

(No Model.)

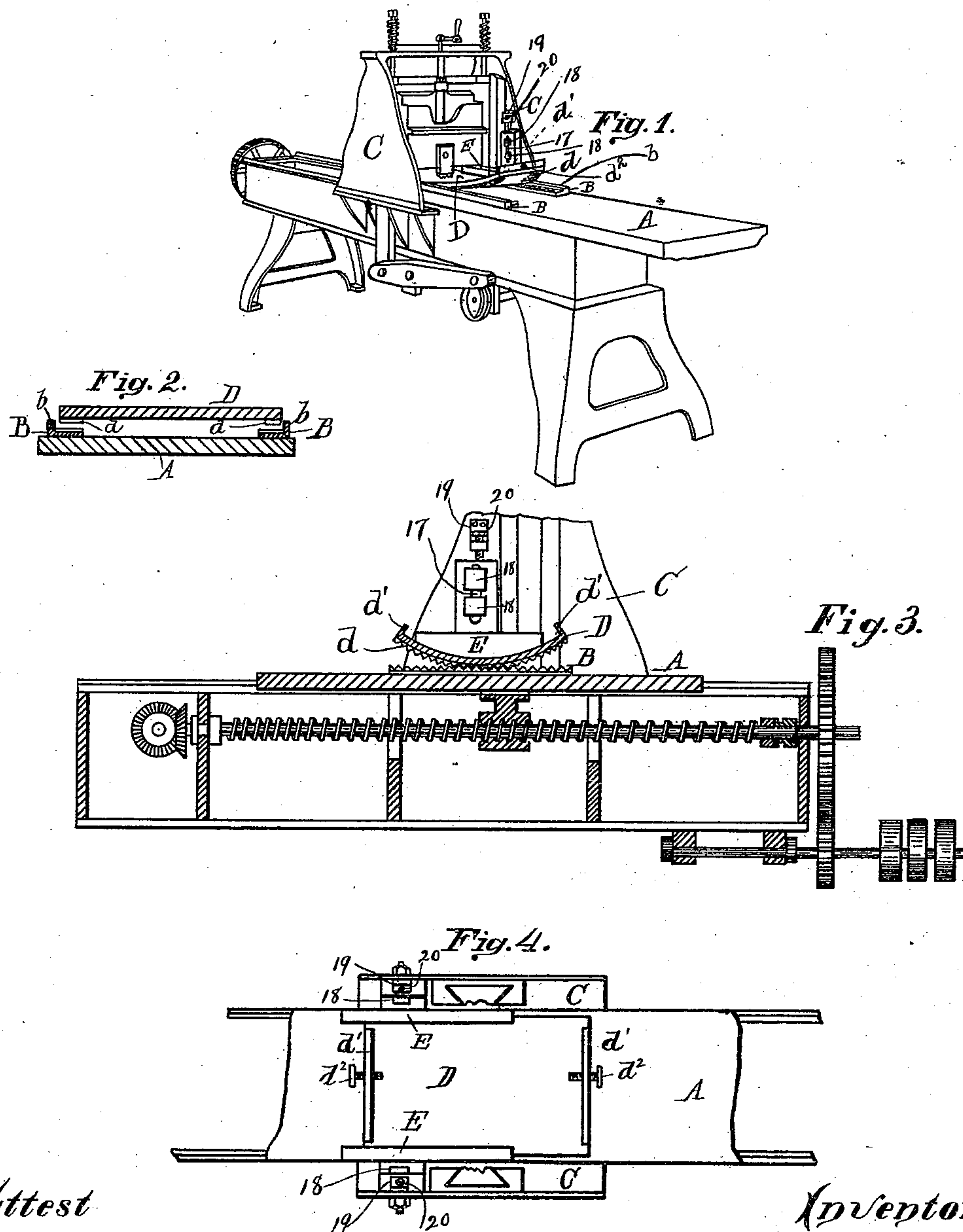
2 Sheets—Sheet 1.

G. P. VICKEN.

MACHINE FOR CUTTING WOOD MOLDINGS.

No. 355,575.

Patented Jan. 4, 1887.



