Jan. 5, 1926. 1,568,338

A. G. F. KUROWSKI

TYPEWRITING MACHINE

Filed Nov. 2, 1923

Fig. 1.

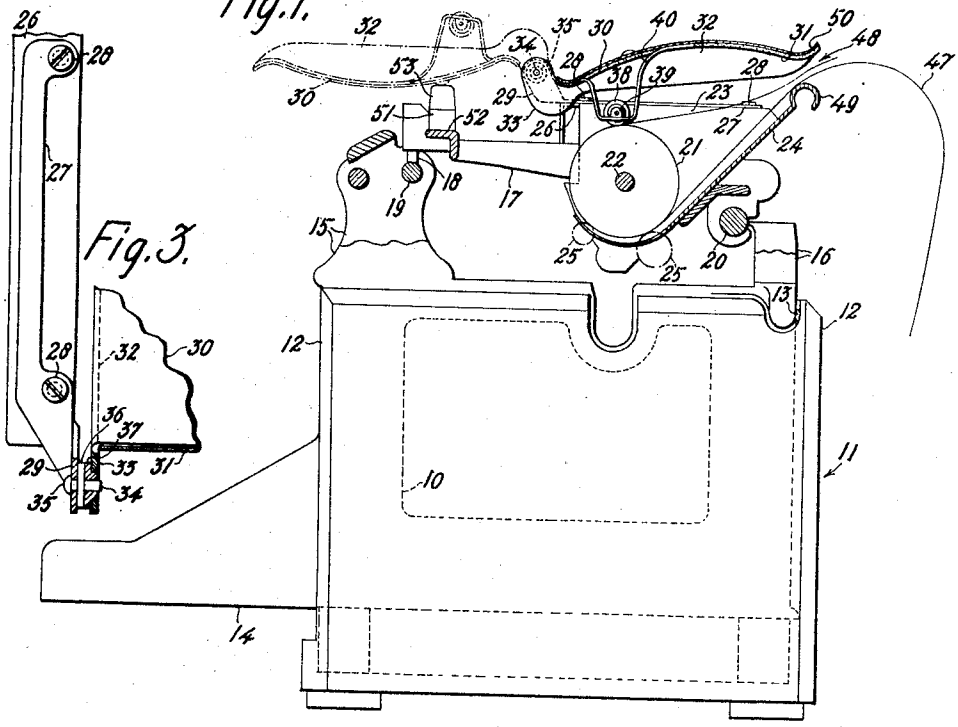


Fig. 3.

Fig. 2.

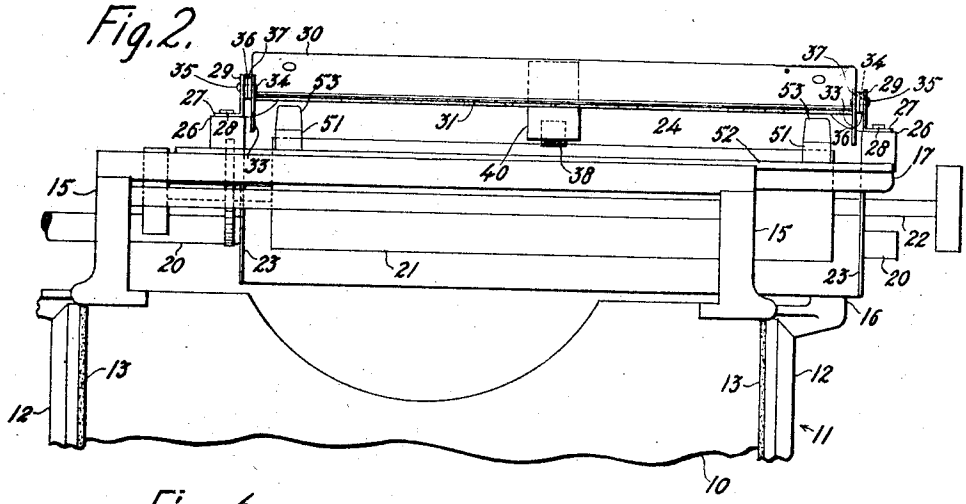
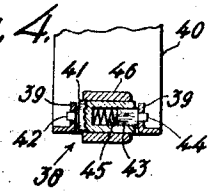


Fig. 4.



