Dec. 29, 1925. 1,567,558

J. WALDHEIM

TYPEWRITING MACHINE

Filed Jan. 12, 1922 3 Sheets-Sheet 1

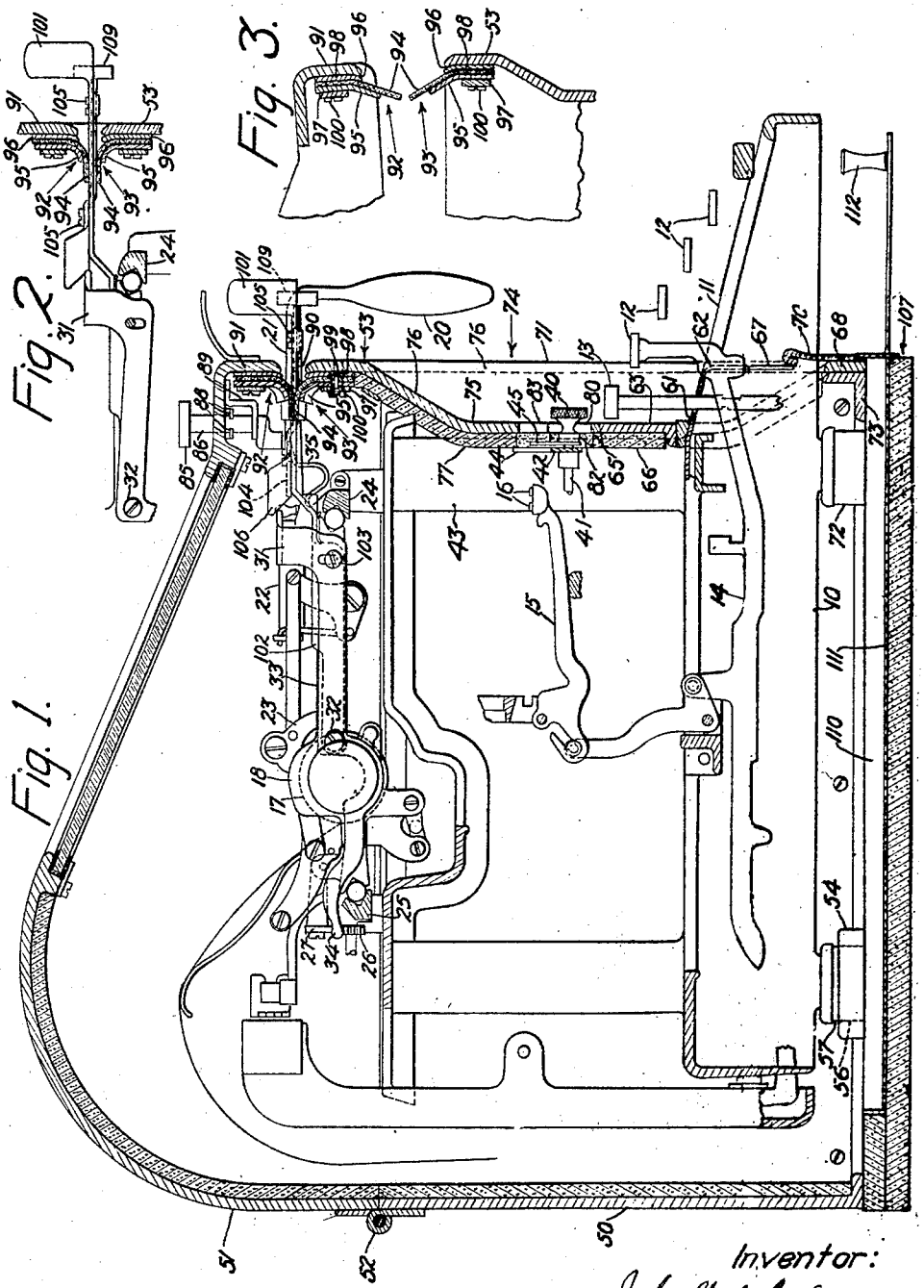


Fig. 1.

Fig. 2.

Fig. 3.

