

July 5, 1927.

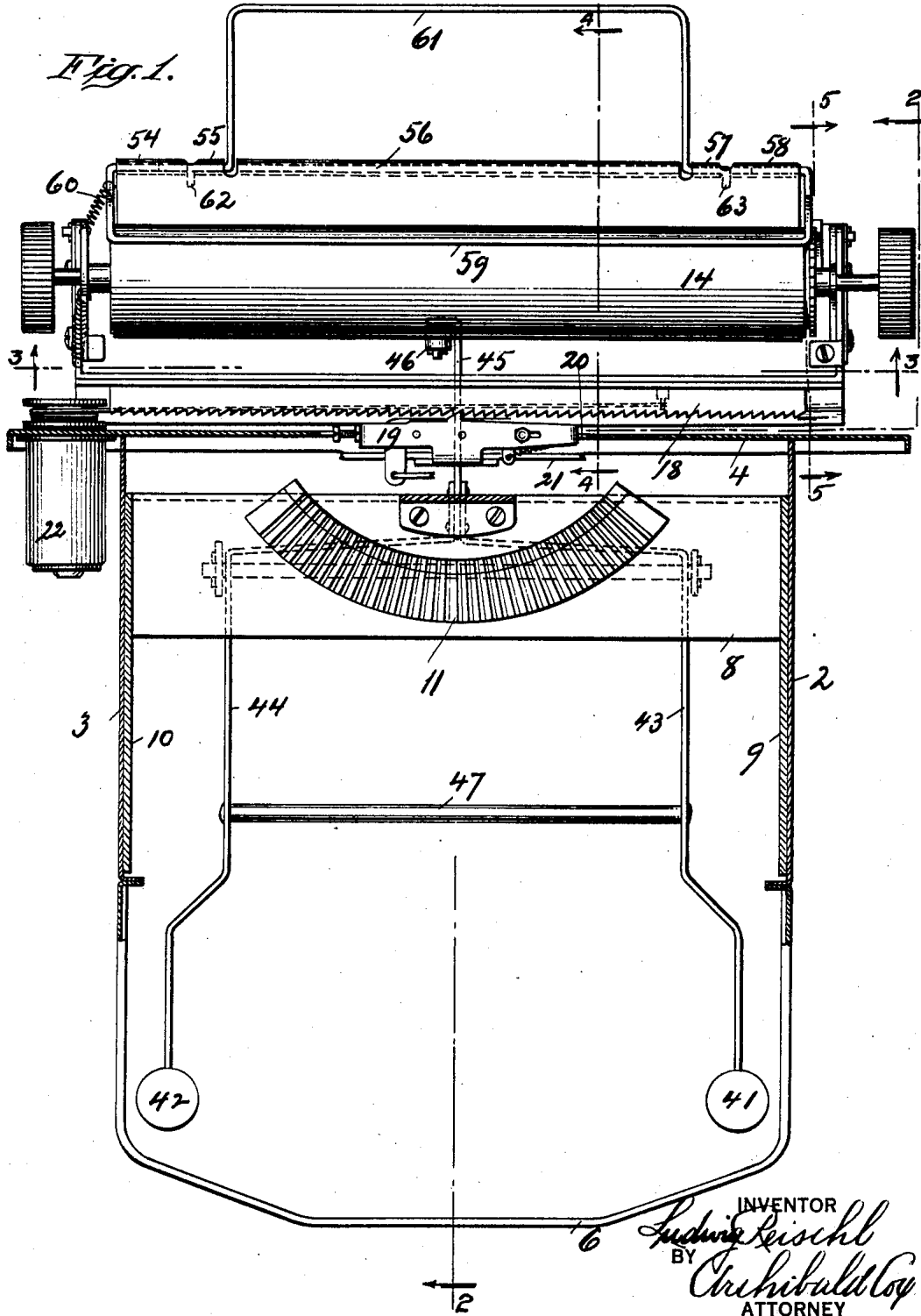
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L. REISCHL

