J.N.Kikendall.F.Mach.forLaying out Sash.

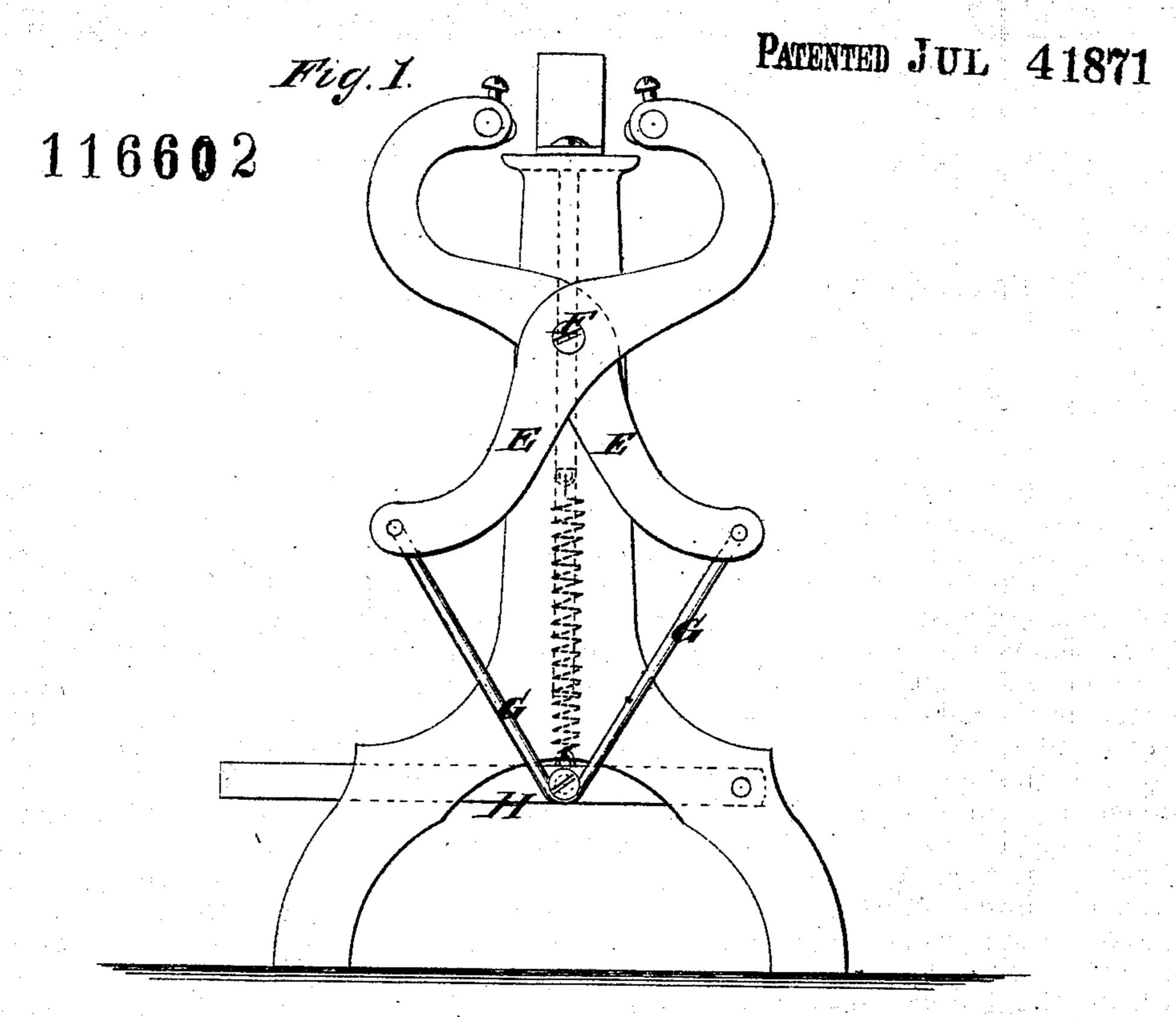
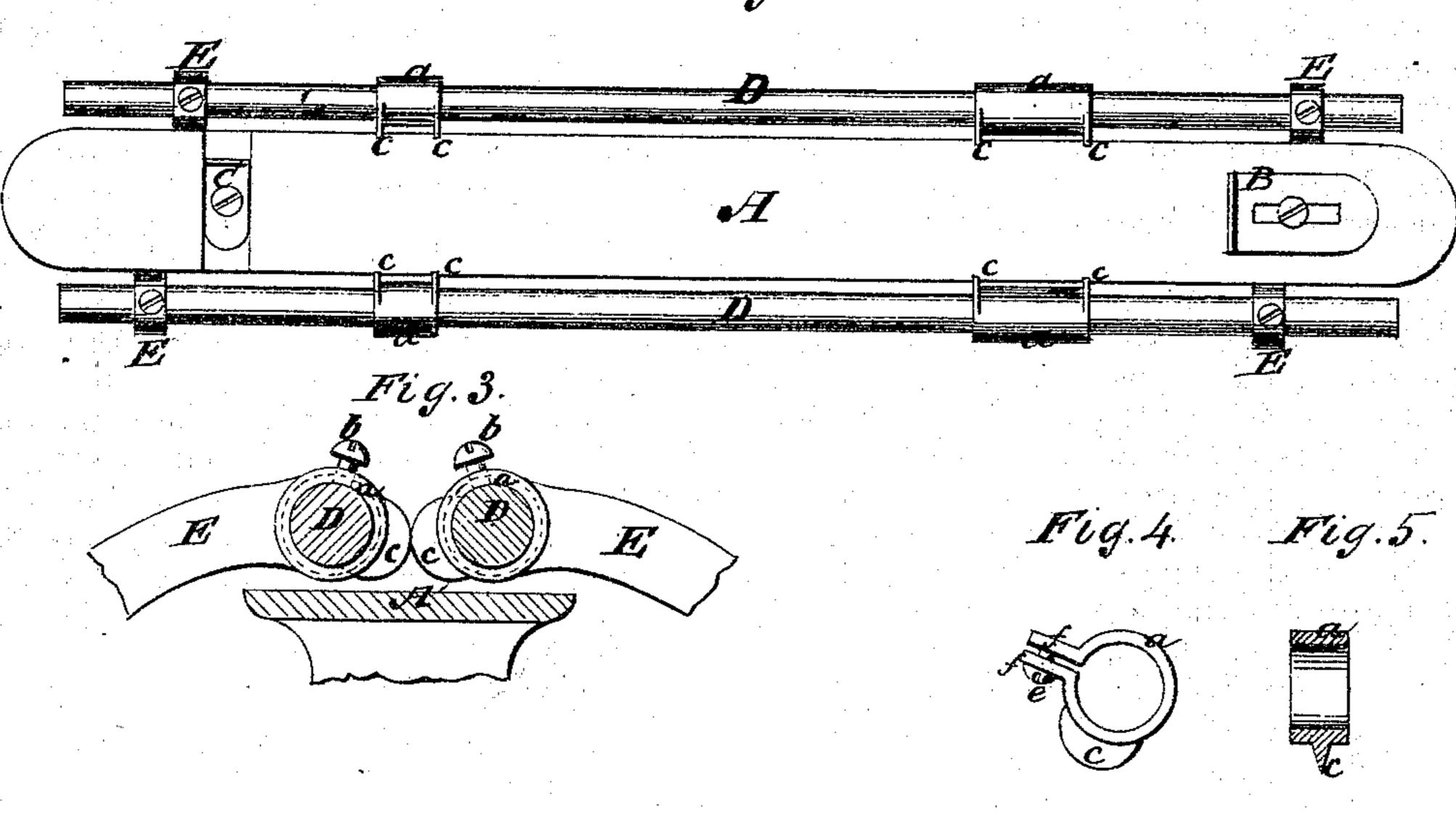


