

G. F. ARBURG.
 APPARATUS FOR REDUCING THE THICKNESS OF CUTS OR BLOCKS.
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991,468.

Patented May 9, 1911.

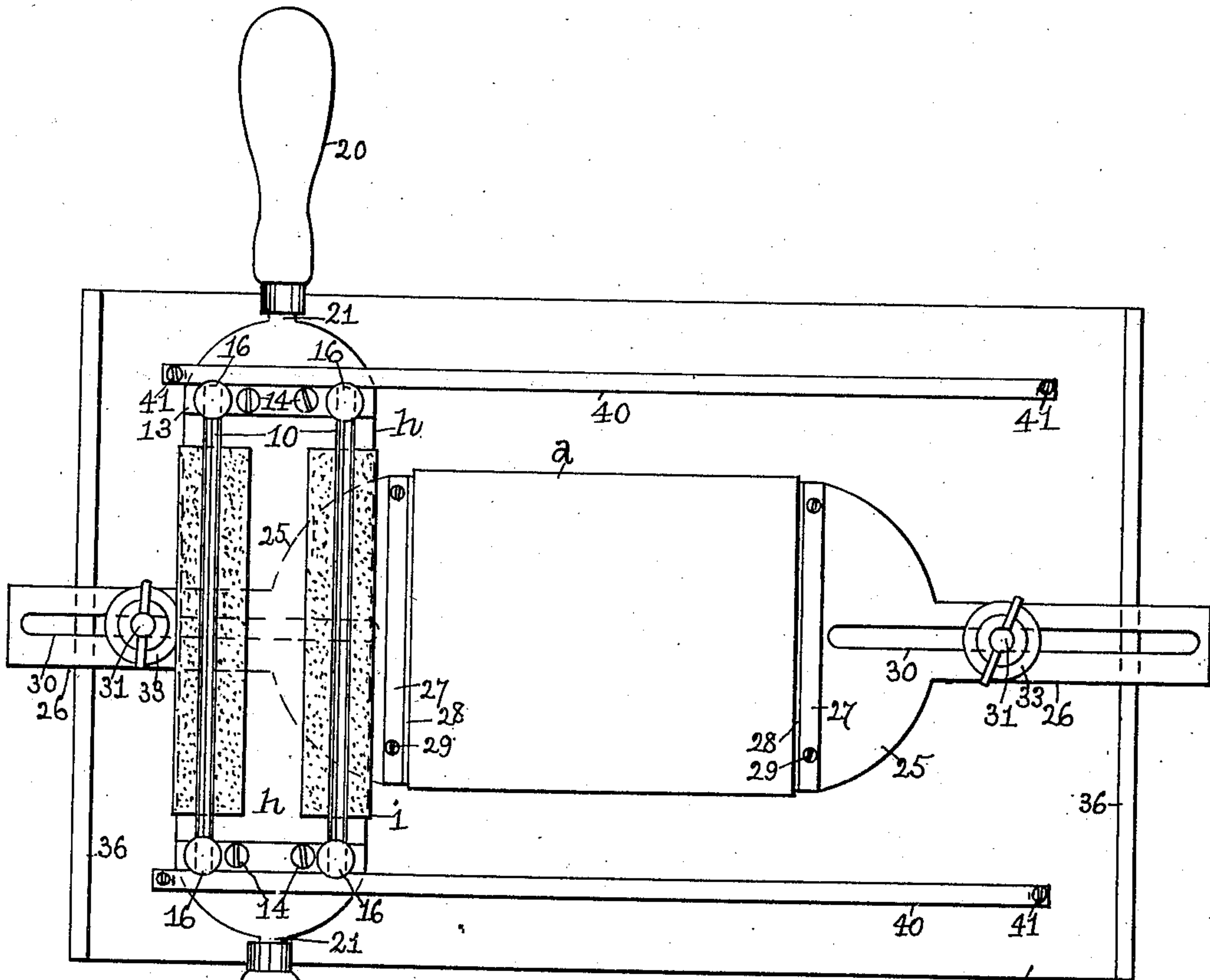


Fig. 1.