CHILD'S TYPEWRITING MACHINE

Filed March 16, 1926

3 Sheets-Sheet 1



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CHILD'S TYPEWRITING MACHINE

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3 Sheets-Sheet 2

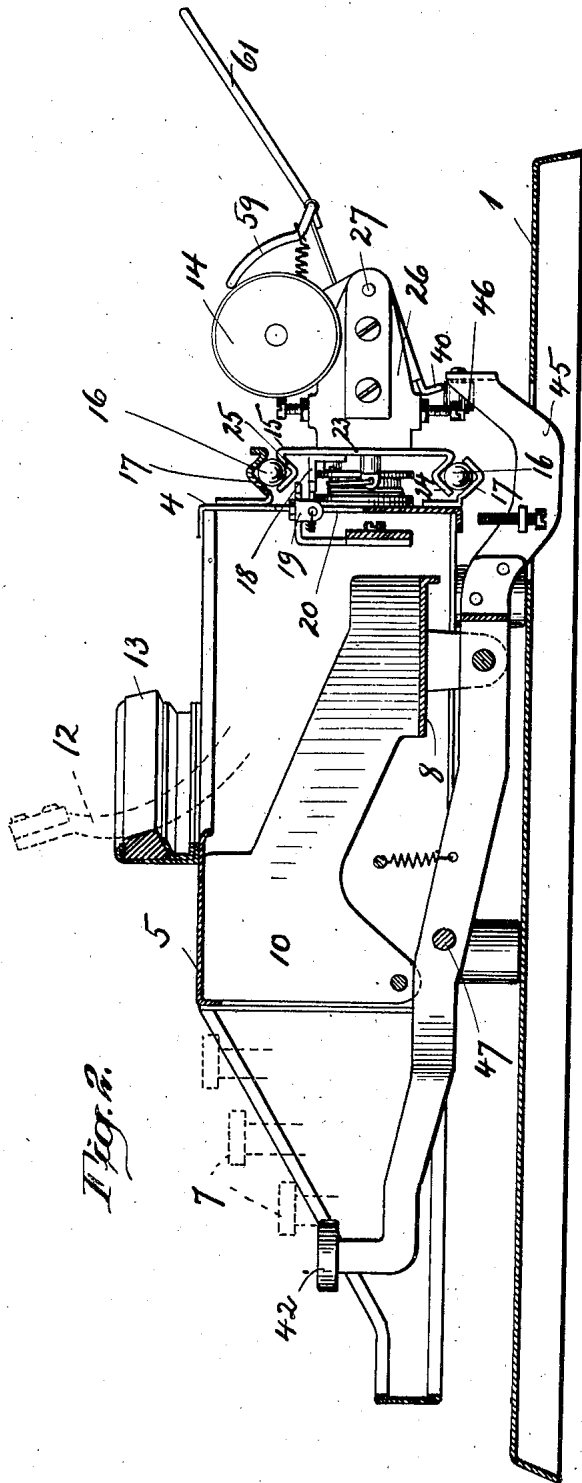


Fig. 2.

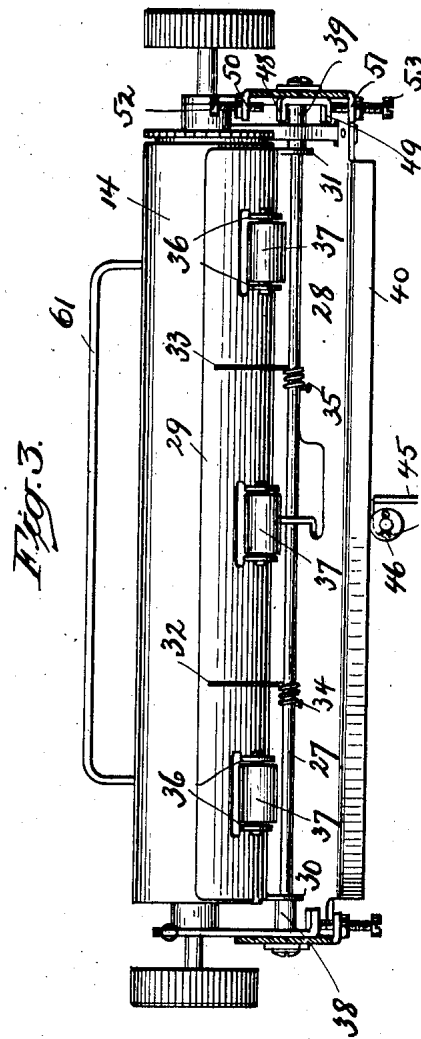


Fig. 3.

