

No. 753,348.

PATENTED MAR. 1, 1904.

J. ALEXANDER.
TYPE WRITER ALINING MECHANISM.

APPLICATION FILED DEC. 1, 1902.

NO MODEL.

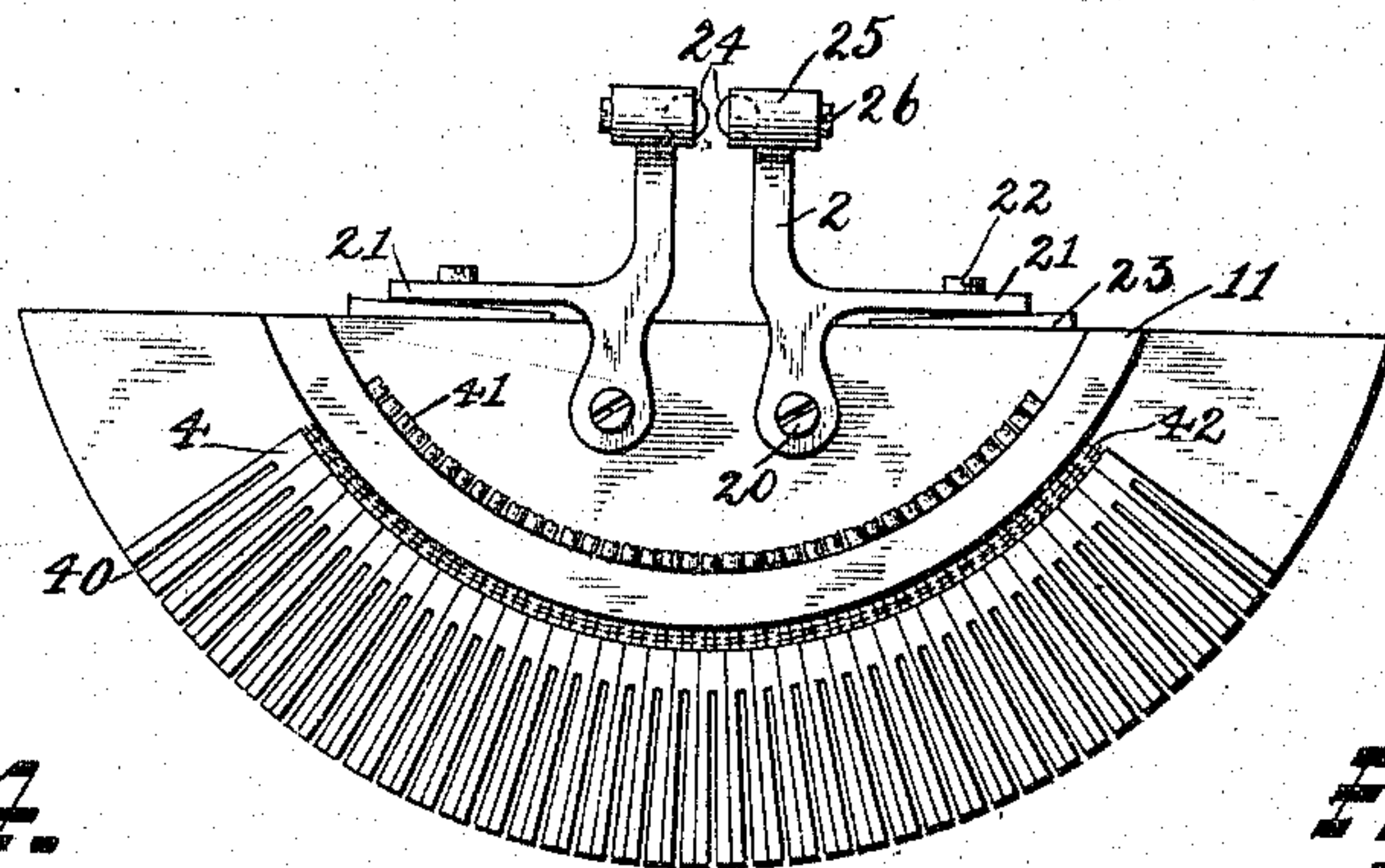
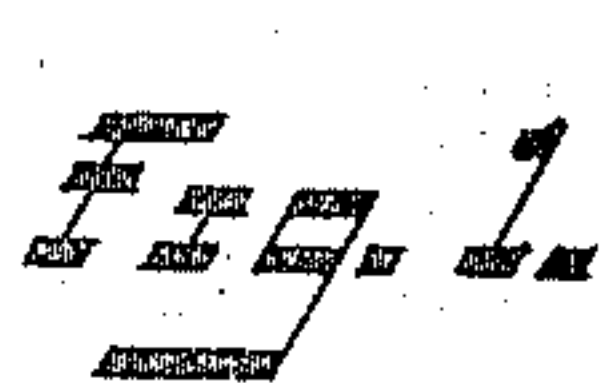