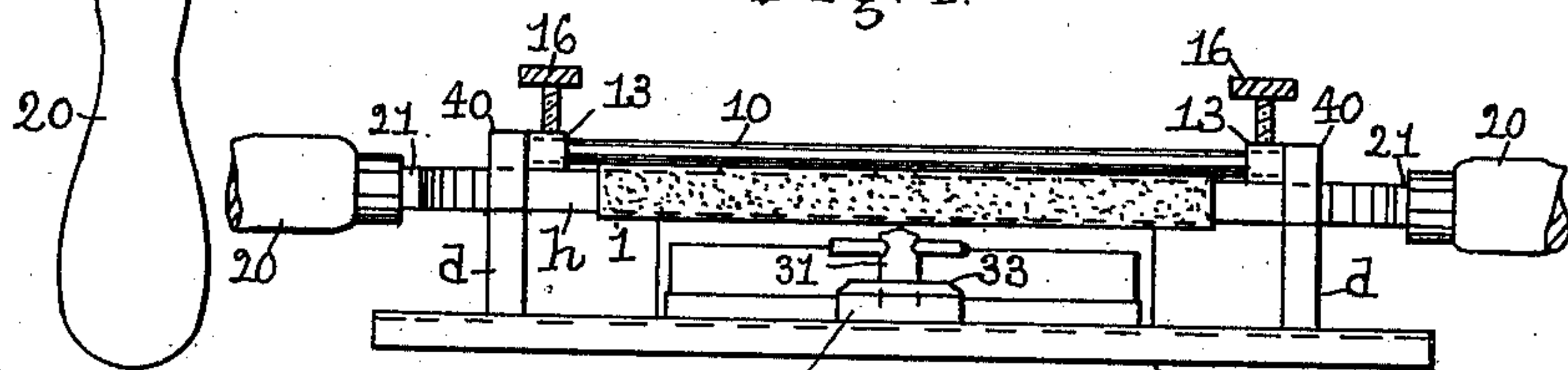


Fig. 2.

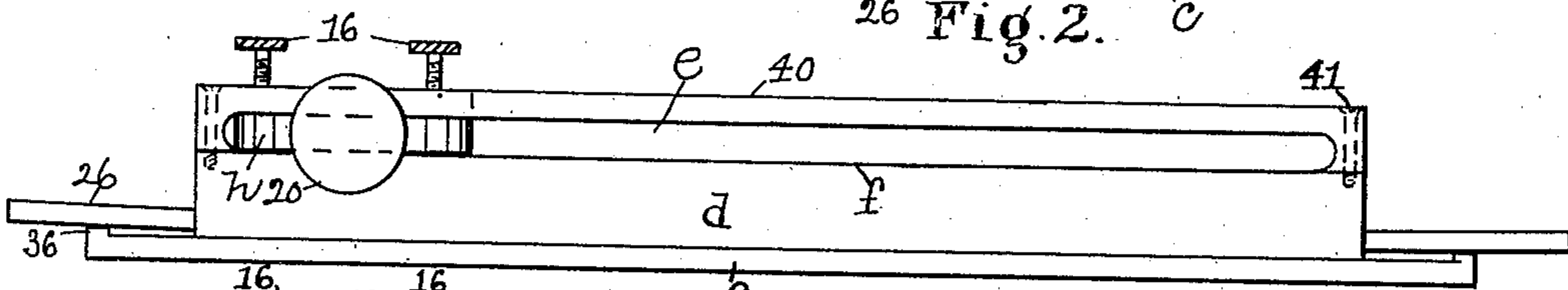


Fig. 3.

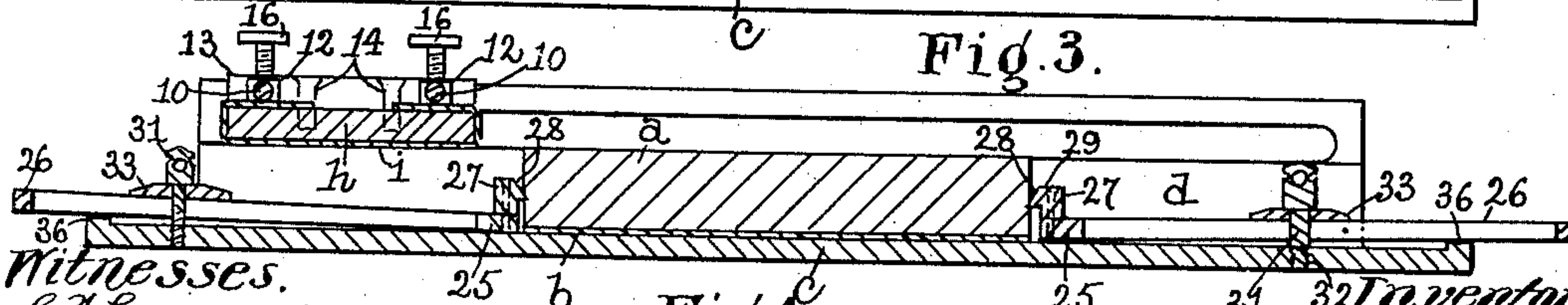


Fig. 4.

