

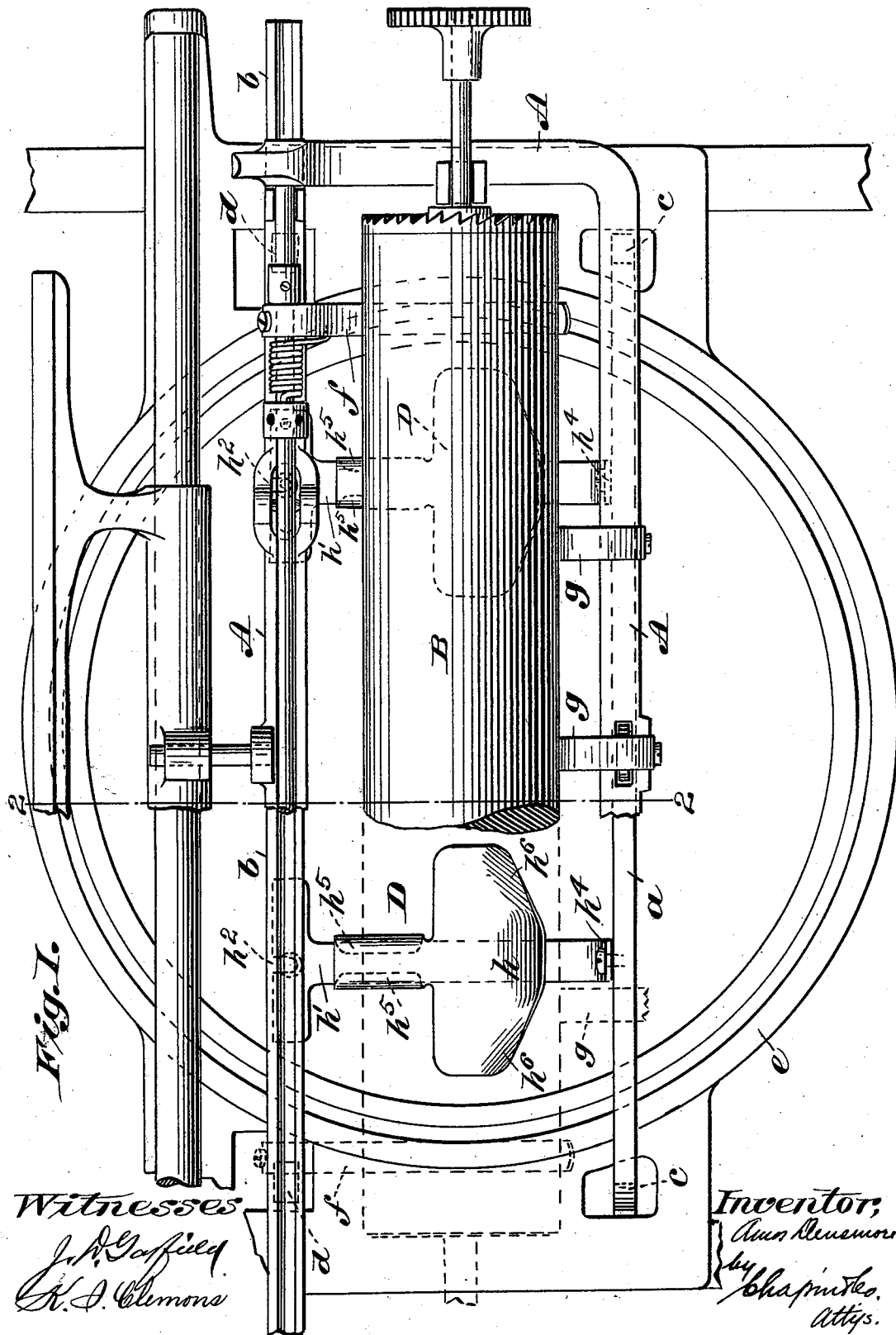
(No Model.)

2 Sheets—Sheet 1.

A. DENSMORE.
TYPE WRITING MACHINE.

No. 507,727.

Patented Oct. 31, 1893.



