

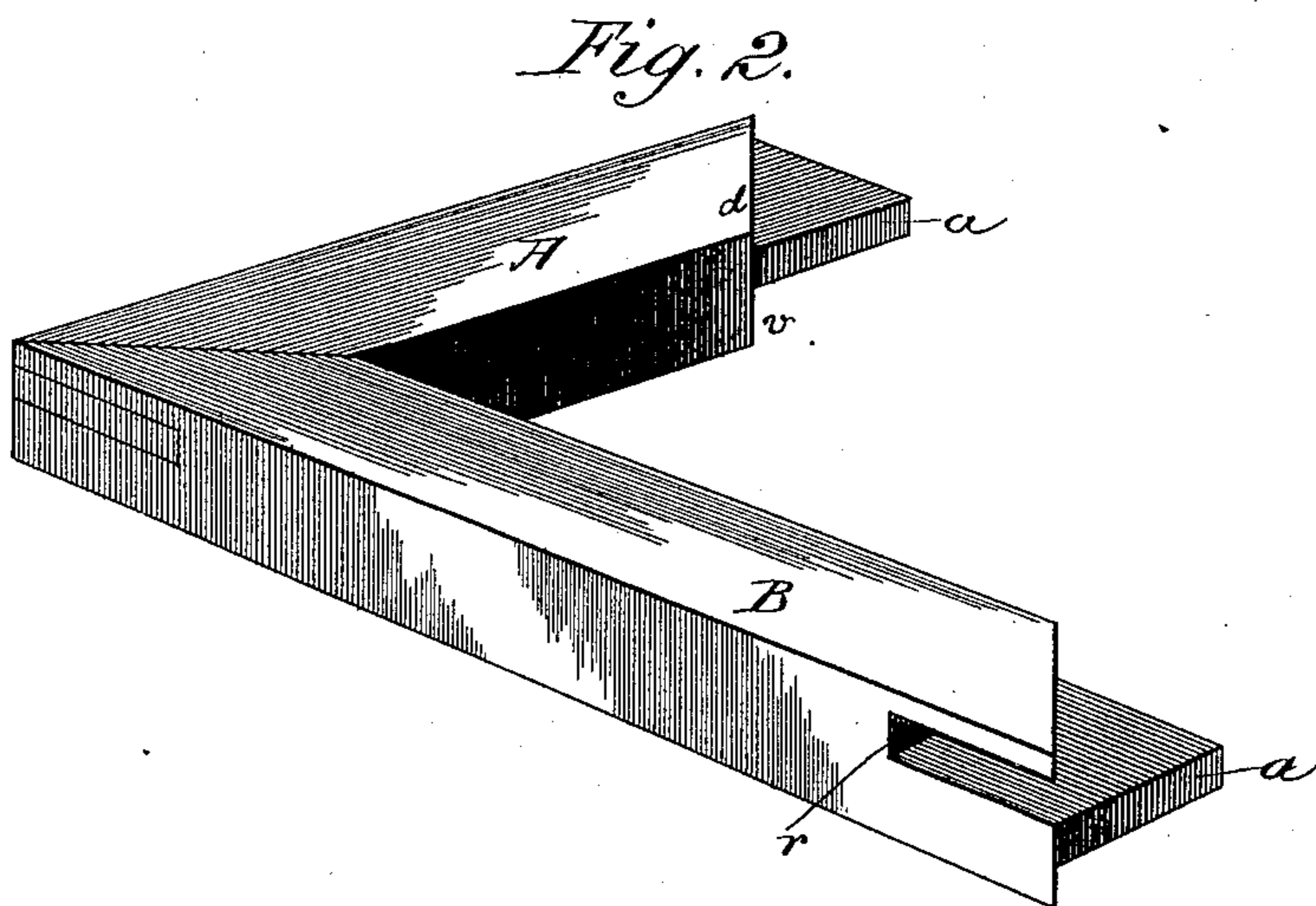
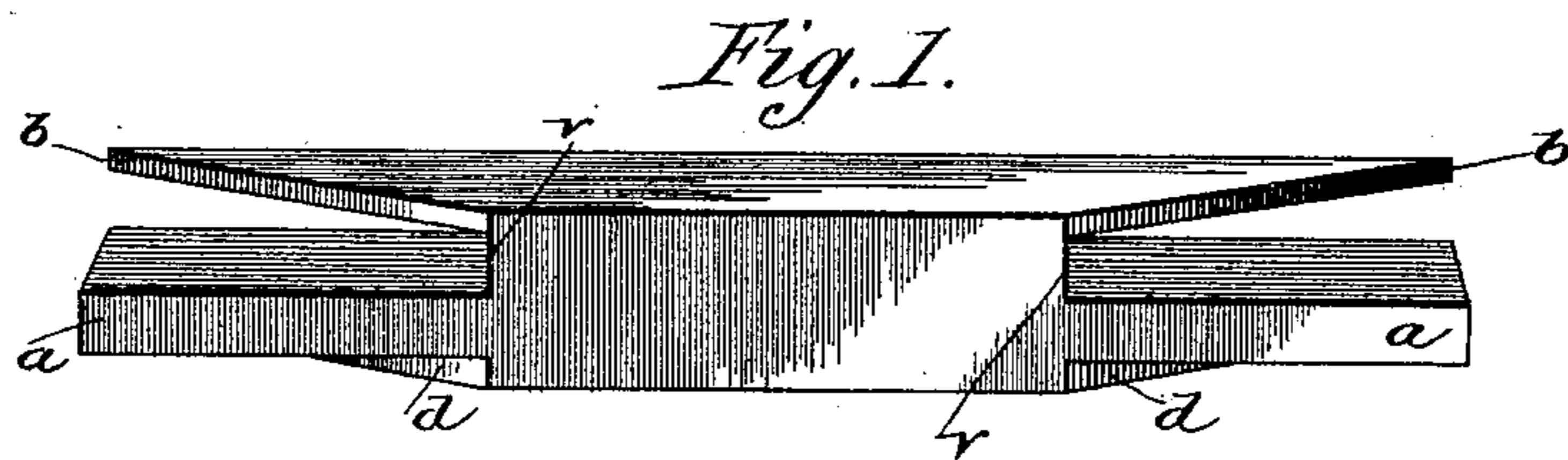
(No Model.)

