

No. 708,661.

Patented Sept. 9, 1902.

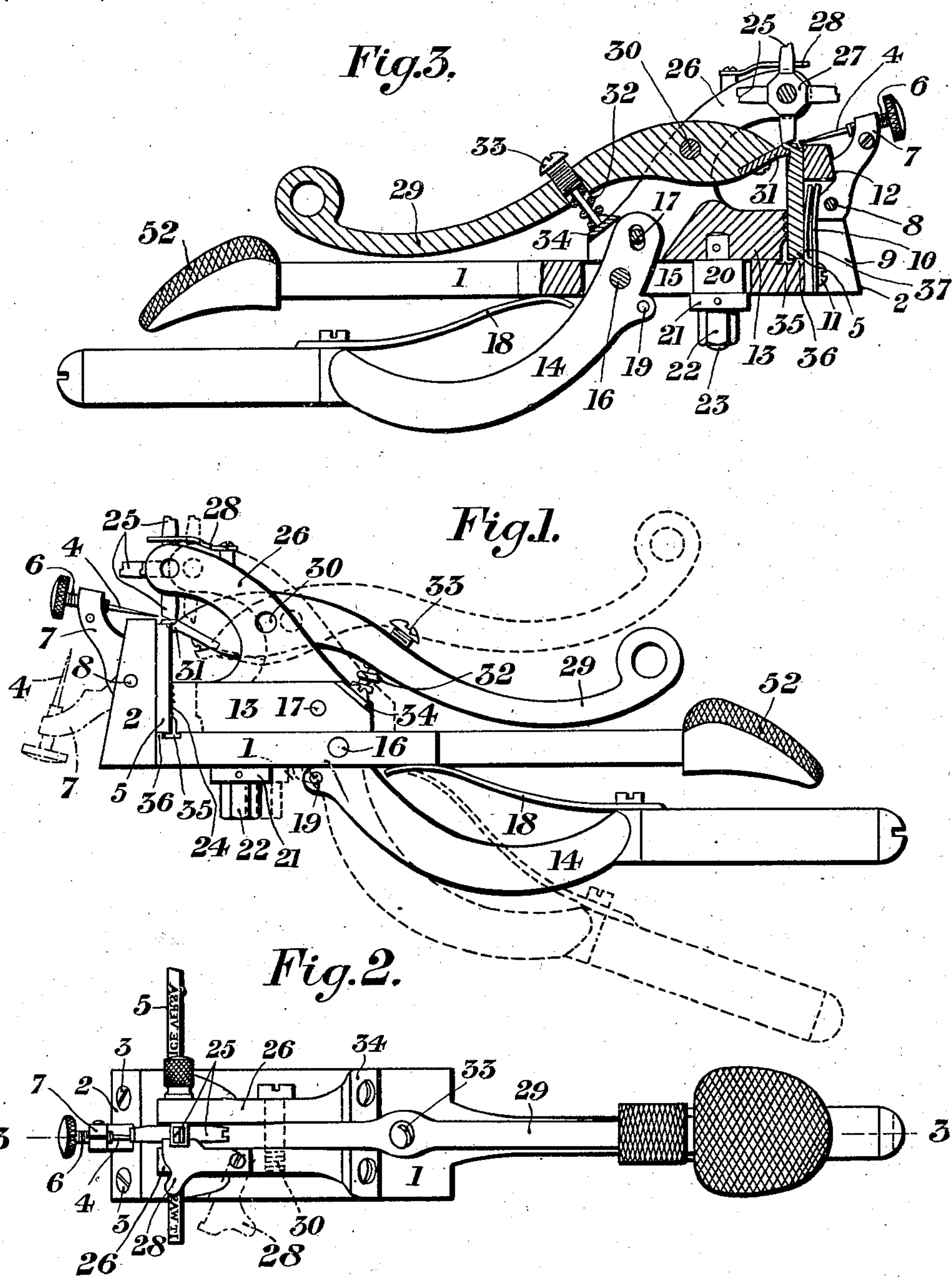
J. PINEL.

DEVICE FOR FORMING ACCENTS ON LINOTYPES.

(Application filed June 16, 1902.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses.  
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3 Sheets—Sheet 2.

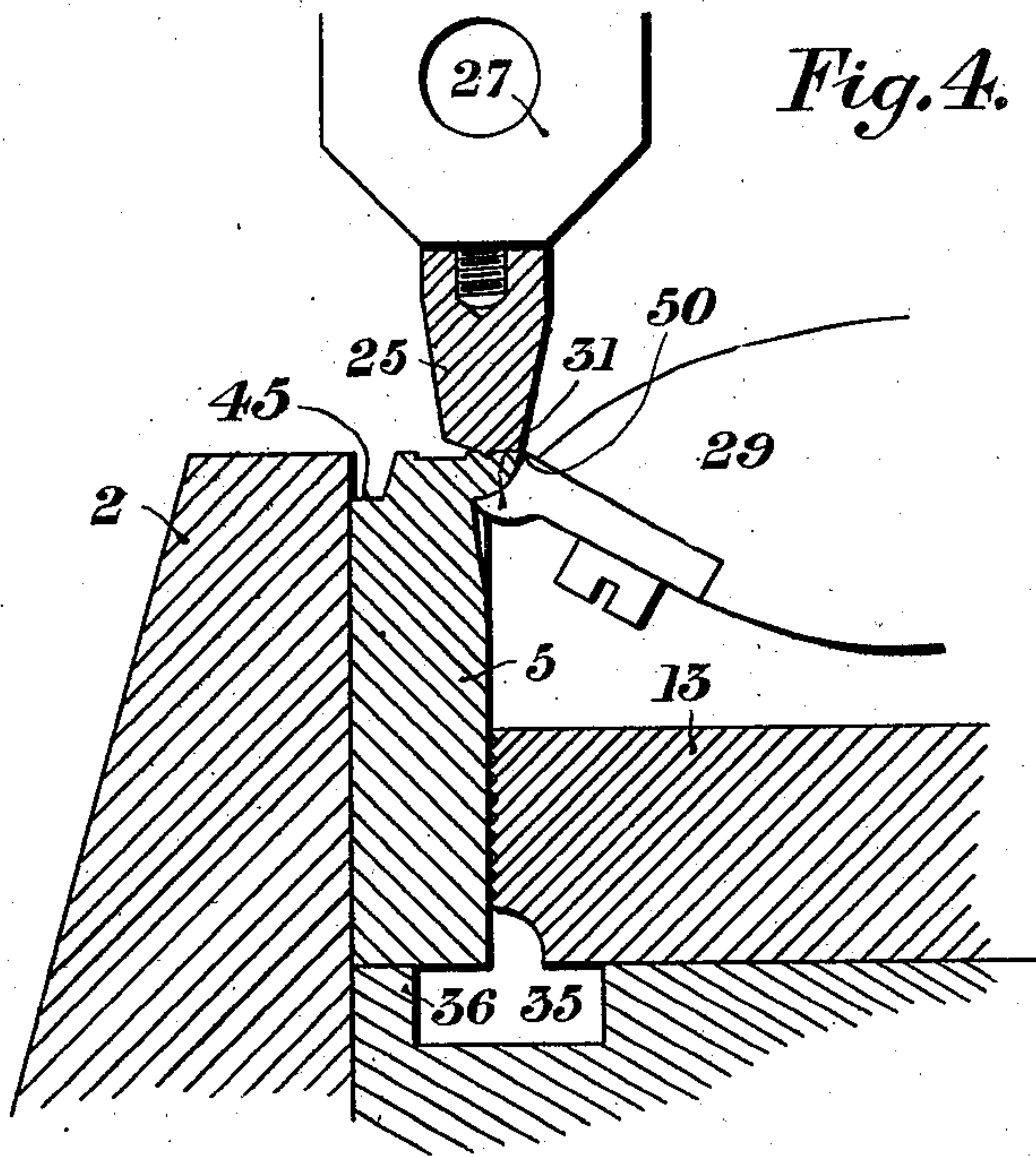


Fig. 5.

