

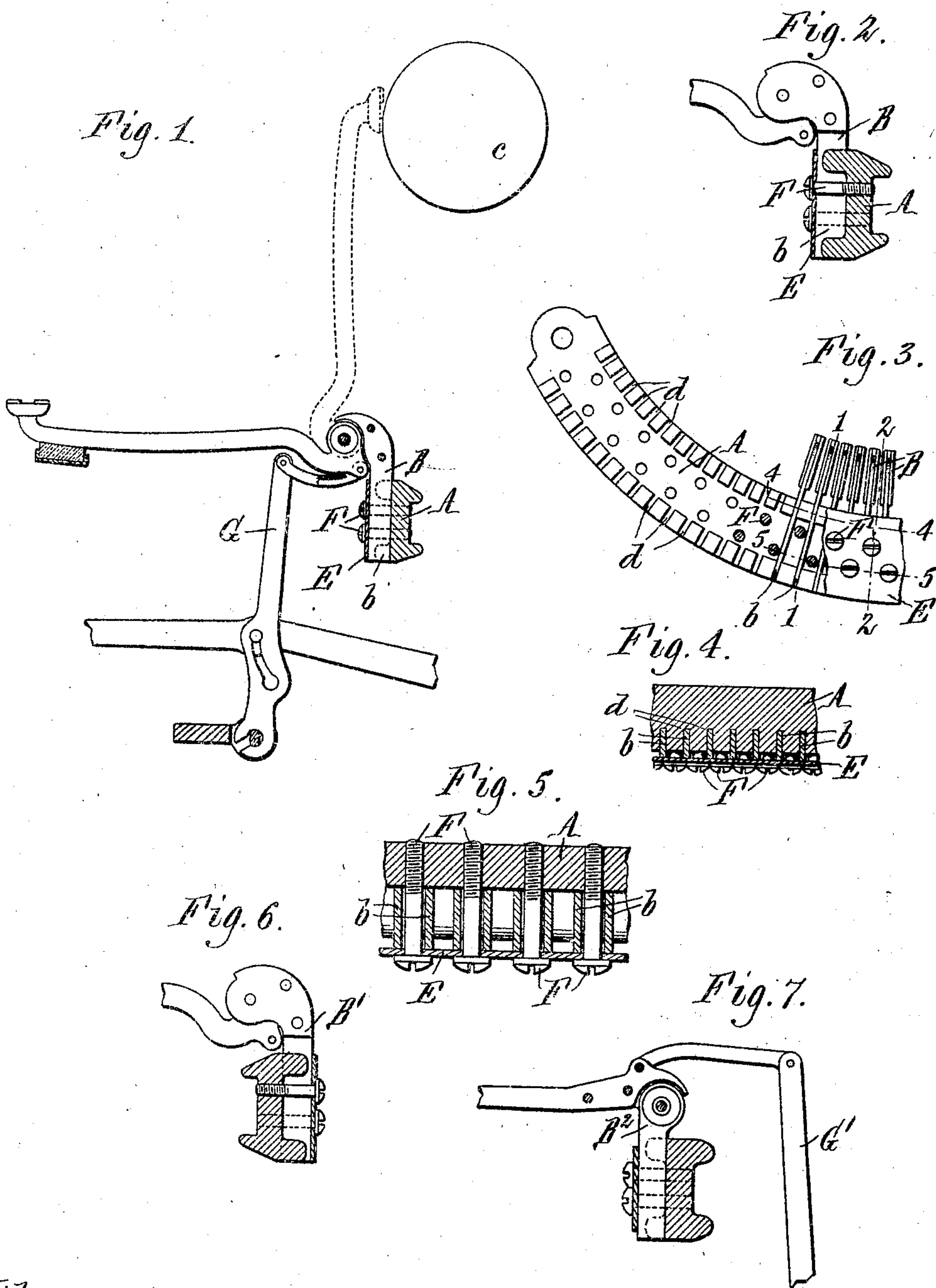
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H. A. MOYER.

SECURING MEANS FOR THE HANGERS OF TYPE WRITING MACHINES.

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Witnesses:

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# UNITED STATES PATENT OFFICE.

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## SECURING MEANS FOR THE HANGERS OF TYPE-WRITING MACHINES.

No. 819,366.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, HARVEY A. MOYER, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Securing Means for the Hangers of Type-Writing Machines, of which the following is a specification.

This invention relates more particularly to securing means for the type-bar hangers or bearings of type-writing machines in which the hangers or bearings are separately secured to and adjustable on or removable from their support or segment.

The object of this invention is to provide simple and desirable securing means for the hangers or bearings constructed to rigidly and securely hold the hangers in correct position and to enable any desired hanger or hangers to be adjusted or removed and replaced with great ease and rapidity and without disturbing the neighboring or other hangers.

In the accompanying drawings, Figure 1 is a fragmentary sectional elevation in line 1 1, Fig. 3, of a type-bar action provided with securing means for the type-bar hanger or bearing embodying the invention. Fig. 2 is a fragmentary sectional elevation thereof, on an enlarged scale, in line 2 2, Fig. 3. Fig. 3 is a front elevation, partly in section, of the segment, showing a portion only of the hangers in place thereon. Fig. 4 is a fragmentary sectional plan of the segment, hangers, and the securing means in line 4 4, Fig. 3. Fig. 5 is a similar sectional plan, on an enlarged scale, in line 5 5, Fig. 3. Figs. 6 and 7 are sectional elevations similar, respectively, to Figs. 2 and 1, showing slightly-modified constructions.