Fig. 4.

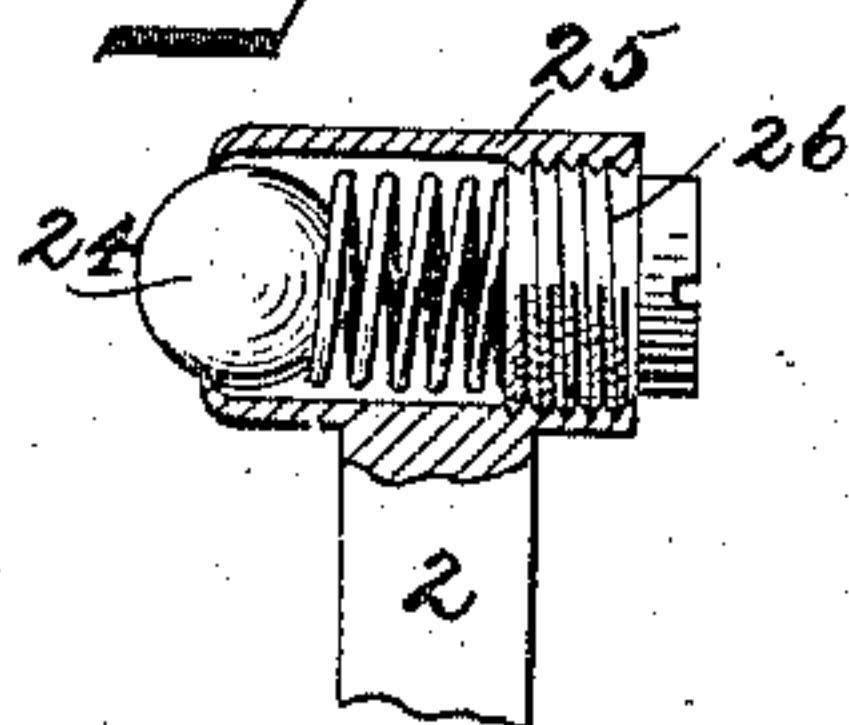


Fig. 2.

