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SLUG INDICATOR FOR TYPE SETTING MACHINES.
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991,955.

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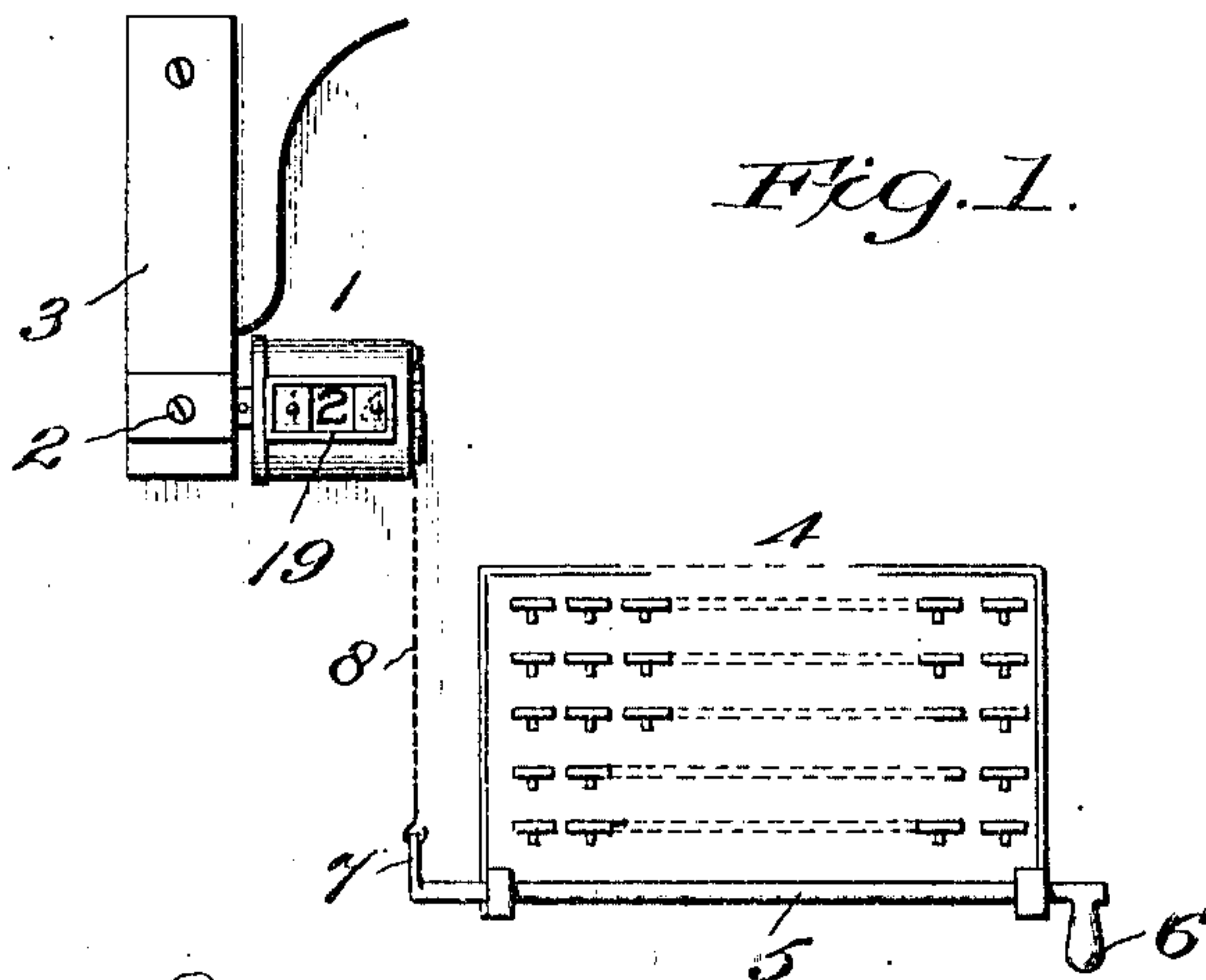


Fig. 2.