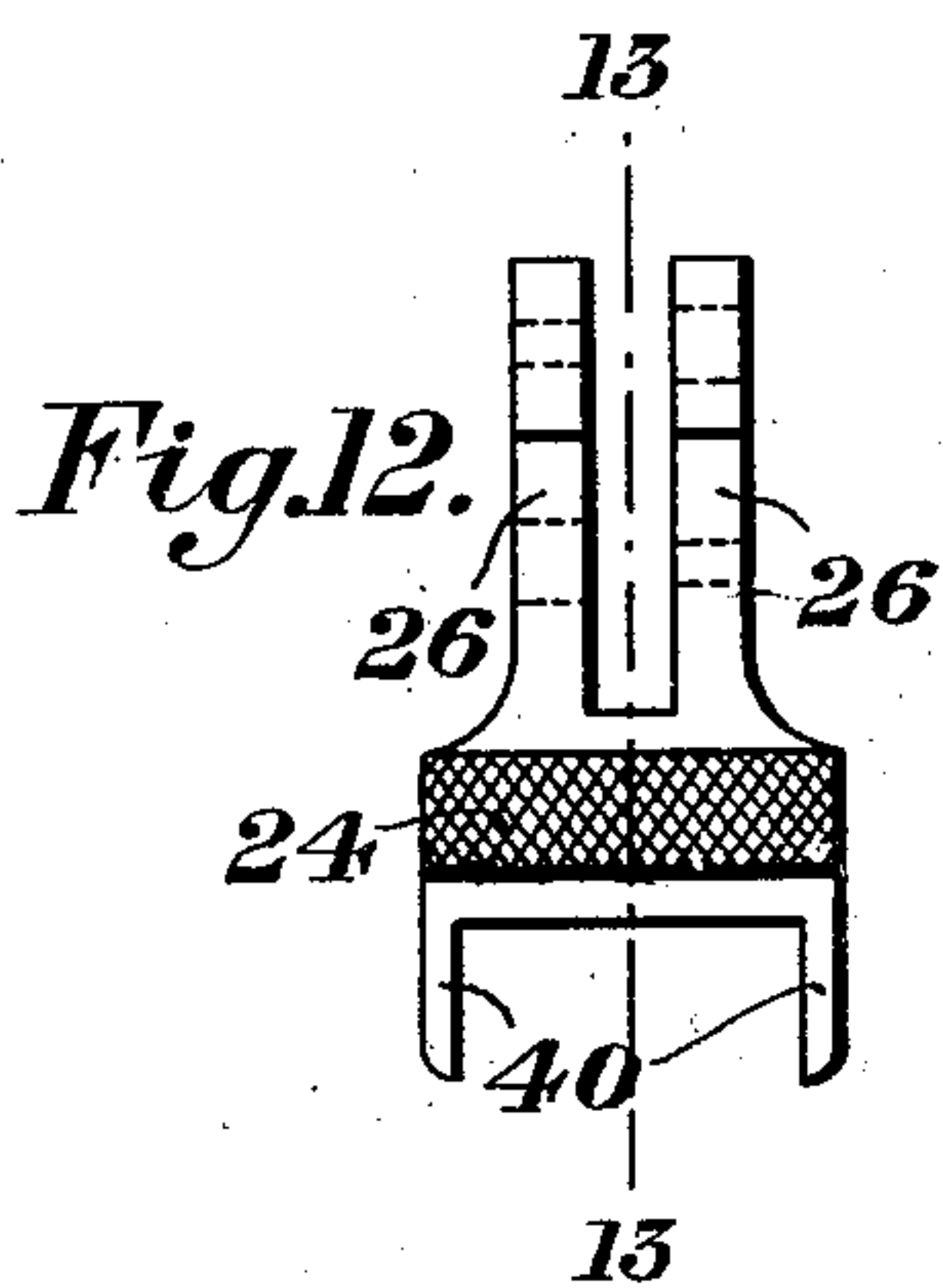


Fig. 13.

