No. 635,884. Patented Oct. 31, 1899.

H. E. WALTZ.

PAPER CUTTING MACHINE.

(Application filed June 24, 1899.)

(No Model.)

Fig. 1.

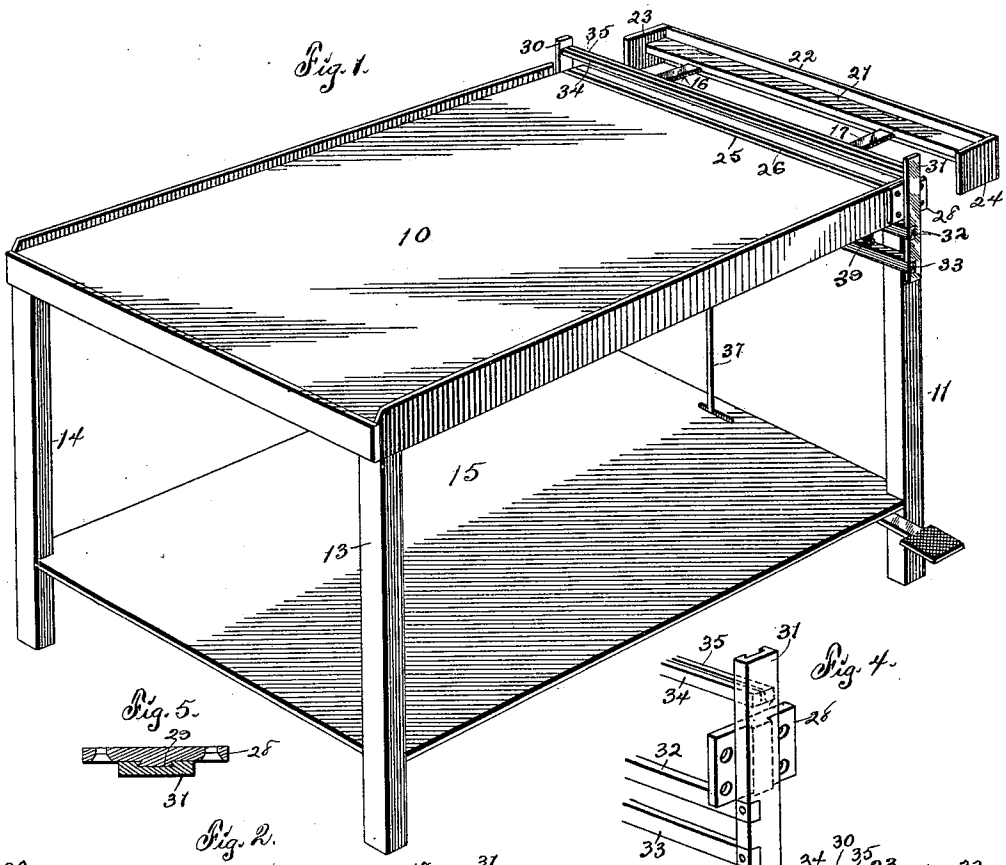


Fig. 5.

Fig. 4.

Fig. 2.

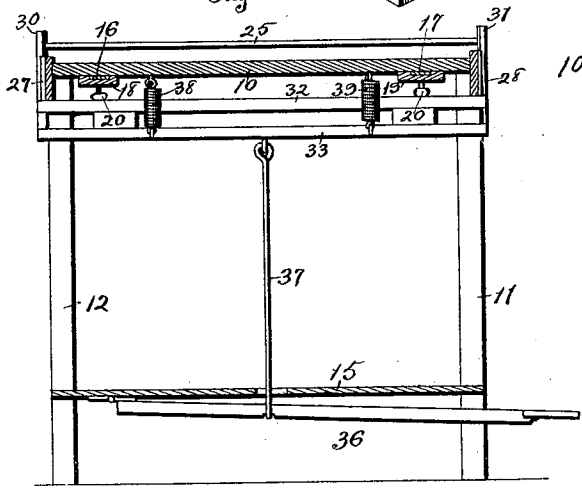
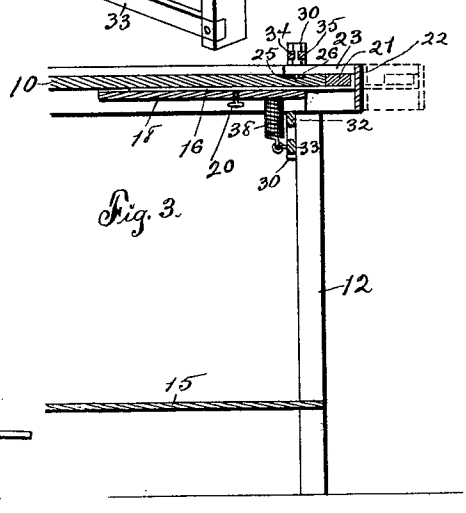


Fig. 3.



Witnesses:
Fred H. Orwig.
Thomas G. Orwig.