Witnesses
J. H. Gaffield
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Inventor,
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by
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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

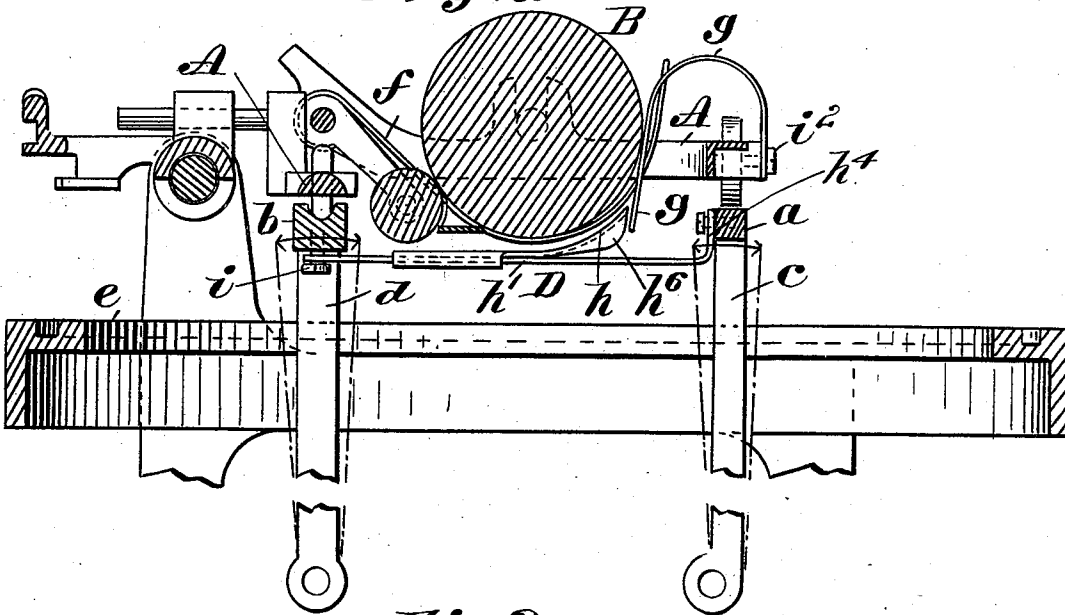


Fig. 3.

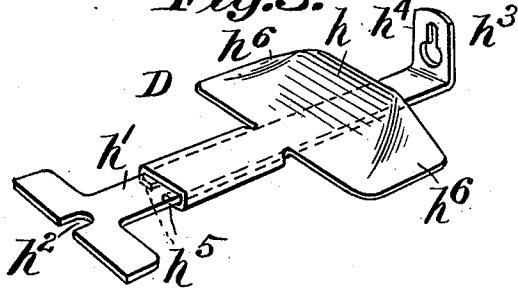
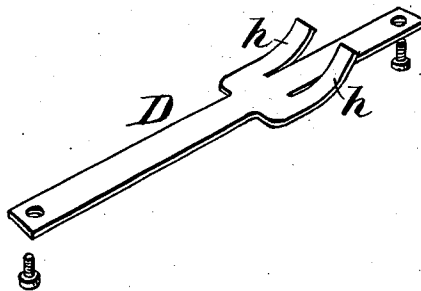


Fig. 4.



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UNITED STATES PATENT OFFICE.

AMOS DENSMORE, OF NEW YORK, N. Y.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 507,727, dated October 31, 1893.

Application filed March 8, 1893. Serial No. 465,202. (No model.)

To all whom it may concern:

Be it known that I, AMOS DENSMORE, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Type-Writing Machines, of which the following is a specification.

The object of this invention is to so especially improve the construction of a typewriting machine that envelopes, postal cards, or narrow sheets of paper may be fed between the platen and the adjacent flexible or spring fingers,—to be held to be typewritten upon,—with greater convenience than heretofore. And the invention consists in the construction and combination of parts all substantially as will hereinafter fully appear and be set forth in the claims.

Reference is to be had to the accompanying drawings in which the invention is fully illustrated and in which—

Figure 1 is a plan view of an upper part of a typewriting machine frame particularly showing a part of the platen and carriage and the supports on which the same move endwise, and the novel paper supports and guides under the platen. Fig. 2 is a vertical sectional view of the same taken on line 2—2, Fig. 1. Fig. 3 is a perspective view of the preferred form of the paper support and guide. Fig. 4 is a perspective view of a modified form of the underneath paper support which might be employed.

In the drawings, A represents the carriage for the platen, B, and *a* and *b* are the front and rear support-rails on which the carriage has its endwise slide or run, as usual. As indicated in Fig. 2 these support-rails, *a* and *b*, are carried at the upper ends of uprights, *c* and *d*, which are pivotally mounted at their lower ends so as to have fore-and-aft swinging movements whereby the platen is movable bodily with the carriage so that it may have the central longitudinal line at its under side (against which the imprinting is performed) either at, or forward or to the rear of, the central point within the top ring, *e*, of the frame, and consequently so that either of three type on any of the type-bars may be brought against the platen.

The devices for the shifting of the carriage supports, and for the maintenance thereof in

either of their shifted positions or in their normal position, constitute no part of this invention and hence need not be illustrated or described.

