

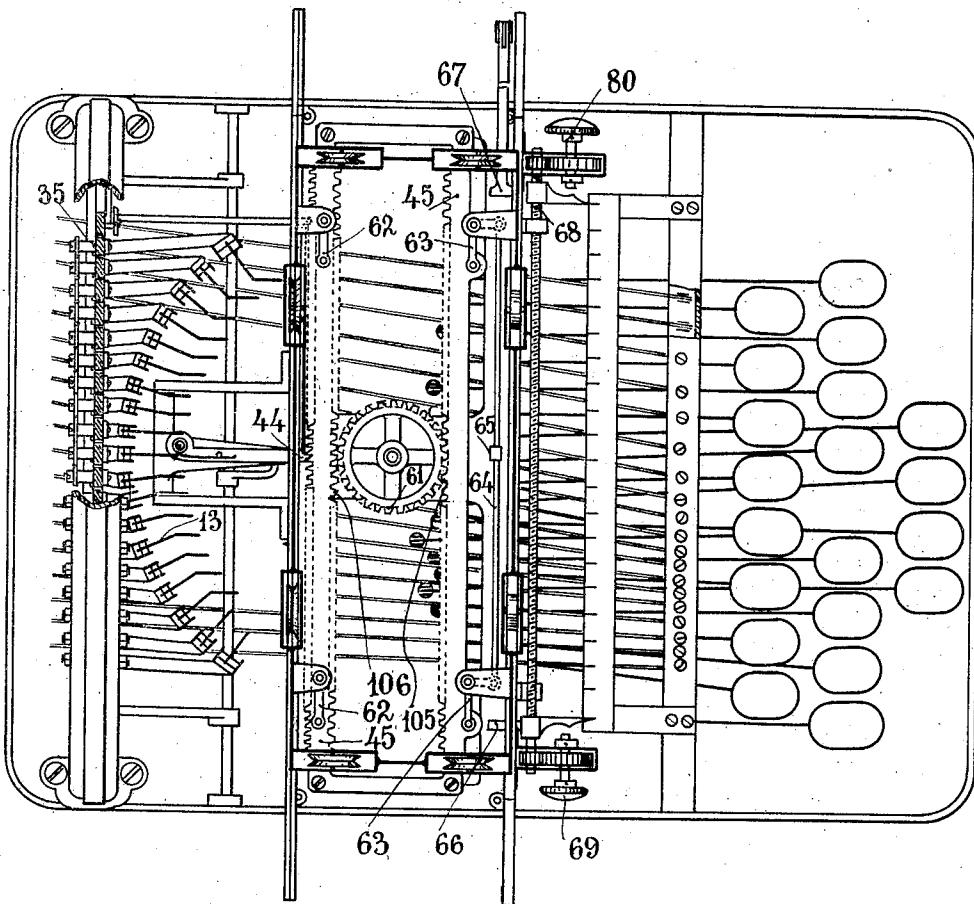
M. SCHIESARI.
TYPE WRITING MACHINE.
APPLICATION FILED MAR. 8, 1910.

1,058,630.

Patented Apr. 8, 1913.

