

No. 679,482.

Patented July 30, 1901.

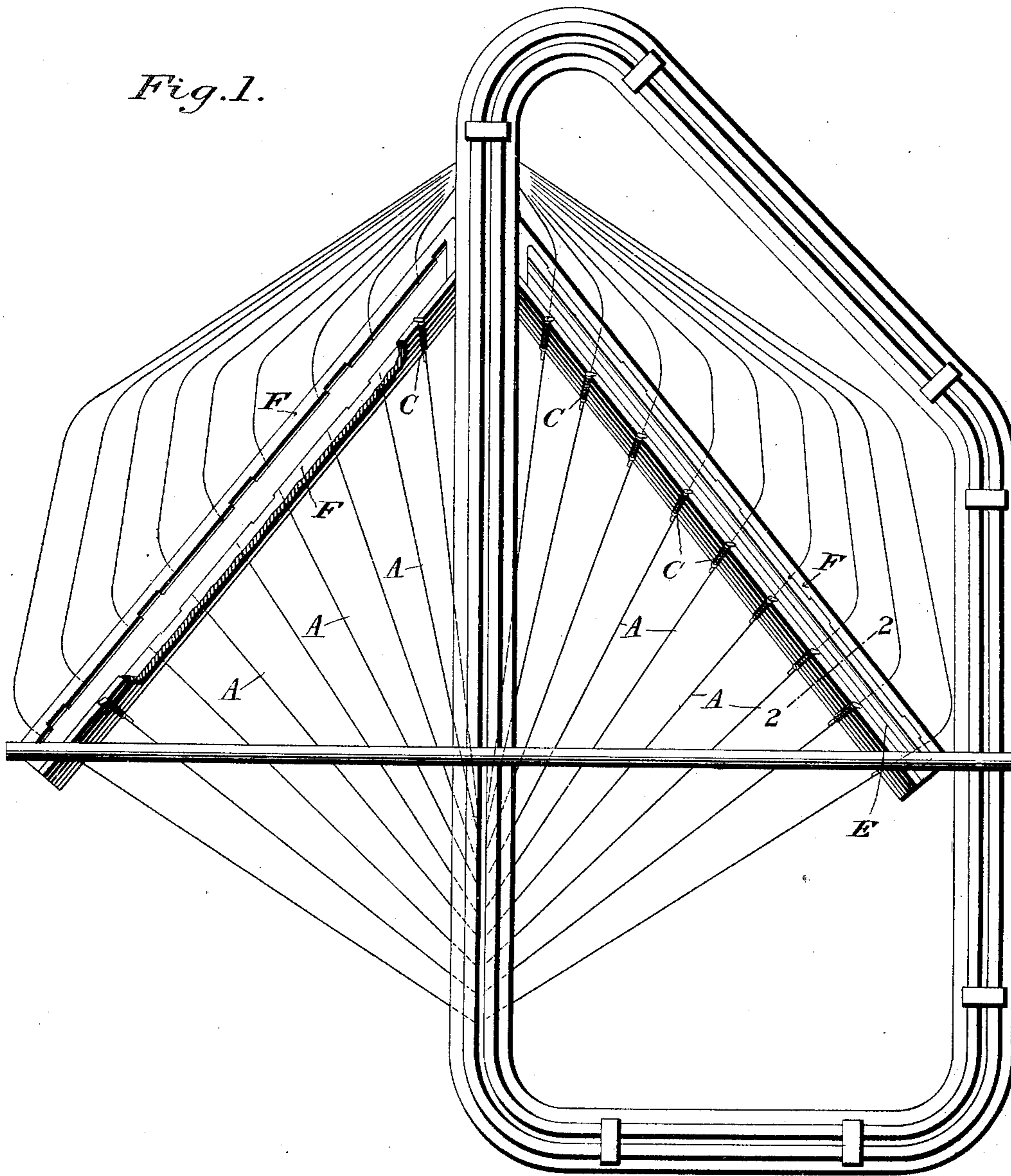
J. R. ROGERS.
LINOTYPE MACHINE.

(Application filed Jan. 5, 1901.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 1.



WITNESSES:

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Fig. 2.

