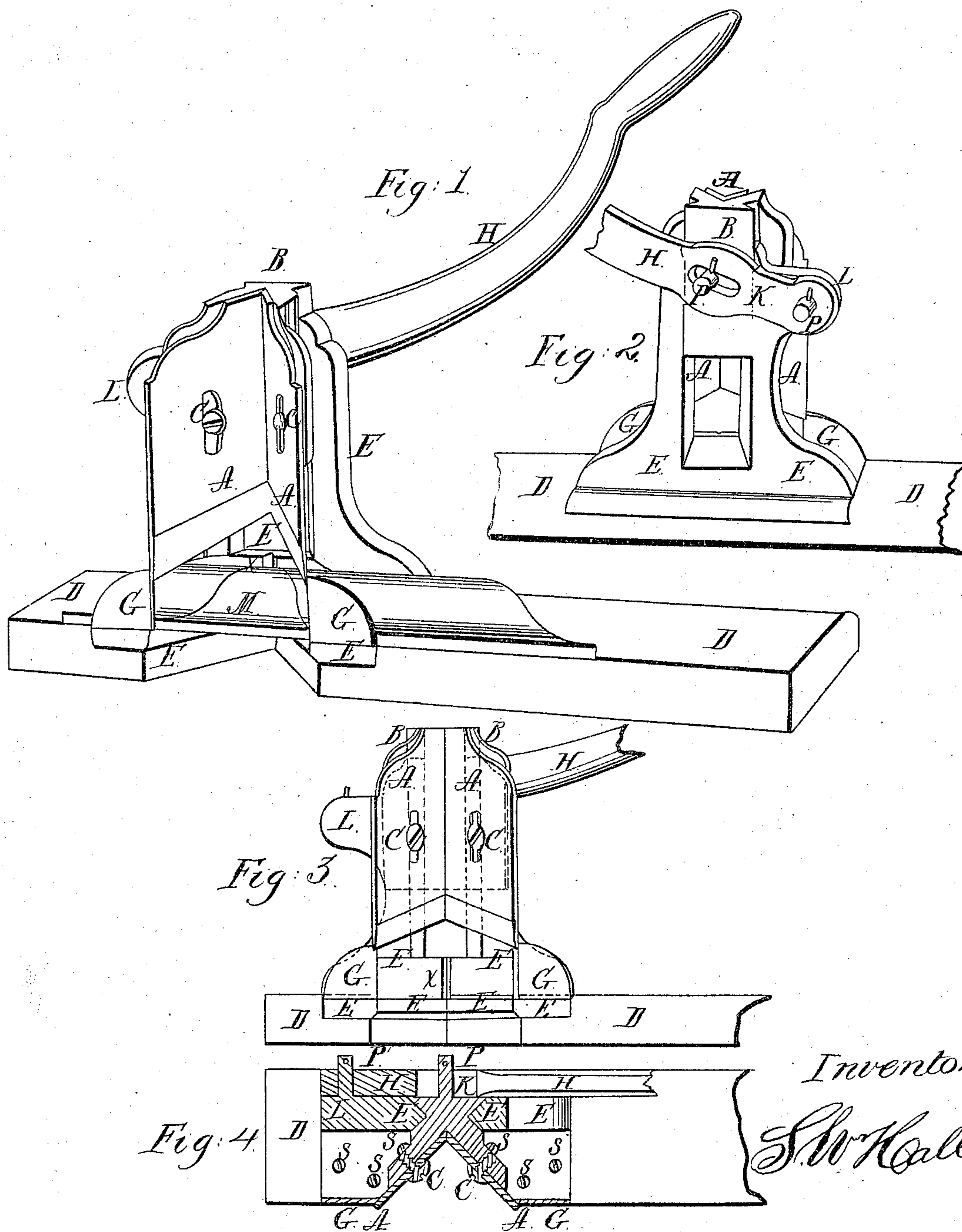


S. W. Hall,

Miter Box.

N^o 21,194.

Patented Aug 17, 1858.



Inventor:

S. W. Hall

UNITED STATES PATENT OFFICE.

S. W. HALL, OF WILLIAMSPORT, PENNSYLVANIA.

MACHINE FOR CUTTING MITERS.

Specification of Letters Patent No. 21,194, dated August 17, 1858.

To all whom it may concern:

Be it known that I, STEPHEN W. HALL, of Williamsport, Lycoming county, in the State of Pennsylvania, have invented a new and useful Miter-Machine; 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, making a part of this specification, in which—

Figure 1 is a perspective view, Fig. 2 a perspective view of a portion of the back of the machine, Fig. 3 a front elevation and Fig. 4 a transverse section of the said machine.

The same letters refer to like parts in all the figures.

In Fig. 1 A, A, are the miter knives adjusted at right angles to each other, in the movable or sliding rest B by means of screws passing through the slots shown in said knives at C, C. D is the base of wood, to which the machine is permanently secured by means of the screws shown at s, s, s, s, s, s, s, s, (Fig. 4.) The screws s, s, s, s, s, s, s, s also serve to secure the flanges G, G to the main frame E, E. The rest B, is grooved on each side and is carefully fitted to slide perpendicularly up and down in the ways of the frame E, E, (Fig. 2). The flanges G, G, attached as before described to E, E, are for the purpose of guiding and sustaining the outer edge of the knives A, A, when in use, and of preventing them from springing laterally, as they are brought down to the work.

M, (Fig. 1) represents the molding to be cut. The sliding rest B, with the knives A, A, attached thereto is operated by means of the lever H, (Fig. 2) working upon the pin P, through the slot in H, at K. The fulcrum of H is at P', and P' is attached to L a projection of the main frame E, E.

The knives A, A are formed and ground diagonally in such a manner as to give a shearing cut to the molding M, and said knives are so set that at the apex of their

angle they project somewhat into the groove α , (Figs. 1 and 3) formed in that portion of the frame E, E, and the sliding rest B is curved out at the bottom, as represented in such a manner as to permit the knives to pass fully through the molding M, before the rest is brought in contact with the bottom of the frame E, E. The knives A, A, are ground to an edge on their inner sides, as represented in Fig. 1, so that when they are in the act of cutting the molding M, the tendency is to crowd or spring the knives outward which tendency, if permitted would seriously interfere with the proper working of the machine, but the said crowding out or springing is wholly prevented by the said groove at α , and by the flanges G, G, since both the outer and inner edges of said knives when at work are guided and supported and prevented from springing outward or laterally by resting and sliding against the groove α and the flanges G, G.

I do not claim as my invention the use of the knives A, A, adjusted at right angles and attached to the sliding rest B, since the same arrangement substantially is shown in the combination patented by George Le Baw June 27th, 1854, but

What I do claim as new and of my own invention is—

1. The use in miter machines of the flanges G, G, and the groove α in the frame E, E for the purpose of guiding and sustaining the outer and inner edges of the knives A, A, and preventing them from springing substantially as herein set forth.

2. I claim the combination together of the flanges G, G, the frame E, E, with the groove α , and sliding rest B, substantially in the manner and for the purpose herein set forth.

STEPHEN W. HALL.

Witnesses:

JOHN A. MONTGOMERY,
GEO. MORRIS REPASS.