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PATENTED OCT. 4, 1904.

F. MURPHY.

MACHINE FOR DRESSING ELECTROS, ZINCS, OR HALF TONES.

APPLICATION FILED JUNE 1, 1903.

NO MODEL.

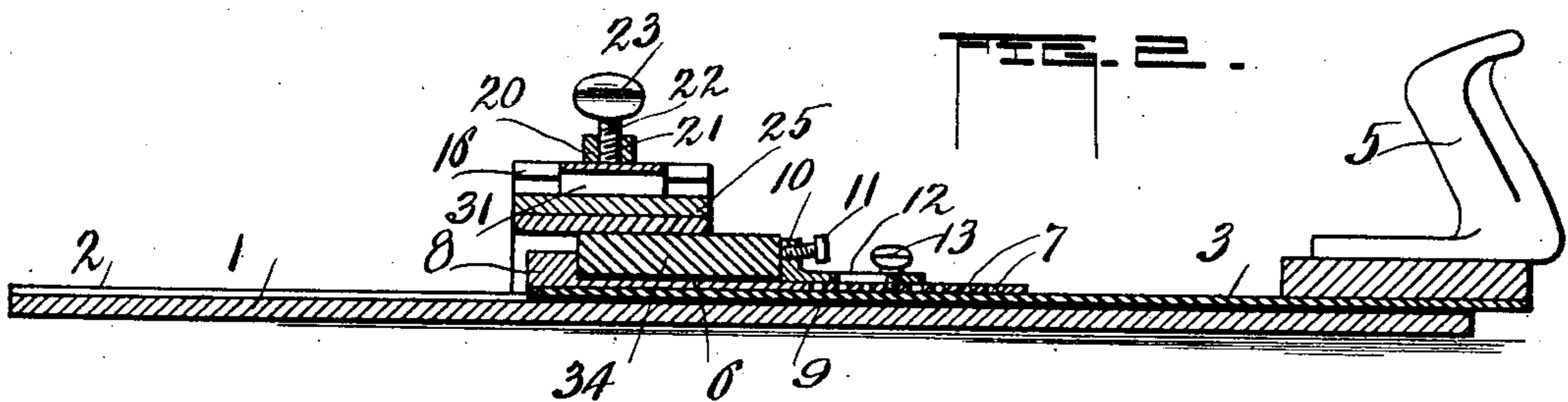
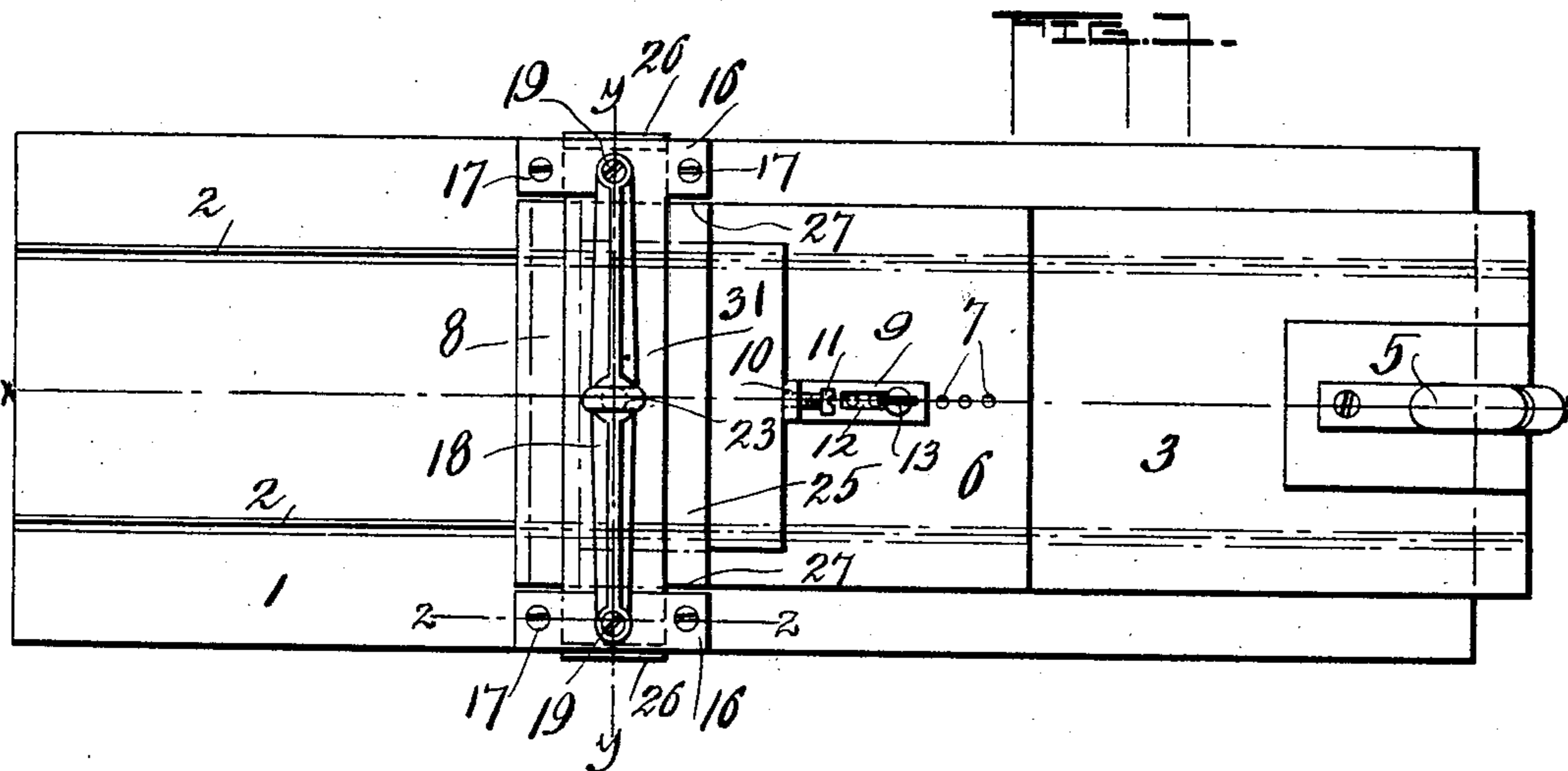