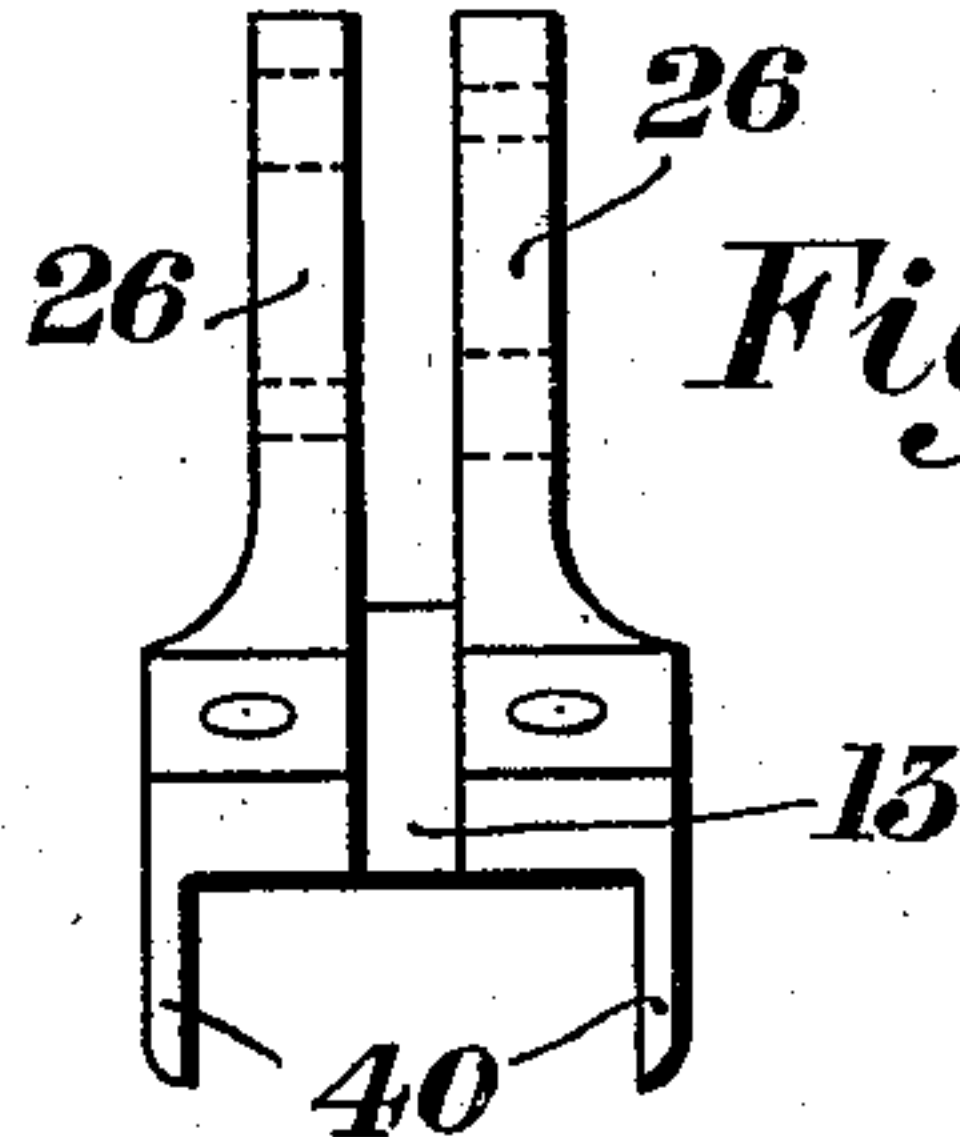
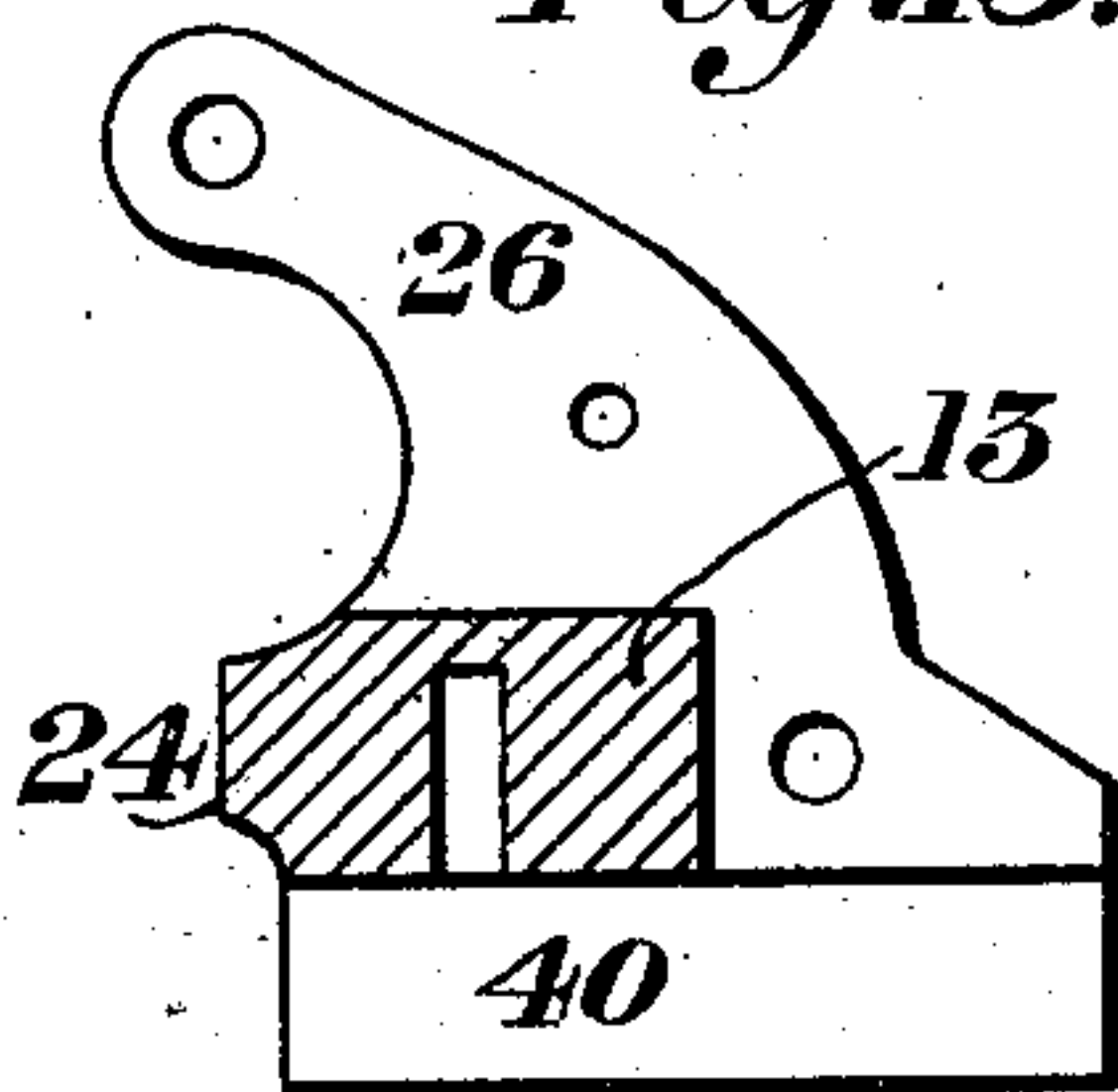
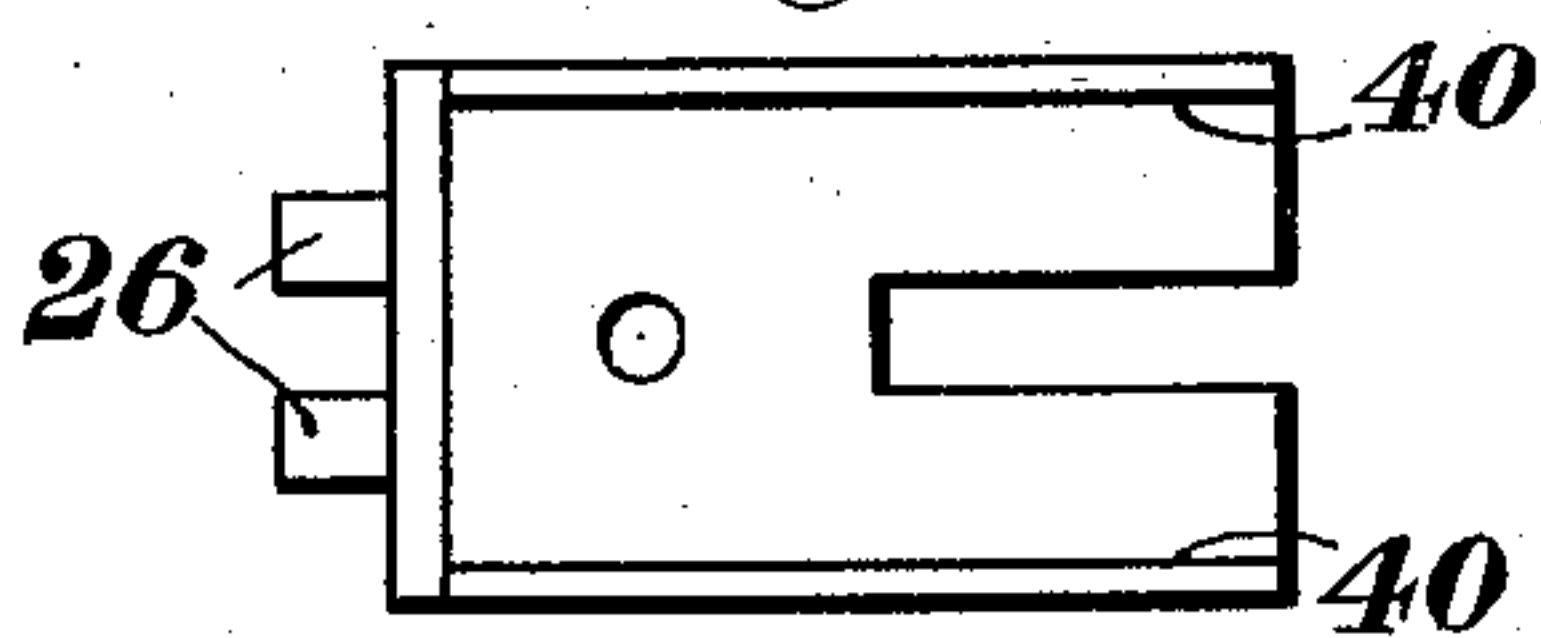