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UNITED STATES PATENT OFFICE.

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APPARATUS FOR REDUCING THE THICKNESS OF CUTS OR BLOCKS.

991,468.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed July 12, 1909. Serial No. 507,184.

To all whom it may concern:

Be it known that I, GEORGE F. ARBURG, a citizen of the United States, residing in Revere, county of Suffolk, and State of Massachusetts, have invented an Improvement in Apparatus for Reducing the Thickness of Cuts or Blocks, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to an apparatus for reducing the thickness of half tone cuts or blocks to render them of uniform thickness and type high.

The invention has for its object to provide a simple, inexpensive and efficient apparatus for the purpose specified. To this end the apparatus is provided with a base to support the cut or block, and with upright sides or flanges to support and guide the tool employed to reduce the wooden backing of the cut or block. The side flanges are preferably provided with longitudinally extended slots in which the tool is moved. Provision is also made for firmly securing the cut or block in fixed position on the base. These and other features of this invention will be pointed out in the claims at the end of this specification.

Figure 1 is a plan view of an apparatus embodying this invention. Fig. 2, an end elevation. Fig. 3, a side elevation of the apparatus shown in Fig. 1, and Fig. 4, a longitudinal section on the line 4—4, Fig. 1.

Referring to the drawings, *a* represents the wooden back, and *b*, the face or type plate of a half tone cut or block, such as now commonly used in printing offices.

The present invention has for its object to provide a simple, inexpensive and efficient apparatus for reducing the thickness of the wood backing *a*, so that the cuts or blocks may be made of a uniform thickness so as to make all the cuts or blocks used in the establishment type high.

To this end, the apparatus consists of a metal base plate *c* provided with upright sides *d* separated from each other a sufficient distance to receive between them cuts or blocks of substantial width. The upright sides *d* extend longitudinally of the base plate and are preferably provided with longitudinally extended slots *e*, which have their lower walls *f* type high or substantially so, and through which are extended the ends of a tool for reducing the thickness of the

wooden back *a*. The tool referred to may be of any suitable construction and in the present instance, the tool is shown as a flat metal bar *h* of substantial width and of a thickness substantially equal to the height of the slots *e*, and provided with a reducing surface, which is represented in the present instance as a piece of sand paper *i*, which is passed under the bar *h* with its ends folded over upon the upper surface of the bar and firmly secured thereto by clamping rods 10, which have their ends inserted into holes or slots 12 in end cross bars 13 secured to the upper surface of the bar *h* by screws 14 or otherwise, said clamping bars being engaged by set screws 16, which press the said rods and the ends of the sand paper down against the upper surface of the bar *h* to firmly secure the sand paper in fixed relation to the said bar. The bar *h* is provided at its ends with handles 20, which may be detachably fitted onto projections 21 on said bar.

Provision is made for firmly securing the cut or block in a fixed position on the base plate, and for this purpose, the base plate has adjustably secured to it two holding devices or clamps, preferably made as herein shown, each device comprising a plate 25 of substantially the width of the block to be held, an arm 26 extended therefrom, and a bar 27 having a downwardly extended beveled edge 28, which is detachably secured as by screws 29 to the plate 25. The arm 26 is provided with a longitudinally extended slot 30 for the passage of a set screw 31, which enters a threaded socket 32 in the base plate, the head of said screw engaging a washer 33 resting on the arm 26.

Provision is made for causing the holding devices when fastened to the base plate, to force the block or cut down toward and into intimate contact with the base plate, which is accomplished as herein shown by providing the base plate with raised portions or projections 36, upon which the outer ends of the arms 26 rest (see Figs. 3 and 4.) As a result, the inner ends of the holding devices resting on the base plate are lower than the outer ends of said devices, and when the screws 31 are set up, the inner ends are firmly pressed down on the base plate and the downwardly beveled edge of the bar 27 as it is forced into the wood backing, presses the cut or block downward against the base plate and into firm engagement therewith, thereby insuring intimate contact of the

block with the base plate and uniformity in the finished blocks when the surplus of the block, which projects above the level of the lower surface of the tool is removed.

3 In operation with the device herein shown, the block or cut to be reduced is placed upon the base plate with the type plate *b* in contact with the same, and is rendered stationary by the holding devices above referred to. The operator grasps both handles 10 20 and reciprocates the reducing tool in the guideways or slots *c* in the upright sides *d*, until the backing has been reduced to the point where the tool ceases to remove any of 15 the backing.

I may prefer to use sand paper or other abrading material for removing the surplus of the backing *a*, but I do not desire to limit the invention in this respect, as a file, knife 20 or other tool may be secured to the bar *h* and used instead of the sand paper.