FIG. 3.

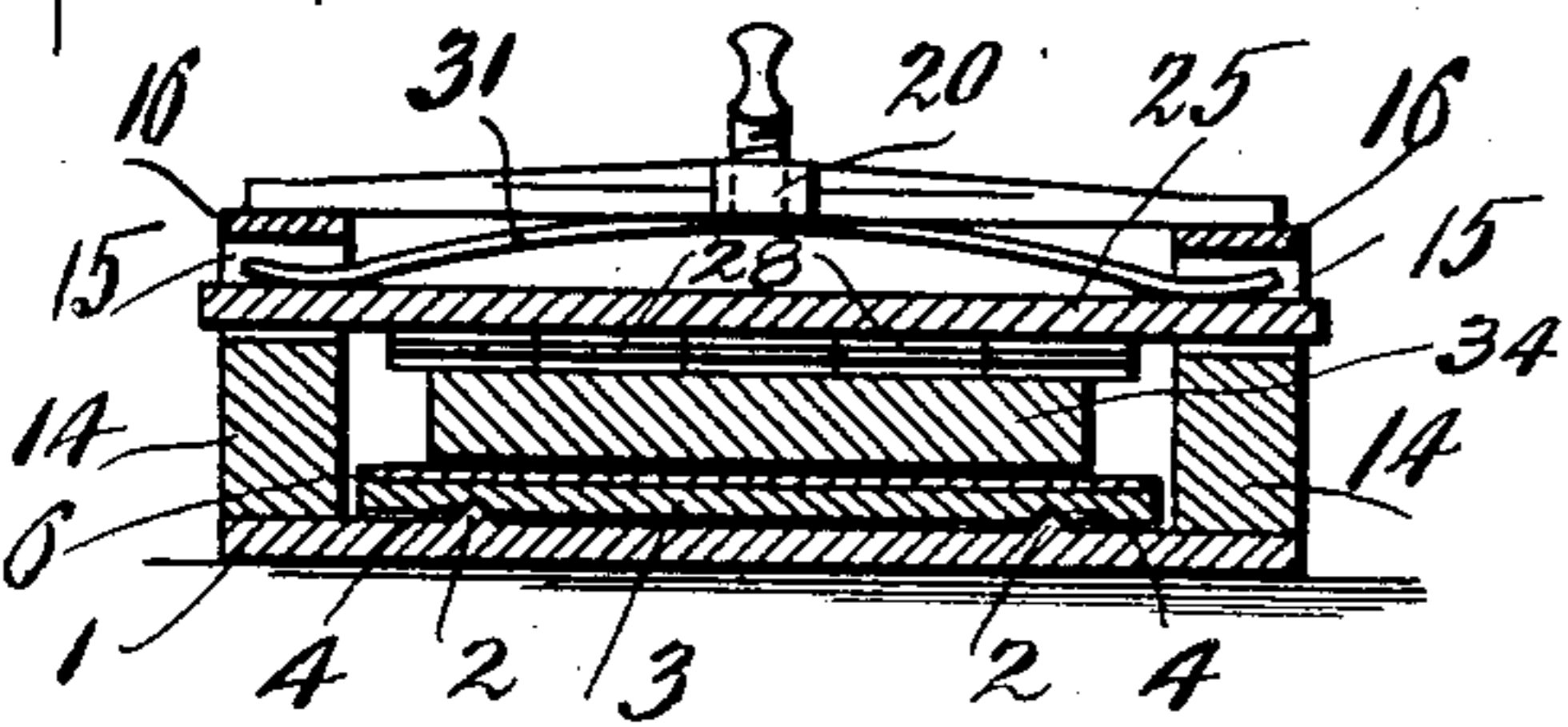


FIG. 4.