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UNITED STATES PATENT OFFICE.

ALFRED G. F. KUROWSKI, OF BROOKLYN, NEW YORK, ASSIGNOR TO UNDERWOOD TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF DELAWARE.

TYPEWRITING MACHINE.

Application filed November 2, 1923. Serial No. 672,262.

To all whom it may concern:

Be it known that I, ALFRED G. F. KUROWSKI, a citizen of the United States, residing in Brooklyn Borough, in the county of Kings, city and State of New York, have invented certain new and useful Improvements in Typewriting Machines, of which the following is a specification.

The invention relates to sound-deadening devices for typewriting machines; and more particularly to sound-deadening canopies for the platens of such machines.

A considerable part of the noises of operation of typewriting machines emanates from the platen, due to the impact of type thereon and to the case-shift movements thereof. It has heretofore been suggested to deaden noises from these sources by means of a canopy set upon the platen-carriage over the platen.

A feature of the present invention is the provision of means whereby such a canopy may be supported, in part at least, upon the platen.

Another feature of the invention is the provision of means on the canopy for holding work-pieces on the platen and thereby reducing the noise set up by the type-blows; and a feature of the invention, in the preferred form thereof, is the use of such work-piece holder or guide as a means for supporting the canopy on the platen.

A further feature of the invention is a novel and simple mounting of the canopy on the platen-carriage such that the canopy may be swung to an ineffective position where ample clearance is provided for access to the platen in the placement and collation of work-pieces, and to permit of erasures, adjustments and the like.

A feature of the invention is a mounting of the canopy such that the same may serve to guide work-pieces rearward over the top of the platen, and provide inlet and outlet for the work-pieces between the rear of the canopy and the top of the paper-shelf usually present on the carriage of typewriting machines.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 is a view in end elevation, partly cross-sectional, on the line 1—1 of Figure 2, of a typewriting machine and a shoe within which the body of the machine is set; the carriage of the machine being above the shoe and being equipped with the canopy of the present invention.

Figure 2 is a front view of the apparatus shown in Figure 1; the lower portion of the machine, however, being omitted.

Figure 3 is a top plan view, showing the means by which the canopy is pivotally supported on the platen-frame.

Figure 4 is a detail view, in cross-sectional front elevation, through the paper-holding roller and bearings therefor on the canopy.

The frame 10 of the machine is set within a shoe 11, the walls 12 of which are shown in Figure 2 as lined with sheets 13 of sound-deadening material, such, for instance, as felt. The keyboard extension 14 of the machine projects through the front wall of the shoe, and the front corner posts 15 and the rear corner posts 16 of the machine project above the shoe. A carriage 17 has movement in letter feed and return directions on the main frame 10, and, for this purpose, at the front thereof, carries a roller 18 to ride on a rail 19 supported by the front corner posts 15 of the main frame 10, and at its rear rides upon a rail 20 supported by the rear corner posts 16 of the machine.

The platen 21, by means of an axle 22, is journaled in the side plates 23 of an inner frame shiftable up and down between case positions on the carriage. The case-shifting means is not shown, but may be like that found in the Underwood standard typewriting machine. The inner platen-frame is also shown as carrying the usual rear paper-shelf 24 and feed-rolls 25.

The side pieces 23 of the inner platen-frame are offset, and have lateral flanges 26; and on these flanges the canopy is pivotally supported. For supporting the canopy upon the flanges 26, there is set upon each flange 26 a bracket 27 secured thereto by screws 28. The brackets 27 extend longitudinally forward along the flanges 26, and beyond the front edges of the latter and have ears 29 turned up therefrom.

The canopy consists of a sheet-metal plate 30 lined with a sheet 31 of sound-deadening material, such, for instance, as felt, and having flanges 32 turned down from the right and left hand ends thereof; said plate and flanges combining to form a hood or air-pocket which is felt-lined and confines and absorbs the noise vibrations rising from the

machine. The forward ends of the flanges 32 are extended in the form of ears 33. These ears 33 are pivotally connected to the ears 29 of the brackets 27 by means of pivot-pins 34. These pins are, in effect, rivets, the heads 35 of which are formed after the parts are assembled. Each pin 34 has integral therewith a flange 36 to bear upon a bushing 37 set into the corresponding ear 33 on the canopy. In assembling the parts, the pins 34 may be set into the bushings and their other ends set into pin holes in the ears 29 of the brackets 27. After the parts, thus set, are pushed together, the heads 35 are formed on the rivets to hold the parts together.