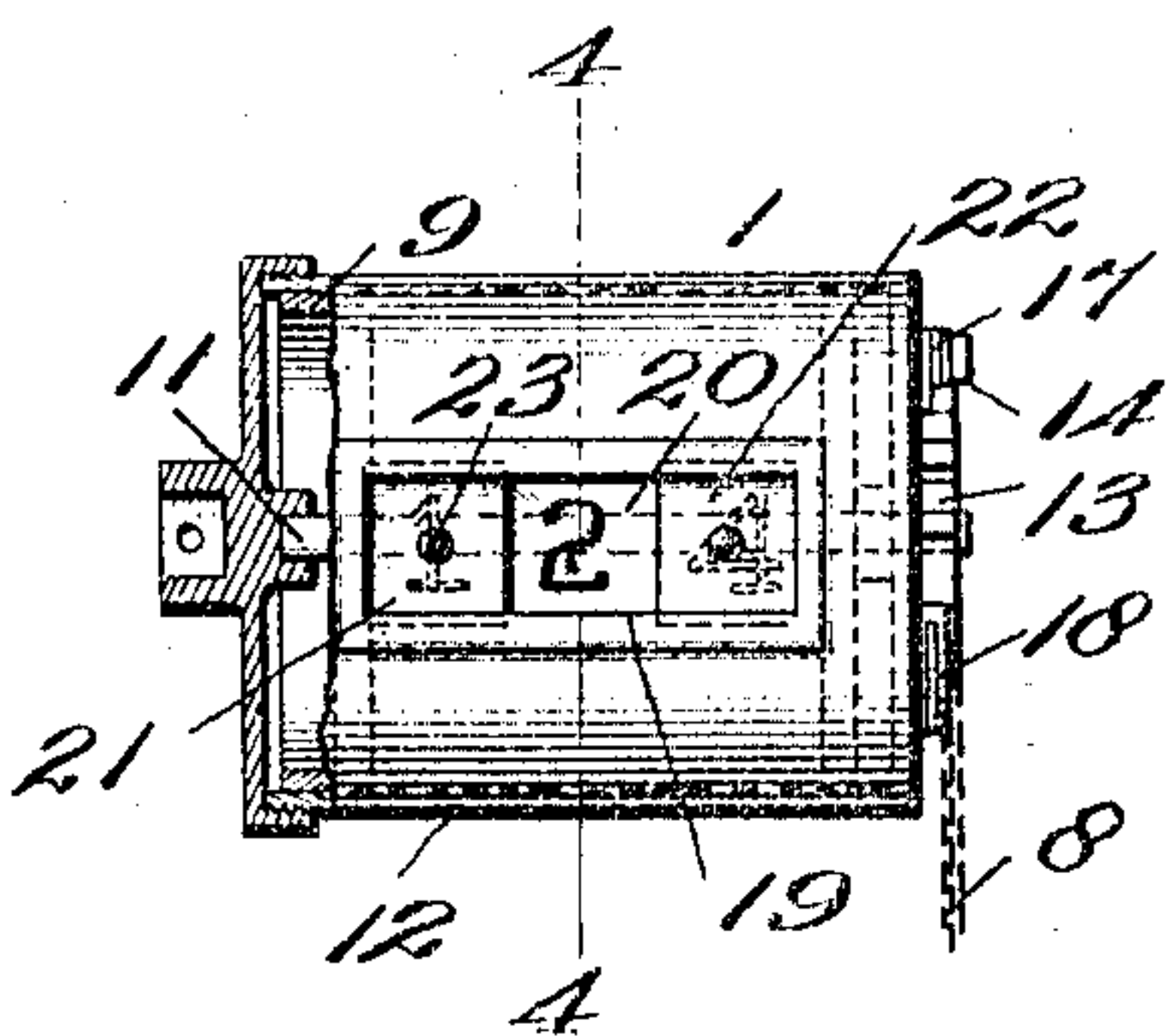


Fig. 3.