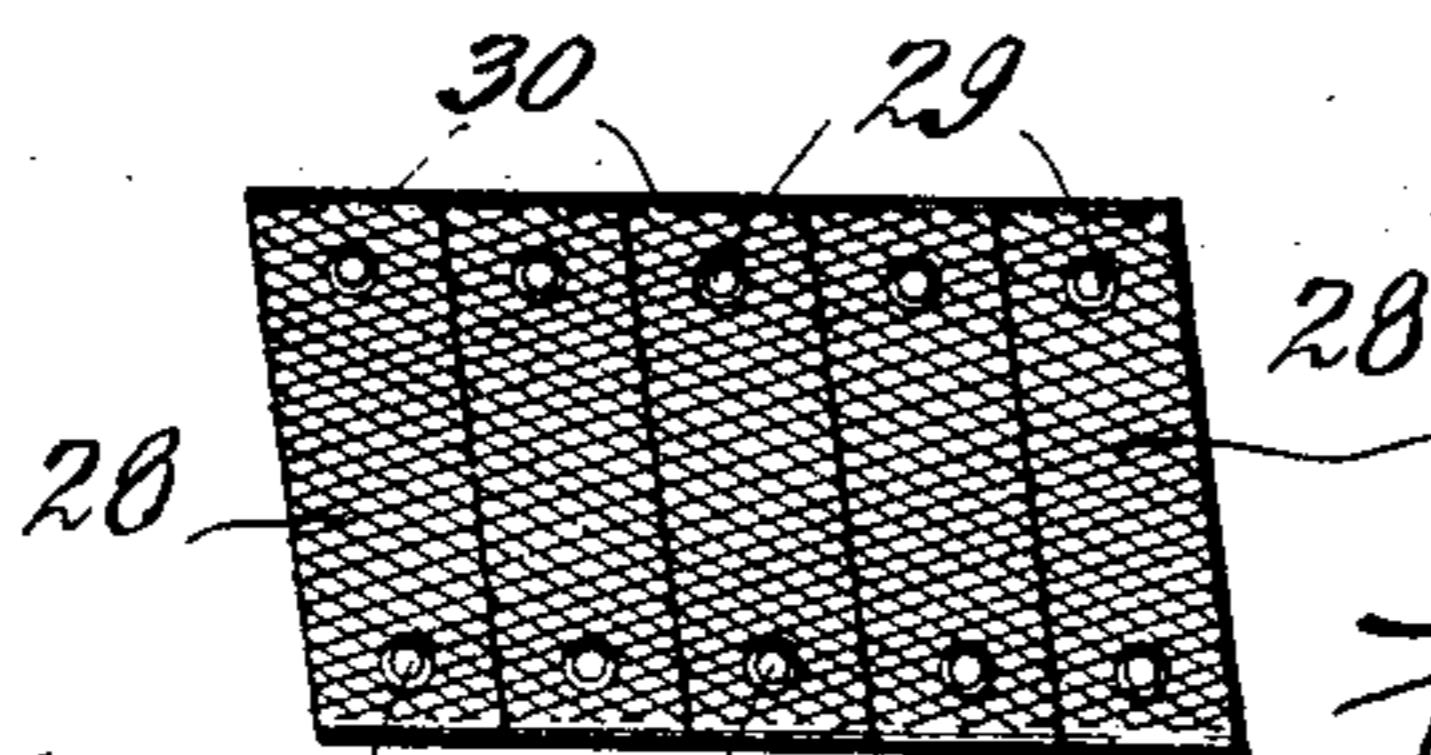