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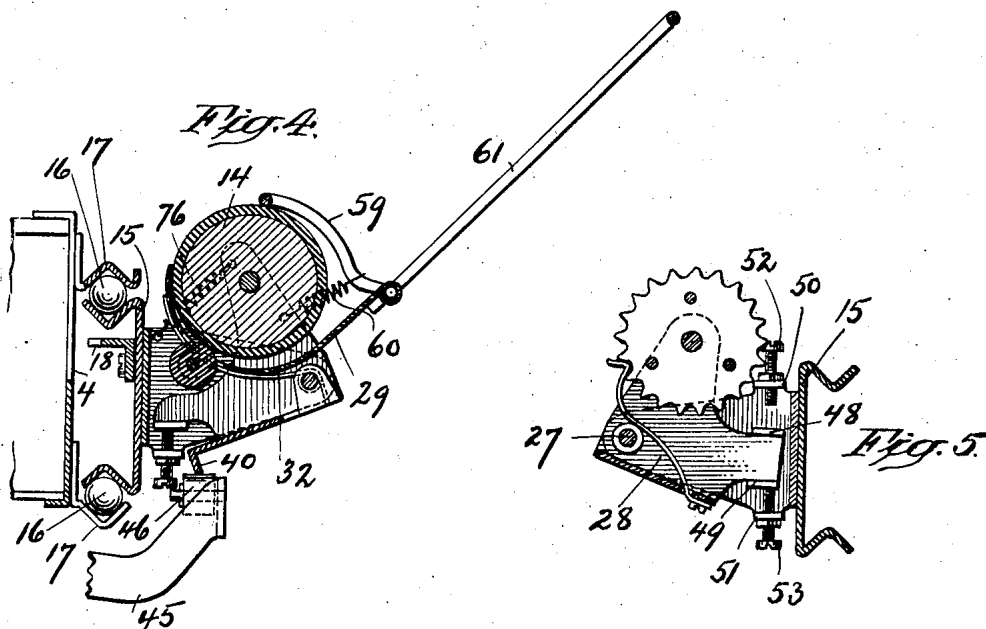
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CHILD'S TYPEWRITING MACHINE

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UNITED STATES PATENT OFFICE.

LUDWIG REISCHL, OF NUREMBERG, GERMANY, ASSIGNOR TO BING WERKE (FORMERLY GEBRUDER BING A. G.), OF NUREMBERG, GERMANY.

CHILD'S TYPEWRITING MACHINE.

Application filed March 16, 1926, Serial No. 95,003, and in Germany March 21, 1925.

My invention relates to children's typewriting machines of the type which are provided with a standard keyboard, type-bars, a movable carriage and a platen mounted in said carriage. Such machines while cheap of manufacture yet are strong and durable combined with lightness of weight and will withstand the more or less rough usage to which they are likely to be put. The object of the present invention is to still further simplify the construction of such machines and to thereby reduce their cost of manufacture. To this end, I mount the paper-guide preferably made of sheet-metal and adapted to cooperate with the platen on the same shaft, on which also the holder for the platen is mounted, the said shaft moreover serving as a seat for the springs bearing against the paper guide for holding the latter in contact with the platen.

Other features of my invention will appear from the following detailed description with reference to the appended drawings, in which I have shown an embodiment of my invention, by way of illustration, and in which Fig. 1 is a top plan view, partly in section, of so much of the typewriting machine as is necessary to illustrate the features of the present invention, Fig. 2 a longitudinal section along line 2-2 in Fig. 1, Fig. 3 a transverse section along line 3-3 in Fig. 1, Fig. 4 a cross-section along line 4-4 in Fig. 1, and Fig. 5 a similar section along line 5-5 in Fig. 1.

The machine, as shown in Fig. 2, is supported on a hollow base 1 made of sheet metal to which the machine is firmly secured by screws or otherwise (not shown). The frame of the machine comprises the longitudinal side walls 2, 3, a transverse rear wall 4, and a top-wall 5. The side walls, 2, 3 are forwardly extended as shown at 6 in Fig. 1 to form a fence around the keyboard, the keys of which are indicated at 7 in Fig. 2. 8 is a transverse support provided at its ends with the forwardly extending side members 9, 10. On support 8 rests the slotted arcuate member 11 acting as a guide for the type-bars, one of which is indicated in Fig. 2 at 12. Transversely across the top 5 is arranged an arcuate rest 13 (Fig. 2) for the type-bars when in inoperative position. With each type-bar 12 is pivotally connected one of the keys 7 of the keyboard so that when a key is de-

pressed, the corresponding type-bar swings rearwardly, i. e. toward the right in Fig. 2, striking the platen 14.

The platen is supported in a carriage generally indicated at 15, which carriage travels transversely across the rear wall 4 of the machine being supported by anti-friction bearings 16 in guideways 17 secured to the transverse rear wall 4. On the carriage 15 is provided a rack 18, whereby the stepwise movement of the carriage is controlled. A pawl mechanism generally indicated at 19 in Fig. 1 cooperates with the rack 18 of the carriage 15, the said pawl mechanism projecting through an opening 20 in the transverse rear wall 4. The construction of the pawl mechanism and its relation to the rack 18 on the carriage 15 are such that every time a cross-piece indicated at 21 in Fig. 1 has been depressed and rises again, the carriage is advanced one tooth of the rack in the direction toward the left in Fig. 1, the carriage being under the pull of a spring mechanism indicated at 22 in Fig. 1 and described more in detail further down.

