

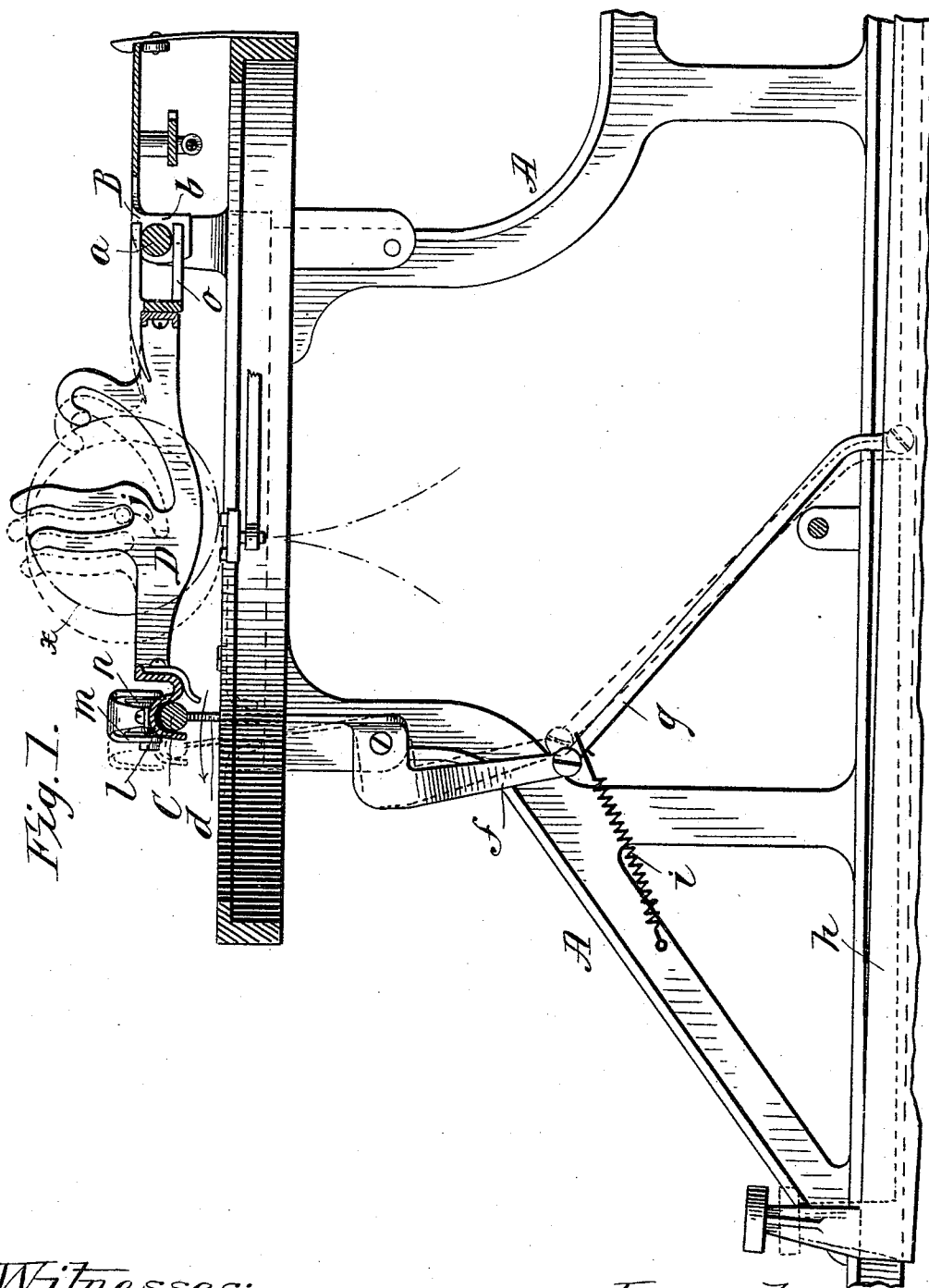
(No Model.)

2 Sheets—Sheet 1.

A. DENSMORE.
TYPE WRITING MACHINE.

No. 464,752.

Patented Dec. 8, 1891.