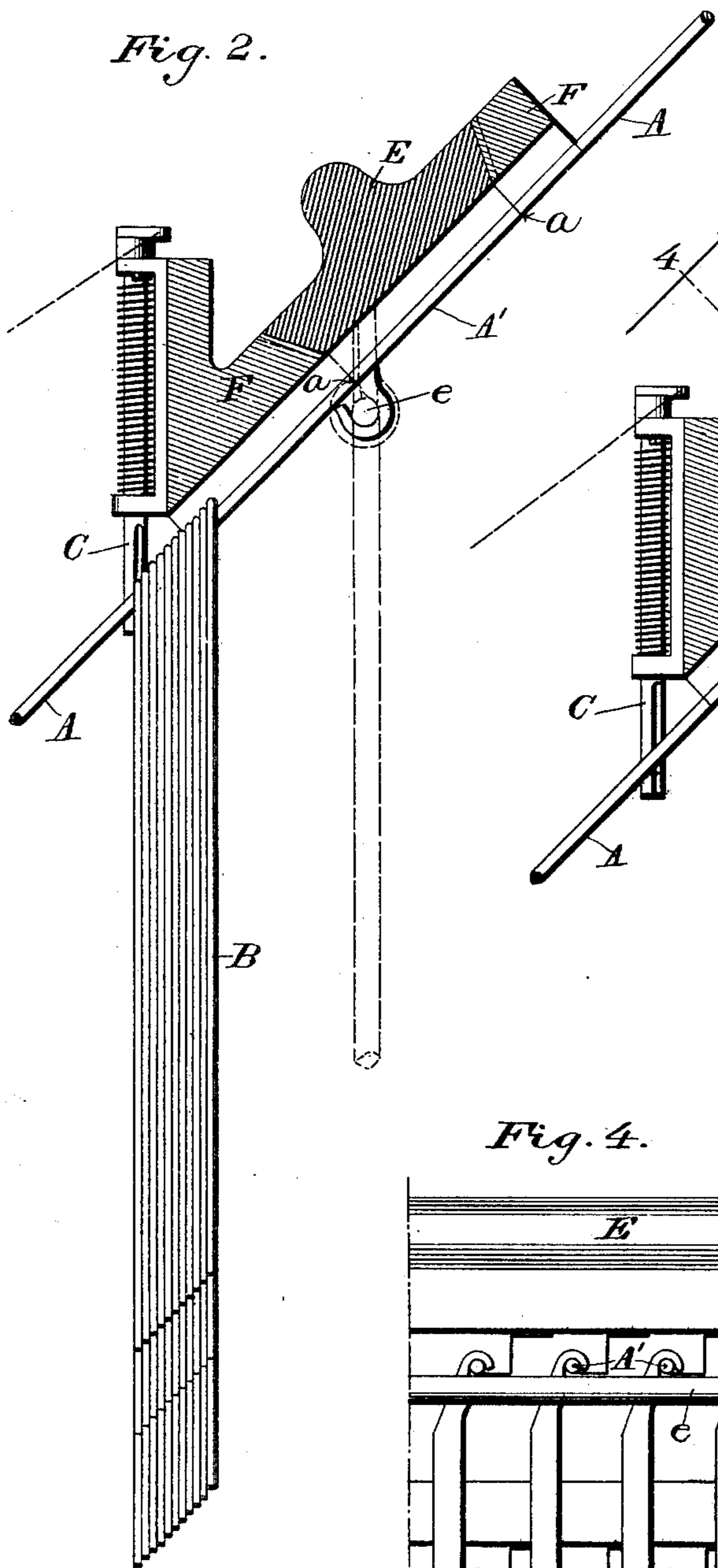


Fig. 3.

