

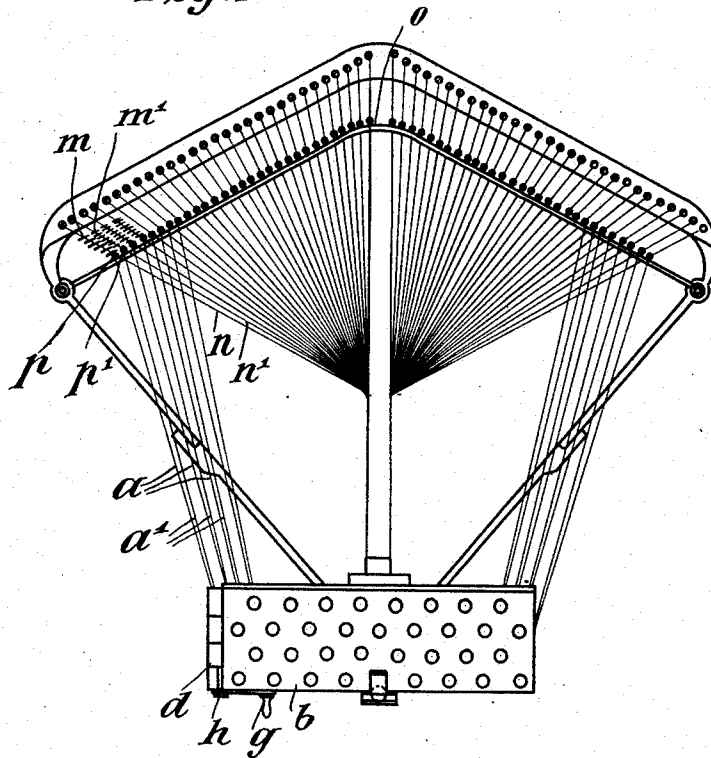
J. DORNETH.
MATRIX SETTING AND LINE CASTING MACHINE.
APPLICATION FILED OCT. 3, 1910.

1,015,479.

Patented Jan. 23, 1912.

2 SHEETS—SHEET 1.

Fig. 1



Witness:
W. S. Bridges
W. S. Bridges

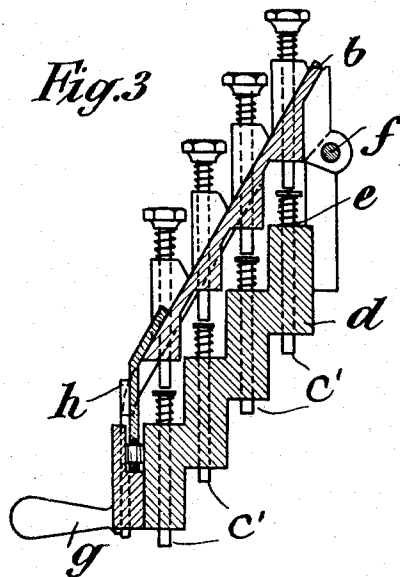
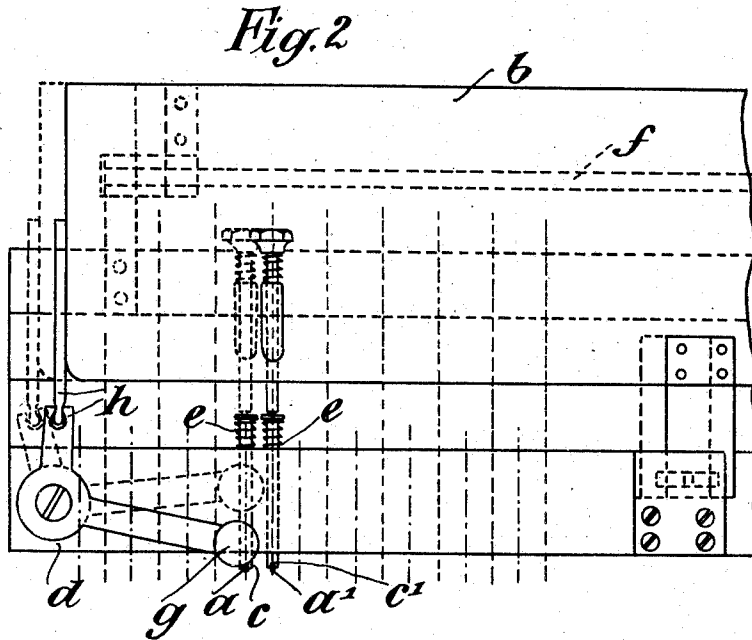
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2 SHEETS—SHEET 2.



Witness:
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UNITED STATES PATENT OFFICE.

JULIUS DORNETH, OF BERLIN, GERMANY, ASSIGNOR TO TYPOGRAPH G. M. B. H., OF
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MATRIX-SETTING AND LINE-CASTING MACHINE.

1,015,479.

Specification of Letters Patent.

Patented Jan. 23, 1912.

Application filed October 3, 1910. Serial No. 584,961.

To all whom it may concern:

Be it known that I, JULIUS DORNETH, a subject of the German Emperor, and residing at Berlin, Germany, have invented certain new and useful Improvements in or
5 Relating to Matrix-Setting and Line-Casting Machines, of which the following is a specification.