Fig. 15.



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DEVICE FOR FORMING ACCENTS ON LINOTYPES.

(Application filed June 18, 1902.)

(No Model.)

3 Sheets—Sheet 3.

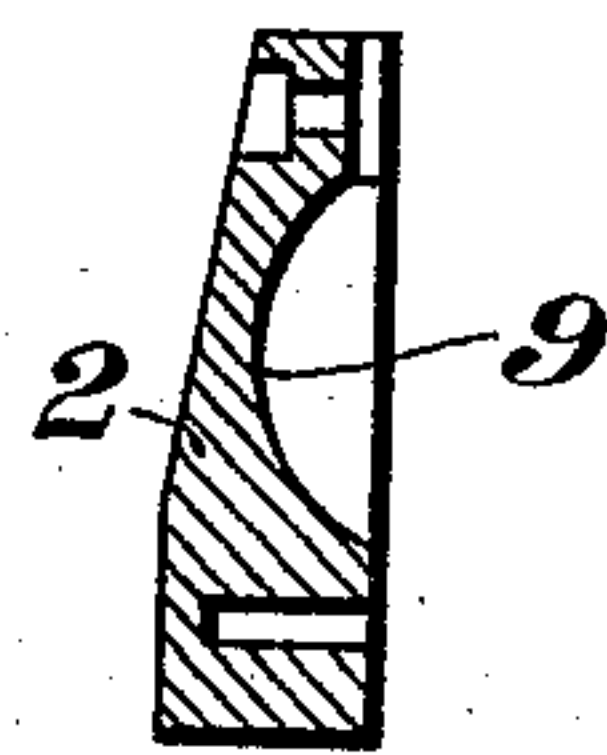