The usual spring fingers, *f*, *f*, are secured to the rear portion of the carriage near the ends of the platen which extend downwardly forward in contact, and then upwardly in proximity to the platen, while the flexible and slightly springing fingers, *g*, *g*, are supported at the front of the carriage and have rearward and downwardly presented portions thereof, near the forward peripheral portions of the platen, and these fingers are at separated points intermediate between the ends of the carriage and serve to guide the paper out. In some typewriting machines, as, for instance, the Densmore machine, well known in the trade, these spring fingers might be on the platen-frame, which is removable from the carriage.

The paper guides and supports forming essential features of this invention are represented at D, D, in the drawings and consist of suitable strips or plates of thin material, as sheet metal, extending from front to rear and supported at their front and rear ends upon the said carriage supports, *a*, *b*. These strips are horizontally arranged at suitable distances at either side of the center of the top-ring, *e*, in a plane slightly below the under surface of the platen, and have formed thereon, or attached thereto, portions which from about the lower central longitudinal line of the platen, are curved upwardly and forwardly, as seen at *h*, to practically conform to the contour of the platen,—the forward ends of these curved parts terminating in a line which is above, and near, but to the rear of the lower extremities of the fingers, *g*, *g* (see Fig. 2).

As shown in Figs. 1, 2, and 3, the support, D, comprises the strip, *h'*, of T-form with the transverse portion at the rear formed with the slot or aperture, *h*², while its forward end has the member, *h*³, with the vertical slot, *h*⁴; this support also comprises the part, *h*, as a separately formed piece having the under-turned ears, *h*⁵, *h*⁵, which embrace the strip, *h'*, so that said part, *h*, is adjustable fore-and-aft on the strip. The rear end of each of the strips is confined by the vertically applied

set-screw, i , to the under side of the rear carriage support rail, b , and by the horizontally applied set-screw, j , at the forward support rail, a ; each of the guide-supports, as a whole, is therefore slightly vertically adjustable to insure its most advantageous juxtaposition under the platen. The ends of the part, h , that is those parts which are in a line corresponding to the length of the platen, are downwardly inclined as seen at h^6 , h^6 , so that as the platen moves bodily endwise with a card or envelope held thereon, the edge of the card or envelope first approaching and passing the end of the part, h , will not be, by said end, crumpled or torn.

More than two of the guide-supports, D , may be applied, according to the length of the platen, or to the lack of width of the cards or envelopes likely to be typewritten on the machine. It is manifest that although the said guide-supports, D , are supported independently of the platen carriage, so that the platen has its endwise run past them, they, nevertheless, are maintained in their given proximity to the platen, whether the carriage support is a shiftable or a non-shiftable one, and while this invention in part consists in the combination of supports, as D , independently of which the platen may run, with a shiftable platen-carriage support on which said supports, D , are maintained, the invention is not to be limited in all respects to the employment of the shiftable supports. And while in the illustrations given, the guide supports, D , D , are shown as connected at both ends to the front and rear supports for the carriage, they may have supporting connections with only the front or the rear carriage supports, a or b , or even so far as some of the features of the invention are concerned, with any other suitable part of the machine which is properly independent of the carriage.

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

1. In a typewriting machine, the combination with the platen and its carriage, of paper guide-supports mounted under and in proximity to the platen, and having its end portions downwardly inclined, independently of which so formed guide-supports the platen has its movements, substantially as described.

2. In a typewriting machine, the combina-

tion with the endwise movable platen, and its carriage, and the front and rear supports on which it runs, of two or more guide supports arranged in suitable separation and extended between and supported by said supports for the carriage, substantially as described.

3. In a typewriting machine, the combination with the endwise movable platen, and its carriage, and the forwardly and rearwardly shiftable front and rear supports on which it runs, of two or more guide supports arranged in suitable separation and extended between and supported by said supports for the carriage, substantially as described.

4. In a typewriting machine, the combination with a support on which the carriage endwise moves and the platen on the carriage, of paper guide supports mounted on the carriage-support and located near the under side of the platen and having its end portions downwardly inclined, substantially as and for the purpose set forth.

5. In a typewriting machine, the combination of front and rear carriage supports and platen carriage running endwise thereon, of a bar or strip extended from front to rear between and supported by the said carriage supports, and having a part which is adjustable thereon fore-and-aft, substantially as described.

6. In a typewriting machine, the combination with carriage and platen, of a guide support for the paper mounted under and independently of the carriage at one side of the type-impact-point with its upper surface convex to correspond to the curvature of the platen, and having its end portions downwardly inclined, substantially as described.

7. In a typewriting machine, the combination with the endwise movable carriage and platen and a support on which the carriage runs, flexible fingers mounted on the forward part of the carriage and having portions thereof in proximity to the forward surface of the platen, of two or more paper guide supports mounted on the carriage-support independently of which the carriage may move, and having portions thereof in proximity to the under and forward surface of the platen, substantially as described.

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Witnesses:

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