Inventor:
John Waldheim
by R. C. Stevens
Attorney

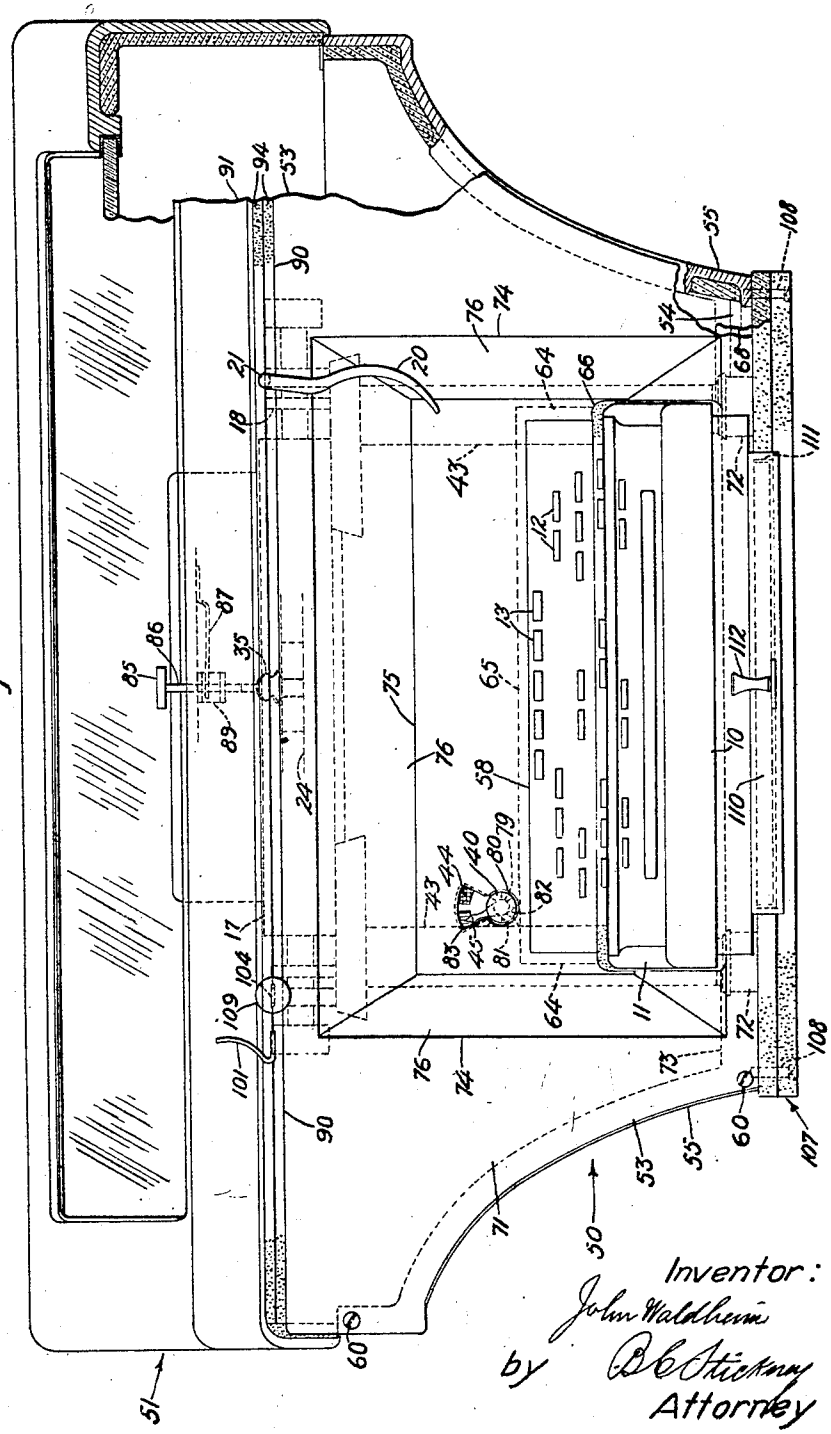
Dec. 29, 1925. 1,567,558

J. WALDHEIM

TYPEWRITING MACHINE

Filed Jan. 12, 1922 3 Sheets-Sheet 2

Fig. 4.



