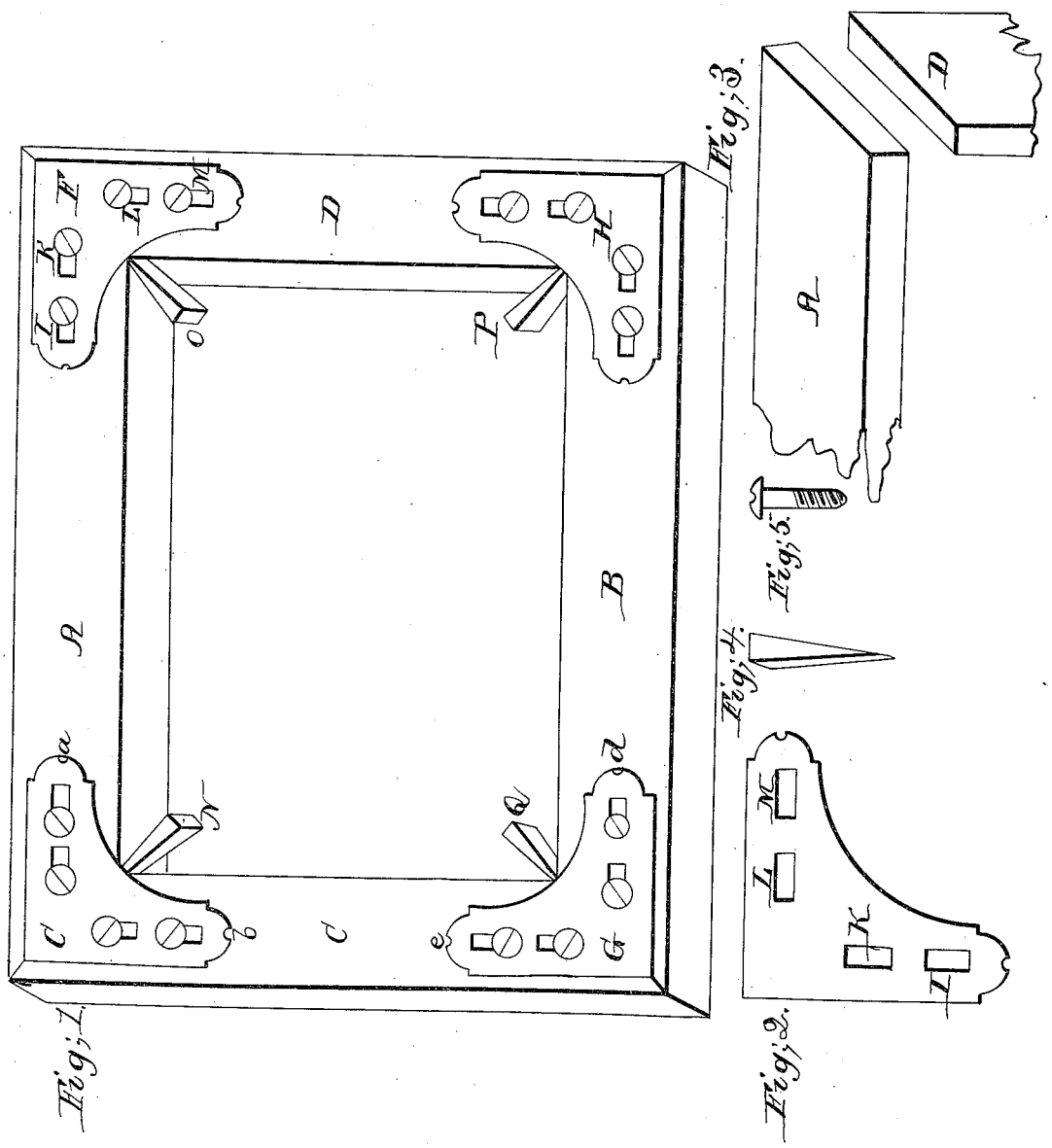
H. Bryant,

Canvas Stretcher.

No. 6,731. Patented Sep. 25, 1849.



UNITED STATES PATENT OFFICE.

HENRY BRYANT, OF HARTFORD, CONNECTICUT.

FRAME FOR STRETCHING CANVAS.

Specification of Letters Patent No. 6,731, dated September 25, 1849.