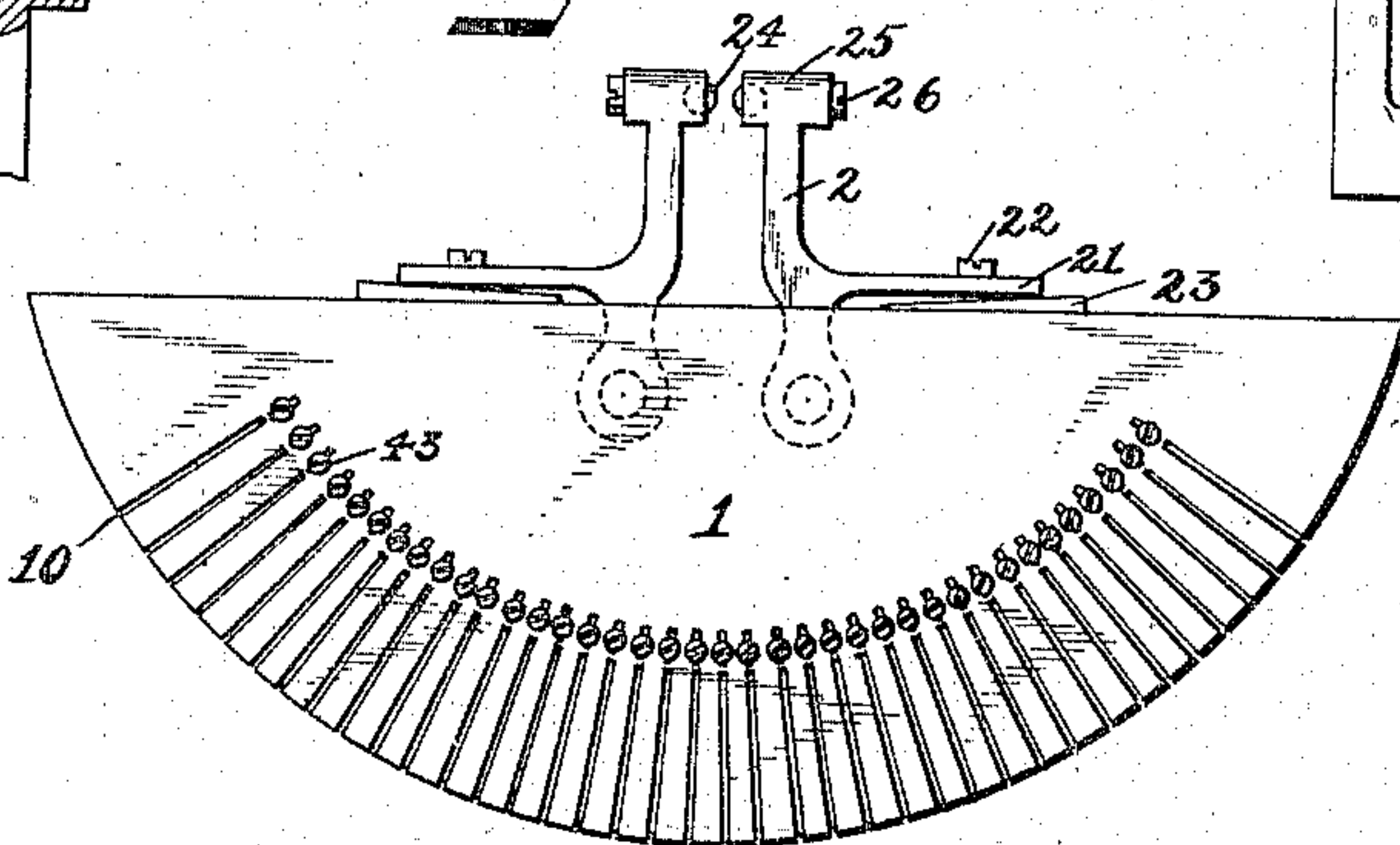


Fig. 5.