Thus pivoted to the platen-frame, the pocketed canopy or hood may be swung between the full-line, Figure 1, position to the dotted-line, Figure 1, position. In the full-line, Figure 1, position, the canopy is shown as supported upon the upper face of the platen by means of a roller 38 journaled in ears 39 struck up out of a sheet-metal bracket 40, which is of general U shape and which at its ends is riveted to the under face of the sheet-metal plate 30 of the canopy. In order that the roller may be easily positioned and removed when desired, it is preferably of the construction shown in Figure 4; that is to say, comprises two parts which are longitudinally movable one on the other to permit the roller to be freed from the ears 39 or to be locked to the latter. One of these parts, 41, is shown as a hollow cylinder carrying on its end a bearing pin 42 to be set into a hole in the left-hand ear 39. The other of these parts, 43, is a cylinder adapted to move in the manner of a piston within the chamber of the part 41. The cylinder 43 carries on its end a bearing pin 44 set into a hole in the right-hand ear 39. A coil spring 45 within the chamber of the part 41, by bearing at one end against the right-hand wall of this chamber and at its other end against the cylinder 43, tends to spread the parts so as to hold the bearing pins 42 and 44 in place on the ears 39. When desired, however, the parts 41 and 43 may be compressed against the action of the spring 45 to release the bearing pins 42 and 44 from the ears 39. The hollow cylindrical portion 41 of the roll 38 is preferably provided with a rubber jacket 46.

As shown in Figure 1, a work-sheet 47 is passed down over the paper-shelf 24, under and around the platen 21, thence upward and rearward over the platen, and is fed out through an opening or slot 48 formed by the upper edge or curl 49 on the paper-shelf 24, and the rear edge or curl 50 of the canopy. In other words, the roller 38 supports the canopy on the platen in such wise as to provide a space between the canopy and the paper-shelf 24 through which the work-sheet may be fed into the machine, and through which the work-sheet may be fed from the platen. The roller 38 is shown as bearing upon the work-sheet on the top of the platen, and therefore causes the work-sheet to lie smoothly on the platen from the printing line to the top of the platen, thereby reducing the noise of type impact thereon.

The canopy is movable from the full-line, Figure 1, position to the dotted-line, Figure 1, position for insertion and assembly of the work-sheets, and for easy and convenient removal thereof; and also to permit of ready access to the platen for erasures, adjustments and the like. In the dotted-line, or ineffective, position of the canopy, the same is supported on posts 51, on a front rail 52 of the carriage, one at each side of the latter. The posts 51 may have rubber blocks or cushions 53 thereon to soften the blows or impacts of the canopy on the frame of the carriage in throwing the canopy to dotted-line position, and to deaden the noise of such impacts.

As shown in Figure 2, the canopy extends the full length of the platen. For this reason, and since the canopy is mounted on the carriage to have letter-space movement therewith, it is at all times above the point of impact of the type on the platen, and above all points of the platen from which noise may emanate.

Variations may be resorted to within the scope of the invention, and portions of the improvements may be used without others.

Having thus described my invention, I claim:

1. In a typewriting machine, a platen, a platen-carriage, a sound-deadening canopy on the platen-carriage over the platen and partly supported thereon and holding the work-sheet to the top thereof, and means for pivotally securing the canopy at the forward portion thereof to the carriage.

2. In a typewriting machine, a platen, a platen-carriage, a sound-deadening canopy including a plate on the platen-carriage over the platen, ears extending downward from the canopy, and means for pivotally securing the canopy by such ears to the platen carriage; said ears forming extensions of side flanges pendent from said plate and co-operating therewith to form a sound-deadening air-pocket.