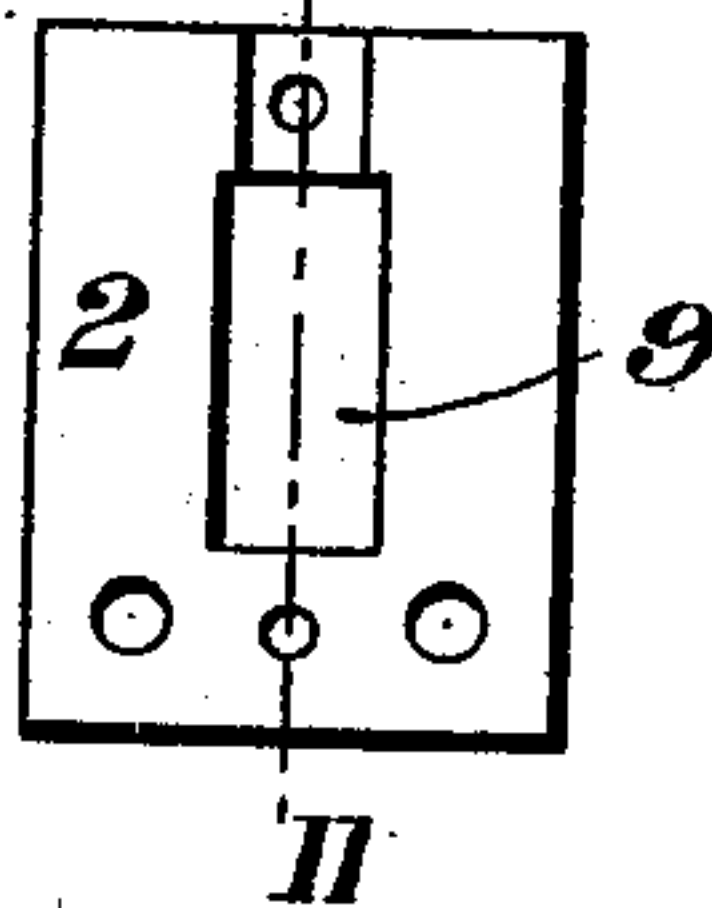
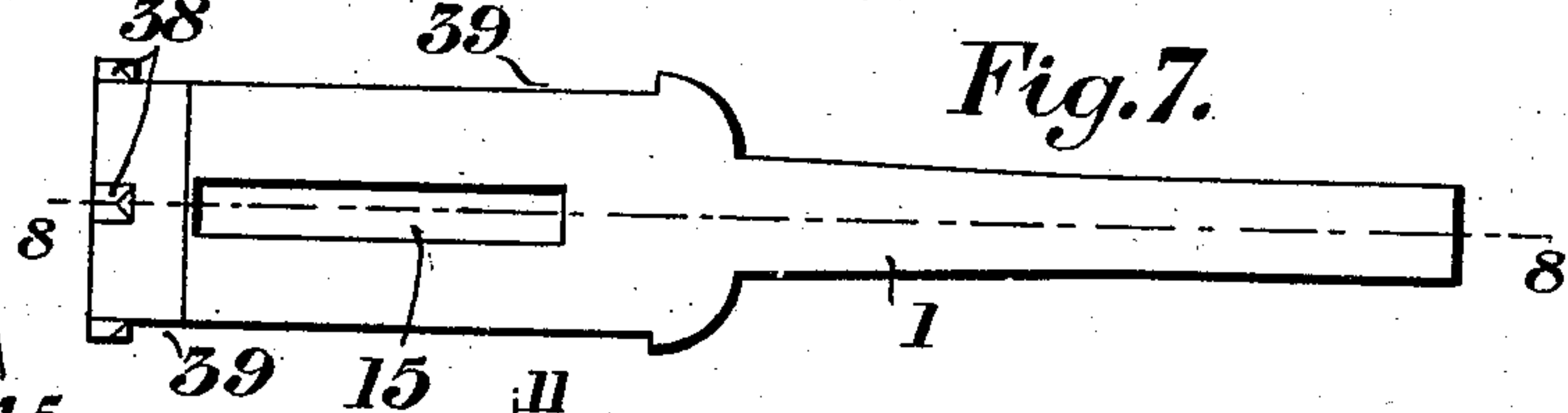
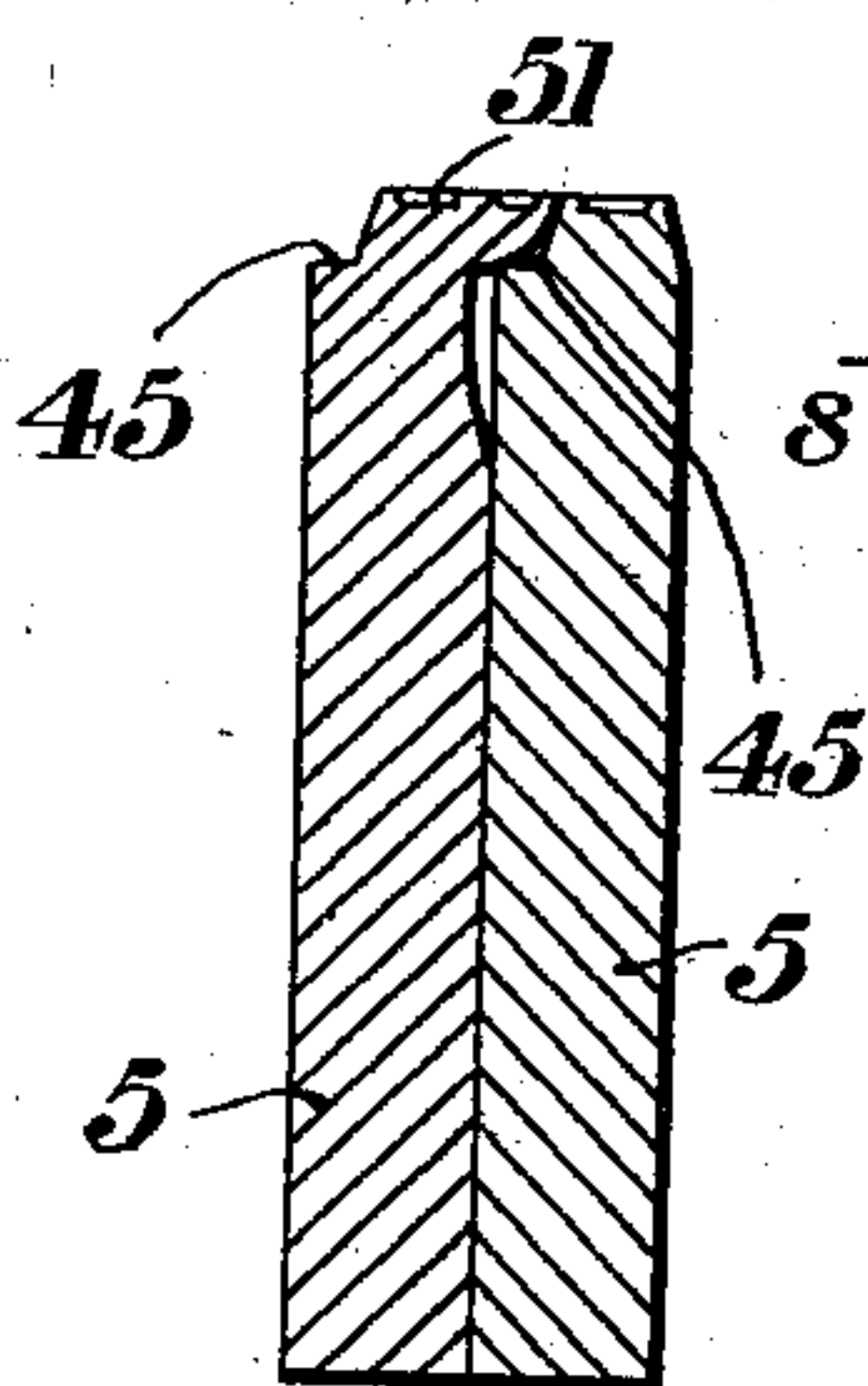
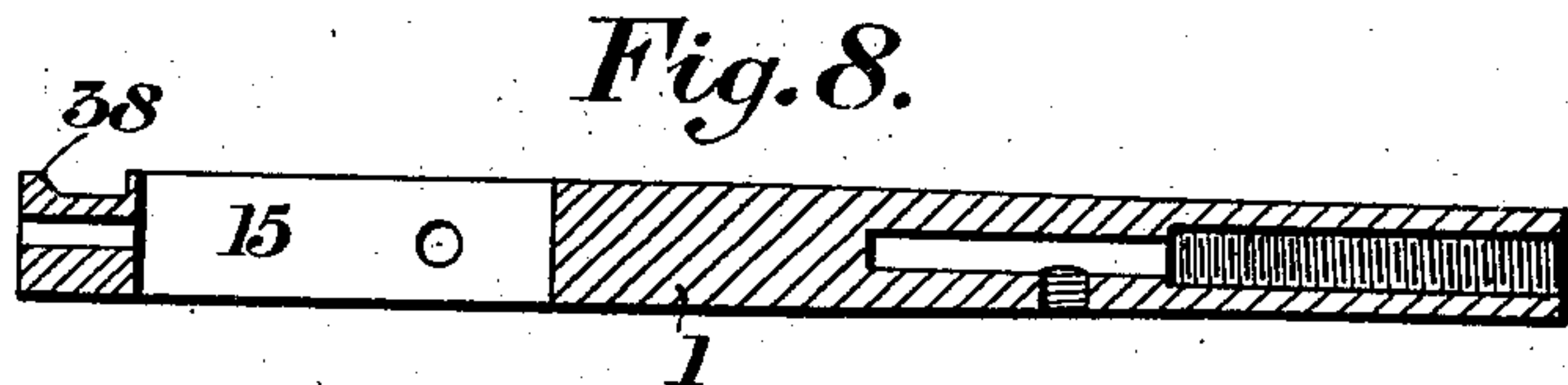
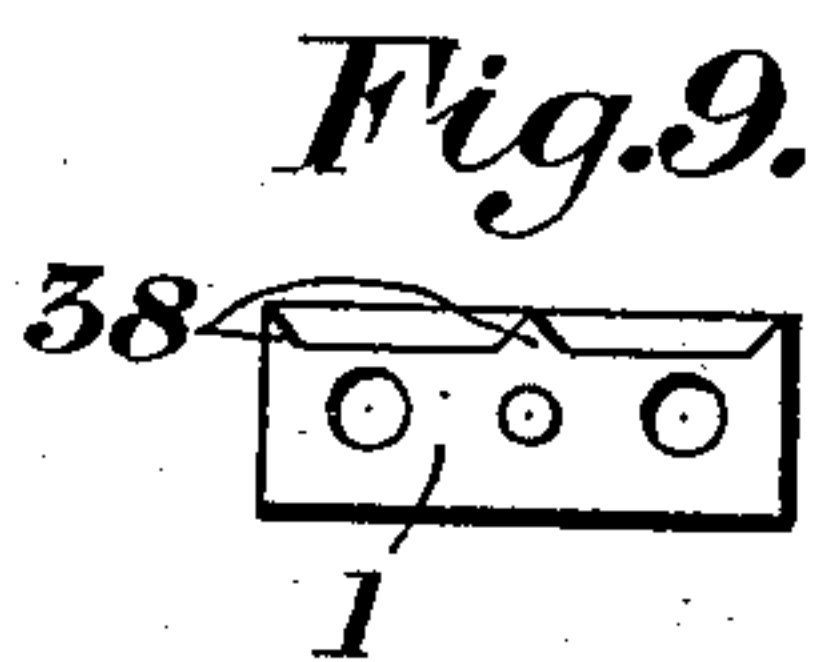
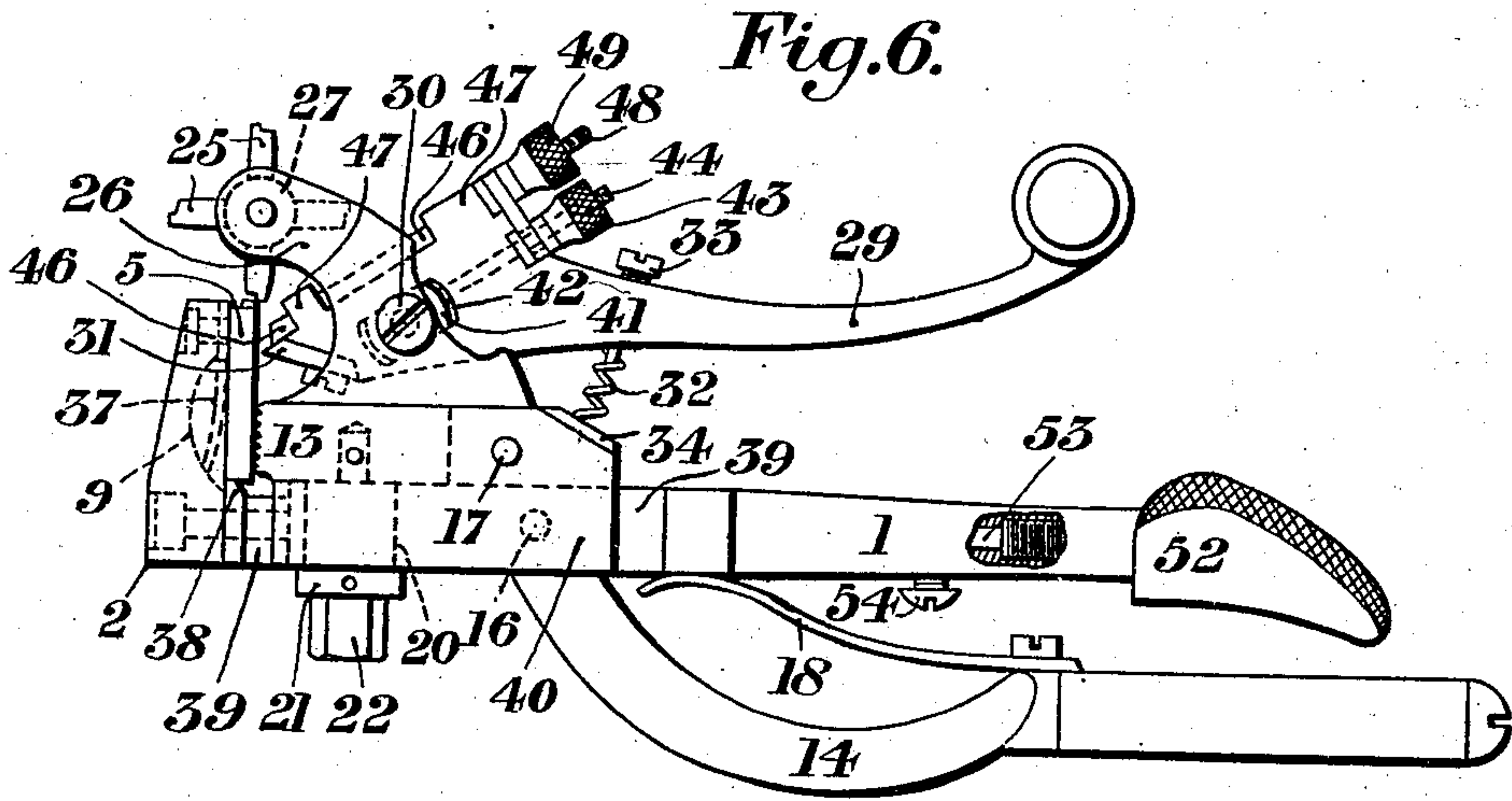