Attest

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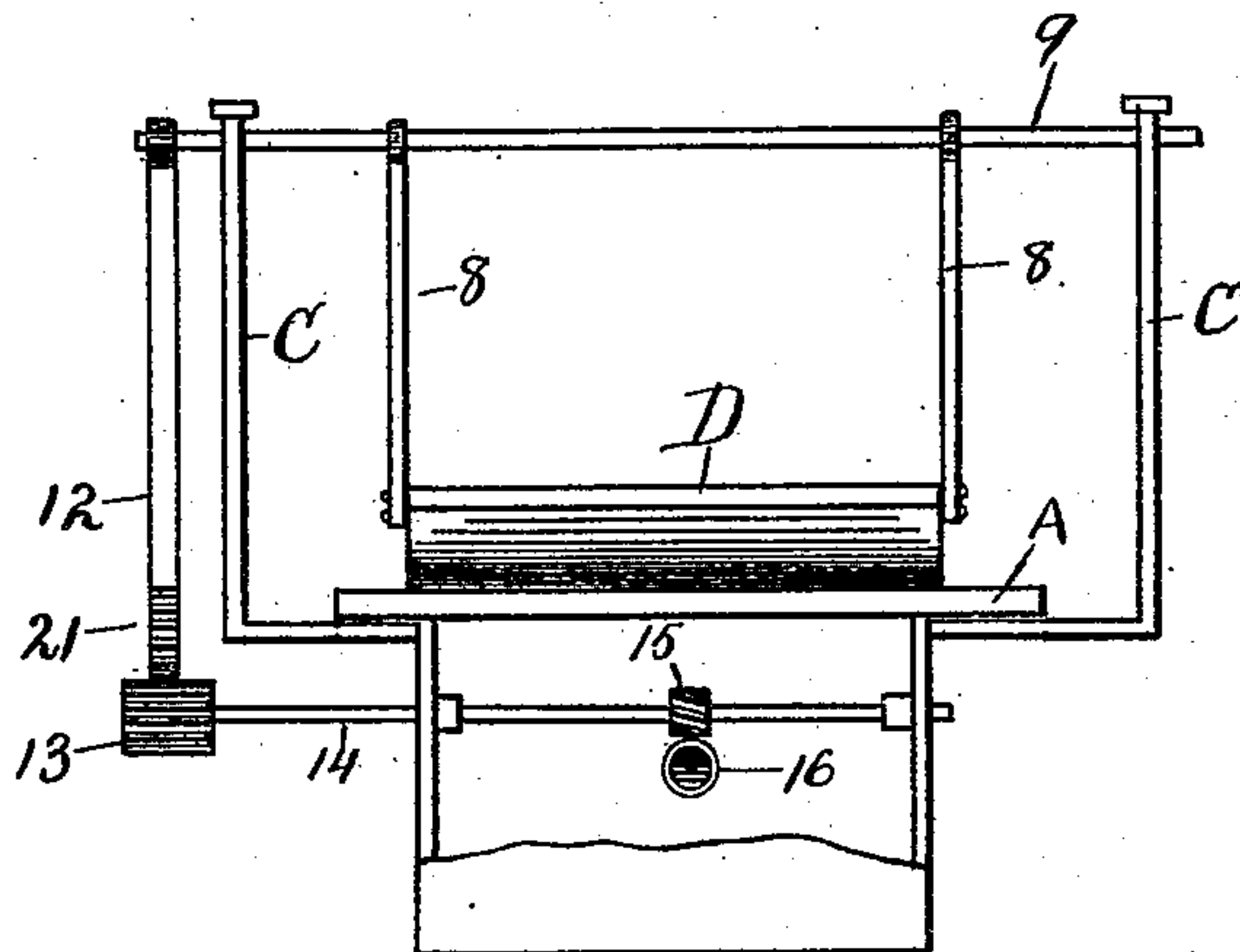
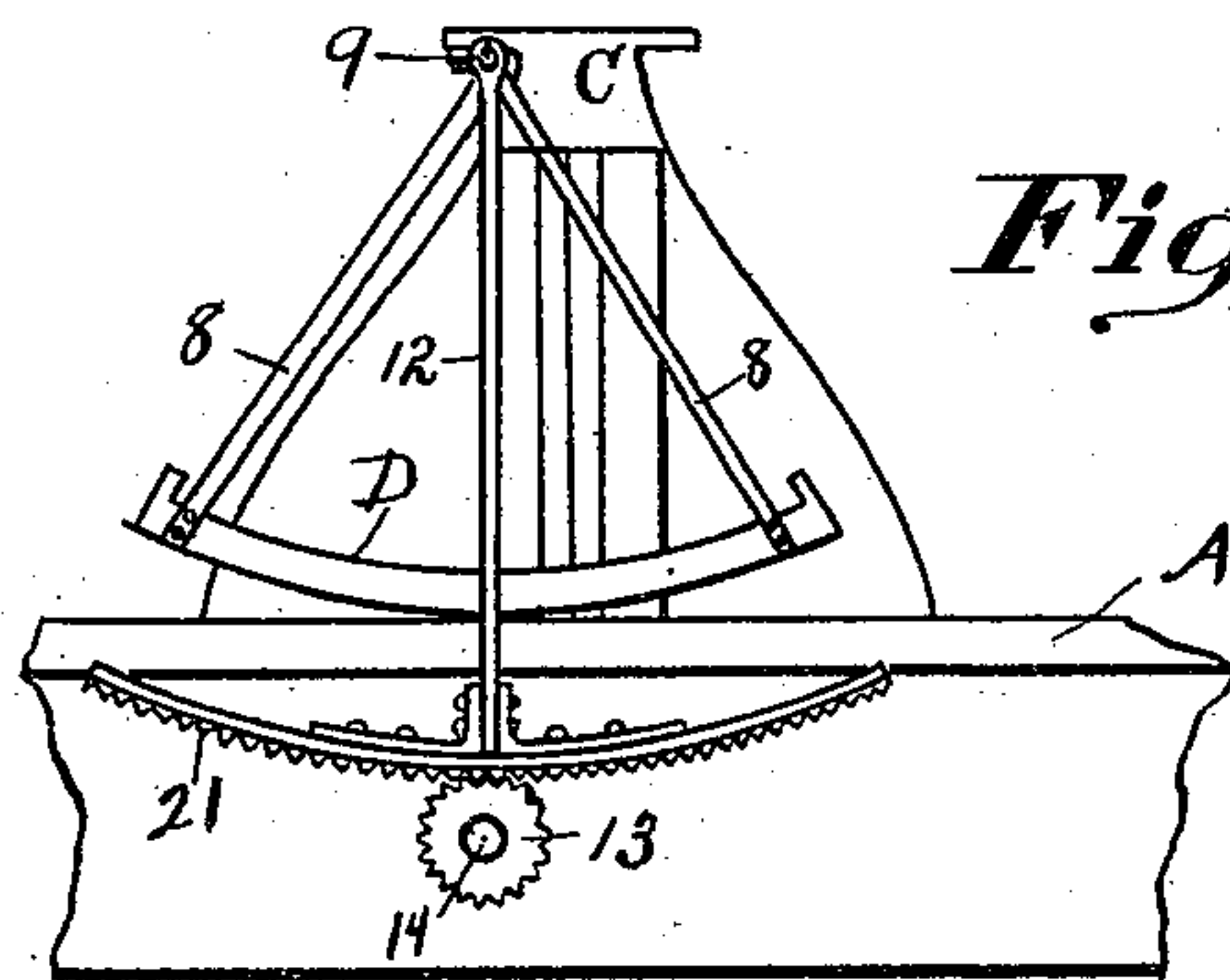