To all whom it may concern:

Be it known that I, HENRY BRYANT, of the city of Hartford, in the county of Hartford and State of Connecticut, have invented a new and useful improvement in the construction of frames for stretching canvas and other materials, for portrait and landscape paintings, and for other purposes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, which make a part of this specification, in which—

Figure 1 is a perspective view of the frame, with the canvas stretched thereon, showing the metallic plates in the corners of the frame, and the method of securing them by means of binding screws; and the wedges, or keys, by which the canvas is to be stretched. Fig. 2, is a perspective view of one of the metallic plates, showing the slots through which the binding screws pass, to firmly secure the covers of the frame. Fig. 3, is a perspective view of the mitered ends of two of the parts of the frame. Fig. 4, is a perspective view of one of the wedges, or keys used in stretching the canvas. Fig. 5, is a perspective view of one of the binding screws which secure the metallic plates.

My improvement consists in making the frame without mortise or tenon, by simply cutting the ends of the four parts of the frame to a miter, and bringing the parts together so as to form right angles at each corner, and securing them in that position by metallic plates held in their proper positions by binding screws inserted through slots in each of the limbs of the plates. These plates, when thus secured, will hold the corners of the frame entirely firm, while the binding screws, being movable in the slots, will allow the four parts of the frame to be forced outward by means of four wedges, or keys driven into the joints at the four corners of the frame; by which means the canvas will be equally stretched, as that part which is least stretched, while nailing it onto the frame, will yield most readily to the force of the wedges, or keys; by all which means the corners of the frame will be always kept at right angles, and the frame prevented from springing or becoming winding.

I make the four parts A, B, C, and D, of the frame of boards in the usual form, but instead of joining the corners by mortises and tenons, I cut each of the ends to a miter, (as seen in Fig. 3,) and butt them together, as seen at E, F, G, and H, Fig. 1. I make the metallic plates of cast iron, or other suitable material, in the form shown in Fig. 2, with two, or more slots in each of the limbs, as seen at I, K, and L, M, Figs. 2, and 1. These slots must be made in such a position in the two limbs, that a line drawn longitudinally through the center of the slots I, and K, will intersect a line drawn longitudinally through the center of the slots L, and M, at right angles; so that to whatever extent the joints of the frame may be forced open by the wedges, or keys, each of the corners of the frame must be a right angle. The plates must be attached to the posterior side of the corners of the frame, by means of binding screws, as represented at E, F, G, and H Fig. 1, the screws being at the end of the slots nearest to the angle, to allow the part of the frame to spread to any extent required.

The joints, at the corners of the frame, are to be forced open, to the necessary extent for stretching the canvas to the required tension, by jam wedges or keys, as shown at N, O, P, and Q, Fig. 1, driven in the direction of the miter, thereby operating both ways, that is, to lengthen and widen the frame at the same time.

The effect of the driving of the wedges, or keys, (while the corners are held in their right angular positions by the plates, as before described,) will be to stretch the canvas with the utmost uniformity throughout every part, as the parts of the frame will yield most readily to the force of the wedges, or keys, in the direction of the least strain.

When the canvas has been thoroughly stretched, by the wedges, or keys, small tacks, or points, may be driven into the frame at the end of each limb of the metallic plates, as seen at *a*, *b*, *c*, and *d*, Fig. 1, so that the wedges, or keys will not be needed, as the frame will be held firmly to the greatest degree of tension even if the wedges, or keys, should drop out.

The advantages of my improvement consist in so making the frame, that, by means of the mitered corners secured by the metallic plates, the joints may always be held sufficiently firm, and the corners always preserved at right angles, and the whole frame kept from springing, or becoming winding,

under all circumstances, while the slots in the metallic plates will allow the binding screws sufficient space for all the stretching that will ever be necessary. And but four wedges, or keys, will be needed where eight is now used.

What I claim as my invention, and desire to secure by Letters Patent, is

The method of constructing the frame without mortise or tenon, by cutting the corners to a miter and securing them by metallic plates, by means of binding screws, inserted through slots, so that the corners may be forced outward by means of four wedges, or keys, when the whole is constructed, substantially, as herein described.

HENRY BRYANT.

Witnesses:

AARON BRADLEY,

R. FITZGERALD.