

No. 662,724.

Patented Nov. 27, 1900.

P. E. HODGKIN & W. MAY.

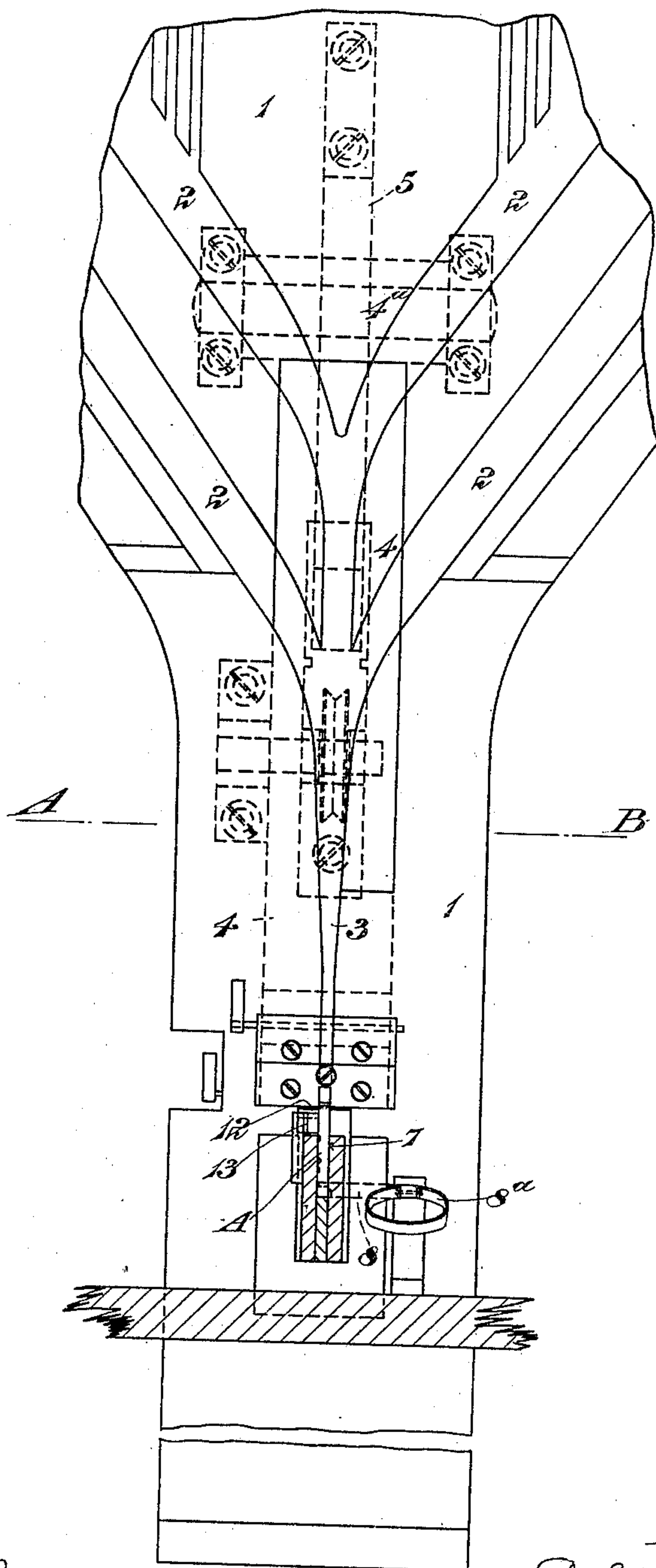
TYPE SETTING OR COMPOSING MACHINE.

(Application filed Jan. 20, 1899.)

(No Model.)