Inventor:
John Waldheim
by R. C. Stickney
Attorney

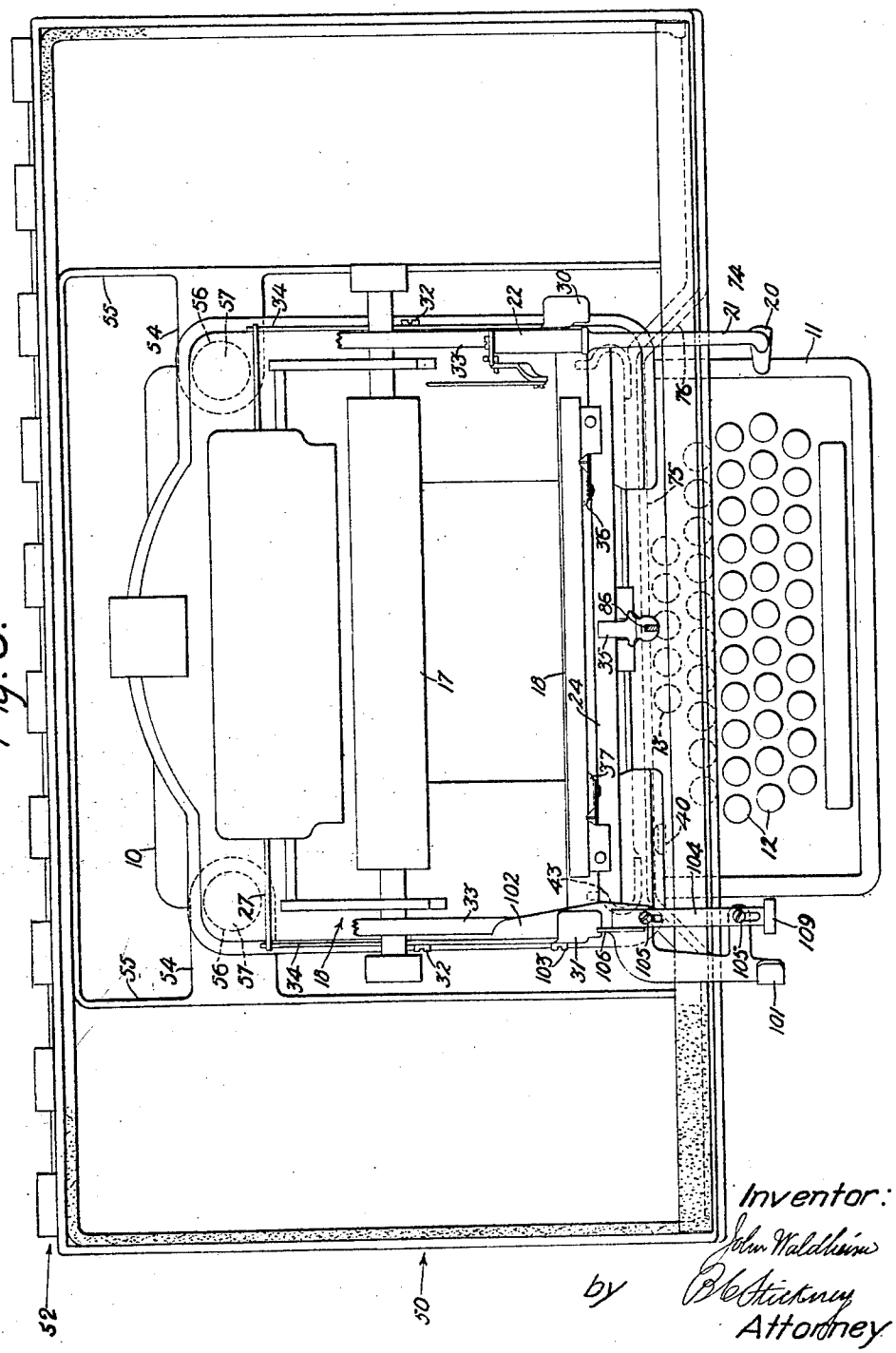
Dec. 29, 1925. 1,567,558

J. WALDHEIM

TYPEWRITING MACHINE

Filed Jan. 12, 1922 3 Sheets-Sheet 3

Fig. 5.



Inventor:
John Waldheim
by B. C. Stickney
Attorney

Patented Dec. 29, 1925. 1,567,558

UNITED STATES PATENT OFFICE.

JOHN WALDHEIM, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO UNDERWOOD TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF DELAWARE.

TYPEWRITING MACHINE.

Application filed January 12, 1922. Serial No. 528,703.

To all whom it may concern:

Be it known that I, JOHN WALDHEIM, a citizen of the United States, residing in Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Typewriting Machines, of which the following is a specification.

This invention relates to improvements in sound-deadening casings for typewriting machines.

A feature of the present invention is the provision of a drawer in the casing, so that the detritus, which would otherwise accumulate in the bottom of the casing, may be conveniently removed. The drawer may be arranged underneath the framework of the casing and suitably guided.

Another feature of the invention is the provision of improved means for closing the slot in the casing through which the finger-pieces or handles on the typewriter carriage project, said slot-closing means comprising two oppositely disposed flat strips of felt or any other suitable sound-deadening material, said strips having abutting edges disposed substantially at right angles to their other edges by which they are fastened to the casing. With this arrangement, a greater local yield of the slot-closing devices is afforded.