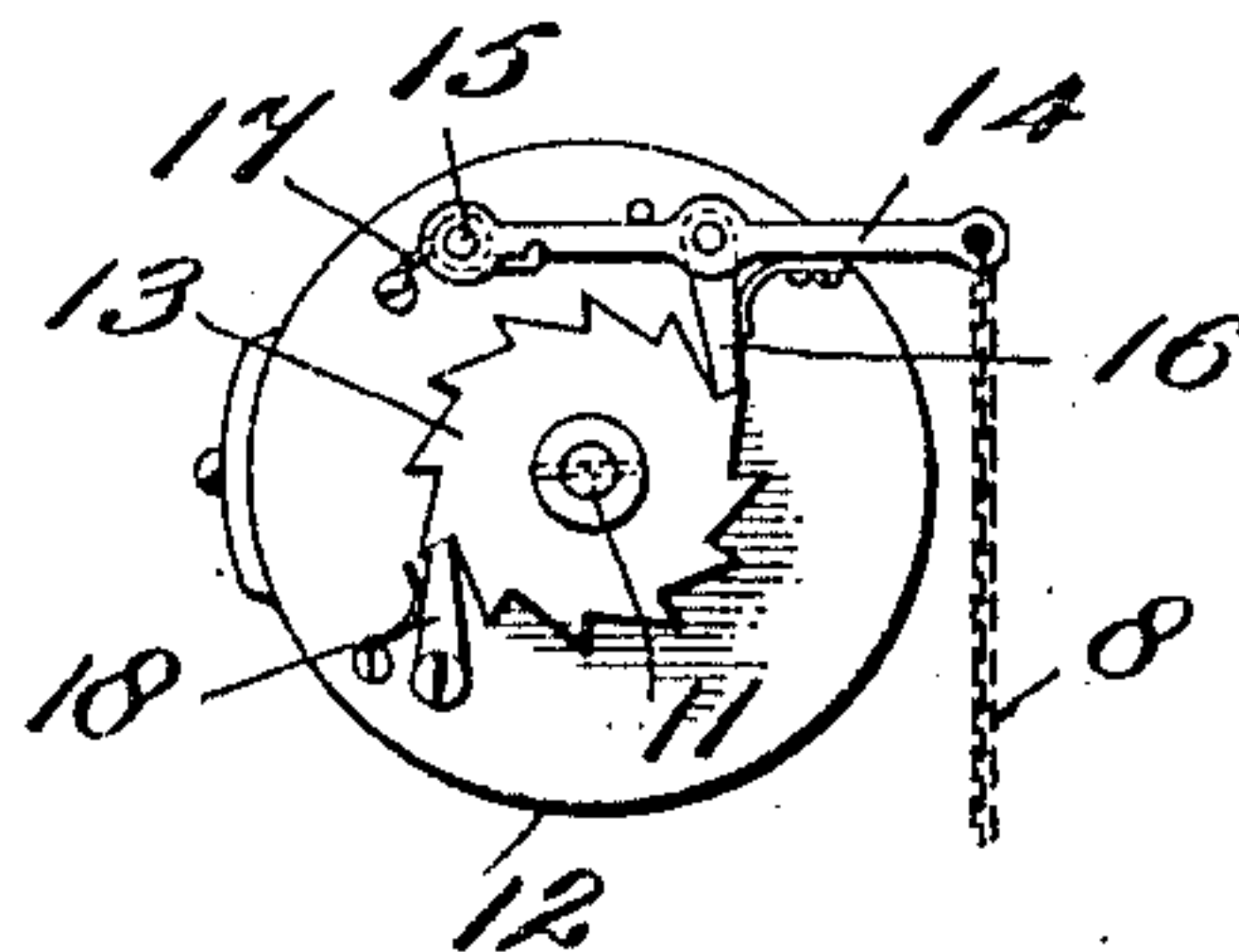


Fig. 4.