3 Sheets—Sheet 1.

*Fig. 1.*



*Witnesses.*

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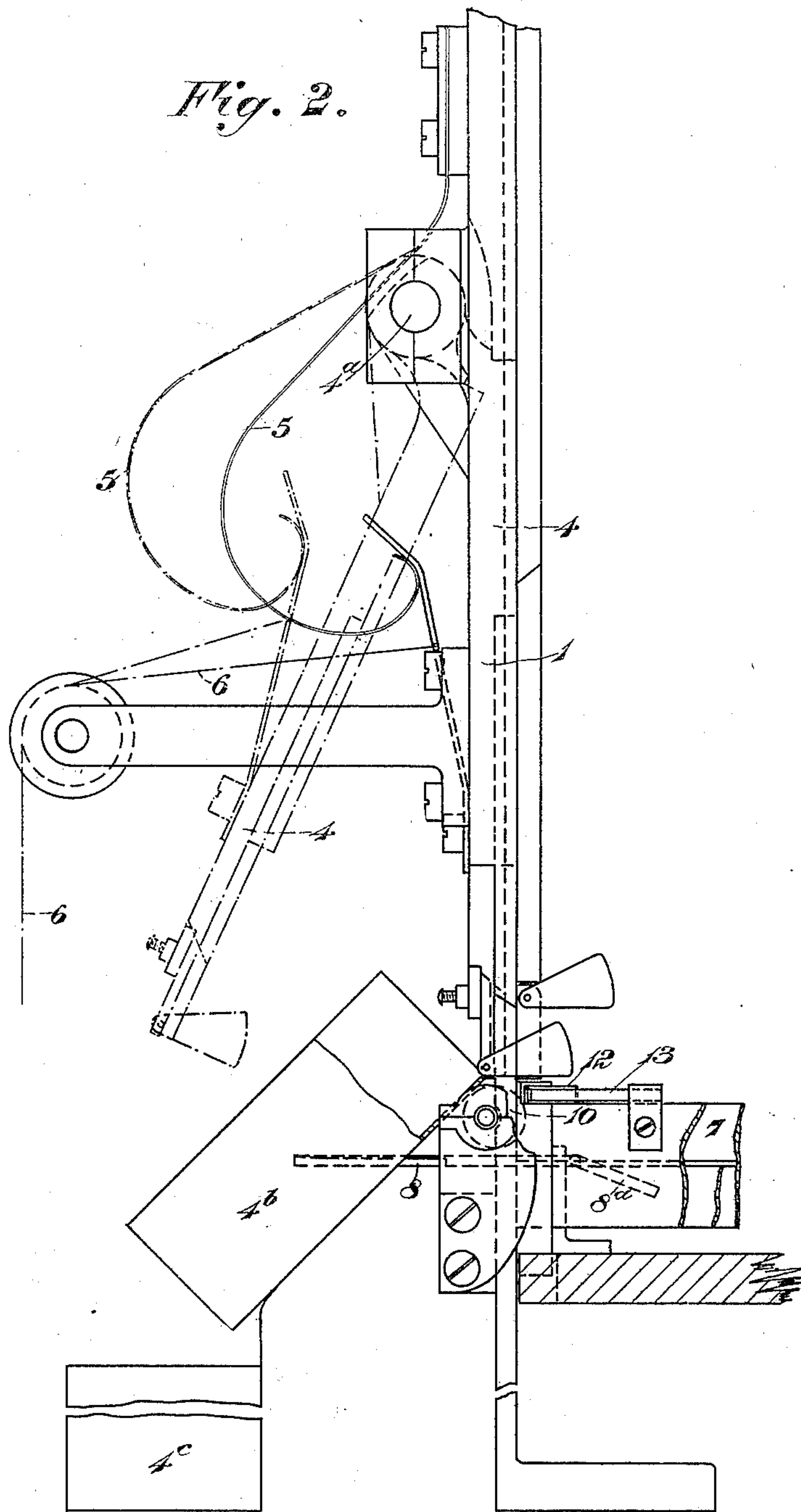