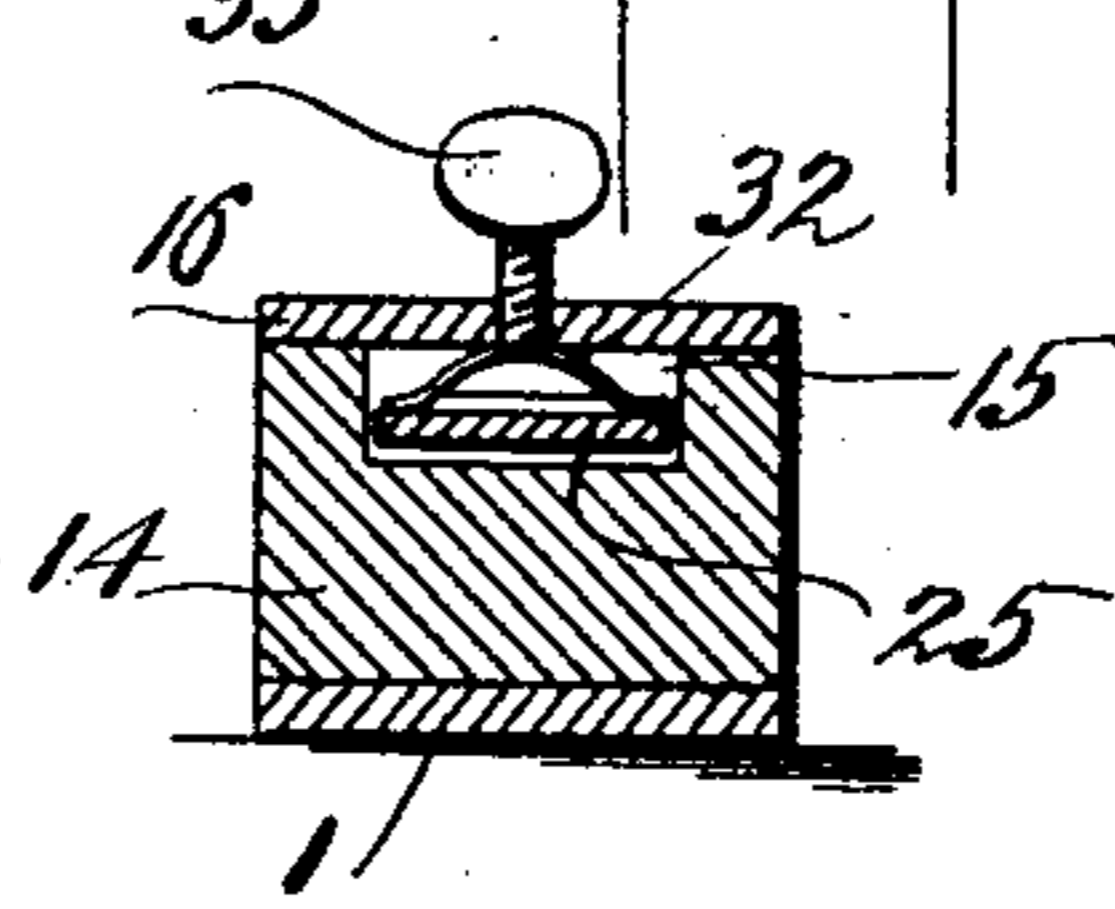


FIG. 6.



