

No. 669,627

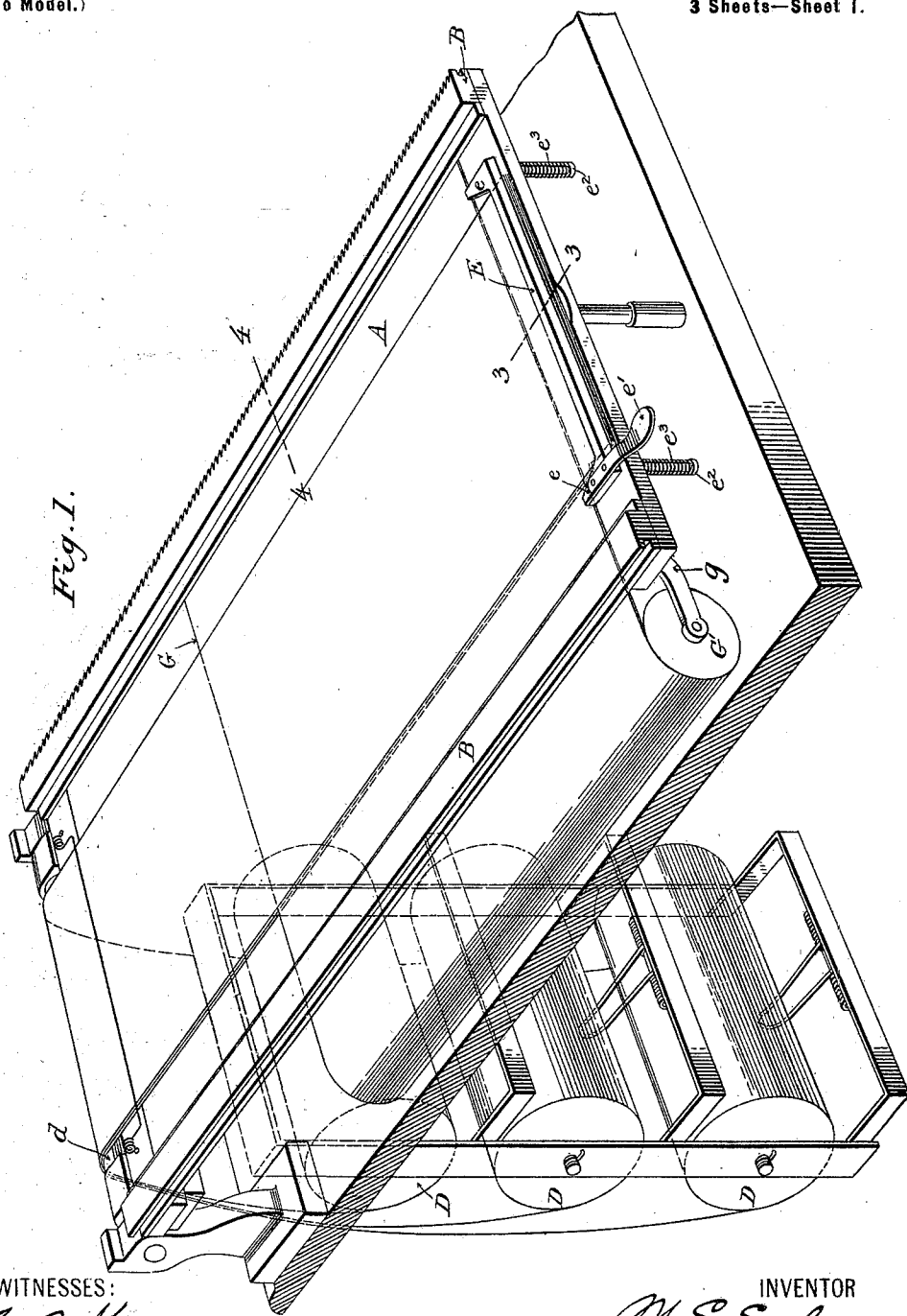
Patented Mar. 12, 1901.

M. S. EYLAR.
TYPE WRITING MACHINE.

(Application filed Nov. 30, 1900.)

(No Model.)

3 Sheets—Sheet 1.



WITNESSES:

N. R. Kennedy
F. J. Elmore

INVENTOR

M. S. Eyler

BY

P. T. Dodge
ATTORNEY

No. 669,627.

