(No Model.)

W. F. JONES.

COMBINATION GAGE.

No. 426,997. Patented Apr. 29, 1890.

Fig. 1.

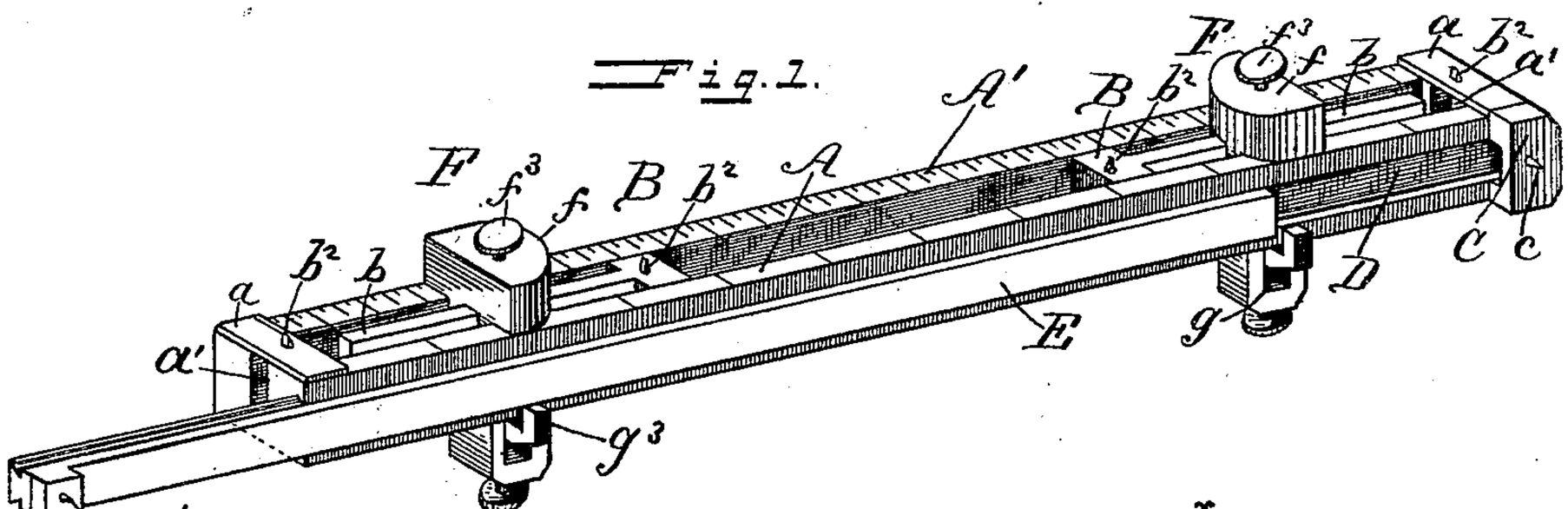


Fig. 2.

