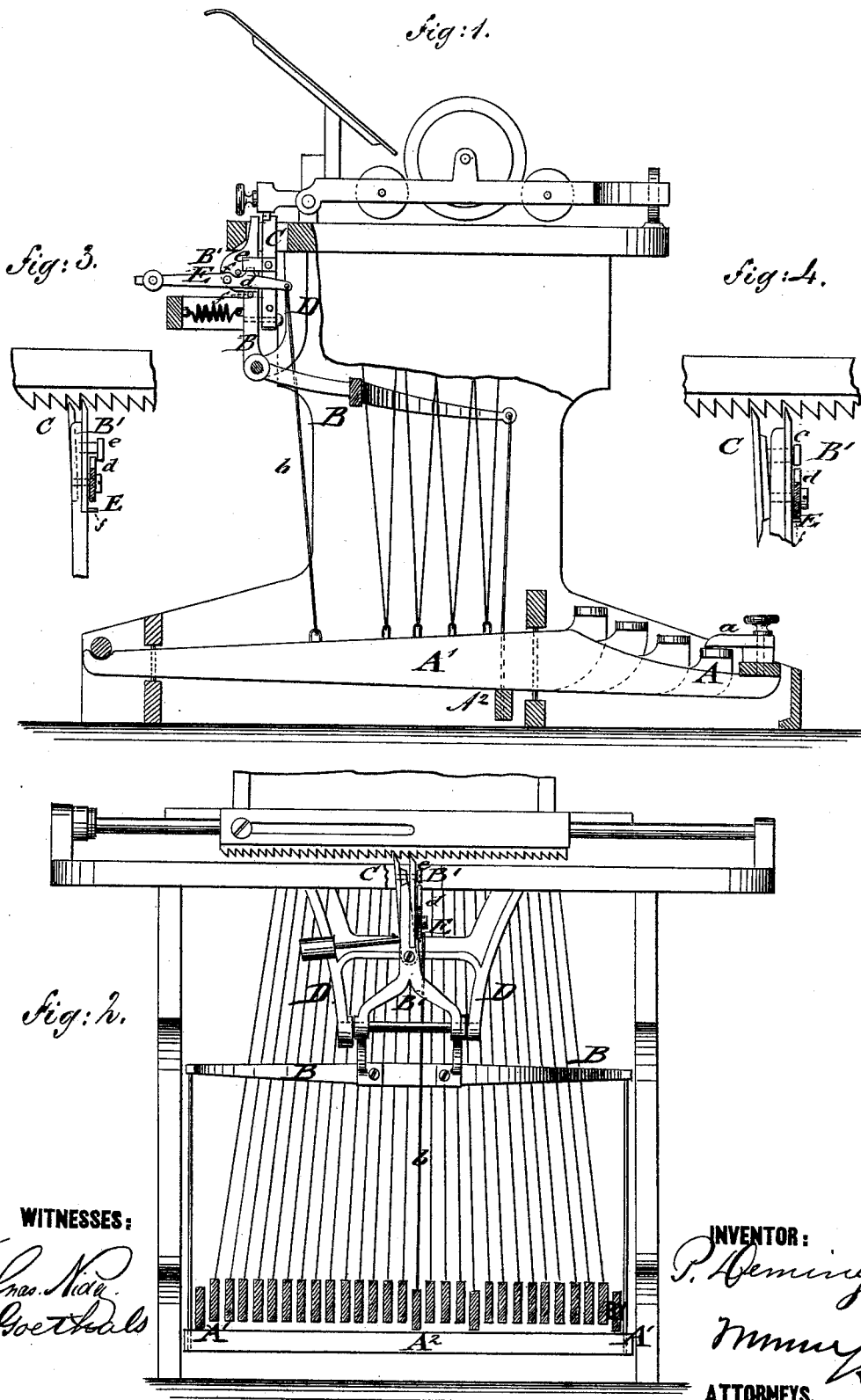


P. DEMING.
TYPE-WRITER.

No. 176,518.

Patented April 25, 1876.



WITNESSES:

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UNITED STATES PATENT OFFICE,

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IMPROVEMENT IN TYPE-WRITERS.

Specification forming part of Letters Patent No. **176,518**, dated April 25, 1876; application filed February 21, 1876.

To all whom it may concern :

Be it known that I, PHILANDER DEMING, of Albany, in the county of Albany and State of New York, have invented a new and Improved Type-Writer, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a sectional side elevation of my improved type-writer, with my double escapement attached; Fig. 2, a rear view of the same; and Figs. 3 and 4 are detail side views of the double escapement, showing it in position as feeding one and two teeth.

Similar letters of reference indicate corresponding parts.

The object of my invention is to so improve the well-known type-writers that they may be made available in effective manner for shorthand reporting, and also the speed of the same in copying common writing be considerably increased.

The invention consists of a double escapement in connection with the rack-bar of the carriage of the printing-cylinder, the escapement being operated by an anvil and key, that may be brought in connection with the space-key.

In the drawing, A represents the key and key-lever of my double escapement, which may be coupled by a pivoted button, *a*, to the space-key A¹, if desired. In most cases it is advantageous to couple the space-bar to the escapement-key A, as the former may be more conveniently reached and depressed jointly with any other key of the key-board.

The keys of the key-board and the space-key connect, by the usual cross-bar A², with the front end of a spring-acted elbow-lever, B, that is fulcrumed to a stationary arm or bracket, D, operating, by its bifurcated upward-extending arm B', the rack-bar of the carriage of the printing-roller.

An anvil, E, is fulcrumed to the upper arm B' of the elbow-lever B, being connected at its inner or front end by a pivoted wire rod, *b*, to the key-lever A, and weighted at the outer or rear end, to carry the front end up again as soon as the key is released. The swinging motion of the anvil E is defined by stop-pins *f* above and below the inner arm of the same.

The anvil E has an upward-extending lug, *d*, that engages the stop *e* of the swinging and weighted escapement-lever C, which admits the printing-cylinder to advance one

tooth, when disengaged from the rack-bar by the depression of a key, so as to produce the forward feeding of the cylinder-carriage, tooth for tooth, in the usual manner; but when the escapement-key A is depressed the lug *d* releases the stop *e*, and permits the swinging over of the weighted escapement-lever C to double the width from the lever B, so as to allow the feeding forward of the rack-bar for the space of two teeth. When, therefore, the escapement-key is depressed simultaneously with a common key, or with the space-key, the forward feeding of the printing-cylinder to twice the common distance at the depression of a single key is obtained, and thereby the means furnished to produce the spacing simultaneously with the depression of the key of the terminal letter of a word, without requiring the depression of the letter-key and space-bar in consecutive order. This saves the time hitherto taken up by the separate depression of the space-key, and increases not only the regular copying speed of the type-writer, but also adapts the same, in a very simple and reliable manner, for stenotypic purposes.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the escape feed mechanism, of the additional escape feed mechanism, that produces the double escapement of the feed when its key is depressed, and allows of simultaneous working with a common key, substantially as and for the purpose described.

2. A weighted anvil fulcrumed to the upper arm of the escape-lever, and operated by a separate key and key-lever, in combination with the swinging and weighted escapement-lever of the feed mechanism of the type-writer, to admit single or double escapement of feed mechanism of printing-cylinder, as required, substantially in the manner described.

3. The combination of anvil E, having the lug *d*, and fulcrumed to upper arm of lever B, connected, by pivoted wire *b*, with the key-lever A, and weighted at rear end with the swinging and weighted escapement-lever C, having stop *e*, substantially as and for the purpose specified.

Witnesses: PHILANDER DEMING.

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JOHN HOMIGAN.