Witnesses:

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Inventor,

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(No Model.)

2 Sheets—Sheet 2.

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TYPE WRITING MACHINE.

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Fig. 2.

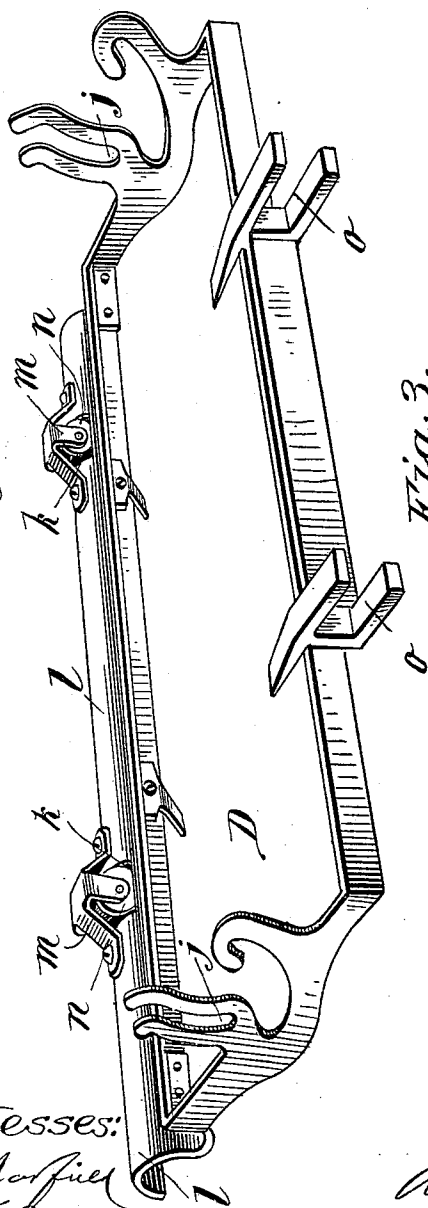
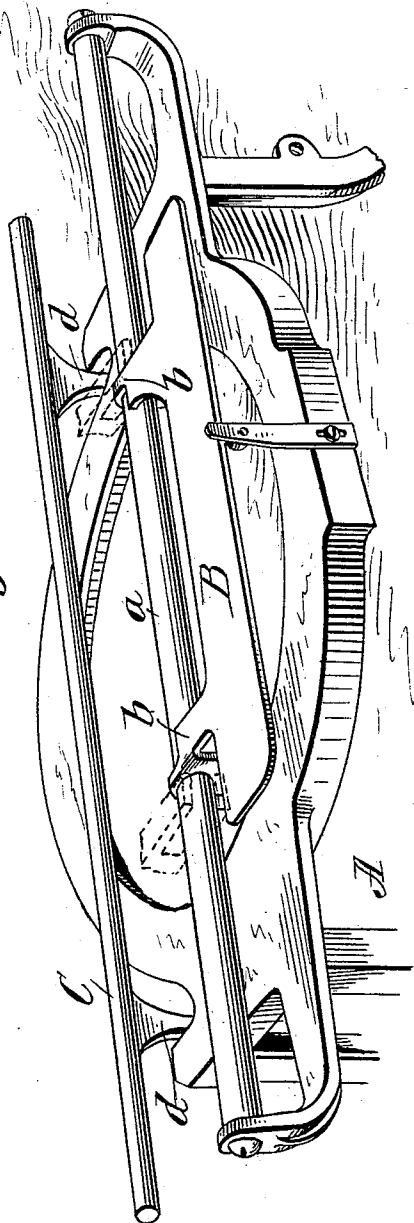


Fig. 3.



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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. 464,752, dated December 8, 1891.

Application filed June 3, 1891. Serial No. 395,004. (No model.)

To all whom it may concern:

Be it known that I, AMOS DENSMORE, a citizen of the United States, residing in the city, county, and State of New York, have invented 5 new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention for improvements in type-writing machines particularly relates to the 10 frame for the platen and to the parts on which the said frame is in turn supported and with and relative to which it moves, the object being to construct the said parts in a most economical and practicable manner, consistent 15 with as great efficiency as has heretofore been found in structures of this class. The platen-frame is, under the construction embodied in the present invention, capable of being readily 20 bodily removed from the machine for the purposes of cleansing or otherwise and of being as readily replaced.