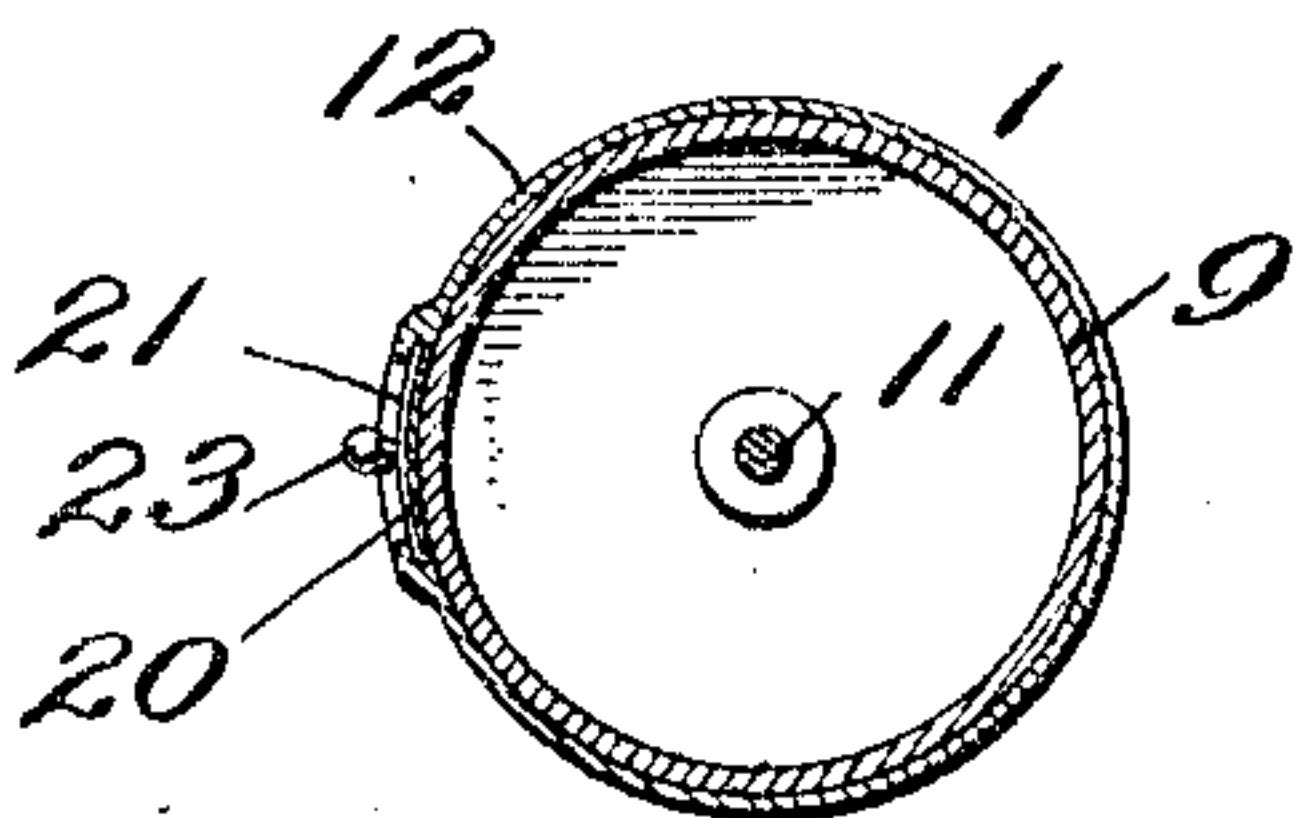


Fig. 5.

9

10		
1	1	1
2	2	2
3	1	3
1	2	4
2	1	1
3	2	2
1	1	3
2	2	4
3	1	1
1	2	2
2	1	3
3	2	4

Fig. 6.

B _____
A _____
C _____

Witnesses
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UNITED STATES PATENT OFFICE.

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SLUG-INDICATOR FOR TYPE-SETTING MACHINES.