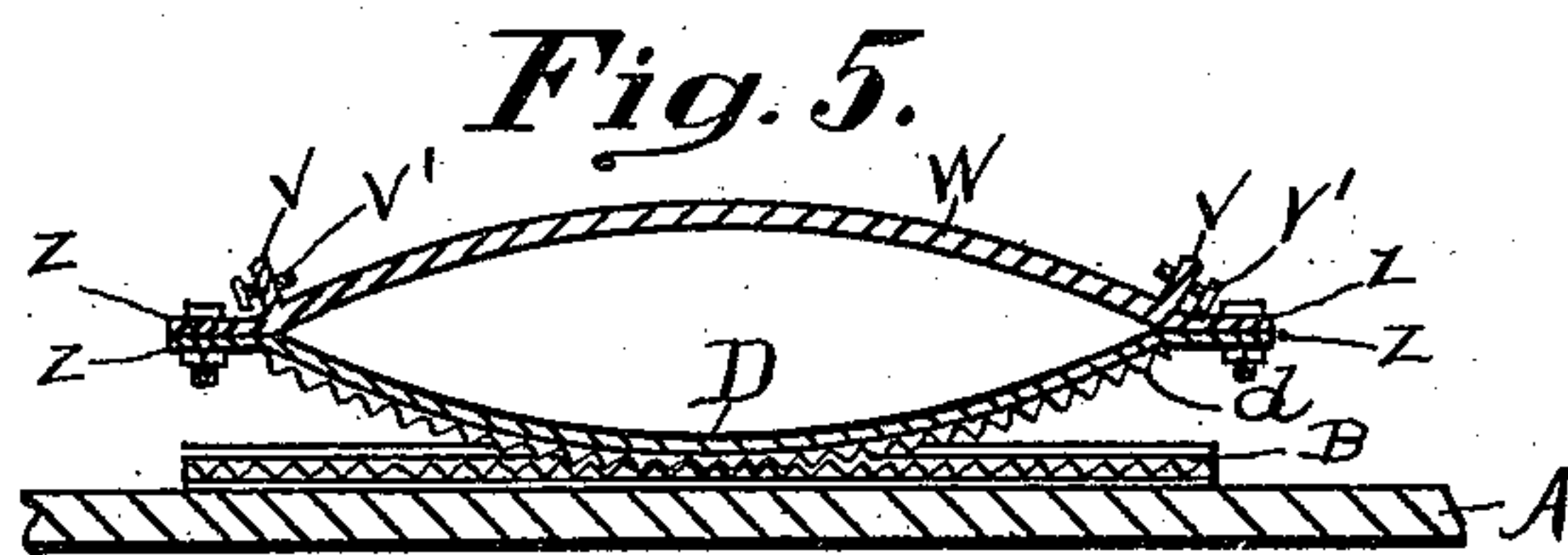
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*Fig. 7.*