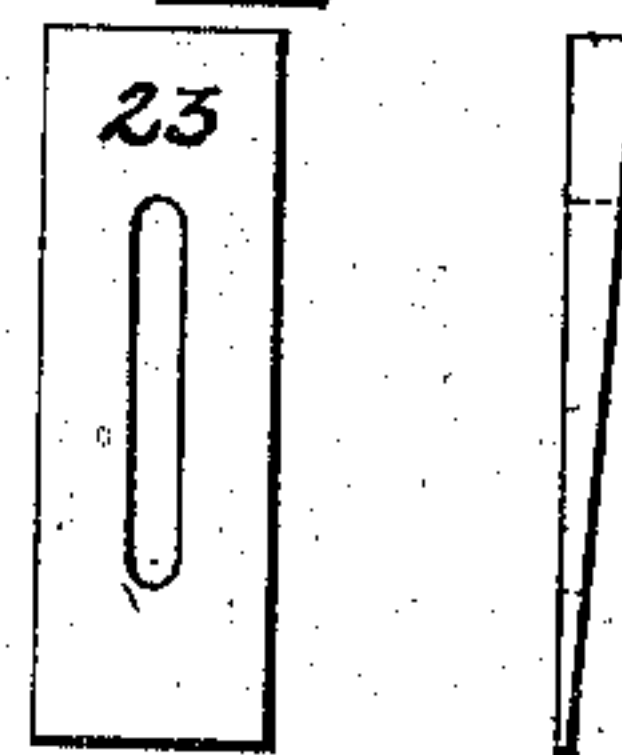
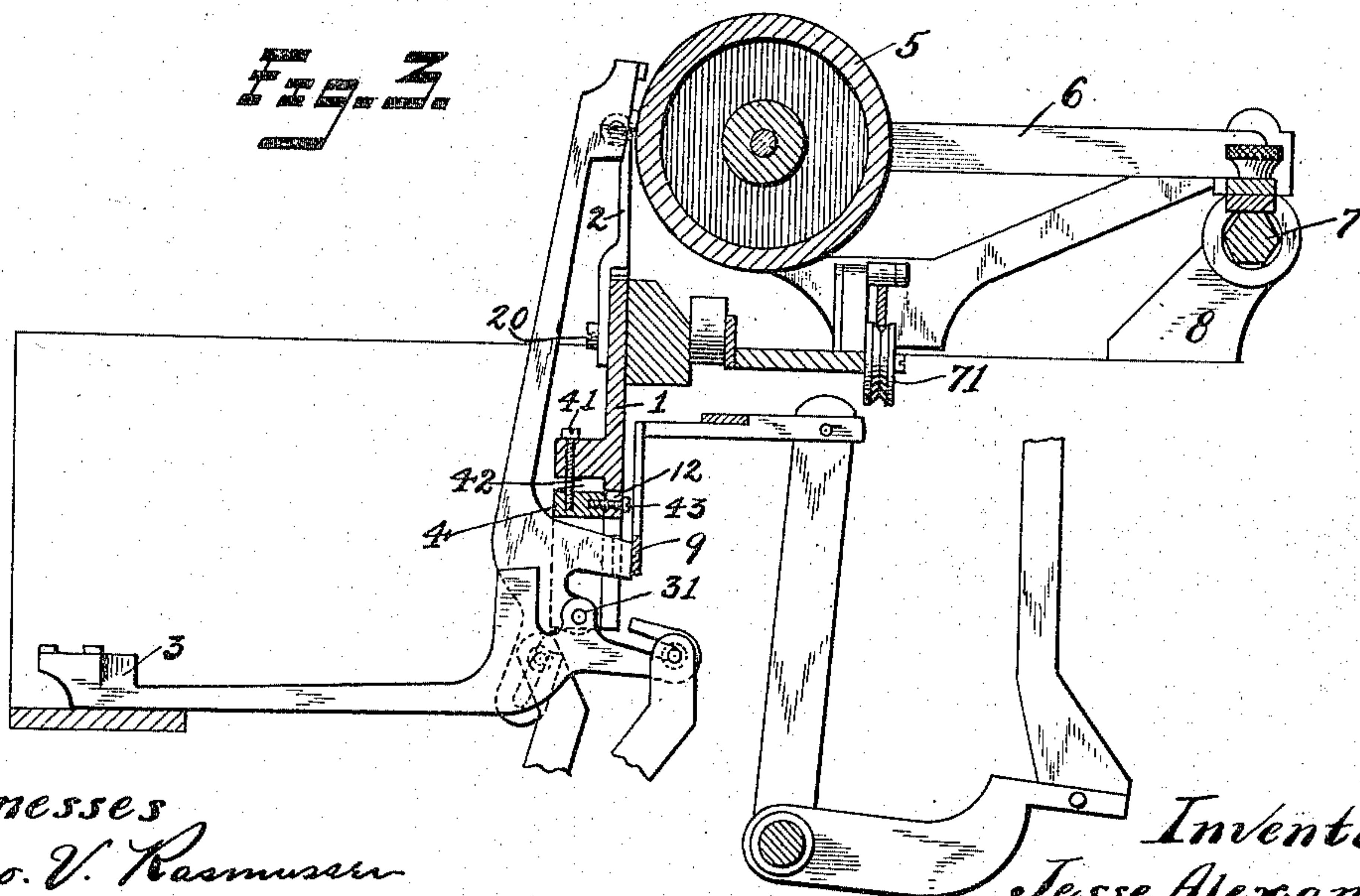