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To all whom it may concern:

Be it known that I, ARTHUR B. CHILTON, a citizen of the United States, and residing at Montgomery, in the county of Montgomery and State of Alabama, have invented certain new and useful Improvements in Slug-Indicators for Type-Setting Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in indicators adapted to be attached to type setting machines and has for its object to provide a simple, cheap and highly efficient device of this character that can be readily attached to a typesetting machine for indicating the number of lines cast in setting double, triple and four column matter.

To these ends the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification in which like numerals designate like parts in all the views:—Figure 1 is a view showing the device attached to a part of a linotype machine; Fig. 2 is an enlarged detail side elevational view of the indicator; Fig. 3 is an end view of the indicator as seen when looking toward the left in Fig. 2; Fig. 4 is a cross sectional view taken on the line 4—4 of Fig. 2; Fig. 5 is a view showing the development of the cylinder; and Fig. 6 is a diagrammatic view representing printed matter arranged in lines containing two, three and four slugs of type.

As is well known in setting type on a linotype machine, that is to be used in arranging matter in a double, triple or a four column line, a great deal of time is lost in looking at the type to see how the last line was set. The machine, as is well known, cannot set type wider than 30 ems, and when 40, 50, 60, 80, 100 or 120 ems or matter of greater length is to be set, it has to be done in two, three or four column slugs. And in such cases the operator must know what part or end of the line he is working on at any moment, so he can tell how to end the line, whether with a hyphen, or break in the word in order that the slugs may join up and a

correct arrangement of the printed matter be effected. My invention is designed to save loss of time and to facilitate this class of work as will now appear.

1 represents the indicator which may be attached at the lower right hand screw 2 of the first elevator slide 3 above the key-board 4 of the well known linotype machine. On the key-board is mounted the usual elevating rod 5 provided with the operating handle 6 and the arm 7, to which arm is attached the chain 8 which may be of adjustable length for operating the indicator, as will be hereinafter described.

9 indicates a cylinder or drum around the periphery of which is arranged in twelve spaces three columns of figures 10; the first running 1, 2, 3, 1, 2, 3, etc.; the second 1, 2, 1, 2, etc.; and the third, 1, 2, 3, 4, 1, 2, 3, 4, etc., as will be clear from Fig. 5. This cylinder is provided with a shaft 11 adapted to be supported by bearings in the cylinder casing 12, which casing is rigidly held to the first elevator slide 3 as above stated. Keyed to the shaft 11 on the outside of the cylindrical casing 12 is a ratchet wheel 13 operated by the elevating rod 5 as above intimated, and causing the cylinder to turn every time a line is sent in. This mechanism for turning this ratchet comprises an arm 14 pivoted at one end as at 15 to the casing 12 and having its other end connected to the chain 8. This arm is also provided with a pivoted spring pressed pawl 16 adapted to engage the ratchet 13 and a means comprising a spring 17 surrounds the pivot 15 for returning the arm to its initial position after its operation, see Fig. 3. A second spring pressed pawl 18 is also pivoted to the casing 12 which is adapted to engage the ratchet wheel 13 and thereby prevent any backward movement of the cylinder.

The casing 12 is provided in its front portion with a rectangular opening 19 in which is mounted a glass plate 20 and two shutters 21 and 22 provided with knobs 23. These shutters are adapted to slide in the rectangular opening 19 and cover up any two of the three series of figures that may not be in use.

A, B and C in Fig. 6 indicate respectively slugs of matter that have been cast on a linotype machine and arranged in a double, triple and four column line.

The operation of the device is as follows,

supposing the indicator to be set as shown in the drawings for a double column of matter; the second column of figures showing through the glass and the slides covering up the first and third columns. The operator after setting up a line of type operates the handle of the elevating rod in the usual manner whereupon the machine casts the slug and the chain connected to the operating mechanism on the downward movement of the arm 7 turns the ratchet wheel 13 one twelfth of a revolution thereby causing the cylinder 9 to show the proper numeral through the opening of the casing and thereby indicate the slug of the double column that will be next cast. The next operation of the handle 6 will indicate the succeeding slug of the double column to be cast and so on, the numerals 1 and 2 successively appearing through the opening and indicating which slug of the double column of matter is next to be cast. If a triple column of matter, as shown at B, Fig. 6, is to be set up the operator pushes the shutter 21 to the right and covers up the second as well as the third columns of figures on the cylinder, whereupon the figures 1, 2 and 3 will successively indicate whether the left hand, the middle, or the right hand slug of the triple column is to be cast. If four column matter, as shown at C, Fig. 6, is to be set up the operator covers up the first and second series of figures, and he will have before him at any time full knowledge of the slug which he is now composing and is therefore next to be cast.