*Attest*

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# UNITED STATES PATENT OFFICE.

GEORGE P. VICKEN, OF CINCINNATI, ASSIGNOR TO JOHN T. SARGENT, OF  
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## MACHINE FOR CUTTING WOOD MOLDINGS.

SPECIFICATION forming part of Letters Patent No. 355,575, dated January 4, 1887.

Application filed June 7, 1886. Serial No. 204,294. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE P. VICKEN, a citizen of the United States, and a resident of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Machines for Cutting Wood Moldings, of which the following is a specification.

The object of my invention is to provide a machine for cutting moldings on a surface curved either convexly or concavely, the curving being either away from or toward the knife.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a machine provided with my improvements. Fig. 2 is a vertical cross-section through the straight and curved tables, the latter being elevated above its true position to facilitate illustration. Fig. 3 is a central longitudinal section through the body and plates of the machine shown in Fig. 1. Fig. 4 is a partial top view of the machine shown in Fig. 1, the knife-carrying apparatus being partly broken away to show the curved plate. Fig. 5 is a vertical central section of the straight and curved tables shown in the preceding figures, and also of an additional table or part for enabling the knife to cut moldings on a convex surface. Fig. 6 illustrates in side elevation another mode of feeding the plates forward, and at the same time keeping the wood to the knife. Fig. 7 is a front elevation of the device shown in Fig. 6.

My invention can be used with any machine for cutting moldings which is provided with means for feeding the wood forward and with a knife or cutter which may be either stationary or capable of a reciprocating motion.

The machine shown on the drawings has a knife with a vertical reciprocating motion, the mechanism for operating which is not fully shown here, but is fully described in another application for Letters Patent, Serial No. 203,974.

So much of the machine herein described as is applicable to the cutting of moldings on a flat surface is made the subject-matter of my application for patent, Serial No. 203,974, and is therefore not claimed in this application.