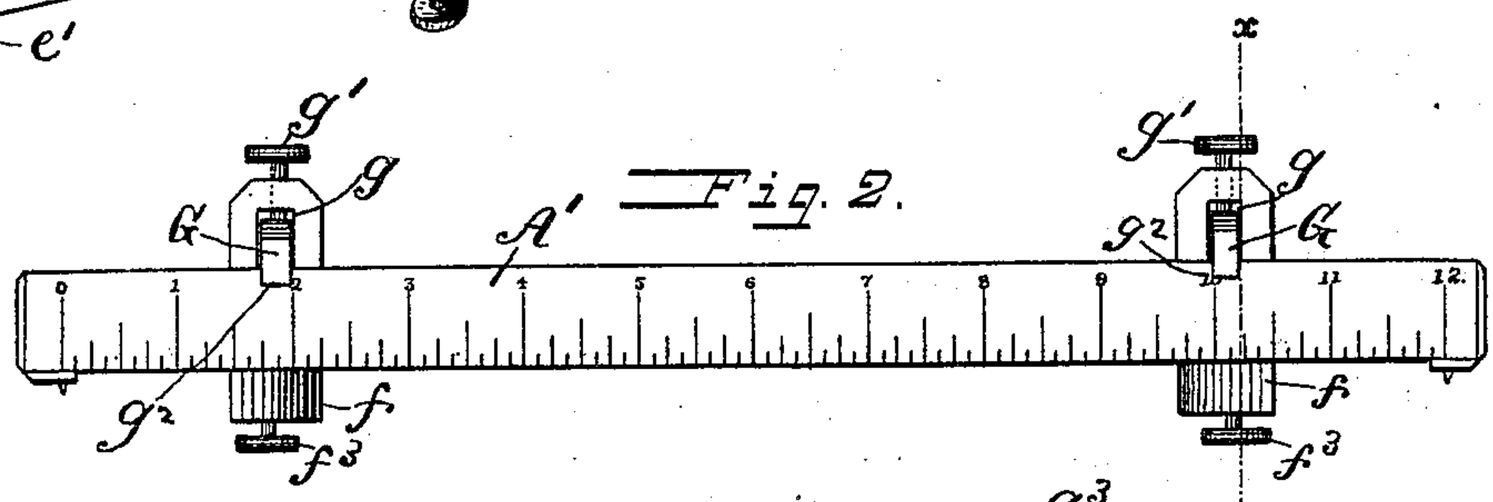


Fig. 3.

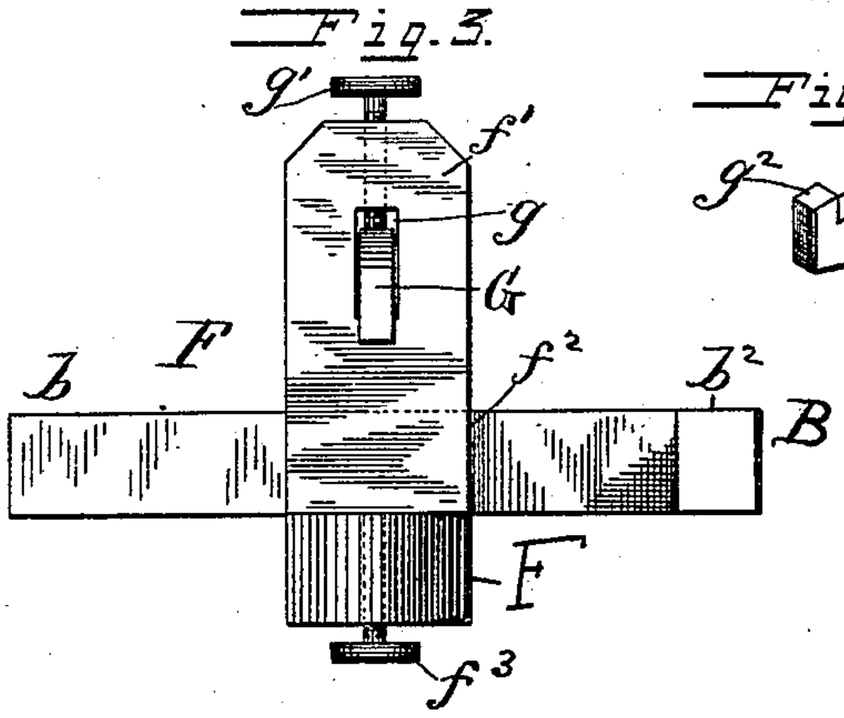


Fig. 4.

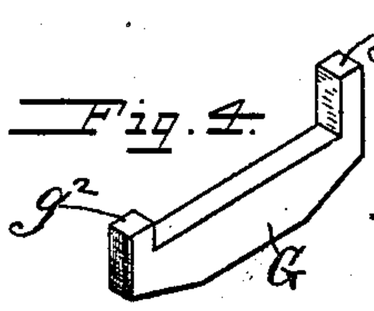


Fig. 5.