Witnesses:
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UNITED STATES PATENT OFFICE.

FREDRICK MURPHY, OF PEORIA, ILLINOIS.

MACHINE FOR DRESSING ELECTROS, ZINCS, OR HALF-TONES.

SPECIFICATION forming part of Letters Patent No. 771,739, dated October 4, 1904.

Application filed June 1, 1903. Serial No. 159,674. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK MURPHY, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Machines for Dressing Electros, Zincs, or Half-Tones; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide a type-high machine which can be conveniently and cheaply constructed to be used in the composing-rooms of printing-offices for quickly and accurately planing down the backs of electrotypes, half-tones, and the like, so that they are type-high, which will be a saving in time in the make-ready and the press-room.

The invention comprises a bed and a slidably-arranged bed-plate upon which are adapted to be placed the half-tones, zinc, and electrotypes, or like work and in the provision of a suitable frame attached to the bed, in which is yieldably carried a cross-head having secured thereto files which are designed to engage with the half-tones, zinc, and electrotypes, or like work as the same are shoved back and forth beneath on the bed-plate for shaving or cutting the same for the purposes designed.

Other objects and means of the invention will be better understood from the following description, together with the accompanying drawings of my device, forming a part of such description, in which—

Figure 1 is a plan view of my new and improved type-high machine. Fig. 2 is a longitudinal and vertical cross-section on the line *x x* of Fig. 1. Fig. 3 is a transverse section on the line *y y* of Fig. 1. Fig. 4 is a plan view showing the arrangement of the files employed by me in my device; and Fig. 5 is a section on the line *z z* of Fig. 1, showing a modified form of spring which might be employed, if desirable.

Like numerals of reference indicate corresponding parts of the figures.

In the drawings, 1 represents the base or bed of my machine, on which are arranged the

longitudinal tracks or runways 2, which are preferably shown as an inverted **V** in cross-section.

3 indicates a bed-plate having the longitudinally-arranged tapered grooves 4 and by the same designed to be reciprocated back and forth on the tracks 2 of the base 1. The bed-plate 3 is provided with the handhold 5, by means of which the bed-plate may be reciprocated. On the bed-plate and at the opposite end from the handle, which will be known as the "forward" end of the bed-plate, is attached a work support or plate 6, and this plate may be integral with the bed-plate, if desired, or may be independent thereof and attached thereto, as shown in the drawings. The same is provided with a series of perforations 7 and at its forward end is provided with the shoulder 8, as shown.

9 indicates a clamp having the head portion 10 provided with a clamping-screw 11, and the body of the clamp is provided with an elongated slot 12, through which is carried a fastening-screw 13, adapted to engage any one of the perforations 7, which are screw-threaded for this purpose, and by this means, the perforations, and the screw 13 the clamp 9 is slidably adjustable on the plate 6 for a purpose to be described.

At a suitable point on the base and upon opposite sides thereof I provide the extensions 14, which are cut out to form the seat portions 15, (seen in plan in Fig. 1 and in cross-section in Fig. 3,) and 16 indicates covering-plates which are securely fastened to the extensions 14 by means of the screws 17.

Extending across the machine is a plate or casting 18, and the same is fixedly attached to the plates 16 by means of the screws 19.

20 indicates a boss arranged approximately in the center of the plate 18, which is interiorly threaded, as at 21, and engaged by the threaded stem or bolt 22, having the fingerhold 23.

25 indicates a cross-head of suitable width, having the reduced opposite ends 26, which are carried in the seat portions 15 of the extensions 14, providing the shoulders 27, adapted to guide the cross-head in its vertical movement in the seat portions 15. On the

lower face of the cross-head I arrange a series of files 28, which are fixedly attached thereto by screws designed to be passed through the countersunk perforations 29 in the opposite ends of the files, as seen in Fig 4. The opposite ends of the files are beveled, as at 30, and it is preferable to use files which have cutting-faces on both sides for convenience after one side has become worn, and the files are secured to the lower face of the cross-head with their matching edges bearing in oblique lines parallel with each other and extending obliquely to the central bearing-line of the cross-head.