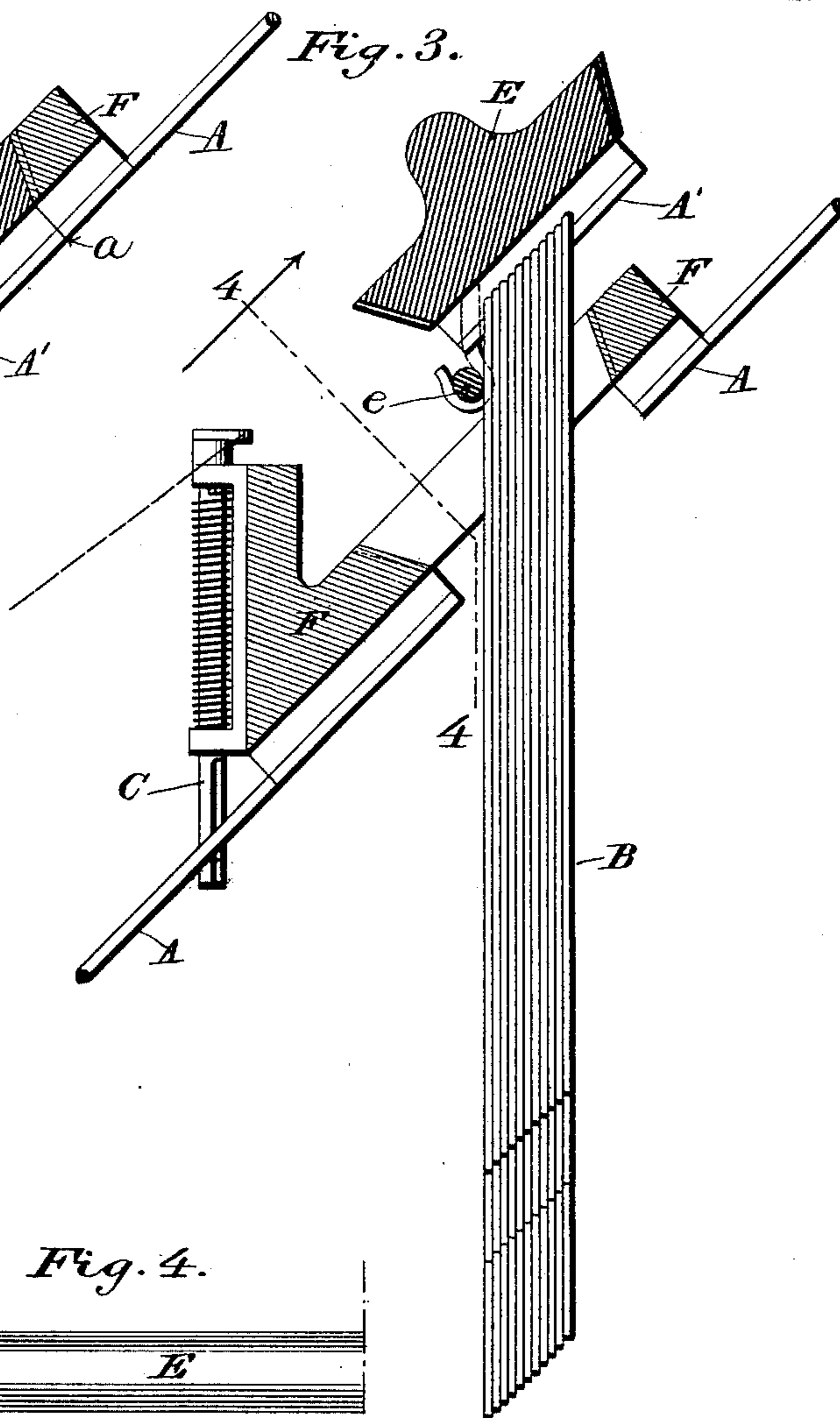