Fig. 16.

Fig. 10.

Fig. 11.

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# UNITED STATES PATENT OFFICE.

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## DEVICE FOR FORMING ACCENTS ON LINOTYPES.

SPECIFICATION forming part of Letters Patent No. 708,661, dated September 9, 1902.

Application filed June 16, 1902. Serial No. 111,958. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH PINEL, residing at No. 69 Navigation road, Altringham, in the county of Chester, England, have invented a certain new and useful Device for Forming Accents on Linotypes, of which the following is a true, clear, and full description, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to a device for producing accents on linotypes. The term "accents" wherever used in this specification and in the claims is to be understood as including numerals, exponents, and other characters ordinarily used above and below the letters in a line of print in the same connection with the respective letters as ordinary accents are with their respective letters.

As the invention is particularly applicable for use in connection with capital letters, it is hereinafter described in that connection as applied to the production of accents above such letters.

It will be easily understood that as a capital letter on a linotype occupies practically the full width of it if an accent has to be applied to such a letter the said accent must overhang the side of the linotype or the capital letter must be shortened to make room for it. Shortening the capital is obviously objectionable, and if the accent overhangs the trimming mechanism, which consists of the well-known pair of parallel knives, must be specially modified to prevent such accent being shorn off as the linotype is being passed between the said knives.

According to the present invention a device is provided by which the desired accents are formed upon the linotype after both its sides have (as in the case of an ordinary linotype) been trimmed by the trimming mechanism, whereby no modification of the latter is rendered necessary.

In the accompanying drawings, which are to be taken as part of this specification and read therewith, Figure 1 is a side elevation of one arrangement of the accent-forming device constructed according to this invention; Fig. 2, a plan of Fig. 1; Fig. 3, a view, partly in side elevation and partly in longitudinal vertical section, on the line 3 3 of Fig. 2, but show-

ing the device in a position the reverse of that in which it is represented in Figs. 1 and 2; Fig. 4, an enlarged sectional view illustrative of the operation of the device; Fig. 5, a plan of the gouge or knife detached from the device. This gouge or knife is hereinafter referred to as a "tool." Fig. 6 is a side elevation of a modified construction of the device; Figs. 7 to 15, detail views of detached portions of the device shown in Fig. 6, Fig. 7 being a plan of the base-plate; Fig. 8, a section on line 8 8 of Fig. 7; Fig. 9, an end view of said base-plate; Fig. 10, a front elevation of the standard; Fig. 11, a vertical section on line 11 11 of Fig. 10; Figs. 12 and 14, elevations of respectively opposite ends of the gripper; Fig. 13, a vertical section on the line 13 13 of Fig. 12; Fig. 15, an under side view of the said gripper; and Fig. 16, a section through two juxtaposed linotypes, one of which is provided with an accent in accordance with the present invention.