This invention relates to a matrix setting
10 and line casting machine having matrix bars guided on wires and which, in addition to the set of matrix bars for the ordinary type there is also arranged such a set for italics on separate guide wires, said
15 guide wires being arranged next to each other so that a guide wire of one set of matrix bars is followed by a guide wire of the other set, escapements being provided for each guide wire and said escapements
20 being operated through releasing wires from a suitable keyboard. In the old forms of machines of this type the escapements were connected to shifting frames so that by moving said frames one set of escapements
25 was brought into operation and the other set was rendered inoperative. In the present invention the releasing wires are carried to the keyboard and the latter is made adjustable so that by shifting it the releasing
30 wires of one or of the other set of matrix bars are rendered operative.

A construction according to this invention is illustrated by way of example in the accompanying drawing in which—

35 Figure 1 is a plan of the matrix-basket. Fig. 2 a front elevation of the key board and Fig. 3 a section. Fig. 4 is a detail view.

A is the matrix-basket, which bears two
40 sets of matrix bars m , m^1 on guide wires n , n^1 in such a manner that a guide wire n of the one set m of matrix bars is followed by the guide wire n^1 of the second set m^1 . The releasing wires of one set of matrix bars
45 are marked a and those of the other a^1 , and they are also arranged alternately; they are carried to the key board b and secured below to pins c c^1 . At the other ends they engage with the escapements p , p^1 of the
50 corresponding matrix bar sets, mounted on a fixed frame O . The pins c c^1 are vertically adjustable in a stepped member d and are held in their upper position by springs e . Above the member d is arranged
55 a key board b mounted in a longitudinally

adjustable manner on a rod f . The shifting is effected by a handle g connected by suitable lever mechanism h to the key board b . In one position of the latter, the pins c^1 , and therefore the releasing wires a^1 of one set of matrix bars, are moved by the depression of the keys, and in the other position the pins c and the releasing wires of the other set of matrix bars are moved. It is therefore unnecessary to shift the frame
60 carrying the escapements.

As the spaces for the two sets of matrix bars are the same, only one releasing wire is required for the same and no releasing wire is secured to one of that pair of pins c which
70 corresponds to the space key, and both the pins are connected at the top by means of a plate i (as shown in Fig. 4), so that the releasing wire for the spaces can be moved in any position of the key board.

75 Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is:

1. In a matrix setting and line casting
80 machine the combination of a plurality of sets of matrix bars capable of interchangeable use, a guide wire for each bar, a releasing device for each bar, a wire leading from each releasing device, said wires being
85 arranged in groups containing one wire from each set of matrix bars, an operating pin connected to each releasing wire, said operating pins being arranged in groups to accord with the arrangement of the releasing
90 wires, a key-board having one key for each group of operating pins, and means for shifting said key-board to bring the keys into operative relation with any one of the pins of the said groups.

95 2. In a matrix setting and line casting machine the combination of a plurality of sets of matrix bars capable of interchangeable use, a guide wire for each bar, a releasing device for each bar, a wire leading
100 from each releasing device, said wires being arranged in groups containing one wire from each set of matrix bars, an operating pin connected to each releasing wire, said operating pins being arranged in groups to
105 accord with the arrangement of the releasing wires, a key-board having one key for each group of operating pins, and shiftable means whereby each key may be put in operative relation with any one of the pins of
110

each group so that the same keys may be used for setting matter from any one of the sets of matrix bars.

3. A matrix setting and line casting machine comprising one set of matrix bars for setting ordinary matter, a supplemental set of matrix bars for setting distinctive matter, a guide wire for each bar, two sets of releasing devices, one set for each set of matrix bars, two sets of releasing wires, one set for each of the sets of releasing devices, two sets of releasing pins, each set being operatively connected to its corresponding set of releasing wires, said releasing pins being arranged in pairs and one pin of each set being in each pair, a key-board having a single operating key for each pair of pins, and means for shifting said key-board to bring each key into operative relation with either one of the pins in the pairs of pins, whereby upon shifting the key-board the same keys may be used to operate either set of releasing pins for setting ordinary matter or for setting distinctive matter.
4. A matrix setting and line casting machine comprising one set of matrix bars for setting ordinary matter, a supplemental set of matrix bars for setting distinctive matter, a guide wire for each bar, two sets of releasing devices, one set for each set of matrix bars, two sets of releasing wires, one set for each of the sets of releasing devices, two sets of releasing pins, each set being operatively connected to its corresponding set of releasing wires, said releasing pins being ar-

ranged in pairs and one pin of each set being in each pair, a key-board having a single operating key for each pair of pins, and shiftable means whereby the same key-board may be used to operate either set of releasing pins for setting ordinary matter or for setting distinctive matter.

5. In a matrix setting and line casting machine the combination of two sets of matrix guiding wires arranged alternately whereby one wire of one set will be arranged close to and parallel with the corresponding wire of the other set, two distinctive sets of matrix bars arranged on said wires, a releasing device for each guide wire to permit the matrix bars to pass down the guide wires, a releasing wire for each releasing device, said releasing wires being arranged in pairs, each pair of releasing wires controlling the release of the matrix bars from the adjoining guide wires of each set of matrix bars, a releasing pin connected to each releasing wire, said pins being arranged in pairs to accord with the arrangement of the releasing wires, a key-board having a single key for each pair of releasing pins, and shiftable means whereby each key may be placed in operative relation with either one of the pins of its pair.

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

JULIUS DORNETH.

Witnesses:

HENRY HASPER,
WOLDEMAR HAUPT.

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