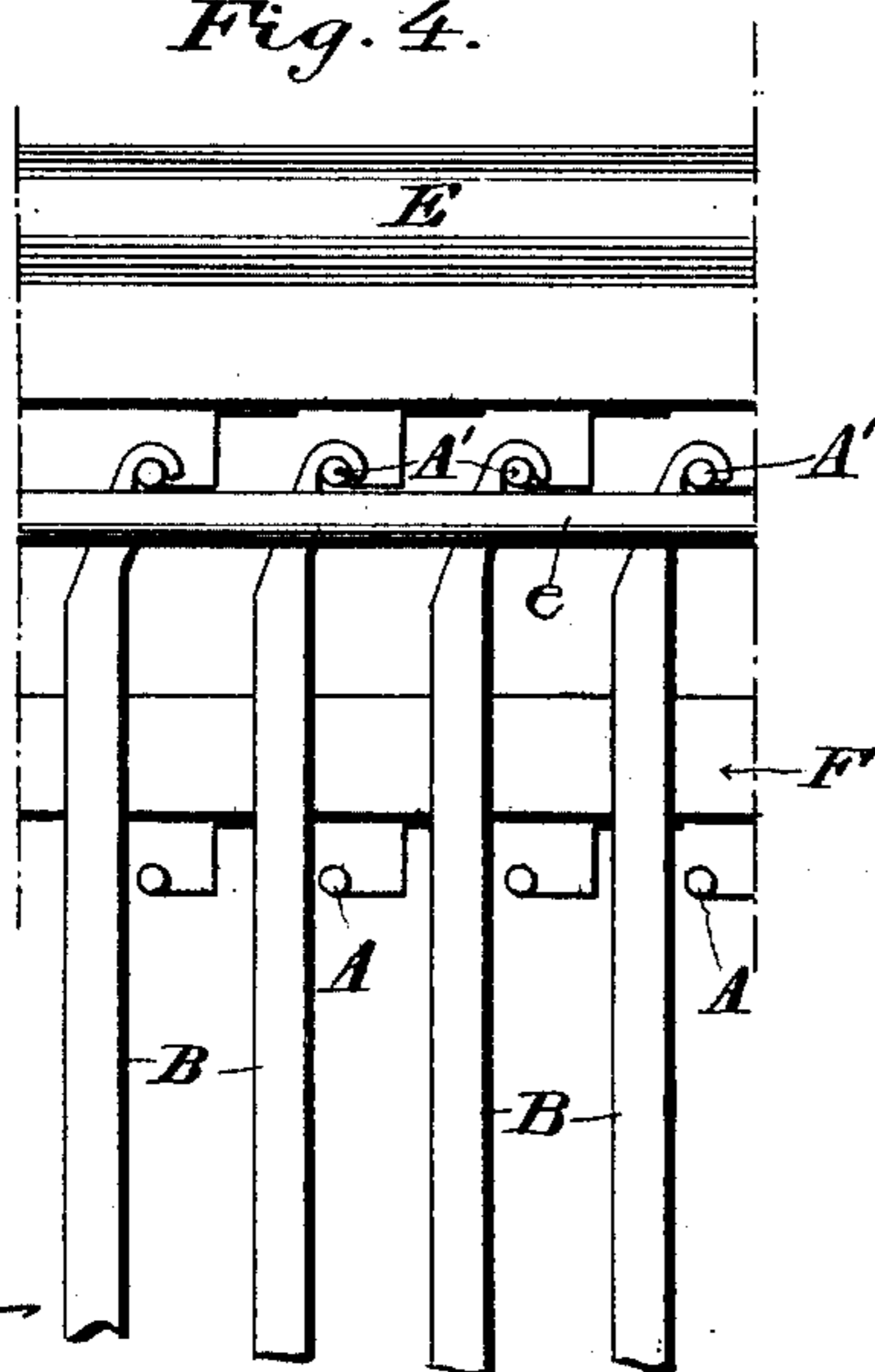