Throughout the several figures of the drawings the same reference-numerals are used for indicating the same or corresponding parts.

In carrying the invention into effect in the manner represented in Figs. 1 to 5 of the accompanying drawings a base-plate 1 is provided, having a standard 2 rigidly attached to it by screws 3 3, Fig. 2, or other convenient means, the said standard constituting one jaw of a gripper, in which, as hereinafter explained, the linotype is held during the accent-forming operation. This standard 2 is provided with a suitable indicator 4 to indicate along the top or printing edge of the linotype-body 5 the exact position which the desired accent is to occupy thereon. The indicator 4 is preferably a needle adjustable by a screw-thread 6 in the direction of its length in the correspondingly-threaded head of a bracket 7, pivoted by a pin 8 within a recess 9, Fig. 3, in the standard 2 and having acting on it a spring 10 or its equivalent adapted to retain it in either its effective or indicating position, in which it is shown in full lines, or its ineffective or out-of-action position, in which it is shown in dotted lines in Fig. 1. The spring 10 is secured by screw 11 or otherwise to the end of the base-plate 1, and the swinging bracket 7 is provided with a shoul-



der 12, which when the needle 4 is in its indicating position is pressed firmly against the standard 2, as shown clearly in Fig. 3.

When the linotype 5 is inserted in the device for the production thereon of the required accents, it is held firmly between the standard or fixed gripper-jaw 2 and a movable gripper-jaw 13, the latter of which is forced toward the standard 2 by a lever 14, extending through a slot 15 in the base-plate 1, to which it is pivoted by a pin 16. The lever 14 is connected to the movable jaw 13 by a pin-and-slot connection 17, and it is provided with a spring 18 for returning it to its normal position, which is determined by a stop-pin 19 in the said lever engaging the under side of the base-plate 1. The spring 18, as shown, may conveniently be a blade-spring secured to the lever 14 and adapted to bear with a capacity for sliding against the under side of the base-plate 1.

The movable jaw 13 is guided on the base-plate 1 by a block 20, rigidly attached to the said jaw and capable of sliding within the before-mentioned slot 15, and it is retained on the said base-plate 1 by means of an adjusting-nut 21 and lock-nut 22, threaded on a stud 23, rigid with the block 20. At its operative end the jaw 13 is provided with a roughened face 24, Fig. 1, to enable it to more securely engage the linotype 5.

The accent-matrix 25 is carried by an upward and rearward extension 26 of the sliding gripper-jaw 13 or, as shown, a pair of such extensions 26 26, so that the same motion of the latter which effects the gripping of the linotype 5 shall also present the accent-matrix 25 in proper position over the linotype. It is preferred that there should be several accent-matrices 25 25, as shown in the drawings, each for a different accent and all radiating from and preferably detachably secured to a boss 27, (see particularly Fig. 4,) pivoted between the extensions 26 26, so that any of the said matrices can be turned into working position according to particular requirements, there being combined with the set of matrices a suitable detent 28 for holding the desired matrix in its working position. In the device represented in Figs. 1, 2, and 3 the detent 28 is in the form of a hook pivoted to one of the extensions 26 and capable of being moved either into engagement with the then uppermost of the matrices 25 25, as indicated in full lines in those figures, or into an inoperative position, such as that in which it is shown in dotted lines in Fig. 2.

A second lever 29, which is pivoted by a pivot 30 between the extensions 26 26, extends toward the front end of the device over the base-plate 1. The rear or operative end of this lever 29 has secured to it the before-mentioned tool 31, (shown detached in Fig. 5,) adapted when the front end of the lever 29 is depressed to enter the front face of the linotype 5 and scoop out metal therefrom, raise it upward, and press the top of such dis-

placed metal against the matrix, but without detaching that metal from the linotype-body. This operation is clearly illustrated in Fig. 4. The lever 29 is provided with a spring 32 for returning it to its normal position (in which it is shown in dotted lines in Fig. 1) and with an adjustable stop 33 to limit the descent of the said lever and accent of the tool 31, and thereby serve for preventing the displaced metal of the linotype-body or "accent-overhang," as this displaced metal is hereinafter called, from being completely detached from the said linotype. The spring 32 and stop 33 both act upon a plate 34, secured to the front end of the movable jaw 13.

The base-plate 1 is formed with a transverse groove 35 a short distance to the front of the fixed gripper-jaw 2, the upper surface of the base-plate 1 between the groove 35 and the said fixed jaw constituting a shelf 36, on which the linotype rests during the accent-forming operation. Between the before-mentioned spring 10 and the end of the base-plate 1, to which it is secured, is interposed a further spring 37, which is resilient within and to the front of the recess 9 and is adapted to press the linotype 5 off the shelf 36 when the movable jaw 13, under the influence of the spring 18, is allowed to recede from the said linotype. When the shelf 36 is formed with a single continuous bearing-surface, as in the device shown in Figs. 1, 2, 3, and 4, it possesses no faculty for compensating for slight variations in the height of the linotype, and consequently the said shelf may alternatively be constituted by two or more knife-edges 38 38, as shown in Figs. 6, 7, 8, and 9, wherein three such knife-edges are represented. Any irregularity in the under edge of the linotype can be overcome by pressing the said linotype downward until it is properly seated on all of the knife-edges 38 38. The device represented in Fig. 6 also includes the following modifications: The base-plate 1 is formed at its two side edges with recesses 39 39, (see particularly Fig. 7,) along which slide wings 40 40, extending downward from the movable jaw 13, (see particularly Figs. 12 to 15,) so as to give the latter additional guidance upon the base-plate.

The indicator 4 (shown in Figs. 1, 2, and 3) is not an indispensable adjunct, and in Fig. 6 it is omitted, and as the indicator-spring is also dispensed with the recess 9 extends only partly through the standard or fixed gripper-jaw 2 for the accommodation of the spring 37, which in the present example, as shown in dotted lines in Fig. 6, is secured to the upper part of the jaw 2 as distinguished from the end of the base-plate 1, as in Figs. 1, 2, and 3.

To enable the device to be readily adjusted for making accent-overhangs of different sizes, as may be necessary for linotypes of different fonts, the lever 29 is preferably mounted on a fulcrum 30, which is capable of adjustment in relation to the said lever, so as to project the cutting edge of the tool 31 more or less



forward from the fulcrum 30. For this purpose the fulcrum or pivot traverses a block 41, fitting nicely in a slot 42 in the lever 29, the said block and slot being relatively adjustable by a nut 43, swiveled to the lever 29 and threaded on a screw 44, fast to the block 41, all as shown in Fig. 6, which is represented as partly broken away to more clearly illustrate said arrangement. It may be that the adjusted position of the tool 31 will lead to the production of accent-overhangs of unnecessarily increased width. As this latter must never exceed the width capable of accommodation at the shoulder 45 of the linotype, which may, as shown in Fig. 16, be placed in juxtaposition therewith, it is necessary to provide means for limiting the expansion of the growing projection to the required extent. For this purpose the lever 29 is provided with a stop 46, against which the growing projection abuts and by which its further growth is prevented. This stop 46 is capable of longitudinal adjustment in eyes 47 47 on the lever 29, for which purpose it is provided with a screw-threaded stem 48, with which engages a nut 49, swiveled to the lever 29. By raising or lowering the stop 46 in relation to the cutting edge of the tool 31 the width of the resultant accent-overhang will be correspondingly increased or diminished. In Fig. 6 the tool 31 is of different form to that shown in Figs. 1, 2, and 4; but, if desired, it may be formed with a shoulder approximately such as that marked 50 in Fig. 4, which shoulder, conjointly with the front under edge of the matrix 25, will serve to shear off any excess in the width of the accent-overhang. In such an arrangement the before-described adjustable stop 46 would be unnecessary. The before-described stop 33 is adjusted to such position that when the lever 29 is fully depressed the maximum thickness of the accent-overhang produced by such depression shall be the same as the height of the printing-face 51, Fig. 16, above the shoulder 45, so that when two linotypes are juxtaposed, as in Fig. 16, the overhangs on one shall rest and be supported upon the shoulder of the next linotype.