3 SHEETS-SHEET 1.

Fig. 1



Witnesses

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W. C. Lawson

Inventor

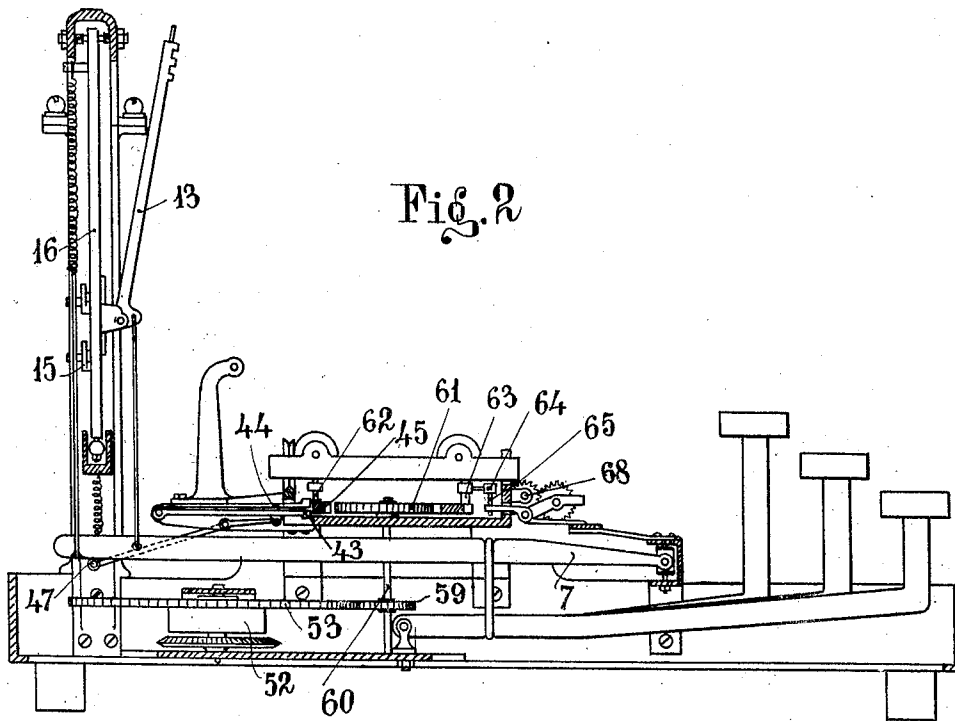
Mario Schiesari

By

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1,058,630.

3 SHEETS—SHEET 2.



Witnesses
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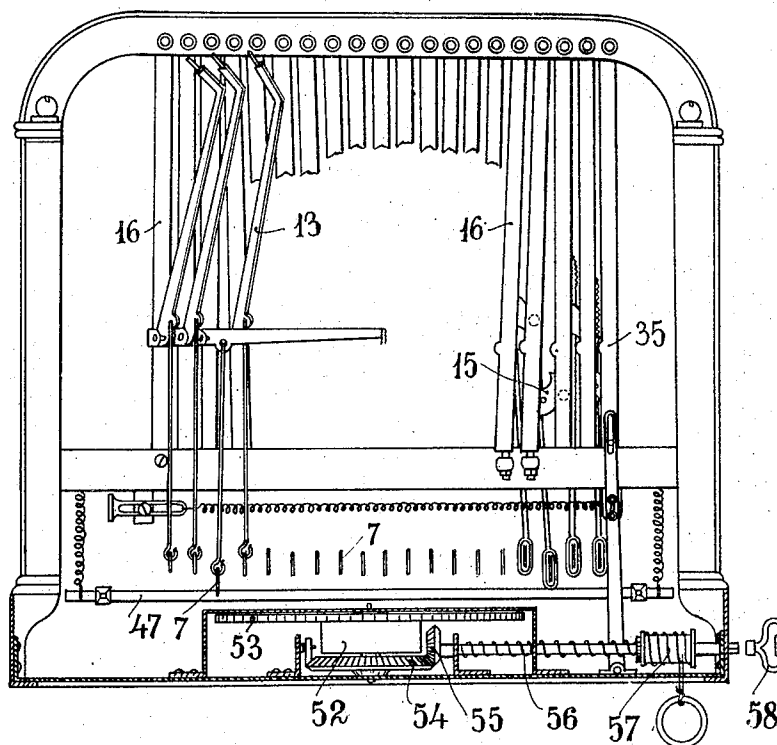
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3 SHEETS—SHEET 3.

Fig. 3



Witnesses

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UNITED STATES PATENT OFFICE.

MARIO SCHIESARI, OF TURIN, ITALY.

TYPE-WRITING MACHINE.

1,058,630.

Specification of Letters Patent.

Patented Apr. 8, 1913.

Original application filed October 4, 1905, Serial No. 281,326. Divided and this application filed March 8, 1910. Serial No. 547,953.

To all whom it may concern:

Be it known that I, MARIO SCHIESARI, a subject of the King of Italy, residing at Turin, Italy, have invented certain Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to new and useful improvements in typewriters and has relation more particularly to the carriage mechanism, the device herein described being a division of the application filed October 4, 1905, Serial No. 281,326.

The object of the invention is to provide a novel device which effects the movement of the carriage carrying the paper and automatically causes its return after the last syllable of the line is completely printed.

In describing the invention in detail, reference will be had to the accompanying drawing forming a part of this specification, wherein like characters of reference denote corresponding parts in the several views and in which:—

Figure 1 is a plan of the machine illustrating the carriage feeding mechanism, the upper part of the carriage being omitted; and Fig. 2 is a vertical sectional view; and Fig. 3 is an elevation of the rear or back part of the machine.

The power required for moving the carriage for the paper is supplied by a spring inclosed within a casing or drum 52 (Fig. 3) which may be wound up by turning the arbor 56 which acts to wind the spring through the bevel wheels 54 and 55, and which is rotated either by means of a key 58, or by other means acting through a cord wound about a drum 57 ratcheted on the arbor 56.