Not only does the indicator give information as to the slug that the operator is working on, but enables the operator to neatly join slugs in the middle of words and syllables. For instance, if the words "Now is the time for all good men to come to the aid of their party" is to be set up in a triple column of matter and the words and letters "Now is the time for all go" represents the first slug, while the words and letters "od men to come t" appear on the second slug, and the words and letter "o the aid of their party" appear on the third slug, the said slugs may be placed end to end and there will be no break in the sentence.

Sometimes the ending of a paragraph, in setting up a column of matter, occurs in the middle of the slug, but with this invention the operator, by observing the indicator, knows at once how to complete the arrangement of the matter and just where to begin the new paragraph without having to stop to look at the type. Thus it will be seen that the use of an instrument of this character effects a great saving of time, and prevents errors.

It is obvious that those skilled in the art may vary the details of construction and arrangement of parts without departing from the spirit of my invention and there-

fore I do not wish to be limited to such features except as may be required by the claims.

What I claim is:—

1. An indicator for use in connection with type setting machines the combination of a casing; means in said casing for indicating at different times slugs employed in setting up matter in columns of various widths, said means comprising a plurality of different repeating series of numbers, each repeating series pertaining to a column of one width; means for concealing those indications not pertaining to a given column and means for indicating successively the numbers pertaining to said column, substantially as described.

2. In an indicator for use in connection with type setting machines the combination of a drum provided with a plurality of different repeating columns of figures, one repeating column for each different width of matter to be indicated; means for concealing at will all but one of said columns; and means for causing said drum to indicate the slug to be cast, substantially as described.

3. In an indicator for use in connection with type setting machines the combination of a drum provided with a plurality of different repeating columns of figures, one column for each different width of matter to be indicated; means for concealing at will all but one of said columns; and a pawl and ratchet for causing said drum to indicate the slug to be cast, substantially as described.

4. In a type setting machine the combination of a support; an indicator attached thereto comprising a drum provided with a plurality of different repeating columns of figures adapted to designate columns of matter of varying widths as well as the slug to be cast, and also comprising means for concealing all of said columns except one; a lever; and connections between said lever and said drum for rotating the drum, substantially as described.

5. In a type setting machine the combination of a support; an indicator attached thereto comprising a drum provided with a plurality of different repeating columns of figures adapted to designate columns of matter of varying widths as well as the slug to be cast, and also comprising means for concealing all of said columns except one; a hand operated lever; and connections between said lever and said drum comprising a pawl and ratchet, substantially as described.

6. In a type setting machine the combination of an indicator comprising a casing provided with a rectangular opening in its side; a cylinder mounted in said casing provided with a plurality of different repeating columns of figures adapted to indicate columns of matter of varying widths as well

as the slug to be cast; shutters mounted in
said rectangular opening adapted to close
from view all but one of said columns of
figures; a ratchet wheel mounted on said
5 cylinder; a pawl mounted on said casing
and coöperating with said ratchet wheel; a
second pawl mounted on said casing and co-
operating with said ratchet wheel; a hand
operated lever mounted on the key-board of
10 said type setting machine; and means con-

necting said lever to the first mentioned
pawl for actuating said ratchet wheel and
moving said cylinder, substantially as de-
scribed.

In testimony whereof, I affix my signa-
ture, in presence of two witnesses.

ARTHUR B. CHILTON.

Witnesses:

JOHN I. CHILTON,
E. H. SMITH.