G. H. NEWELL.

ARTIST'S STRETCHER OR FRAME.

No. 366,865.

Patented July 19, 1887.



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UNITED STATES PATENT OFFICE.

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ARTIST'S STRETCHER OR FRAME.

SPECIFICATION forming part of Letters Patent No. 366,865, dated July 19, 1887.

Application filed October 17, 1885. Serial No. 180,202. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. NEWELL, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Artists' Stretchers or Frames, of which the following is a specification.

My invention relates to an improved construction whereby there is uniformity of parts, each of the ends of the several parts being precisely the same in form, and such a connection formed and support afforded by such parts when placed in position as to secure an increased measure of strength and durability. This construction I attain by the use of a new and novel combination mortise and tenon at each end of each of the pieces employed, there being no distinction between end pieces and side pieces, both possessing the same form of construction.

I have illustrated my invention by the accompanying drawings, in which—

Figure 1 is a perspective view of one of the pieces of a canvas-stretcher, which may be either used as a side piece or an end piece, and which shows at each end the special form of combination mortise and tenon which constitutes the essential feature of my invention. Fig. 2 is a perspective view of two pieces united at one end, and likewise showing at their opposite ends my improved combination mortise and tenon.

Like letters refer to like parts in both views.

The pieces, which when united form the stretcher, are indicated by A and B. The tenons at each end of said pieces are indicated by *a*, while the diagonal outer end wall on one side of said tenons is indicated by *b*, between which wall and the adjacent tenon is the mortise *r*, the diagonal end wall on the opposite side of said tenons being indicated by *d*, the end wall of the mortise being indicated by *v*.

Heretofore it has usually been necessary for dealers in artists' supplies to carry a large stock of material, because pieces had to be kept in stock for different-sized stretchers,

the formation of the same not being such as to cause them to be interchangeable.

My improved construction consists in the combination of a mortise and tenon, the outer mortise-wall being half cut away, or on a line forming an angle of forty-five degrees, thus affording a base of support for the corresponding diagonal wall on the opposite side of the mortise when the pieces are united. Where the construction is such that there is a mortise at one end and a tenon at the other end, it is necessary that one of the outer walls of the tenon should be entirely cut away, which formation does not afford the increased support attained by having said wall half cut away, and, further, fails to afford the diagonal bearing furnished by the walls when thus half cut away, as the straight end of the outer wall, when entirely cut away, merely affords an end support and not a diagonal support, such as is especially needed to resist the strain incident to usage, which is usually diagonal, and which is the practical test of durability in a canvas-stretcher.

The straight bottom wall of the mortise forms a direct support for the lower side of the tenon, while the diagonal outer wall of said mortise forms a diagonal support, thus bracing the parts against end, side, and diagonal strain to an extent which it is not possible where a mortise and tenon are not thus used in combination.

A further advantage to be found in my new construction is that, the ends of the pieces being exactly alike, but a single tool or set of tools is required for making the same when made either by machinery or by hand. In placing the parts together it is only necessary to reverse the sides of the pieces. It will be readily seen that end pieces suitable for frames of a certain size may be used for side pieces for frames of smaller size, and that no special skill or experience is required in uniting the parts in forming a stretcher of any desired dimensions.

Stretchers and frames thus formed will resist a great amount of strain and usage without becoming weakened or losing their proper

shape, and my improvements meet a very important requirement in this direction, as they embody economy in quantity of material, simplicity, and durability.

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

An artists' stretcher - frame composed of

pieces having at each end thereof a tenon, *a*, a mortise, *v*, adjoining the same, and diagonal end walls, *b* and *d*, substantially as and for the purpose set forth.

GEORGE H. NEWELL.

Witnesses:

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