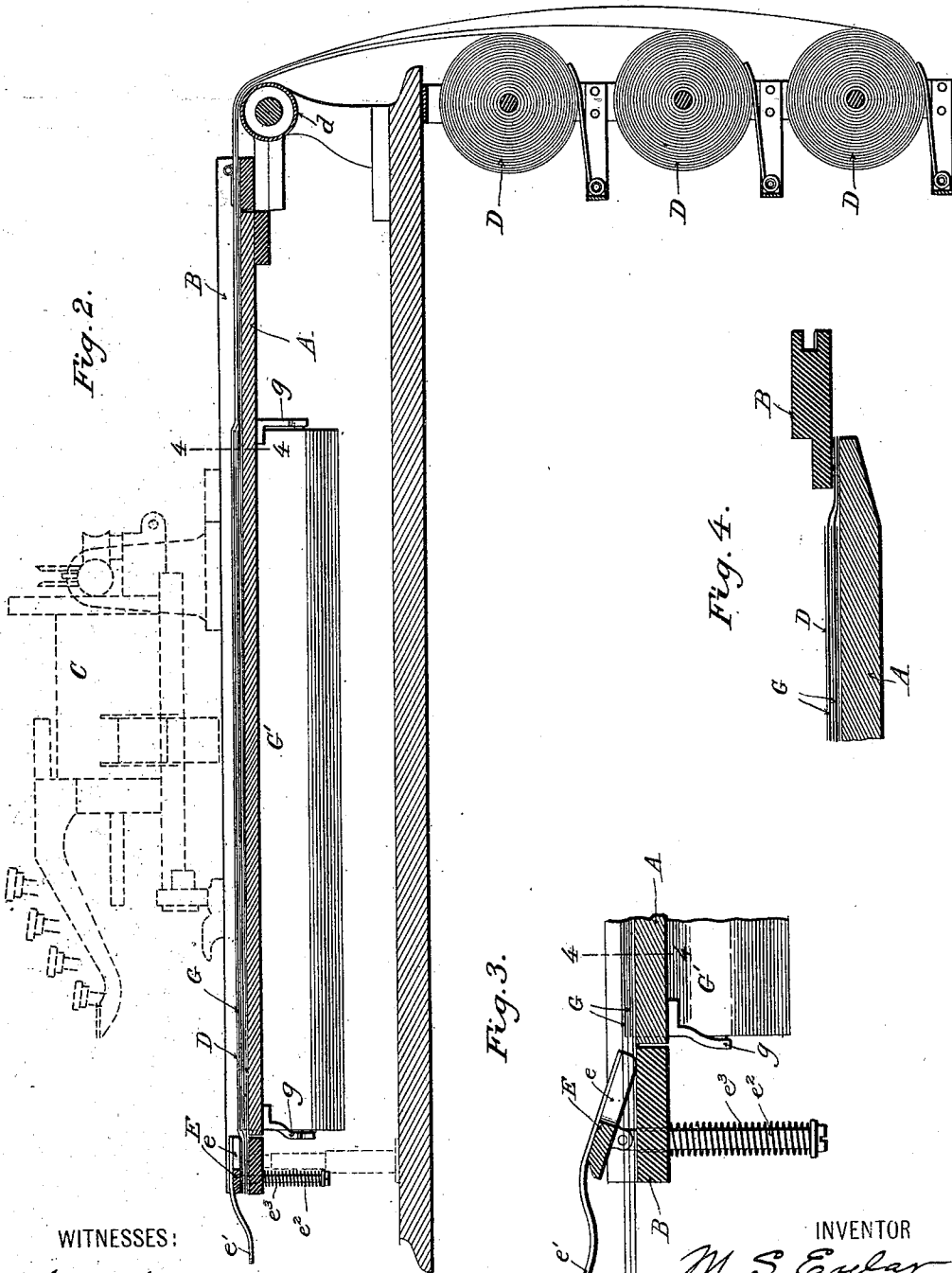
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3 Sheets—Sheet 2.