The longitudinally-moving table A is provided on each side with a rack, B. Each rack B has on its outer edge an upwardly-projecting flange, b. The plate D is curved substantially as shown in the drawings. The curve of

the plate D is such as to fit the particular piece of work to be cut; hence when there are different pieces of work, each having a different curve, a like number of curved plates for each machine will be needed. The plate D is provided on each side of its under or convex surface with a rack, d, the teeth of which mesh with those of rack B. A suitable clamping device for holding the piece to be cut to the curved plate is present. A preferred description of such device is as follows: Each end of the curved plate D is provided with an upwardly-extending flange, d'. Each or either of these flanges is provided with one or more clamping-screws, d'', to secure the piece to be cut to the curved plate. The vertical supports C, which form the guides for the knife-frame, are also provided with means for keeping the curved plate in such a position as that the straight plate or table will be tangent to the latter. The means which I prefer for this purpose are two rigid guides, E. These guides E project inwardly, and are suitably supported, preferably by being connected, as shown, to the vertical guides or supports C, and the construction of these guides and their means of support should be such that the guides may be adjusted to the curved plate D, in order to be enabled to keep the curved plate constantly and correctly guided in its rocking movement.

A desirable mode of such adjustment is as follows, viz: The guide has a vertical slot, 17, through which pass bolts 18 18, which latter pass through the support C. Above the guide is bolted or otherwise secured to the support C a lug, 19, through which is screwed an adjusting-screw, 20, whose lower end bears against the upper end of the guide. By turning this set-screw the guide is kept close and firmly held to the plate D, and the bolts being tightened the guide E is held firmly to place against the support C, and all lateral movement of the guide is prevented. Thus the guide E is held steady and to place.

The construction of the opposite guide and its mode of adjustment are preferably similar to that described.

The mode of operation of the machine is as follows: A plate, D, having the same curve as the piece of wood to be molded, is first selected and attached to the machine. The piece to be molded is then clamped on the plate D by



means of the clamping-screws  $d'$ . When the machine starts, the front end of the curved plate is under the guides E, and the rear end is tilted high up. As the table A moves forward, the curved plate D is carried forward by the racks B, and in this motion it moves in the arc of a circle which is at all times tangent to the plane of the table A. In this way the surface of the wood at the point of cutting is always in the proper position to form the moldings, so that the surface of the molding shall be in a true curve, and so that the wood at the point where the molding is being cut shall be thoroughly supported.

Among the various uses for which my invention is adapted is the cutting of chair-backs.

When it is desired to cut a molding on a convex surface, a convex plate, W, is located on plate D, (see Fig. 5,) the convex side being outward, as shown, and the plate W being secured to the plate D in a convenient manner, one mode of so securing the two plates together being shown, and consists in providing each plate with end flanges, Z Z, and bolting together the flanges of adjacent ends of these plates. The wood on which the molding is to be cut is placed on the plate W and clamped thereto by means of the flanges  $v$ , fixed on the plate W, and screws  $v'$ , or other suitable means.

The plate D may be supported by side hangers, 8 8, (see Figs. 6 and 7,) these hangers being suspended from a rod or shaft, 9, in turn upheld by suitable supports, C, the shaft 9 be-

ing caused to make a partial revolution by a suitable mechanism, of which one description is shown—viz., lever 12, at one end fixed to the shaft 9, and at its lower end carrying a rack, 21, in turn rotated by pinion 13, fixed on a shaft, 14, in turn rotated by the beveled pinion 15, engaging worm 16, or other suitable mechanism.

The plate W may be equally well applied to plate D when operated as in Figs. 6 and 7, or in any other manner.

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

1. In a machine for cutting wooden moldings, the combination of the reciprocating knife, the straight table A, provided with racks, the removable curved table D, having segmental racks, and the guides E, substantially as and for the purposes specified.

2. In a machine for cutting wooden moldings, the combination of the reciprocating knife, table A, provided with racks B, curved plate D, provided with racks  $d$ , and uprights C, provided with guides E, substantially as and for the purposes set forth.

3. The combination of the curved plate D, guides E, each having slot 17, bolt or bolts 18, lug 19, and set-screw 20, substantially as and for the purposes set forth.

GEO. P. VICKEN.

Witnesses:

M. M. SMITH,  
JNO. W. STREHLI.