A further feature of the invention is the provision of a margin-release key supported on the cover of the casing, said key being so located that the margin-release mechanism of the typewriting machine may readily be operated from the exterior of the casing.

Still another feature of the invention resides in the provision of a carriage-release key which is horizontally disposed and supported on a detachable carriage-return fingerpiece, said key having at its rear end a cam to engage the usual carriage-release lever on the typewriter carriage.

Another feature of the invention resides in the construction of the front wall of the casing, which has a main section which intersects the keyboard of the machine, and is provided with a depressed section to extend behind the upper row of keys in said keyboard, so that all of said keys may be operated from the exterior of the casing. The front wall may be in the form of a detachable plate having a rectangular opening through which the keyboard section extends, the opening being high enough to clear the top row of keys as the plate is moved rearwardly over the keys toward the casing. A separate plate may be provided, which, in effect, forms a continuation of the depressed section of the front plate to close the space behind the keys.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 is a sectional side view of the machine and the casing.

Figure 2 is a detail view showing the carriage-release key operated to depress the carriage-release lever on the carriage.

Figure 3 is a detail view showing how the slot-closing devices behave when the cover is opened.

Figure 4 is a front elevation, partly in section, of the casing.

Figure 5 is a top plan view of the casing with the cover removed, and showing the machine within the casing.

The invention is herein shown as applied to a Remington typewriting machine, which may be like that disclosed in the patent to G. A. Seib, No. 1,342,466, dated June 8, 1920. The machine comprises a main frame 10 having a forwardly-extending keyboard section 11 with type-keys 12 and tabulator-keys 13 arranged therein. The type-keys, when depressed, operate key-levers 14 to swing type-bars 15 to cause types 16 to print against the front face of a platen 17. The platen is revolubly mounted in a carriage 18 and may be operated by a line-space handle 20 comprising a rock-shaft 21 having a bearing in a block 22 secured to the carriage and having the usual line-spacing mechanism including the line-space pawl 23 connected therewith to revolve the platen. The carriage travels on front and rear guide-rails 24 and 25, respectively, and is under the control of escapement mechanism comprising a pinion 26 meshing with a feed-rack 27 pivotally mounted on said carriage, the escapement mechanism being operable in the usual way by the operation of any one of the type-keys.

Carriage-release keys 30 and 31 are pro-

vided at the right-hand and left-hand ends of the carriage, each key being pivotally mounted on a shouldered screw 32 threaded into end bars 33 of the carriage. Each release key has a rearward extension 34 to raise the rack out of mesh with the pinion as the release key is depressed against the tension of the usual return spring (not shown).

A margin-release or line-lock-release key 35 is pivotally mounted on the front rail 24 in the usual manner and is actuable to permit the carriage to be moved into the right-hand or left-hand margin which is determined by the right-hand and left-hand margin-stops 36 and 37, respectively.

A ribbon-color shift-key 40 is provided at the front of the machine and secured to a rock-shaft 41 to which is connected the usual ribbon-shifting mechanism (not shown). The shaft 41 is supported at its forward end in a bracket 42 secured to the left-hand one of the forward corner posts 43 of the machine. The bracket 42 has an extension to form an index-plate 44 by which, with the aid of a pointer 45 on the shaft 41, the ribbon-vibrating mechanism may be set to bring the black or red field of a ribbon (not shown) to the printing point.

The sound-deadening casing comprises a body-part 50 and a cover-part 51 which may be swung upwardly about a hinge 52 at the back of the casing to give access to the machine within the casing.

To enable the machine to be placed within the casing the body-part 50 may be provided with a front wall in the form of a plate 53 which may temporarily be removed from the casing. The machine may then be set down into the casing with the cover in its raised position. The machine is located within the casing by means of lugs 54 extending inwardly from the side walls 55 of the body-part, said lugs having holes 56 into which the rear feet 57 of the machine are placed. The front plate 53 is provided with a rectangular opening 58 (Figure 4), so that it may be slipped over the keyboard section 11 and attached to the front of the casing in any convenient manner, as by screws 60, the upper edge of the rectangular opening 58 being high enough so as not to interfere with the upper bank of keys (tabulator-keys 13) while being assembled on the casing. To close the opening between the upper end of the rectangular opening 58 and an upper extension 61 of the usual key-lever guide-plate 62, there is provided a separate removable plate 63. It will be understood that this plate may be positioned on the frame of the machine prior to the assembling of the front plate 53 on the casing, and that it is held in place by means of overlapping edges 64 and 65 (Figure 4) of a felt lining 66 secured to said plate 63. To close the opening between a vertical extension 67 of the guide-plate 62 and a cross-bar 68 formed at the bottom edge of the front plate 53, there is provided a felt strip 70 which may be secured to the cross-bar 68, the upper end thereof engaging the lower end of the guide-plate 62.