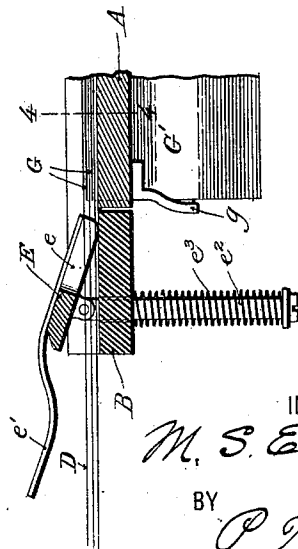


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Fig. 3.

Fig. 4.



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3 Sheets—Sheet 3.

Fig. 5.

WITNESSES:
W. R. Kennedy
J. D. Elmore

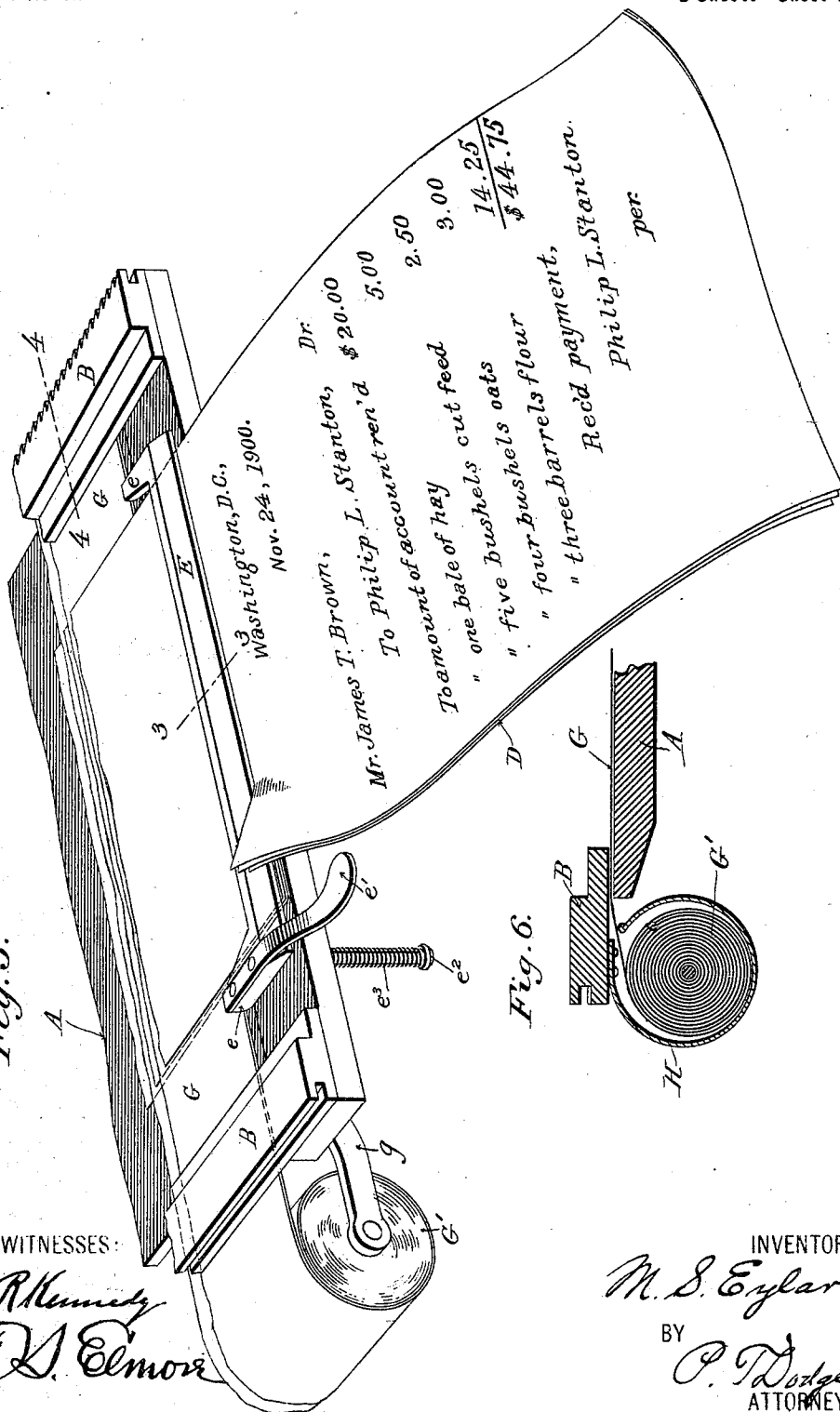
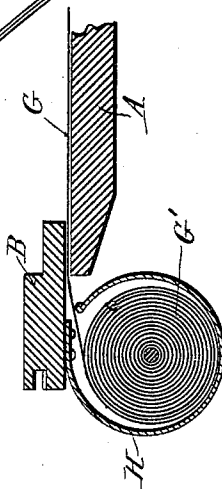


Fig. 6.