The upright sides or flanges *d* may be made in one piece, or, as is preferred, in two pieces, with the upper piece 40 detachably 25 secured to the lower piece by screws 41.

Claims:

1. In an apparatus of the character described, in combination, a base plate to support a cut or block, upright sides erected 30 upon the same and provided with longitudinally extended slots, a bar supported by said upright sides and having its ends extended through said slots, handles attached to the projecting ends of said bar, a piece of abrading 35 material passed under said bar and having its ends folded over upon the upper surface of said bar, uprights attached to said bar at its ends and provided with slots or openings, clamping rods inserted into said 40 slots, means to force the clamping rods toward said bar to firmly secure the abrading material to the upper surface of the same, holding devices adjustably secured to said 45 base plate and provided with downwardly beveled edges to engage the backing of the block or cut, raised portions on said base plate upon which the outer ends of the said holding devices rest, and means to secure 50 said holding devices to the base plate and force the free ends of the same down toward said base plate, substantially as described.

2. In an apparatus of the character described, in combination, a base plate to support a cut or block, upright sides erected 55 upon the same and provided with longitudinally extended slots, a tool extended across said base plate above the same with its ends extended through said slots, clamping devices to engage the cut or block and hold it 60 down on said base plate, and means to secure said clamping devices to said base plate, substantially as described.

3. In an apparatus of the character described, in combination, a base plate to support a cut or block, upright sides erected

upon the said base plate and separated to receive the cut or block between them, a tool to act on the upper surface of said block or cut extended transversely of the base plate and supported by said upright sides to move 70 thereon longitudinally of the same, devices located between said uprights to engage the opposite ends of the cut or block and hold it firmly against movement on the base plate and adjustable between said uprights longitudinally thereof, and means to secure said 75 devices to said base plate in their adjusted position, substantially as described.

4. In an apparatus of the character described, in combination, a base plate to support a cut or block, upright sides erected 80 upon the said base plate and separated to receive the cut or block between them, a tool to act on the upper surface of said block or cut extended transversely of the base plate 85 and supported by said upright sides to move thereon longitudinally of the same, holding devices extended between said uprights to engage the opposite ends of the cut or block and provided with arms, means on the base 90 plate to support the outer ends of said arms in an elevated position, and means to secure said holding devices to said base plate, substantially as described.

5. In an apparatus of the character described, in combination, a base plate to support a cut or block, upright sides erected 95 upon the said base plate and separated to receive the cut or block between them, a tool to act on the upper surface of said block or cut extended transversely of the base plate 100 and supported by said upright sides to move thereon longitudinally of the same, holding devices extended between said uprights to engage the opposite ends of the cut or block 105 and provided with arms having longitudinally extended slots, and set screws extended through said slots and engaging said base plate to secure the holding devices in fixed position on the base plate, substantially as 110 described.

6. In an apparatus of the character described, in combination, a base plate to support a cut or block, upright sides erected 115 upon the said base plate and separated to receive the cut or block between them, a tool to act on the upper surface of said block or cut extended transversely of the base plate and supported by said upright sides to move 120 thereon longitudinally of the same, holding devices extended between said uprights to engage the opposite ends of the cut or block and movable between the said uprights longitudinally thereof, means to support the outer ends of said holding devices above the 125 base plate, and means to secure said holding devices to said base plate, substantially as described.

7. In an apparatus of the character described, in combination, a base plate to support a cut or block, upright sides erected

port a cut or block, upright sides erected upon said base plate and provided with longitudinally extended slots, a tool extended transversely of the base plate with its ends
5 extended into said slots to be supported by the lower walls thereof and to move longitudinally thereon, holding devices to engage the opposite ends of the block or cut and secure the same in fixed position on said base
10 plate and movable on the base plate between the said uprights and longitudinally thereof, and means to secure said holding devices in fixed relation to said base plate, substantially as described.

15 8. In an apparatus of the character described, in combination, a base plate to support a cut or block, upright sides erected upon the said base plate and separated to re-

ceive the cut or block between them, a tool to act on the upper surface of said block or
20 cut extended transversely of the base plate and supported by said upright sides to move thereon longitudinally of the same, devices located between said uprights to engage the
25 opposite ends of the cut or block and hold it firmly against movement on the base plate, and means to secure said devices to said base plate, substantially as described.

In testimony whereof, I have signed my name to this specification in the presence of
30 two subscribing witnesses.

GEORGE F. ARBURG.

Witnesses:

JAS. H. CHURCHILL,
J. MURPHY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