By an inspection of Figures 1 and 4, it will be seen that the main portion 71 of the front plate 53 is substantially in the same plane as the downward extension 67 of the key-lever guide-plate. With this arrangement, sufficient space is provided in front of the forward feet 72 of the typewriting machine for a cross-bar 73 extending beneath the frame of the machine which joins the two end walls 55 of the body-part of the casing. Thus it will be seen that the plane in which the main part of the front wall is disposed intersects the keyboard of the machine. In order to provide clearance for the keys 12 and 13 of the keyboard, the front wall of the casing has an indentation 74 or pan-like depression formed by an indented portion 75 joined to the main portion 71 by portions 76 slanting rearwardly toward the indented portion 75 which lies in a plane behind the upper bank of keys 13. The front plate may be lined with a layer 77 of sound-deadening material, such as felt, which may be reduced in thickness at its ends to fit against the front corner posts 43.

Provision is made to avoid the necessity of removing the ribbon-shift key 40 when attaching the casing. For this purpose, the front wall of the casing is provided with an opening 80 to fit over said key. The felt lining 77 is provided with radial slits 81 at the opening 80 to permit the expansion of a hole 79 in the felt when the key passes therethrough, the sectors 82 formed between the slits springing back to close the opening in the front wall after the plate has been positioned. The opening or hole in the front plate is provided with an upward extension 83 to enable the bichrome index-plate 44 to be viewed from the exterior of the casing, the extension of said hole being wide enough to permit free movement of the indicator 45 (Figure 4).

To enable the margin-releasing mechanism to be operated from the outside of the casing, there is provided a finger-piece or key 85 at the upper end of a plunger 86 which may be depressed to engage the margin-release key 35 supported on the machine frame. The finger-piece 85 is supported on the cover of the casing, and is guided in said cover and in a suitable bracket 89 secured to the under side of said cover. A flat spring 87 is provided to restore the finger-piece 85 to normal position, said flat spring being secured to the under side of

the cover and being formed at its free end to form prongs 88 which engage in slots in the plunger of the finger-piece.

To permit the carriage to be moved freely from side to side without interference by various handles, including the line-space handle 20 on the carriage, there is provided a slot 90 which extends along the front of the casing, and is formed between the upper edge of the front wall 53 of the body-part and the lower edge of the front wall of the cover 91, throughout the entire length thereof, the rock-shaft 21 of the line-space handle extending forwardly through said slot, so that the line-space handle may be operated from the outside of the casing.

To keep the slot closed to prevent emission of sound from the casing, there are provided two co-operating devices 92 and 93 oppositely disposed and each comprising a flat strip 94 of sound-deadening material, such as felt. Each strip is reinforced by a flat strip 95 of resilient material, such as rubber to give springiness to the slot-closing devices. The free edges of the felt strips 94 extend substantially at right angles to their other edges by which they fasten to the casing when the cover is in its lowered position. As the cover is opened, the felt strips tend to straighten out. It is desirable, however, to keep said strips kinked slightly as indicated in Figure 3, so that they will readily fold against each other while the cover is being lowered. To do this, the upper edge of the front wall 53 and the lower edge of the front wall 91 of the cover may be provided with inwardly-extending ribs 96 which bear against the strips 94. The felt strips 94 may be held with their reinforcing strips 95 between two bars 97 and 98 secured to each other by rivets 99, to form units held in place by means of screws 100, so that they may readily be detached to be replaced when the felt strips become worn. It will be seen that, with this construction, the felt strips lend themselves to a greater local yield which is necessary, due to the size of the rock-shaft 21 of the line-space handle, which is much greater as compared with the thickness of the handles heretofore used in connection with sound-deadening casings.

The carriage may be returned by a carriage-return finger-piece 101 projecting out of the casing through the slot 90 and from a body-part 102 thereof secured to the carriage by the shouldered screw 32 and a shouldered screw 103.