The invention consists in the construction and combination of parts, all substantially as will hereinafter more fully appear, and be set 25 forth in the claims.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a sectional elevation of the frame of a type-writing machine, the carriage, 30 and platen-supporting frame, together with some other coacting parts. Fig. 2 is a perspective view of the platen-frame; and Fig. 3 is a perspective view of a part of the machine-frame and carriage thereon.

35 In the drawings, A represents the frame of the type-writing machine, and B represents the carriage, which is movable endwise as to the length of itself and of the frame A, as usual, the means for imparting the endwise 40 movement intermittently in one direction, and the reverse movement, usually consisting of escapement devices and a drum and band not here shown, as such form no part of the present invention. The carriage B has 45 its engagement with the long slide-rail *a*, which is horizontally supported at the rear of the machine-frame by means of the apertured engaging-lugs *b b*.

50 C represents the shift-rail, the same being mounted or supported at the front of the machine and parallel with the rail *a* in substantially the usual manner, or in any suit-

able manner whereby the rail may be bodily moved forward and backward. As shown, the rail C is carried at the upper ends of arms 55 *d d*, which form parts of intermediately-pivoted levers, which by their lower ends are secured to the connecting-rods *g* attached to the key-lever *h*, the spring *i* being applied to return the parts to their normal position. 60

D represents the platen-frame, having suitable bearings, as at *j*, for the journals of the platen, indicated by *x*. The platen-frame is of a general rectangular form and has its forward portion constituted by the longitudi- 65 nally-running section *l*, which is of trough form, the hollow or concavity therein being lowermost, and the same, as clearly indicated in Fig. 1, engages and is free to slide along on the shift-rail C, but to be moved forward 70 or backward across the length of the shift-rail when the latter is so moved. The section *l* of the platen-frame is apertured through the top thereof, as indicated at *k k* in Fig. 2, and the hangers *m* are secured on the said section *l* 75 at the borders of the apertures *k* and support the flanged friction-rollers *n*, which bear upon the top of the shift-rail through the apertures. While the engagement of the platen-frame 80 with the shift-rail may be had by the trough-shaped part *l* of the said frame, in practice the substantial engagement is had by the flanges on the friction-rolls, and the trough formation may be dispensed with.

85 *o o* represent bifurcated lugs, which are formed upon or attached to the rear part of the platen-frame and embrace the rail *a*, and are so arranged adjacent and in engagement with the said lugs *b b* of the carriage B that as the latter is moved endwise the platen- 90 frame will be correspondingly moved. The platen-frame is, of course, due to its sliding engagement with the rail *a*, free to be moved forward and back independently of the carriage as the shift-rail is moved. 95

On desiring to remove the platen-frame from the machine the same may readily be done by swinging up the front portion to free it from the shift-rail, and then drawing forwardly, the frame may be disengaged from 100 the rear rail *a* and the carriage.

What I claim is—

1. In a type-writing machine, the combination, with a forwardly and rearwardly mov-

able horizontal shift-rail, and the carriage
movable endwise, of a platen-supporting
frame having an engagement with the shift-
rail, being, however, free to move endwise
5 along same, but constrained for a forward and
backward movement therewith, and said
frame having lugs *o o*, which extend to rest
upon a suitable support, being free for move-
ment forward and backward, and abutments
10 on said carriage with which said platen-frame
lugs engage, whereby when the carriage is
moved endwise the platen-frame will be moved
therewith, for the purposes set forth.

2. In a type-writing machine, the combina-
15 tion, with a forwardly and rearwardly mov-

able shift-rail and the rail *a*, and the car-
riage movable endwise and having the lugs
b b, of the platen-supporting frame having an
engagement with said shift-rail, but free to
move endwise along same in the manner de- 20
scribed, and said frame having at its rear the
bifurcated lugs *o o*, which embrace said rail
a and which in turn are engaged by said car-
riage-lugs, substantially as and for the pur-
poses set forth.

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Witnesses:

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