Fig. 4.



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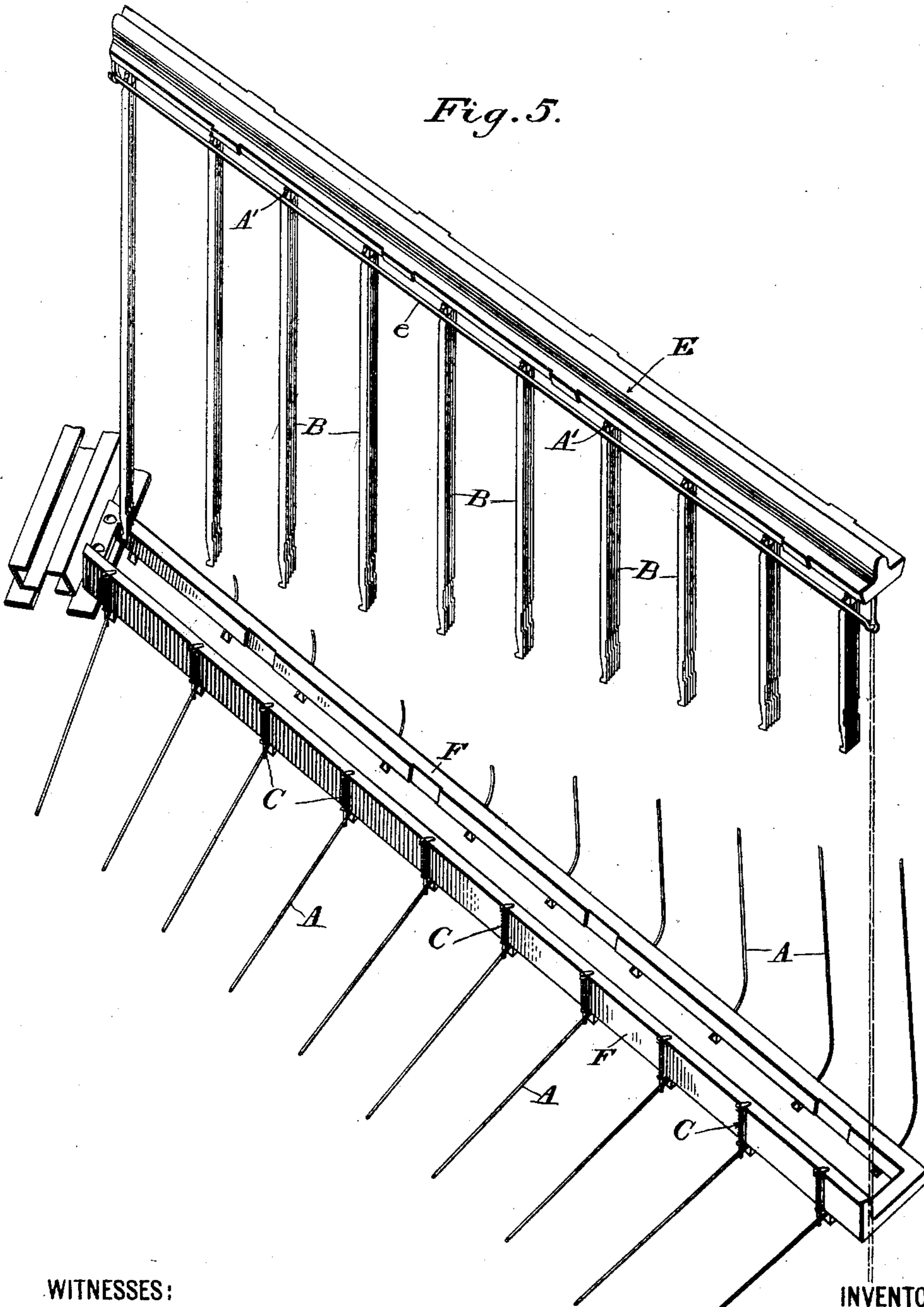
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3 Sheets—Sheet 3.

Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN R. ROGERS, OF BROOKLYN, NEW YORK, ASSIGNOR TO MERGENTHALER LINOTYPE COMPANY, OF NEW YORK.

LINOTYPE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 679,482, dated July 30, 1901.

Application filed January 5, 1901. Serial No. 42,154. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. ROGERS, of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Linotype-Machines, of which the following is a specification.

My invention relates to that class of linotype-machines wherein the matrices are permanently mounted on wires or equivalent guides whereon they individually travel from the place of storage to the place at which they are assembled or composed temporarily in line, and more especially to machines having the guides arranged in converging and diverging lines for the purpose of composition and distribution, as shown, for example, in Letters Patent of the United States to me, Nos. 437,139 and 630,412, and in the application for United States Letters Patent executed by me on the 9th day of February, 1901. In this class of machines as usually constructed the removal of one set of matrices and the substitution of another set is a matter involving an objectionable amount of time and labor.

The object of the present invention is to permit the practically-instantaneous removal of one set or font of matrices and the substitution of another font producing type-faces of a different size or style; and to this end it consists in constructing the guides with sections adapted for instantaneous removal while the matrices are suspended therefrom, a number or all of these removable sections being preferably connected to a single supporting-bar, so that they may all be removed together, with the matrices supported therefrom, by a single operation.

