





# UNITED STATES PATENT OFFICE.

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## PERFORATING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 749,593, dated January 12, 1904.

Application filed June 8, 1903. Serial No. 160,548. (No model.)

*To all whom it may concern:*

Be it known that I, EMORY A. TRUSSELL, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Perforating-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a machine for perforating sheets of paper, such as are commonly used in temporary binders or other loose-sheet-holding devices.

The invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a perspective view of my machine. Fig. II is an end elevation of the rear portion of the machine. Fig. III is a section taken on line III III, Fig. I.

1 designates the bed of my machine, which serves as a table for the sheets of paper to be perforated. At the rear edge of the bed 1, at its upper side, is a shoulder 2, extending longitudinally of the bed and designed for service in supporting the forward ends of the punch-holders, to be hereinafter more particularly referred to.

3 designates a clamp member that is integrally connected with the lower edge of the rear side of the bed 1 by a web 4 and which extends upwardly from said web in a position parallel with the rear side of the bed to said web 4, being of a thickness throughout its length slight enough to provide a resiliency, so that the clamp member may be sprung toward the rear side of the machine-bed. Extending longitudinally of the clamp member, on a horizontal line corresponding to that of the shoulder 2, is a die-holder-supporting shoulder 5.

6 designates a series of clamp-bolts the head ends of which are seated in a rib 7, projecting downwardly from the table of the bed 1, and the threaded ends of which pass through the clamp member 3 and bear nuts 8, as seen in Figs. II and III. The bolts 6 are retained from rotation in the rib 7 by non-circular

head portions 6', that are fitted in correspondingly-shaped recesses in said rib.

9 designates stop-studs carried by the rib 7 and clamp member 3 in opposition to each other and designed for service to limit the forward movement of said clamp member and prevent breakage thereof through the exertion of undue clamping action by the bolts 6.

10 designates punch-holders that seat upon the shoulders 2 and 5 of the bed 1 and clamp members 3, to be held between such parts by pressure exerted thereagainst through the medium of the clamp member. Each of the punch-holders is provided with a sheet-receiving slot 11, into which the sheets of paper rested on the table of the bed 1 are introduced.

12 designates spring-held punches operating in the punch-holders 10 to perforate the sheets of paper fed into the slots 11.

13 is a pressure-head provided with a handle 14 and hinged at 15 to post 16, surmounting the clamp member 3. This pressure-head is adapted to be pressed onto the punches 12 to drive them through the sheets of paper introduced into the punch-holders.

17 designates a gage-rod situated beneath the punch-holders 10 and having an upturned end 18, that serves as a stop for the sheets of paper being perforated when fed into the punch-holders to thereby provide accurate and uniform punching of a series of sheets of paper operated upon. The gage-rod 17 is yieldingly held by a clamp-spring 19, one end of which is secured to the rib 7 of the bed 1 and the opposite free end of which bears against the gage-rod to hold it from being accidentally displaced after it is set in the desired position.

In the practical use of my machine the punch-holders 10 are seated on the shoulders 2 and 5, provided for their reception, and spaced apart in the requisite degree to properly position the punches 12 at a distance from each other corresponding to that at which it is desired to produce the perforations in the sheets of paper to be operated upon. The nuts of the clamp-bolts 6 are then turned inwardly on said bolts, and the clamp member 3 is carried



forwardly to bind the bases of the punch-holders between the clamp member and the bed 1 and retain them fixedly in the positions in which they have been set. The machine is  
5 then in condition for service, and the sheets may be fed into the punch-holders to be perforated by forcing the punches 12 there-through under the action of the pressure-head 13, operated through the medium of the hand-  
10 lever 14.

I claim as my invention—

1. In a perforating-machine, the combination of a bed, a clamp member resiliently and integrally connected to said bed, means for  
15 moving said clamp member toward said bed and punch-holders held between said bed and clamp member, substantially as set forth.

2. In a perforating-machine, the combination of a bed, a clamp member resiliently and  
20 integrally connected to said bed, means for moving said clamp member toward said bed, punch-holders held between said bed and clamp member, and stops for limiting the movement of said clamp member with respect  
25 to said bed, substantially as set forth.

3. In a perforating-machine, the combination of a bed, a clamp member resiliently and integrally connected to said bed, clamp-bolts connected to said bed and passing through

said clamp member, nuts carried by said clamp-bolts, and punch-holders held between said bed and clamp members, substantially as set forth. 30

4. In a perforating-machine, the combination of a bed, a clamp member resiliently and  
35 integrally connected to said bed, clamp-bolts connected to said bed and passing through said clamp member, nuts carried by said clamp-bolts, punch-holders held between said bed and clamp member, and stop-studs positioned between said bed and clamp member to  
40 limit the movement of said member, substantially as set forth.

5. In a perforating-machine, the combination of a bed provided with a shoulder at its  
45 rear side, a web extending from said bed and integral therewith, a clamp member carried by said web and having a shoulder, punch-holders seated on said bed and clamp-member shoulders, and clamp-screws connecting said  
50 bed and clamp member to force said clamp member into binding engagement against said punch-holders, substantially as set forth.

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In presence of—

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