Inventor:
Henry E. Waltz.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HENRY E. WALTZ, OF DES MOINES, IOWA.

PAPER-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 635,884, dated October 31, 1899.

Application filed June 24, 1899. Serial No. 721,729. (No model.)

To all whom it may concern:

Be it known that I, HENRY E. WALTZ, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Paper-Cutting Machine, of which the following is a specification.

The object of this invention is to provide improved means for holding sheets of paper in mass, measuring a predetermined area of said paper, closely pressing the sheets together in the mass, and guiding a cutter in severing the sheets.

My invention consists in the construction, arrangement, and combination of elements hereinafter set forth, pointed out in my claims, and illustrated by the accompanying drawings, in which—

Figure 1 is a perspective of the complete device. Fig. 2 is a vertical cross-section of the device. Fig. 3 is a vertical longitudinal section of a portion of the device. Fig. 4 is an enlarged detail perspective of a portion of the device. Fig. 5 is a cross-section of the device shown in Fig. 4.

In the construction of the device, as shown, the numeral 10 designates a bed supported by legs 11, 12, 13, and 14, vertically positioned and arranged to rest on a floor or other approximately level surface. A shelf 15 is mounted on the legs below and parallel with the bed 10. Bars 16 17 are mounted for longitudinal sliding movement in slides 18 19, fixed to the lower face of the bed 10, and said bars project beyond the bed. Set-screws 20 are mounted in and extend below the slide-bearings 18 19, and the inner ends of said screws impinge at times with the bars 16 17 and lock said bars against further movement when the same have been adjusted longitudinally to the desired extent. A cross-head 21 is mounted on and transversely of the projecting ends of the bars 16 17, and the upper surface of said cross-head is in the same horizontal plane as the upper surface of the bed 10. The cross-head 21 is provided with a flange 22 along its forward edge, which flange projects upwardly and downwardly therefrom. The cross-head 21 also is provided with flanges 23 24, mounted on and projecting upwardly and downwardly from the ends thereof. A groove is formed in the upper surface of the bed 10, near one end thereof and transversely parallel with the cross-head 21, and guide-bars 25 26 are mounted in said groove and spaced apart parallel with each other therein. Bearing-plates 27 28 are mounted on the sides of the bed 10, at the ends of the groove in said bed, and are provided with dovetail ribs 29, Fig. 5. Slide-bars 30 31 are provided with dovetail grooves on their inner faces and are mounted vertically on the outer faces of the bearing-plates 27 28, the ribs 29 entering the grooves and forming slide-bearings for the bars. Cross-bars 32 33 connect the slide-bars below the bed 10, and the upper ends of the slide-bars are connected by guide-bars 34 35, fixed thereto at their ends and arranged transversely of and parallel with the bed. The guide-bars 34 35 are located above and in the vertical plane of the guide-bars 25 26 and are spaced apart parallel with each other to admit a cutting-knife. A foot-lever 36 is fulcrumed at one end to the lower surface of the shelf 15, and a rod 37, extending through said shelf, connects said lever with the central portion of the cross-bar 33. Retractile coil-springs 38 39 connect the cross-bar 33 with the bed 10 and tend to elevate the guide-bars 34 35 from the bed.

In practical operation the sheets are assembled in mass on the bed 10 with two on the margins of the pile in contact with one of the flanges of the bed and the flange 22 of the cross-head 21. The cross-head and pile are then moved outwardly the desired distance, the screws 20 adjusted, the lever 36 depressed to move the guide-rods 34 35 down and clamp the pile to the bed, and then a knife or cutter is placed between the guide-rods and drawn through the paper pile by manual force to sever the sheets on a straight line under the control of the guide-rods both above and below the pile. When foot-pressure is released from the lever 36, the guide-rods 34 35 and their connecting parts rise away from the pile under the retractile influence of the springs 38 39, and the cross-head and pile may be adjusted for another length of cut as desired. The cutter employed may be any ordinary knife or a rotary cutter, as is most convenient, and is not shown, as it forms no part of my invention.

I claim as my invention—

1. In a machine of the class described, the combination of the bed provided with a guiding-slot transversely thereof, a cross-head flush with and adjustable relative to said bed, a clamp arranged for vertical reciprocation and extending transversely of the bed in vertical alinement with the slot therein and slotted in registration with the said slot, and means for reciprocating said clamp.

2. In a machine of the class described, the combination of the bed, the bearing-plates mounted on said bed and provided with dovetail ribs, the slide-bars provided with dovetail grooves mating the dovetail ribs, the cross-bars connecting said slide-bars, the guide-bars connecting the upper ends of the slide-bars and spaced apart parallel with each other, guide-bars in the bed in alinement with the first said guide-bars and spaced apart parallel with each other, a foot-lever connected with the connecting-bars and springs connected with said bars and arranged to move the same in opposition to the movement thereof by the foot-lever.

HENRY E. WALTZ.

Witnesses:
SAML. H. ORWIG,
THOMAS G. ORWIG.