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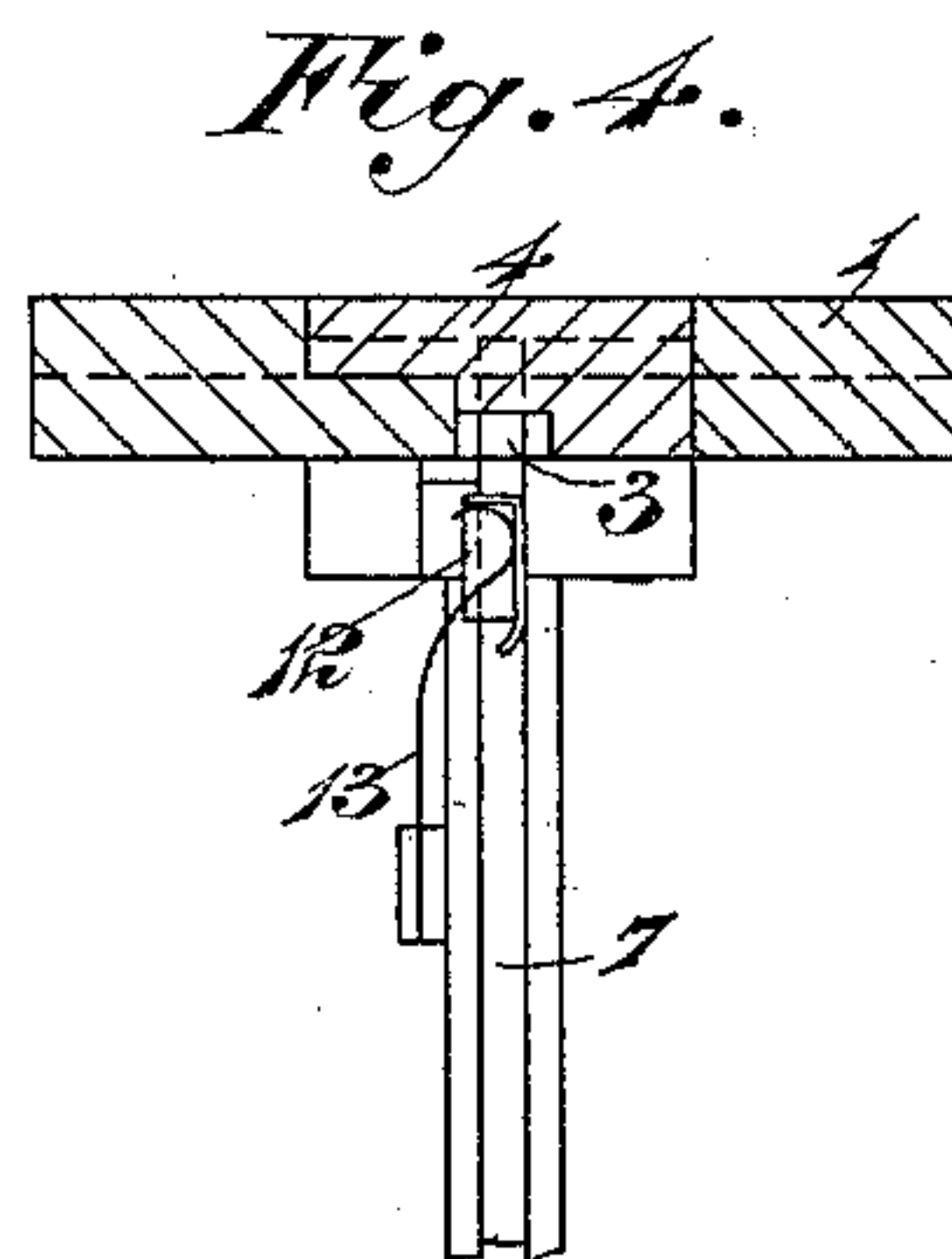
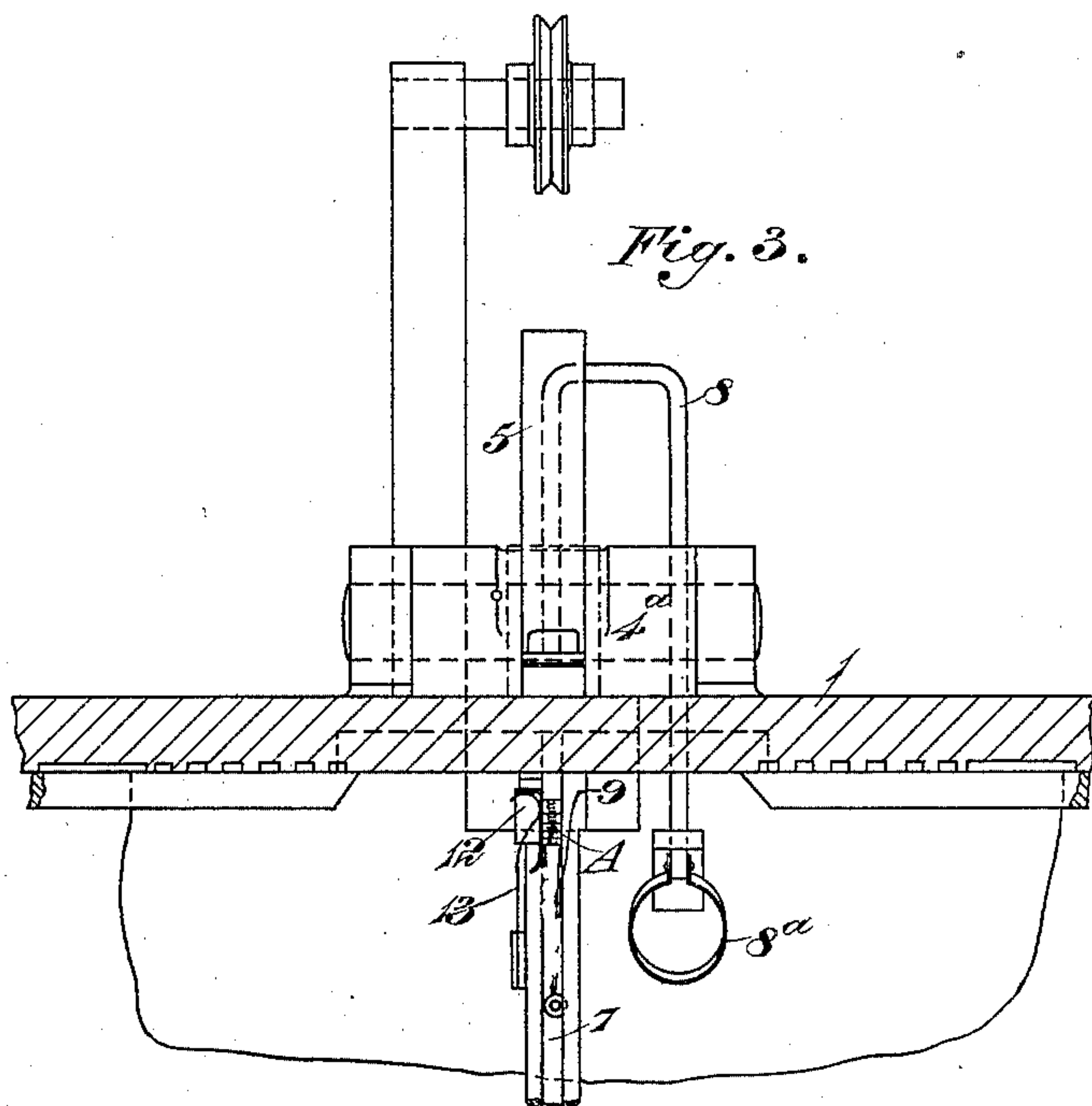
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3 Sheets—Sheet 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