31 indicates a spring of suitable tension having its opposite ends bearing against the upper face of the reduced portions 26 of the cross-head beneath the plate 16, and its center or arched body lies adjacent to the under face of the plate 18, to be engaged by the threaded stem 22.

Fig. 5 shows a modification in cross-section on the line *z z* of Fig. 1 and is designed to employ two springs 32, situated at opposite ends of the cross-head and beneath the plates 16 and lying transversely across and above the reduced portions 26 of the cross-head and bearing against the same, and the cross-head is adjusted by means of threaded screws 33 in a manner similar to the operation of the screw 22.

In operation an electrotpe, zinc, or half-tone (and for convenience I have illustrated one as shown at 34) is placed face down on the plate 6 and clamped in the position shown in Fig. 2. When an electrotpe is type-high, if placed in the position on the machine as seen in the figures it will pass beneath the files of the cross-head when the reduced extensions of the latter are resting on the base of the seat portions 15. The electrotypes shown in the figures for illustration are shown to be more than type-high, and to cut down the same the handle 5 is engaged by the hand and the bed-plate 3 reciprocated to force the cut back and forth beneath the bed-plate to be engaged by the files. The threaded stem 22 is held against the spring 31, so that as the electrotpe passes beneath the files the tension on the spring will be only sufficient to cut away the surface of the electrotpe, and as the operation continues the threaded stem 22 is screwed down, which increases the tension of the spring and yieldingly holds the files to their work. The opposite ends of the files being beveled, as shown and described, it enables the operator to force the electrotpe beneath the same with comparative ease, and when the cross-head reaches the base of the seat portions 15 the files will have completed their work and the electrotpe may be removed.

With this machine it will be readily apparent that if the cross-head is in its normal position, with its opposite ends resting on the

base of the seat portions, a pressman by placing an electrotpe on the bed-plate and passing it beneath the files can at once determine if his cuts are type-high or not. If higher, they may be shaved down in the manner described or if too low may be underlaid and brought type-high, and thus save hours of time in the make-ready and the press-room. From the above description and operation of the machine it will be seen that electrotypes, half-tones, zincs, and the like which are warped can be easily shaped for use.

I am aware that machines for the purposes for which mine has been designed have been made and patented; but I am not aware of any type-dressing machine where files are employed for shaving down the electrotypes, half-tones, zincs, and the like, nor the provision of a yieldable and adjustable means carrying the shaving devices. Knives are in common use, but are not practical, as it is almost impossible if the electrotypes, half-tones, zincs, and the like are very high to set the knife to shave them without first sandpapering down the electrotypes, half-tones, zincs, and the like, which is a mode now employed where knives are used.

It is obvious, that various changes may be made in the construction of my machine, one form of modified device being shown in Fig. 5, and I do not wish to be confined to the details of construction herein.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a machine of the character described, the combination with the base of a slidably-arranged bed-plate, an adjustable clamping means mounted on the bed-plate for securing the work upon the said plate, a support having cut-out portions therein, a cross-head yieldingly mounted in said cut-out portions of the support, files removably secured to the lower face of said cross-head, means for increasing the resistance of said cross-head, and said cut-out portions of the support being adapted to limit the movement of the cross-head and files to insure the dressing of the cuts to a desired thickness, substantially as described.

2. In a dressing-machine of the character described for electros, zincs, and half-tones, the combination with the base having tracks thereon, a bed-plate adapted to be reciprocated upon the tracks, an adjustable clamping means for receiving the work to be dressed, a support having cut-out portions therein, a cross-head adapted for vertical movement and mounted in the cut-out portion of the support and adapted for a limited movement within the same, an adjustable means for regulating the pressure of the cross-head upon the work within the bed-plate, substantially as described.

3. In a device of the character described, a

base, a slidable bed-plate adapted for movement thereon, having a series of perforations therein, a clamping means having a member adapted to engage in said perforations to permit of an adjustment thereof for the reception of electros, zincs, half-tones and the like, of different sizes, a yieldingly-supported cross-head having files thereon, adapted to engage with the work upon the bed-plate, and a means

for normally forcing the same against the electros, zincs, half-tones and the like to be dressed, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FREDRICK MURPHY.

Witnesses:

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H. B. SCHNEBLY.