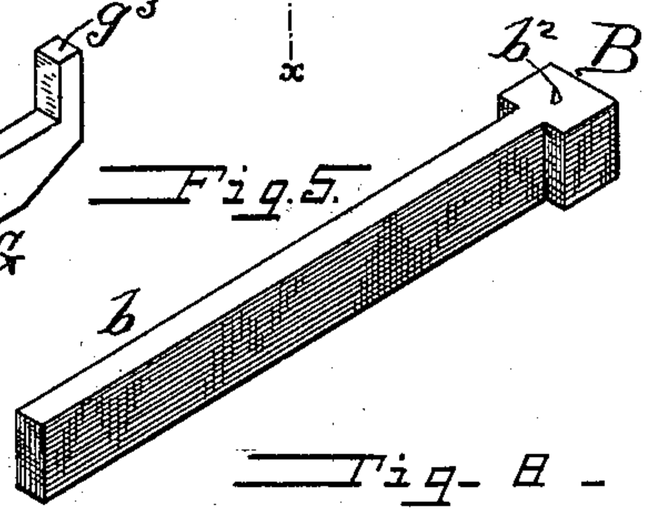


Fig. 6.

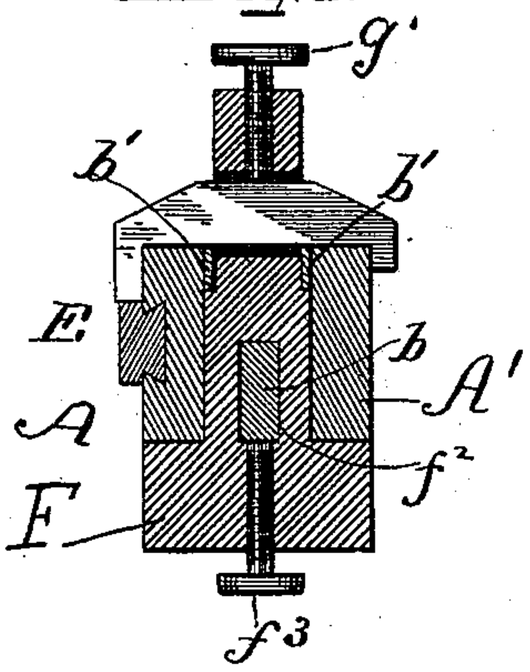
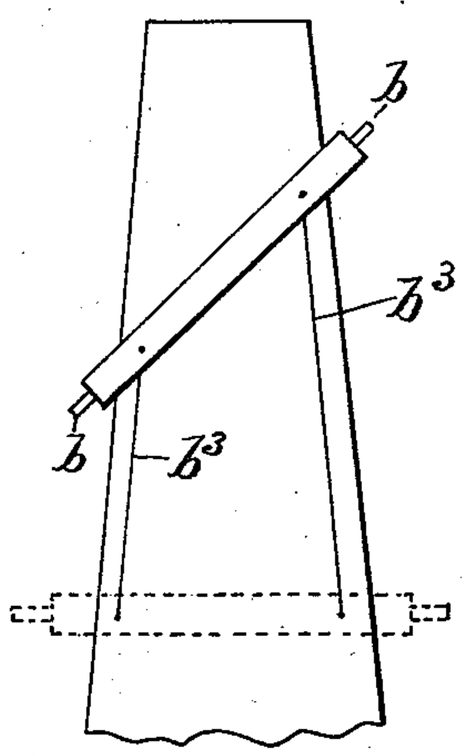


Fig. 7.

Fig. 8.



Witnesses:
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By His Attorney
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UNITED STATES PATENT OFFICE.

WILLIAM FRANKLING JONES, OF COLUMBIA, SOUTH CAROLINA, ASSIGNOR OF ONE-HALF TO RUFUS NEWTON LOWRANCE.

COMBINATION-GAGE.

SPECIFICATION forming part of Letters Patent No. 426,997, dated April 29, 1890.

Application filed August 13, 1889. Serial No. 320,576. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM FRANKLING JONES, a citizen of the United States, residing at Columbia, in the county of Richland and State of South Carolina, have invented certain new and useful Improvements in a Combination-Gage; and I do 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 the letters of reference marked thereon, which form a part of this specification.

My invention has relation to combination-gages; and it consists in the novel construction and arrangement of its parts.