The details of construction may be variously modified.

In the drawings I have represented the parts in their preferred forms and as adapted for use in the machine described in the above-named application.

Referring to the drawings, Figure 1 is a top plan view of the frame of the machine with my improvement embodied therein, the matrix-sustaining sections on the left-hand side being removed. Fig. 2 is a vertical cross-section on the line 2 2 of Fig. 1, showing the parts in operative position. Fig. 3 is a simi-

lar view showing the manner in which the removable sections are adjusted in removing or inserting the matrices. Fig. 4 is a cross-section on the line 4 4 of Fig. 3 looking in the direction indicated by the arrow. Fig. 5 is a perspective view illustrating the manner in which the series of removable sections attached to a common bar are removed, together with the groups of matrices suspended therefrom.

Referring to the drawings, A A represent the endless inclined stationary guides, from which the matrices B are suspended and on which they travel intermittently always in one direction. At their upper ends these guides diverge laterally, as shown in Fig. 1, for the purpose of distributing the matrices belonging to the several groups to the points where they are held in check by the usual escapements or releasing devices C, which are actuated from finger-keys, as usual. From the escapements downward these wires converge for the purpose of guiding the released matrices and assembling them in a common line in the ordinary manner.

In carrying my invention into effect I divide each of the guides A immediately above the escapements C at two points *a a*, so that the intermediate section of the guide A' may be removed. I attach a series of these removable sections, preferably of those on one side of the machine, to the under side of a common bar or plate E, which is arranged to fit downward into a slot or recess in the bar or plate F, fixed rigidly to the frame and serving as a support for the ends of the guides adjacent to the removable section. When the plate E is in its operative position, as shown in Fig. 1, the section of the guide attached thereto lies with and forms a part of the continuous guide A. In other words, the machine presents, with the plate E in position, continuous or uninterrupted guides on which the matrices may travel, as usual. When, however, the matrices are kept in engagement with the removable sections A' of the guide, as shown in Fig. 3, it is only necessary to lift out the plate E, to which the removable sections are attached, in order to remove the groups of matrices from the machine. For the purpose of thus holding the

matrices in engagement with the removable sections and away from the escapements C any suitable means may be employed; but I prefer to make use of a rod *e*, which hangs
 5 normally in a pendent position from one end of the bar E, as shown in dotted lines in Figs. 2 and 5, but which may be turned upward parallel with the bar E, engaged in a sustaining-hook thereon, as shown in Figs. 3, 4, and
 10 5, in which position the rod E serves to hold the matrices on the removable portion of the guides, as shown.

It will be observed that if the font of matrices is to be changed it is only necessary to
 15 lift out the bar or bars E with the matrices hanging thereon and to substitute other bars carrying a second set of matrices.

While I prefer to locate the removable sections above the escapements and in the position indicated, it is to be understood that they may be located at any convenient point in the length of the guides and that any details of construction may be adopted, provided only that the guides are divided and
 25 portions made movable or removable that the matrices may escape from the guides.

Having described my invention, what I claim is—

1. An endless matrix-guide, having a movable portion to permit the removal of the matrices, substantially as described.

2. In a linotype-machine and in combination with matrices suspended therefrom a

guide, divided and having one portion movable in relation to another, whereby its continuity may be interrupted to permit the application or removal of the matrices. 35

3. In a linotype-machine, wires or guides whereon the matrices are suspended and arranged to travel, having removable sections in combination with means for retaining the matrices thereon, whereby the removal of a section of the guide is caused to effect the removal of the matrices from the machine. 40

4. In a linotype-machine, a series of inclined guides from which to suspend the matrices, said guides having movable sections, in combination with a common bar or support to which said sections are attached, and means for retaining the matrices temporarily on the sections, substantially as described and shown. 45

5. In a linotype-machine, the combination of inclined guides A having movable sections A', a plate F sustaining the guides adjacent to the movable sections, and a movable plate E having the movable sections attached thereto. 55

In testimony whereof I hereunto set my hand, this 2d day of January, 1901, in the presence of two attesting witnesses. 60

JOHN R. ROGERS.

Witnesses:

W. A. MCCALL,
 JOSEPH MACKEY.