Fig. 3.



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UNITED STATES PATENT OFFICE.

JESSE ALEXANDER, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO ERIC NILSON, OF NEW YORK, N. Y., AND JULIUS AUGUST LAFRENTZ, OF BROOKLYN, NEW YORK.

TYPE-WRITER ALINING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 753,348, dated March 1, 1904.

Application filed December 1, 1902. Serial No. 133,433. (No model.)

To all whom it may concern:

Be it known that I, JESSE ALEXANDER, a citizen of the United States, residing at Brooklyn, in the county of Kings, State of New York, have invented certain new and useful Improvements in Type-Writer Alining Mechanism, of which the following is a full, clear, and exact description.

My invention relates to type-writing machines, and particularly to mechanism for perfecting the proper alinement and adjustment of the printing mechanism.

The construction herein shown and described is designed specially for use with a machine of the class in which a carriage carrying a rotatable platen moves from side to side of the machine and the printed matter appears on a horizontal line. In machines of this class it is desirable that means shall be provided in which the printing position of each type may be adjusted to suit varying conditions of construction and repair. The type-bar mechanism is therefore provided with a means by which the printing position may be horizontally adjusted or varied and the vertical position altered as necessity may demand.

It is the object of my invention to provide such an adjustment which may be readily effected and which will involve as little frictional resistance to the operating parts as possible.

The construction is simple and will be found efficient under the many conditions of use to which the machine may be subjected.

The invention will be found to consist in the improvements hereinafter described, and shown in the accompanying drawings, for perfecting the adjustment hereinbefore mentioned.

Figure 1 is a vertical projection of parts of a machine embodying my invention. Fig. 2 is a rear elevation of the same parts. Fig. 3 is a cross-section and elevation of mechanism embodying my improvements, together with the associated parts of the carriage construction and type-bar movement. Fig. 4 is a fragmentary detail of the horizontal alining

mechanism. Fig. 5 is a detail of a construction which coacts with the horizontal alining mechanism.

1 is that portion of the construction which I will term the "type-bar plate." This is substantially the segment of a circle and is adapted, as will appear, to support the mechanism for embodying the horizontal and vertical alinement. On the front of this plate are pivoted two posts 2 2 by means of the screws 20 20. Projecting from the outer side of each of these posts is an arm 21, by which the position of each may be secured and varied, as desired, relatively to each other and the plate 1. 22 is a screw passing through the upper portion of this extension-arm 21 and taking into the plate 1.

23 is a wedge which is slotted, as shown in Fig. 5. The screw 22 passes through the slot, so that the adjustment of the position of the post 2 may be effected by loosening the screw 22 and moving the wedge 23 until a firm bearing-support is provided, as desired. The actual point of contact between the type-bar 3 and alining-posts occurs between the adjacent faces of the balls 24 24. Each ball is mounted in a recess in the top of the post 2 and provided with a helical spring 25 and set-screw 26 for holding the same yieldingly in its operative position. The elasticity of the spring 25 is sufficient to cause the ball 24 to press forward and provide a rather firm point of contact for the portion of the type-bar 3 which slips by the same just prior to the instant of printing. The ball, however, is slightly yielding in order that the frictional resistance may be as slight as possible and that danger of injury to the type-bar mechanism may be avoided.