Washington, D.C.,
Nov. 24, 1900.

Dr.
Mr. James T. Brown,
To Philip L. Stanton, \$20.00
To amount of account ren'd 5.00
2.50
3.00
14.25
\$44.75
" one bale of hay
" five bushels oats
" four barrels flour
" three barrels per
Rec'd payment,
Philip L. Stanton.

INVENTOR

M. S. Eylar

BY

P. Dodge
ATTORNEY

UNITED STATES PATENT OFFICE.

MATTHEW S. EYLAR, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO THE ELLIOTT AND HATCH BOOK TYPEWRITER COMPANY, OF NEW YORK.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 669,627, dated March 12, 1901.

Application filed November 30, 1900. Serial No. 38,278. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW S. EYLAR, of East Orange, county of Essex, and State of New Jersey, have invented a new and useful Improvement in Type-Writing Machines, of which the following is a specification.

The object of my invention is to adapt type-writing machines, more particularly those in which flat beds or platens are employed, to produce at one operation two, three, or more copies of a written matter without the delay and annoyance which attends the use of loose carbon-sheets, as usual.

To this end my invention contemplates the mounting of one or more carbon-sheets on the machine in such manner as to remain in operative position while long webs or sheets to be printed upon are advanced intermittently to present different portions in position to be written upon, the portions bearing the writing being torn away or otherwise removed from time to time, the sheet being first advanced endwise to bring a new portion of its surface into the printing field. The carbon sheet or sheets may be of a length equal to the width of the machine and clamped in position therein to be replaced by fresh sheets when necessary; but I prefer to make use of a long carbon-sheet wound into the form of a roll and sustained so that it may be advanced from time to time independently of the paper in order to present new and fresh portions in operative position, as required. The preferred arrangement is that in which the paper sheet or web is arranged to travel in one direction across the bed or platen, while the carbon-sheet is arranged to travel in a direction at right angles to that in which the paper moves.

While various details in the form and arrangement of parts are possible, I prefer to employ a machine of the general character represented in Letters Patent to Hatch and Hillard, No. 620,125, and to arrange one or more rolls for the paper to be printed upon at the rear end of the machine, so that these sheets or webs may be drawn forward lengthwise of the platen, and to arrange the roll for the carbon-sheet at one side of the machine, so that it may be fed transversely across the platen at right angles to the paper. I have therefore shown this arrangement of parts in

the accompanying drawings in connection with the machine above referred to. It is to be distinctly understood, however, that my invention is applicable to any and all machines in which a flat platen or its equivalent is used to sustain the sheets.

Figure 1 is a perspective view of the base portion of a Hatch and Hillard type-writer, such as is now sold in the market under the name of the "Hatch and Elliott Book Type-Writer," with my improvements applied. Fig. 2 is a longitudinal vertical central section of this machine. Fig. 3 is a vertical cross-section, on a larger scale, through the forward end of the frame on the line 3 3 of Figs. 1, 2, 4, and 5. Fig. 4 is a cross-section on the line 4 4 of Figs. 1, 2, 3, and 5. Fig. 5 is a perspective view looking against the forward end of the frame, illustrating the manner in which the sheets are torn apart to effect the removal of the printed portions. Fig. 6 is a view of a detail.

Referring to the drawings, A represents a flat rigid bed-plate or platen, which may be constructed and supported in any suitable manner, provided it is adapted to sustain the sheets of paper.

B is a rectangular frame overlying the platen and open at the center in order to expose the sheets to the action of the downwardly-acting writing mechanism C, which is mounted on the frame B and arranged to travel transversely and longitudinally over the sheets supported on the bed or platen.

