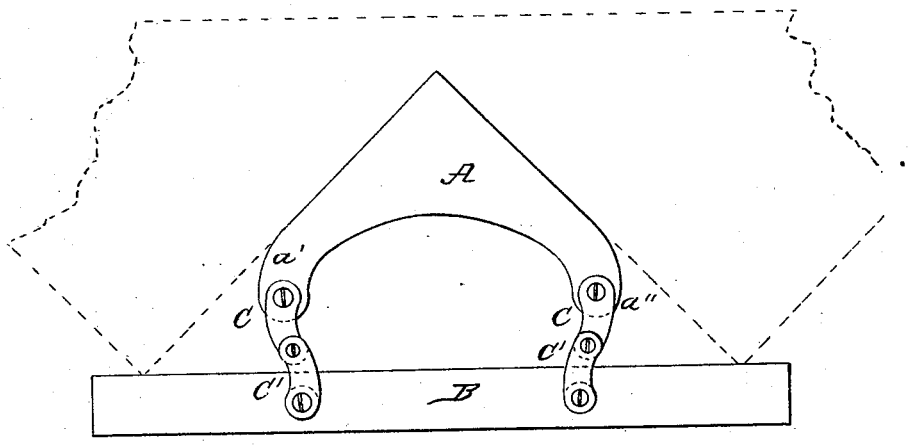



Fig. 2

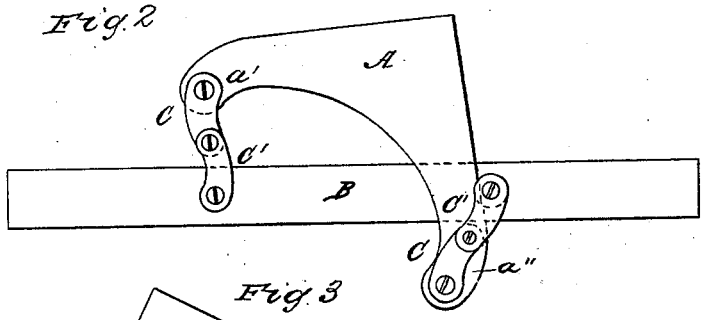
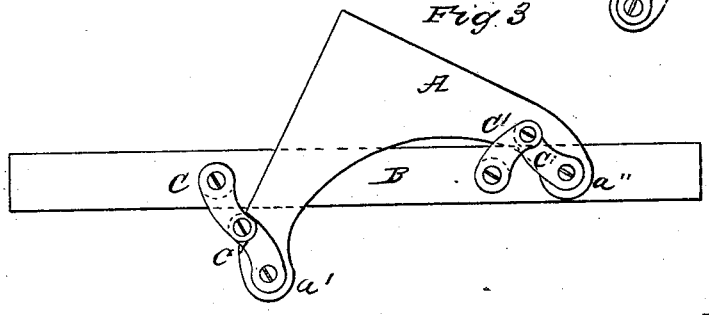



Fig. 3




Witnesses
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# United States Patent Office.

SAMUEL F. WESNER, OF CAMDEN, NEW JERSEY, ASSIGNOR TO HIMSELF AND JAMES FOSTER, JR., OF SAME PLACE.

Letters Patent No. 110,316, dated December 20, 1870.

## IMPROVEMENT IN ADJUSTABLE SQUARES.

The Schedule referred to in these Letters Patent and making part of the same.

I, SAMUEL F. WESNER, of Camden, in the county of Camden and State of New Jersey, have invented certain Improvements in Adjustable Squares for Joiners and others, of which the following is a specification.

*Nature and Objects of the Invention.*

My invention relates to a mode of articulating together a comparatively small square and a straight-edged bar in such a manner that the position of the square in its relation to the straight edge of the bar can be adjusted and secured, with facility, at any angle that may be required by stair-builders and others, the object of my invention being to lessen the cost of constructing adjustable squares by dispensing with the usual slots in the square proper and the bar, and rendering the comparatively small square aforesaid adequate to the purpose of laying out lines for cutting the widest as well as the narrowest treads and risers required in stair-horses.

*Description of the Accompanying Drawing.*

Figure 1 is a plan view of my said improvements, as when the square proper is adjusted to its furthest reach from the edge of the bar;

Figure 2 is a like view of the same as when the square proper is adjusted with one of its legs at nearly a right angle to the edge of the bar; and

Figure 3 is a like view of the same, as with both legs of the square proper adjusted into contact with the bar.

*General Description.*

The square proper A has the ends of its two legs, *a' a''*, turned inward toward each other and their edges rounded, as shown in the drawing.

The bar B is flat and has its two side edges parallel to each other.

The square A and bar B are connected together by means of two like pairs of articulating plates, C C' and C C', on the upper sides of A and B, the plates C C being articulated to the respective legs *a' a''* of the square A, and the plates C' C' to the bar B.

All of the articulating-plates are of the same length, and of such extent as to allow the whole of A to be, at the will of the user, projected some distance beyond the inner edge of B, as shown in fig. 1.

The shortest distance between the two pivots of C' C' in the mid-width of B is somewhat less than the shortest distance between the two pivots C C in the legs of A, for the purpose of allowing either side edge of A to be brought nearly to a right angle with B, as shown in fig. 2.

It will be seen, therefore, without further description, that the comparatively small square A can be projected sufficiently beyond the inner edge of the bar B to guide the lines for as deep a cut in the timber as if the legs of the said square A were double their lengths; that when A is retracted for a less deep cut at any required bevel, as shown in figs. 2 and 3, the legs of A will not objectionably project behind B, as would be the case if the square A were larger; and that almost any bevel line can be given to either leg of A that may be required.

Each of the pivots of the articulations are intended to be made to serve also as set-screws, so that the two parts A and B can be readily adjusted and fixed in relation to each other that may be required.

The cost of cutting and trueing the slots heretofore required in an adjustable square is more than half the whole cost of the completed implement, and this expense is almost wholly avoided in my improvements because the cost of the articulating-plates C C', as applied to A and B, is comparatively trifling, while they are quite as accurate and durable in use.

I am aware that Letters Patent dated May 6th, 1862, were granted to John Iseman for improvement in squares, wherein a square and a straight-edged bar are connected together by means of screw-bolts in long slots made in the bar and in the legs of the square in such a manner that the position of the square in relation to the straight edge of the bar can be varied and secured to any angle that may be required; therefore, I do not desire to claim, broadly, the adjustable combination of a square and a straight-edged bar; nor do I desire to claim the combination of slots and screw-bolts for adjusting and securing a square and a bar together; but

I claim as my invention—

The combination of the two pairs of articulating-plates C C' with the square A and bar B, substantially as and for the purpose hereinbefore set forth.

SAMUEL F. WESNER.

Witnesses:

BENJ. MORISON,

WM. H. MORISON.