PHILIP ELIOT HODGKIN AND WALTER MAY, OF LONDON, ENGLAND.

## TYPE SETTING OR COMPOSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 662,724, dated November 27, 1900.

Application filed January 20, 1899. Serial No. 702,807. (No model.)

*To all whom it may concern:*

Be it known that we, PHILIP ELIOT HODGKIN and WALTER MAY, subjects of the Queen of Great Britain and Ireland, residing at Nine Elms, London, England, have invented Improvements in Type Setting or Composing Machines, of which the following is a specification.

This invention relates to type-setting machines of the kind in which type are fed through separate feeding-channels into a common main channel which leads them direct to a packing device by which they are pushed forward into a composing-channel; and it consists in various improvements in such machines whereby the efficiency of the same is considerably increased, as we shall now describe with reference to the accompanying illustrated drawings, wherein—

Figures 1, 2, and 3 show, respectively, in front elevation, side elevation, and plan so much of a type-setting machine as is necessary to illustrate the nature of this invention. Fig. 4 is a section on the line A B of Fig. 1.

In machines of the kind referred to it often happens that type become jammed in the main channel at or near the junctions thereof with the feeding-channels, thereby causing a block, which has heretofore necessitated considerable labor and loss of time to remove, thus seriously interfering with the efficiency of the machine. Now according to this invention in order to obviate this disadvantage and enable type that may have become jammed together, as stated, to be instantly removed from the channel or channels, so that the working of the machine can be continued without the serious loss of time heretofore usual, a portion of the board or upright in which the main and feeding channels are formed is so constructed and arranged that it can be readily and quickly moved by the machine-operator away from the remaining portion of the board or upright and into a position in which type that may have become jammed will fall away by gravity and so leave the channel or channels clear for succeeding type.

In the construction shown in the accompanying drawings the board or upright 1, in which the feeding and main type channels 2 and 3, respectively, are formed, is for the pur-

pose mentioned provided with a movable rear portion 4, adapted to form the back and one side of the main channel 3 and part of the feeding-channels 2 where these join the main channel. This movable rear portion 4 is pivoted at its upper end at 4<sup>a</sup>, so as to turn about a horizontal axis, and is adapted to be turned backward and upward against the action of gravity, and also it may be against that of a spring 5, by suitable means, such as a suitably-guided cord 6 under the control of the machine-operator, the arrangement being such that when type become jammed in the main type-channel 3 or at the junction of the main and feeding type-channels 3 and 2 the said pivoted rear portion 4 can be immediately turned upward and away from the remaining fixed portions of the channels, as indicated in dotted lines in Fig. 2, and the type permitted to fall through a guide 4<sup>b</sup> into a suitable receptacle, such as a pi-box 4<sup>c</sup>.

To enable the operator to readily see the last character composed before the block or jamming took place, there is provided in connection with the horizontal type-channel 7, which is below the vertical main channel 3 and in front of the packing device, a pusher 8, that may consist, as in the example shown, of a bent bar, one end portion of which extends into the type-channel 7 below the packing device and the other end portion of which is brought to the front of the machine, so that it can be readily pulled forward by a handle 8<sup>a</sup>, so as to bring forward the row of composed type A in the horizontal channel 7 and permit the last type to be seen, after which the composed matter is pushed back by a follower 9, which may consist of a strip of spring-steel bent to the shape shown, so as to adapt it to slide in and fit the sides of the type-channel 7 and to bear against and prevent the type rising.

To hold the rear type A in the horizontal composing-channel 7 in proper position as they are received from the eccentric packing device 10 at the rear, there is or may be provided at one side and near the rear end of the channel 7 a box or holder 12, that is pressed by a spring 13 against one side of the adjacent type as they are successively received from the packing device and holds such type in a vertical position, while permitting of their



being moved forward by fresh type from the rear. The box or holder 12 may consist of a piece of thin sheet metal carried by or acted upon by the spring 13 and comprising a vertical side portion bearing against the rear type A and a bottom side bearing upon the top of one of the side walls of the composing-channel 7. When the composing-channel 7 is empty, the box or holder 12 is held back by the follower 9 until the first type of the line to be assembled enters the channel.

What we claim is—

1. A type-composing machine of the kind referred to wherein the board or upright in which the main and feeding type-channels leading to the packing device are formed is made in two portions, one of which is movable so that it can be moved away from the other portion of said board or upright and is grooved so as to form part of the type channel or channels, substantially as described for the purpose specified.

2. In a type-composing machine of the kind herein referred to, a board or upright formed with feeding and main type-channels and provided with a movable rear portion adapted to form the back and one side of the main channel, and means for moving said rear portion backward whereby type jammed between the sides of the channel will be released and allowed to fall, substantially as described.

3. In a type-composing machine, a board or

upright formed with feeding and main type-channels and having a rear portion adapted to form the back and one side of the main channel and part of the feeding-channels, said rear portion being pivoted at its upper end, means adapted to turn said rear portion backward and upward, and means acting to close said rear portion, substantially as described for the purpose specified.

4. In a type-setting machine of the kind herein referred to, the combination of vertical and horizontal type-channels, an eccentric packing device arranged at the junction of the said channels, and a type-holder arranged at one side of and near the rear end of said horizontal type-channel and comprising a vertical side portion adapted to bear against one side of the adjacent type as they are successively received from said packing device, and a bottom side portion adapted to bear upon one of the side walls of the type-channel and a spring acting to press said holder against said type, substantially as described for the purpose specified.

Signed at 77 Cornhill, London, England, this 5th day of January, 1899.

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WALTER MAY.

Witnesses:

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