3. In a typewriting machine, a platen, a platen-carriage, a sound-deadening canopy including a plate on the platen-carriage over the platen, ears extending downwardly from the canopy, detachable brackets on the front of the side pieces of the platen-frame, and means for pivotally securing the canopy by said ears to said detachable brackets; said ears forming extensions of side flanges pendent from said plate and co-operating therewith to form a sound-deadening air-pocket.

4. In a typewriting machine, a platen, a platen-carriage, a paper-shelf on the car-

riage at the rear of the platen, a sound-deadening canopy on the carriage over the platen, and means for pivotally supporting the canopy on the front portion of the carriage in such manner as to provide a space between the rear of the canopy and the top of the paper-shelf through which work-pieces may be fed.

5. In a type-writing machine, a platen, a platen-carriage, a paper-shelf on the carriage at the rear of the platen, a sound-deadening canopy on the carriage over the platen, means for pivotally securing the canopy to the front portion of the platen, and means for supporting the canopy on the platen in such manner as to provide a space between the upper rear portion of the paper-shelf and the rear portion of the canopy through which work-sheets may be fed.

6. In a typewriting machine, a platen, a platen-carriage, a paper-shelf on the carriage at the rear of the platen, a sound-deadening canopy on the carriage over the platen, means for pivotally securing the canopy to the front portion of the platen, and a roller carried by the canopy for supporting the same on the platen in such manner as to provide a space between the upper rear portion of the paper-shelf and the rear portion of the canopy through which work-sheets may be fed.

7. In a typewriting machine, a platen, a carriage for the platen, a sound-deadening canopy on the carriage over the platen, and means for supporting the canopy, including supporting means which rests on the platen.

8. In a typewriting machine, a platen, a carriage for the platen, a sound-deadening canopy pivotally secured to the carriage over the platen, and means for supporting the canopy on the platen.

9. In a typewriting machine, a platen, a platen-carriage, a sound-deadening canopy on the carriage over the platen, means for pivotally securing the canopy to the front portion of the carriage, a bracket depending from the canopy, and a roller journaled in such bracket for supporting the canopy on the platen.

10. In a typewriting machine, a platen, a platen-carriage, a sound-deadening canopy on the carriage over the platen, means whereby the canopy is losely pivoted to the carriage at the front part thereof, a bracket depending from the canopy rearward of its pivot, and a roller journaled on such bracket for supporting the canopy on substantially the top of the platen; such roller serving as a means for holding work-pieces to the platen and guiding the same rearward over the top of the platen.

11. In a typewriting machine, a platen, a platen-carriage, a sound-deadening canopy on the carriage over the platen, and means for supporting the canopy on substantially the top of the platen, such supporting means comprising a roller adapted to hold work-pieces to the top of the platen and direct the same rearward therefrom.

12. In a typewriting machine, a platen, a platen-carriage, a sound-deadening canopy on the carriage over the platen, means for supporting the canopy, including a supporting device which rests on the platen, and means whereby the canopy may be swung to clear the platen of the same.

13. In a typewriting machine, a platen, a platen-carriage having a front rail, a sound-deadening canopy on the carriage over the platen, means for pivotally connecting the canopy to the carriage to permit the same to be swung forward to an ineffective position, and means for supporting the canopy in its ineffective position on the front rail of the carriage.

14. In a typewriting machine, a platen, a sound-deadening canopy for the platen, and a roller on the canopy whereby the canopy serves as a holder or guide for work-pieces on the platen.

15. In a typewriting machine, the combination with a platen and a platen carriage, of a sound-deadening canopy mounted upon the top of the machine and including a plate overlying the platen, and flanges pendent from the sides of said plate and co-operating therewith to form a sound-deadening air-pocket having an under surfacing of sound-deadening material.

16. In a typewriting machine having a framework, a platen and a platen carriage, the combination of a pack of sound-deadening material enclosing the framework of said machine below said carriage, a sound-deadening canopy mounted on the machine over the platen and including a plate overlying the platen, and flanges pendent from the sides of said plate and co-operating therewith to form a sound-deadening air-pocket having an under surfacing of sound-deadening material, said pocket co-operating with said pack to confine and absorb sounds generated by the operation of said machine.

ALFRED G. F. KUROWSKI.