The drum 52 (Fig. 2) is in one piece with a gear wheel 53, which gears with a wheel 59, fixed on arbor 60 and this arbor transmits the motion to an upper wheel 61. This wheel 61 (Fig. 1) gears with rack-teeth in bars 45 of a frame which is connected with the carriage by two links 62 and two elbow-levers 63, in such a manner that it is permitted some movement in a horizontal plane. The elbow-levers 63 are coupled together by a rod or bar 64, bearing at its middle a block 65 which is displaced with the carriage up to the point where it impinges against one of two stops 66 and 67, which are fixed in position at the proper distance

apart for the part to be written by means of a screw 68 actuated by thumb-nuts 69 and 80.

Suppose the carriage to be in its initial position, that is at the right. At this time a detent 43 is free and a special detent 44 is engaged with the teeth of the exterior or outer rack-bar 45, and the teeth of the upper wheel 61 are in gear with teeth 105 of the inner rack-bar. When one or more type-keys are now depressed, the transverse bar 47 which is actuated by the levers 7, in its depression causes the engagement of the detent 43, fixed against lateral play, with the teeth of the outer rack and the disengagement of the special detent 44. At the same time the spacers 15, which have for their object to displace from left to right the suspension bars 16 carrying the type-hammers 13, will have displaced toward the right the last suspension bar 35. In consequence the special detent 44, which is free and allows a lateral displacement will be displaced to an extent equal to that of the last suspension bar 35. On removing pressure from the keys, the first detent 43 leaves the teeth of the outer rack while the special detent 44 engages them in such a manner that the carriage, being no longer detained by the first detent 43, is submitted to the action of the upper wheel 61, gearing with inner rack, and is moved toward the left a distance equal to that occupied by the characters printed. And so on up to the point when the block 65 on the middle of the coupling bar of the elbow-levers, impinges on the stop 66; then, the carriage being always pressed by the upper wheel 61, the elbow-levers 63 turn about their fulcrums and move the rack-teeth 106 on the outer rack away from the detents 43 and 44, so that these latter cease to act. Now as the upper wheel 61 continues to rotate, being acted upon by the spring in the casing or drum 52, the carriage will be returned toward the right to its first position; that is, up to the point where the stop 67 shall cause anew the engagement of the rack-teeth 105 of the inner rack-bar with those of the upper wheel 61. With this very simple arrangement the return of the carriage is effected automatically.

I claim:—

1. In a typewriting machine, a device for the return of the carriage comprising a mem-

ber movable in one direction, and means carried by the carriage acting in conjunction with the movable member and capable of operation when in one position to move the carriage in one direction and when in a second position to move the carriage in an opposite direction and automatic means for changing the position of such last named member.

10 2. In a typewriting machine, a device for the return of the carriage comprising a driven element, means on the carriage and movable thereon in a direction angular to the movement of the carriage and capable
15 of operation to engage when in one position the driven element to move the carriage in one direction, and when in a second position to move the carriage in an opposite direction and automatic means for changing the
20 position of the first named means.

3. In a typewriting machine, a device for the return of the carriage comprising a driven wheel, a frame carried by the carriage and movable thereon in a direction angular to the movement of the carriage and
25 comprising toothed bars, said driven wheel being positioned between the bars, said wheel engaging with one or the other of said toothed bars and automatic means for
30 changing the bar engagement of the toothed wheel.

4. In a typewriting machine, a device for

the return of the carriage, comprising a toothed wheel actuated always in the same direction, a frame connected with the carriage and movable thereon and comprising
35 two toothed bars between which said toothed wheel is positioned, said wheel engaging with one or the other of said toothed bars and automatic means for changing the bar
40 in engagement with the toothed wheel.

5. In a typewriting machine, a device for the return of the carriage comprising a toothed wheel actuated always in the same
45 direction, a frame comprising two toothed bars between which said toothed wheel is placed, said wheel engaging with one or the other of said toothed bars, lever connections between the frame and the carriage capable
50 of operation to move the frame in a direction angular to the direction of movement of the carriage to cause engagement of either one or the other of the bars with the toothed wheel and automatic means engaging the
55 levers for changing the bar in engagement with the toothed wheel.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

MARIO SCHIESARI.

Witnesses:

CARLO FORBA, INC.,

JOCELYN L. SOUBEYRAU.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."