The foregoing parts may all be of the ordinary construction and arranged to operate in the ordinary manner.

In applying my improvement I suspend under the rear end of the machine or in other convenient position one or more rolls of paper D and extend the sheet or sheets therefrom over the guiding-roll *d* and thence lengthwise over the platen to the front of the machine, where their ends are confined by a clamping-bar E, preferably attached to the frame B, as clearly shown in the several figures, or by equivalent clamping devices. It will be observed that the ends of the sheet or sheets to be written upon are thus confined and held in place independently of the sides of frame B which overlap the platen, so that

the sheets with the writing upon them may be pulled forward from time to time over and beyond the platen in order that the portions bearing the writing may be separated, while
 5 at the same time fresh unprinted portions are advanced on the platen in position to be acted upon by the writing mechanism.

The clamp E may be of any suitable construction; but I recommend, as shown in the
 10 drawings, a bar or plate having a sharp outer edge over and against which the sheets may be torn, as shown in Fig. 5. This plate is preferably formed at its ends with rearwardly-extending arms *e*, serving as legs or supports,
 15 so that when the bar is tipped upward, as shown in Fig. 3, by its handle *e'* it is raised clear of the sheets D, so that they may be advanced thereunder. As a simple means of holding the plate in position and drawing it
 20 downward on the sheets I pivot to its under side, near the ends, two downwardly-extending rods *e²*, encircled by spiral springs *e³*, which act between the under side of the frame and heads or collars on the lower ends of the rods.
 25 For the purpose of producing an additional copy or copies of the writing I employ the carbon sheet or sheets G, extended transversely across the platen over and under the paper sheets D, and I confine these carbon-
 30 sheets at the two sides of the platen beyond the edges of the paper in any suitable manner, preferably by confining them between the overlying frame B and the platen, as shown in Fig. 4, so that while the carbon-
 35 sheets are retained in operative position the paper sheet or sheets D may be pulled forward past them. Thus it becomes possible to leave the carbon-sheets in operative position although the paper is advanced from
 40 time to time across them as the printing progresses. It will be observed that under this arrangement a letter, bill, or other instrument may be written in duplicate and the several sheets D bearing the writing then pulled
 45 through by hand simultaneously without disturbing the carbon-sheets, the portions bearing the writing being torn away, as shown in Fig. 5, after which the writing can proceed.

Ordinary carbon-sheets cut to size may be
 50 employed with good effect when clamped in position as above described, and they will serve without renewal or adjustment for the production of a considerable number of copies. In order to permit the presentation
 55 of new carbon-surfaces conveniently and to avoid the trouble and annoyance of using separate carbon-sheets, I propose to wind one or more long carbon-sheets into the form of a roll G' and to mount this roll along one
 60 side of the machine in suitable supports, as shown in Figs. 1, 2, 3, and 5, so that it is only necessary from time to time to raise the frame B, hinged at one end, from the platen and then pull the carbon-sheet forward across the
 65 platen to present new portions in the field of operation.

It will be understood that two, three, or

more carbon-sheets may be wound together in one roll and that this roll may be suspended by sustaining-arms *g*, secured to the platen, or in any other appropriate manner.
 70 An excellent arrangement is that represented in Fig. 6, in which the roll of carbon-paper is mounted loosely within a sheet-metal tube or case H, secured to the platen and having
 75 a longitudinal slot through which the sheet is drawn. The rolls of writing-paper may be mounted in like manner, if desired. Although I have shown three separate rolls of writing-
 80 paper in order that one, two, or three sheets may be used, according to the requirements, it is to be understood that where a predetermined number of copies are to be written, if
 85 the number is to remain constant, two, three, or more sheets may be wound together into a single roll, as in the case of the carbon-sheets.

It will be observed that the essence of my invention resides in providing a type-writer with means for securing the carbon or other
 90 copying sheets and the sheets to be written upon independently, to the end that the carbon-sheets may remain in position for continued or repeated use, while the paper to be
 95 written upon is advanced or replaced to present fresh surfaces for use.

The expressions "carbon," "carbon-sheets," &c., employed in this specification are intended to include the carbon-sheets of
 100 commerce now in general use in type-writing machines for making duplicate copies or any equivalent transfer or copy sheets, and the expressions "paper," "white paper," and
 105 "writing-paper" employed in this specification are intended to include the paper or other material to be written upon, whether in the form of long rolls or webs or in the form of
 110 cut sheets of suitable size.