Fig. 2



Witnesses:

G. Walf. ym 86.6.3 mith, Juventor:

J. N. Toirendall, jr.

Attorners.

UNITED STATES PATENT OFFICE.

JOHN N. KIKENDALL, JR., OF VIRGINIA, ILLINOIS.

IMPROVEMENT IN MACHINES FOR LAYING OUT SASH.

Specification forming part of Letters Patent No. 116,602, dated July 4, 1871.

To all whom it may concern:

Be it known that I, John N. Kikendall, Jr., of Virginia, in the county of Cass and State of Illinois, have invented a new and Improved Machine for Laying Off Sash; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in machines for laying off sash; and it consists in a pair of rods, carrying adjustable cutters, arranged above a table, on which the bars to be laid off are placed to work reciprocally toward and from each other and the table by the action of a foot-lever and a spring, for cutting or marking both sides at once, by pinching the bar between them, all as hereinafter described.

Figure 1 is an end elevation of my improved machine. Fig. 2 is a top view. Fig. 3 is a cross-section through the bars and the table. Fig. 4 is a side elevation of one of the knives and clamp for attaching it to the rods, and Fig. 5 is a section through Fig. 4.

Similar letters of reference indicate corresponding parts.

A is a long narrow table mounted on any suitable stand, and provided with a gauge, B, for the end of the bar, made adjustable lengthwise of the table; also, provided with one or more gauges, C, adjustable transversely of the table for holding the sash-bars to be laid off in the center of the table, being pressed or held against the vertical parts of the said gauges by hand or otherwise. D represents the rods which carry the cutters C. They are mounted in the upper ends of the curved levers E, which are pivoted to the

stand at F, and connected to the foot-treadle H by rods G, as shown, there being one pair of said levers at each end of the machine for supporting. the said bars at each end. The sash-bars to be laid out are placed on the table with one end against gauge B, by which they are held in the right position relatively to the cutters in the lengthwise direction, and the said cutters, being also adjusted properly on the rods D from the end of the bar and from each other, are brought up against the sides simultaneously, marking both at once. The treadle is raised and the bars moved back by a coiled spring. The cutters are made convex on the cutting-edges, as shown, and they are attached to the rods by tubes a and setscrews b, so that they may be turned on the said rods, as well as shifted along lengthwise, for causing the blades to project more or less toward the bar to be acted upon, according to whether it be thick or thin. Instead of securing the cutter-tubes to the rods by the set-screw b they may be divided and be clamped upon the rods by the screws epassing through ears f.

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

1. The combination, with the table A, having gauges B and C, of the rods D and adjustable cutters C thereon, constructed to move reciprocally toward or from each other and the table, substantially as specified.

2. The rods carrying the cutters mounted in a pair of curved arms, E, pivoted together and to the table at each end, and operated by a treadle, H, and spring, all substantially as specified.

JOHN N. KIKENDALL, Jr.

Witnesses:

J. B. CRAFT, HENRY BEVIS.