Each type-bar is provided with a pivot 31 and mounted in an adjusting-block 4, as shown particularly in Figs. 1 and 3. The block is slotted, as appearing at 40, and is mounted on the type-bar plate 1 to coincide substantially with a slotted portion 10 of the type-bar plate.

11 is a projecting rib. In this projection 11 operates an adjusting-screw 41 for adjusting the position of the block 4 in a substan-

tially radial line. The spring 42 tends to force the block 4 outward radially when permitted so to do by the position of the adjusting-screw 41.

Through the back of the type-bar plate 1 passes a securing-screw 43, which takes into the adjusting-block 4 for the purpose of holding it in place against the type-bar plate in the position desired. In order to permit the radial adjustment before mentioned, the shank of the screw passes through a slotted portion 12 in the type-bar plate. The radial position, therefore, of the block 4, and consequently the vertical printing position of the type-block, may be adjusted by loosening the screw 43, adjusting the position of the block 4 by means of the screw 41 until the printing position of the type is proper, and then tightening up the securing-screw 43 against the type-bar plate 1.

In Fig. 3 the platen 5 is suitably mounted in the carriage-frame 6, which is supported by means of the rod 7 and roller 71 in the frame of the machine 8. 9 is the universal bar, which is operated by the action of the type-bar and spacer mechanism, as is usual. It is unnecessary, however, further to refer to these mechanisms in this application, since this refers particularly to the alinement mechanism already described.

What I claim is—

1. An alining device for type-writing machines including a type-bar plate, a pair of guide-posts, each post having a recess in its end, a guide-ball in each recess, a helical spring for each ball for holding it in position, adjusting-screws operating in said posts for said springs and for adjusting their tension, said posts being pivoted to said plate.

2. An alining device for type-writing machines including a type-bar plate, a pair of guide-posts, each post having a recess in its end, a guide-ball in each recess, a helical spring for each ball for holding it in position, an adjusting-screw operating in said post for said springs, said posts being pivoted to said plate, an extension-arm from one of said posts, an adjusting-wedge cooperating therewith, and a

screw passing through said arm and taking into said plate.

3. A horizontal alining device for a type-writing machine including a plate, a pair of guide-posts pivotally mounted thereon, extension-arms from said posts and wedge-shaped adjusting devices cooperating with said extensions.

4. Alining mechanism for a type-writing machine including a type-bar plate, radially-adjustable pivot-blocks, means for adjusting the same, and securing-screws, said type-bar plate having radial slots in which said securing-screws operate.

5. A vertical alining mechanism for type-writing machines including a type-bar plate, a ridge projecting therefrom, pivot-carrying blocks mounted on said plate and adjustable radially with respect thereto, means for effecting the adjustment of said blocks and securing-screws coacting with said blocks, said plate being slotted to permit the tightening of said screws at different radial positions of said blocks.

6. A vertical alining mechanism for a type-writing machine including a type-bar plate, radially-adjustable pivot-carrying blocks mounted thereon, screws and helical springs for effecting their adjustment, a securing-screw for each of said blocks for locking it in position, said plate being slotted to permit of the radial movement of said securing-screws.

7. A vertical alining mechanism for a type-writing machine including a type-bar plate, radially-adjustable pivot-carrying blocks mounted thereon, screws and helical springs for effecting their adjustment, a securing-screw for each of said blocks for locking it in position, said plate being slotted to permit of the radial movement of said securing-screws, all combined with a horizontal alining mechanism including yieldingly-mounted rotatable and adjustable guide-balls.

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