In the accompanying drawings, Figure 1 is a perspective view of my invention, looking at the side and bottom of the same. Fig. 2 is a side elevation, and Figs. 3, 4, 5, and 7 are detail views. Fig. 6 is a cross-section of Fig. 2, cut on the line *x x*. Fig. 8 is a view showing the gage in the act of scribing a column which tapers from the bottom to the top.

This combination-gage is made of wood or metal, or of both combined, and of any desired length and thickness.

My combination-gage is described as follows:

A A′ represent two side pieces the same length and running parallel to each other, united at each end by pieces of metal or wood *a*, however leaving a space of from one-fourth of an inch, more or less, between the two said side pieces, and an opening *a′* through each end just large enough for the small ends *b* of the scribes B to pass through. Said side pieces are each provided with a small bar *b′*, running the entire length of the space between said side pieces, which are secured to the inner faces and upper edges of said side pieces as rests for the heads of the scribes B. In the end pieces A and scribe-pieces B are set markers b^2. On the outer face and one end of the side piece A is secured a block C, in which is set a marker *c*, and in the outer face of said side piece is cut a dovetail slot D its entire length and passing under said block C. In said slot is fitted a dovetail slide E, which is as long as said side piece, and has on its free end a block or raised part *e*, in which is set a marker *e′*. Fitting in the space between the said side pieces and adapted to slide back and forth are two gages F, having each a head *f*, which has a circular side and a straight side, and a flat arm *f′* fitting in the said space. Through said arms *f′* and passing the long way are mortise-holes f^2, into which fits the arms *b* of the scribes B. Said arms *b* are movable and are set by means of the thumb-screws f^3. Above said mortise-holes f^2 and cut the short way through said arms *f′* is another mortise-hole *g*, in which works a clamp G, arranged to be tightened by the thumb-screw *g′*. The short arm g^2 of said clamp turns over the upper edge of the side piece A′, while the long arm g^3 turns over the upper edge of the side piece A, its end fitting down against the edge of the dovetail slide E. The office of said clamp G is to fix said gages in position when set and at the same time to fix said dovetail slide in position when set.

When this combination-gage is used on a column squared, say, ten inches at one end and sixteen at the other, to be reduced to an exact octagon, the exact gage is fixed by setting the two scribes B—one in each end—to give the exact scribe desired at one end of the column, as represented in Fig. 8, with the gage across the column, as represented by the dotted lines. Then move the gage along the column, moving one end faster than the other, so as to keep the circular parts of the scribes B against the sides of the column, coming out at the top, and you will preserve the relative position of the marks b^3, the entire length of the column making a perfect and easily-worked gage for that purpose. By turning back the set-screws *g′* and loosening the clamps G, thus releasing the slide E and extending the same and using the marker *c* as a pivot, this combination-gage will describe a circle of forty-eight inches, and on down to one inch by reversing it when brought to its shortest length, thus superseding a wing-compass for all purposes and sizes. As I have said, the gage may be made as long as desired, and consequently a greater circle described.

As a marking-gage, the markers in the scribes B, with the markers in the ends,

make two double or mortise gages by reversing, and scribes B may be set for any sized tenon or mortise, making different gages in one, which can be kept ready for use.

This gage can be used as a measure by numbering on the sides for feet, inches, and fractions of inches.

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

1. The combination-gage, as shown and described, consisting of the side pieces A A′, having a space between them and an opening in each end, gages F, working back and forth in said space and bearing scribes B, adapted to be set by the thumb-screws f^3, and clamps G, fitting in the mortises g of said gages and adapted to be tightened by the thumb-screws g' and fix said gages, substantially as shown and described, and for the purposes set forth.

2. The combination-gage, as shown and described, consisting of the side pieces A, bearing the block C and marker c and having in its side the dovetail groove bearing the slide E, side piece A′, secured parallel to said side piece by the end pieces a, and having a space between said side pieces and an opening in each end, gages F, working back and forth in said space and bearing scribes B, adapted to be set by the thumb-screws f^3, and clamps G, fitting in the mortises g of said gages, adapted to be tightened by the thumb-screws g' and fix said gages B and said slide E, substantially as shown and described, and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM FRANKLING JONES.

Witnesses:

WADE H. MANNING,

VINCENT F. MARTIN.