As shown more particularly in Figs. 2 and 4, the carriage 15 for the platen 14 comprises a longitudinal flat part 23 provided with guide rails 24, 25 preferably made integral with part 23. To the latter is secured a U-shaped yoke 26, in the arms of which is rotatably journaled a shaft 27 on which is mounted the holder 28 for the platen 14. On shaft 27 is also mounted the paper-guide 29 by means of eyes 30, 31 (Fig. 3). The paper guide 29, which is preferably made of light sheet-metal is caused to bear against the platen 14 by light springs 32, 33 encircling shaft 27 and bearing with their free ends against the paper-guide 29. The other ends of the springs 32, 33 pass through holes 34, 35 in the holder 28 for the platen.

The paper-guide 29 is provided with spaced lugs 36 (Fig. 3) in which are loosely mounted small rubber rollers 37 adapted to bear against the paper on platen 14, the rubber rollers projecting through suitable openings in the paper-guide 29. Small spacing tubes 38, 39 are provided between the eyes 30, 31 and the side members of the holder for the platen to prevent any lateral displacement of the paper-guide relative to the platen 14.

For rocking the holder 28 about the shaft 27, the holder is provided with a depending flange 40 adapted to be engaged by the rear end of the shift-key device. In Fig. 1 are shown two shift keys 41, 42, the levers 43, 44 of which are united to one arm 45, which at its rear end carries a roller 46 adapted to bear against the depending flange 40 of the holder 28. A transverse rod 47 holds the levers 43, 44 of the two shift keys 41, 42 firmly together thus producing a rigid structure. One of the side members of holder 28 is provided with two lugs 48, 49, and similar lugs 50, 51 are provided on the one side-wall of the carriage. In the lugs 50, 51 are seated set-screws 52, 53, and by these set-screws the rocking movement of the holder 28 is limited, whenever one of the shift keys 41 or 42 is depressed.

The paper-guide 29 is provided with a tubular edge which as shown in Fig. 1 is divided into five portions 54, 55, 56, 57 and 58. The portions 54 and 58 act as bearings for a paper clamp 59 (Figs. 1 and 4), which is held against the platen 14 by a light spring 60. The portions 55 and 57 of the tubular edge serve as bearings for a paper-rest 61 made of a piece of bent wire. The central portion 56 acts as a reinforcement of the paper-guide 29. The ends of the wire paper-rest 61 are offset as shown at 62, 63 in Fig. 1 to form abutments for maintaining the paper-rest in operative position.

A spring 76 shown in Fig. 4, which spring is attached to the carriage and the movable holder 28 acts to return the latter to its normal position each time it has been rocked by the depression of a shift key.

I claim as my invention:

1. In a typewriting machine of the type described, the combination with the frame, a carriage supported thereby and a shaft rotatably journaled in said carriage, of a paper-roller, a holder therefor, a paper-guide cooperating with said paper-roller, the said holder and paper guide both being

mounted on the said shaft, a shift-key and a lever controlled thereby and adapted to engage said holder for rocking the same upon the depression of said shift-key. 50

2. In a typewriting machine of the type described, the combination with the frame, a carriage supported thereon, and a shaft rotatably journaled in said carriage, of a paper-roller, a holder therefor provided with a depending flange, a paper-guide cooperating with said paper-roller, the said holder and paper-guide both being mounted on the said shaft, a shift-key, a lever controlled thereby and a roller carried by said lever and adapted to engage the depending flange on said holder for rocking the same upon the depression of said shift-key. 60

3. In a typewriting machine of the type described, the combination with the frame, a carriage supported thereby and a shaft rotatably journaled in said carriage, of a paper-roller, a holder therefor, a paper-guide cooperating with said paper-roller, the said holder and paper-guide both being mounted on said shaft, a shift-key, a lever controlled thereby and adapted to engage said holder so as to rock the same upon the depression of said shift-key, and cooperating means on said holder and said carriage for limiting the rocking movement of said holder. 75

4. In a typewriting machine of the type described, the combination with the frame, a carriage supported thereby and a shaft rotatably journaled in said carriage, of a paper-roller, a holder therefor, a paper-guide cooperating with said paper-roller, the said holder and paper-guide both being mounted on said shaft, a shift-key, a lever controlled thereby and adapted to engage said holder so as to rock the same upon the depression of said shift key, set-screws carried by said carriage and adapted to cooperate with lugs provided on said holder for limiting the rocking movement of said holder. 90

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