Like letters of reference refer to like parts in the several figures.

The drawings illustrate the application of the hanger securing means to a front-strike type-writing machine in which the type-bars are pivoted to hangers or bearings that are secured on a segment arranged below the platen; but the invention is not limited in application to this form of machine.

A represents the support or segment for the type-bar hangers, and B the hangers, bearings, or parts to which the type-bars are pivoted and which for brevity will be herein-

after termed "hangers." In the construction illustrated the support or segment consists of a curved bar arranged in a vertical plane below the platen, the position of which is indicated by the circle *c*; but the support could be of other form and arrangement. The hangers and the pivotal connections or bearings between the same and the type-bars may be of any usual or desired construction, except that the parts or shanks *b* of the hangers, by which they are attached to the segment, are preferably straight and of uniform width and thickness throughout. The segment or support is provided on one side with slots radial to the printing-point on the platen, in which slots the shanks of the hangers are seated and held in the exact radial position necessary for the type-bars pivoted thereto to strike the platen at the printing-point, but in which the hangers can be adjusted lengthwise, as may be necessary to obtain and preserve a proper alinement of the printing. In the construction considered preferable and shown in Figs. 1 to 5 the hangers are arranged at the front of the segment in such slots *d*, formed in flanges or ribs projecting forwardly from the upper and lower edges of the segment.

E represents a clamping-plate which is secured to the segment by devices, preferably screws *F*, located between the hangers, and which bears against the projecting edges of the shanks or attaching parts of the hangers to hold them in the segment-slots. The clamping-plate is thin and more or less flexible or resilient and is preferably curved similarly to the segment, and the screws *F*, which pass through holes in the clamping-plate and enter threaded holes in the segment, are preferably arranged in two rows in staggered order with one screw between each two hangers. By this arrangement the shank of each hanger is located between two screws, and screws with large heads can be used in a compact close arrangement of the hangers and still leave ample clearance between the screw-heads. When the screws are tightened up, the hangers are clamped between the clamping-plate and the segment and are held firmly in the segmental slots. By loosening the two screws at the opposite sides of a hanger the pressure of the clamping-plate thereon is relieved, and the hanger can be adjusted



lengthwise in its slot or removed therefrom. In thus adjusting or removing a hanger the neighboring two hangers on opposite sides thereof will not be disturbed, but will be securely held in place by the clamping-plate, which will still be pressed against these hangers by the two screws at the far sides thereof which have not been loosened. Thus any desired hanger can be adjusted or removed and replaced without affecting the adjustment of any of the other hangers. To adjust or remove a hanger, it is not necessary to remove the screws which hold it, but only to turn them in their holes enough to relieve the pressure of the clamping-plate on the hanger. This is a great advantage, and much time is saved, because owing to the location of the segment in the machine it would ordinarily be a matter of great difficulty to replace a screw once removed except with a specially-constructed tool. Another advantage of the clamping-plate resides in the fact that the heads of the screws bear thereon instead of directly against the hangers, and therefore the hangers cannot be shifted in tightening up the screws by the frictional engagement of the screw-heads therewith.

The described securing means for the hangers is not restricted to use in connection with any particular construction and arrangement of the hangers and segment, as before stated, nor with any particular construction of actuating means for the type-bars. For instance, Figs. 1 to 5 show the hangers arranged at the front side of the segment and the actuating-levers G for the type-bars located in front of the segment, while Fig. 6 illustrates the arrangement of the hangers B' at the rear side of the segment, and Fig. 7 shows an arrangement of the hangers B<sup>2</sup> at the front side of the segment and the operating levers or devices G' for the type-bars in rear of the segment.

I claim as my invention—

1. In a type-writing machine, the combination of a segment having a radial slot, a hanger adapted to be inserted lengthwise into said slot, a clamping-plate bearing upon said hanger and holding the same frictionally in said slot, and fastening devices securing the clamping-plate to said segment on opposite sides of said slot, substantially as set forth.

2. In a type-writing machine, the combination of a segment having radial slots, a series of hangers adapted to be inserted lengthwise into said slots, a clamping-plate extending over said hangers and bearing upon the same and holding the same frictionally in said slots, and fastening devices securing the clamping-plate to said segment, substantially as set forth.

3. The combination in a type-writing machine, of a segment having radial slots, a series of hangers seated in the slots, a flexible clamping-plate arranged over the hangers and having screw-holes, and screws passing through said holes between the adjacent hangers into the segment to clamp the plate against the hangers on the segment, substantially as set forth.

4. The combination in a type-writing machine, of a segment having radial slots, a series of hangers adjustably seated in the slots, a clamping-plate having holes for two rows of screws, the holes in one row alternating with those in the other row, and two screws for each hanger passing through said holes in the clamping-plate at opposite sides of the hanger, substantially as set forth.

Witness my hand this 16th day of February, 1906.

HARVEY A. MOYER.

Witnesses:

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