The base-plate 1 is provided with a roughened handle 52 which, to enable it to be adjusted to suit different operators may be secured to the base-plate by a partially-threaded stem 53, Fig. 6, capable of being screwed more or less into the said base-plate and of being retained by a screw 54 in any such adjusted position.

The operation of both of the before-described devices is the same, and the following explanation of the device shown in Figs. 1, 2, 3, and 4 may be read as applying to either. The various parts of the device at the commencement of the operation are in the positions indicated by dotted lines in Fig. 1. The linotype having been placed upon the shelf 36 or 38 38 and against the front of the fixed gripper-jaw 2, (the definite position having been determined by the indicator 4 or

otherwise,) the lever 14 is moved into the position in which it is shown in full lines in Fig. 1, whereby the movable jaw 13 is caused to grip the linotype between it and the fixed jaw 2 and to hold the previously-adjusted matrix 25 over the indicated position for the accent. The lever 29 is next moved into the position in which it is represented in full lines in Fig. 1, with the result of, first, forming a projection on the side of the linotype 5, integral therewith and capable of carrying the accent, and, second, of forming the accent upon it, as shown in connection with one of the letters in Fig. 2, thereby completing the operation. Both levers 14 and 29 are then released and by their respective springs 18 and 32 are forthwith returned to their normal positions. The accented linotype is simultaneously pushed away from the fixed jaw 2 by the spring 37 and drops into the groove 35, thereby completing the disengagement of the accent from the matrix 25, and from which groove the linotype is readily removed.

It is sometimes found advantageous to form the back wall of the groove 35 (which constitutes the front or "riser" of the shelf 36 or 38 38) inclined, as in Figs. 6, 7, and 8, instead of vertical, as in Figs. 1, 2, and 4, because by this means the operation of the lever 14 to move the movable jaw 13 toward the fixed jaw 2 will cause the jaw 13 to move a linotype which may have been placed with its foot in the groove 35 laterally out of said groove and up the incline onto the said shelf.

As will be obvious, the accent-forming devices instead of being portable, as hereinbefore described, may have the base-plate 1 secured to a suitable bench or support.

I claim—

1. In a device for forming accents on linotypes the combination of a base-plate, a gripper-jaw fast to the base-plate on one side of the site for the linotype, a movable gripper-jaw adjustable on the base-plate, on the other side of the said site, a lever pivoted to the base and movable jaw for adjusting the latter, a matrix on the movable gripper-jaw overhanging the site of the printing edge of the linotype, a lever pivoted to the movable gripper-jaw with its operative end movable adjacent to the site of the linotype, and a tool on the operative end of the said lever substantially as set forth.

2. In a device for forming accents on linotypes the combination with relatively movable jaws of a linotype-gripper, of a matrix on one jaw overhanging the site for the linotype, a lever pivoted to the said jaw with its operative end movable adjacent to the said site, and a tool on the operative end of the lever, substantially as set forth.

3. In a device for forming accents on linotypes, the combination with a base-plate and a gripper-jaw fast to the base-plate, of a second gripper-jaw adjustable on the base-plate toward and away from the fixed jaw, a lever



operatively connected to both the base-plate and movable gripper-jaw, a retracting-spring for the movable jaw, a lever in pivotal connection with the movable jaw, with its operative end movable adjacent to the site of the linotype, a tool on the said operative end, a retracting-spring for the last-named lever, and a matrix overhanging the site of the printing edge of the linotype substantially as set forth.

4. In a device for forming accents on linotypes, the combination with relatively movable jaws of a linotype-gripper of a matrix overhanging the site for the printing edge of the linotype, a lever pivoted to one of the gripper-jaws, with its operative end movable adjacent to the site of the linotype, a tool on said operative end and an indicator for the linotype adjustable on the gripper-jaw substantially as set forth.

5. In a device for forming accents on linotypes, the combination with a gripper for the linotype, of a boss pivoted to the gripper over the site of the linotype, a plurality of matrices on the boss, a lever pivoted to the gripper with its operative end movable adjacent to the above-named site, and a tool on the operative end of the lever substantially as set forth.

6. In a device for forming accents on linotypes, the combination with a gripper for the linotype, of a boss pivoted to the gripper over the site of the linotype, a plurality of matrices on the boss, a detent for the matrices adjustable on the gripper, a lever pivoted to the gripper with its operative end movable adjacent to the above-named site, a tool on the said operative end, and an indicator for the linotype adjustable on the gripper, substantially as set forth.

7. In a device for forming accents on linotypes, the combination with a base-plate, a gripper-jaw fast to the base-plate, and a second gripper-jaw movable on the base-plate, of a matrix mounted on the movable jaw and overhanging the site of the linotype, a lever

in pivotal connection with the movable jaw, with its operative end movable adjacent to the said site, a tool on this operative end, a groove in the base-plate adjacent to the fixed jaw, a shelf on the base-plate between the groove and the fixed jaw and a spring on the fixed jaw to push the linotypes off the shelf substantially as set forth.

8. In a device for forming accents on linotypes, the combination with a gripper for the linotype, of a matrix on the gripper over the site for the linotype, a pivot in the gripper, a block on the pivot, a lever rocking on the pivot and adjustable on the said block with its operative end movable adjacent to the said site and a tool on the operative end of the lever substantially as set forth.

9. In a device for forming accents on linotypes, the combination with a gripper for the linotype, of a matrix on the gripper, over the site for the linotype, a lever pivoted to the gripper with its operative end movable adjacent to the said site, a tool on the operative end of the lever, a stop adjustable on the lever with its effective end adjacent to the tool, and adjusting devices for the stop substantially as set forth.

10. In a device for forming accents on linotypes, the combination with a gripper for the linotype, of a matrix on the gripper over the site for the linotype, a pivot in the gripper, a block on the pivot, a lever rocking on the pivot and adjustable on the said block with its operative end movable adjacent to the said site, a tool on the operative end of the lever, a stop adjustable on the lever with its effective end adjacent to the tool, and adjusting devices for the stop substantially as set forth.

In testimony that I claim the foregoing as my invention I have hereunto signed my name in the presence of the two subscribing witnesses.

J. PINEL.

Witnesses:

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FRED. N. BULLIVANT.