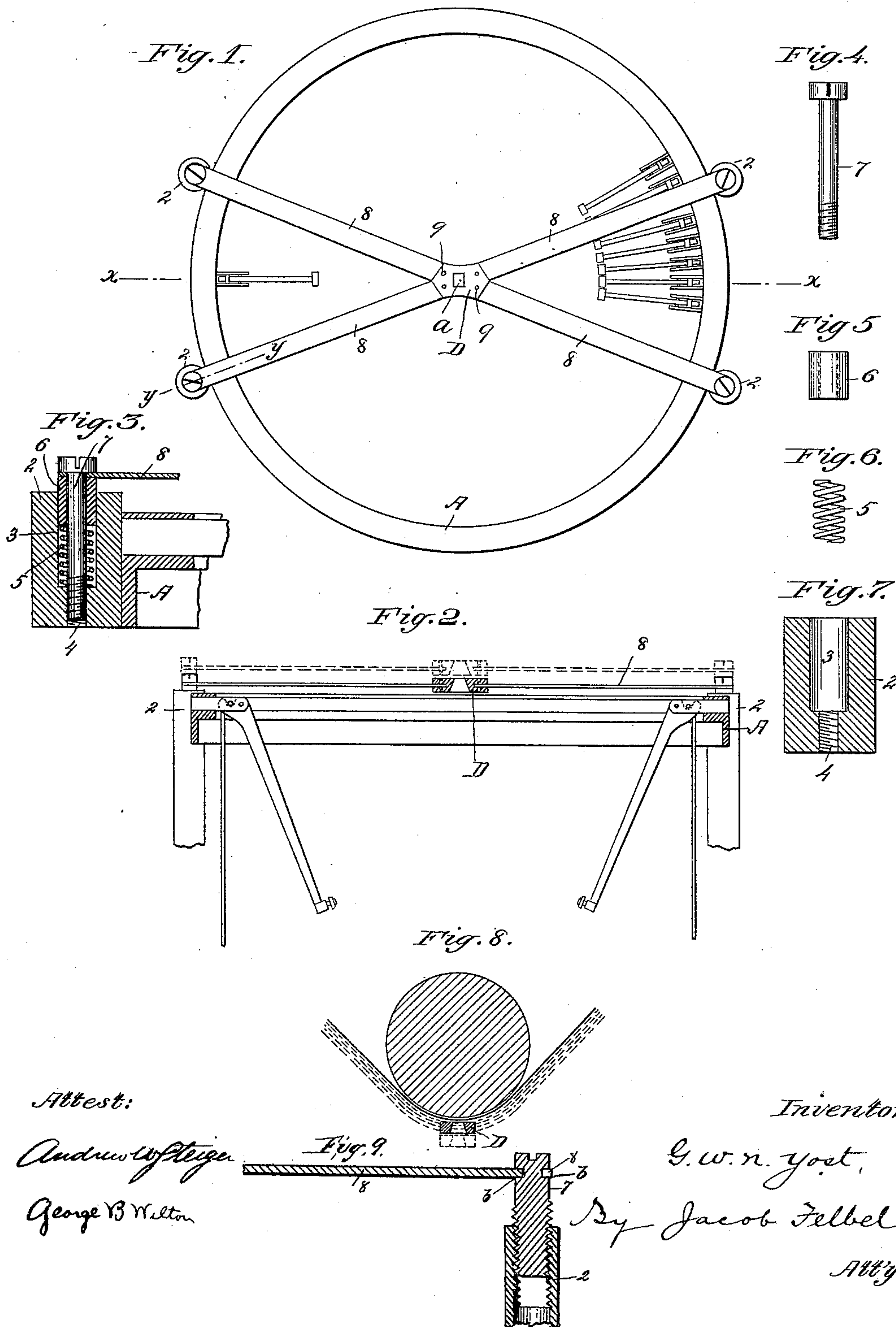


(No Model.)

G. W. N. YOST.
TYPE WRITING MACHINE.

No. 429,710.

Patented June 10, 1890.



UNITED STATES PATENT OFFICE.

GEORGE W. N. YOST, OF NEW YORK, N. Y., ASSIGNOR TO THE YOST WRITING MACHINE COMPANY, OF SAME PLACE.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 429,710, dated June 10, 1890.

Application filed April 9, 1887. Serial No. 234,242. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. N. YOST, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to that kind of type-writing machines in which is employed a guide or directrix for the type at the printing-point of the machine, and has for its main objects to improve the mode of hanging the guide or directrix and provide a means for raising and lowering it, so that it may be used equally well with a platen containing one sheet of paper or more than one; to provide for the convenient and accurate setting of the guide in its proper position relatively to the platen; to provide for adjustments of the guide for platens of different size or diameter, and to provide for cheapness of manufacture and for changing the guide for another when in course of time it becomes worn out or impaired.