When the machine is to be specially employed for printing on bill-heads or other
 115 commercial blanks, these blanks will be printed in series, one after another, on the paper webs, and, if desired, the web may be perforated transversely between the successive forms or blanks to admit of their being
 120 more readily torn apart.

Having described my invention, what I claim is—

1. In a type-writer, the combination of a flat platen to sustain the sheet to be written on, a vertically-movable top frame sustaining the
 125 writing mechanism, and a carbon-carrier attached to the top frame and movable therewith.

2. A type-writing machine having independent means at right angles to each other
 130 for securing respectively the carbon-sheet and the paper.

3. In a flat-bed type-writer, the combination of the paper-roll arranged to deliver its sheet or web in one direction across the bed,
 135 and a carbon-roll arranged to deliver its web across the bed at right angles to the course of the paper.

4. In a type-writing machine, the combina-

tion of a flat bed or platen, a paper-roll arranged to deliver its sheet over the platen, means for securing the end of the paper, a carbon-roll arranged to deliver its sheet over the platen, and independent means for securing the carbon.

5 5. In a type-writing machine, the combination of a flat bed or platen, a cooperating frame B, arranged to bear lengthwise of the platen to confine the carbon-sheet thereon, means for directing the paper web lengthwise of the platen, free from the frame B, and means independent of the frame for confining the paper.

15 6. In a type-writing machine, the combination of a flat bed or platen, a paper-roll arranged parallel with one edge of the platen and in position to deliver the paper web thereover, a carbon-roll arranged at right angles to the paper-roll to deliver the carbon web across the platen, and means for securing the carbon and the paper in operative relations during the writing action.

20 7. In a type-writing machine, the combination of a flat bed or platen, two paper webs or sheets wound into a single roll, mounted

to deliver the two webs over the platen, means for confining the web on the platen during the writing operation, and a carbon-sheet lying between the paper webs and secured in position independently thereon, whereby the advance of the two webs in unison may be effected, in order to bring new portions into the writing field of the machine without disturbance of the carbon.

35 8. In a type-writing machine, a flat bed or platen, the cooperating frame B, the guide at the rear end for the paper web, a confining device for the said web at the forward end, and a support for the carbon-roll arranged lengthwise of the platen.

9. In a type-writing machine, the paper-clamping device E, having legs e, combined with springs, substantially as described.

In testimony whereof I hereunto set my hand, this 22d day of November, 1900, in the presence of two attesting witnesses.

MATTHEW S. EYLAR.

Witnesses:

MAX E. BEARD,
A. B. PRICE.

DISCLAIMER.

669,627.—*Matthew S. Eylar*, East Orange, N. J. TYPE-WRITING MACHINE. Patent dated March 12, 1901. Disclaimer filed November 14, 1905, by the present assignee, the *Elliott-Fisher Company*,

Enters its disclaimer—

“To claims Nos. 2, 3, 4, 6, and 8 in said specification, which are in the following words, to wit:

“2. A type-writing machine having independent means at right angles to each other for securing respectively the carbon-sheet and the paper.

“3. In a flat-bed type-writer, the combination of the paper-roll arranged to deliver its sheet or web in one direction across the bed, and a carbon-roll arranged to deliver its web across the bed at right angles to the course of the paper.

“4. In a type-writing machine, the combination of a flat bed or platen, a paper-roll arranged to deliver its sheet over the platen, means for securing the end of the paper, a carbon-roll arranged to deliver its sheet over the platen, and independent means for securing the carbon.

“6. In a type-writing machine, the combination of a flat bed or platen, a paper-roll arranged parallel with one edge of the platen and in position to deliver the paper web thereover, a carbon-roll arranged at right angles to the paper-roll to deliver the carbon web across the platen, and means for securing the carbon and the paper in operative relations during the writing action.

“8. In a type-writing machine, a flat bed or platen, the cooperating frame B, the guide at the rear end for the paper web, a confining device for the said web at the forward end, and a support for the carbon-roll arranged lengthwise of the platen.”—
[*Official Gazette*, November 21, 1905.]