To these ends my invention consists in the features of construction and in the combinations of parts hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a top view of a portion of a lever type-writing machine involving my invention. Fig. 2 is a vertical section taken at the line $x x$ of Fig. 1. Fig. 3 is an enlarged vertical section taken at the line $y y$ of Fig. 1. Fig. 4 is an elevation of the adjusting-screw. Fig. 5 is a like view of the washer or follower. Fig. 6 is a similar view of the spring. Fig. 7 is a vertical section of the post or standard or upper portion of the frame-work of the machine, and Fig. 8 is a diagrammatical view illustrating the adjustability of the guide or directrix. Fig. 9 shows in section a modification of my invention.

In the several views the same part will be found designated by the same numeral or letter of reference.

A is the top plate of the machine; B, the type-levers, hung as usual; and C, the links connecting the type-levers with the key-levers (purposely omitted.)

The upper portion of the frame-work of the machine is preferably formed or provided with posts or standards 2 2 2 2, which are each formed with two perforations of different diameters 3 and 4, the former being the larger one and adapted to contain a spiral spring 5 and a perforated washer or follower 6. The smaller and lower perforation 4 is threaded, as shown, to receive the threaded end of a screw 7.

D represents the guide or directrix, provided with a centrally-arranged tapering opening a to center the type and secure a perfect alignment in the printing. Each end of the guide is slitted or bifurcated to receive the inner converging ends of four thin yielding rods 8 8 8 8, which are securely riveted in position, as indicated at 9. The outer ends of these rods are perforated and surround the shanks of the screws 7 underneath their heads and rest upon the followers 6, as plainly illustrated.

In putting the parts together the springs 5 are inserted within the housings 3, the washers or followers placed upon them, the screws passed through the perforations in the outer ends of the bars, through the perforations in the followers and the axes of the springs, and engaged with the threaded holes 4 in the posts. As the screws are turned down into the threaded holes or nuts 4 the rods 8 and the followers are forced down and the springs thereby compressed, and as the screws are turned up the springs expand and move up the followers and the rods a corresponding distance. The guide or directrix, being firmly riveted to the rods, moves with them as they are depressed and elevated. As before explained, one object of having the guide capable of being raised and lowered to occupy different horizontal planes is to enable its successful use whether the platen or printing-roller have several sheets of paper upon it or have one sheet only. When the platen contains only one sheet of paper, the guide should be set comparatively close thereto, as indicated by the full lines in Fig. 8. When several sheets of paper are placed upon the platen, as in manifolding, thus enlarging the diameter of the platen, so to speak, the guide should be lowered, as indi-

cated by the dotted lines in Fig. 8, else the paper may come in contact with the guide and buckle and drag across its upper surface.

The adjustment of the guide bodily up and down, it will be seen, may be easily and quickly effected by the operator simply by the turning of the screws.

Although I prefer to make use of the followers, it will be understood that they may be omitted and the springs prolonged to rest against the under sides of the rods, and although I prefer to employ a spiral spring and arrange it as shown, a flat or bar spring may be used in lieu thereof.

So far as the main feature of my invention is concerned the use of a spring and a follower may be dispensed with entirely and the outer ends of the rods so connected to the screws that they will be supported and carried thereby as they are moved in and out, as shown, for instance, in the modification at Fig. 9. The screw therein illustrated is provided with a groove *b*, within which rests the forked end of a guide-sustaining rod 8.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a type-writing machine, a type guide or directrix supported at the printing-point and adapted to be raised or lowered and set

at different elevations, substantially as and for the purpose set forth.

2. In a type-writing machine, the combination of radially-operating type-bars, a paper platen, and a vertically-adjustable type guide or directrix, as and for the purpose set forth.

3. In a type-writing machine, the combination of the vertically-adjustable supports and carriers, the sustaining-rods connected thereto at their outer ends, and the type guide or directrix connected to said rods at their inner ends, as and for the purpose set forth.

4. In a type-writing machine, the combination of the type guide or directrix, the sustaining-rods, and the adjusting-screws, as and for the purpose set forth.

5. In a type-writing machine, the combination, with the guide or directrix and its supporting-rods, of the posts, the springs, and the adjusting-screws, as and for the purposes set forth.

Signed at New York, in the county of New York and State of New York, this 26th day of March, A. D. 1887.

G. W. N. YOST.

Witnesses:

JACOB FELBEL,
ANDREW W. STEIGER.