To enable the carriage to be released from the outside of the casing, there is provided a carriage-release key 109 mounted on the forward end of a plunger 104, the latter being slidingly supported on the carriage-return handle 101, and held thereon by means of shouldered screws 105. Said plunger has at its rear end a cam 106, so that, when the release key 109 is pushed inwardly, the cam engages the carriage-release key 31 on the carriage to depress the latter and release the rack from the control of the escapement mechanism. The carriage may then be located at the desired position, it being controlled at this time by the carriage-return handle 101.

The detritus from the platen collects in the bottom of the casing, which is provided with a floor 107 comprised preferably of felt secured to the bottom of the casing by screws 108. To facilitate the removal of the detritus, a receptacle or drawer 110 may be provided, which is herein shown as located beneath the body-part of the casing, and is received in a cutout 111 in the felt floor. A finger-piece 112 is located beneath the keyboard of the machine and extends considerably forward from the drawer 110, so that it may readily be grasped by the typist to withdraw the receptacle from the casing. It will be understood that, in assembling the casing around the machine, it is desirable to assemble the front plate prior to inserting the drawer, so as to prevent interference of said plate with the top edge of the front of the drawer, which overlaps the front plate slightly (Figure 1).

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. The combination with a typewriting machine, of a sound-deadening casing therefor, having an opening in the lower portion of one of its walls just above the floor of the casing, a closure member movable into position to seal said opening and prevent the emission of sound from the casing, and a dirt-catcher mounted on the closure member and movable through said opening into a dirt-catching position within the casing and beneath the machine, when the closure member is moved to position to close the opening.

2. The combination with a typewriting machine having a forwardly-projecting keyboard extension, of a sound-deadening casing having an opening in the lower portion of its front wall beneath the keyboard extension but to the rear thereof, a dirt-catcher insertable through said opening to a dirt-catching position within the casing and beneath the machine, a closure for the opening to seal it and thereby prevent the emission of sound from the casing, the dirt-catcher and closure being connected for movement together, so that the closure may be moved to effective position at one operation with the insertion of the catcher in the casing, and so that the catcher may be withdrawn from the interior of the casing by withdrawal of the closure member, a tongue projecting for-

wardly from the closure member beneath the keyboard extension to a position adjacent the front thereof, and a handle on the tongue at the forward end thereof by which both the catcher and the closure member may be moved to and from their effective positions.

3. The combination with a typewriting machine, of a sound-deadening casing having an opening in the lower portion of one of its walls adjacent the floor of the casing, a closure member movable into position to seal said opening against the emission of sound, a dirt-catcher mounted on the closure member and movable into the casing through said opening to a dirt-catching position beneath the machine when the closure member is moved to close the opening, and means on the floor of the casing co-operating with the dirt-catcher to guide the closure member squarely to its effective position and to maintain the closure member squarely in place, thereby preventing jarring of the closure member out of effective position when the machine is in use.

4. The combination with a typewriting machine having a traveling carriage and an operating handle of substantial thickness extending from said carriage, of a sound-deadening casing for said machine, comprising a body, a cover hinged thereto, the body and cover being constructed to provide a slot between their adjacent front edges when the cover is closed through which the handle extends and along which it travels, and slot-sealing means closing the slot in advance of the handle and in the wake of the handle and conforming to the handle by local yielding, comprising thin flexible sealing strips of resilient material mounted on the cover and the body to engage each other at a re-entrant angle as the cover is closed, so that they will be bent inward by engagement with each other and will have their outer free margins in engagement with each other under stress for a substantial width, the arrangement being such that each strip may yield in the direction of its least dimension in response to the pressure of the handle, and so does not oppose substantial resistance to the travel of the handle.

5. The combination with a typewriting machine having a traveling carriage and an operating handle of substantial thickness extending from said carriage, of a sound-deadening casing for said machine having a slot through which the handle extends to the exterior of the casing and along which the handle travels, and slot-sealing means closing the slot in advance of the handle and in the wake of the handle and conforming to the handle by local yielding, comprising thin flexible sealing strips of resilient material mounted on the casing at opposite sides of the slot and engaging each other at a sharp re-entrant angle, the arrangement being such that each strip may yield in the direction of its least dimension in response to the pressure of the handle, and so does not oppose substantial resistance to the travel of the handle.

6. The combination with a typewriting machine having a traveling carriage and an operating handle of substantial thickness extending from said carriage, of a sound-deadening casing for said machine, comprising a body, a cover hinged thereto, the body and cover being constructed to provide a slot between their adjacent front edges when the cover is closed through which the handle extends and along which it travels, and slot-sealing means closing the slot in advance of the handle and in the wake of the handle and conforming to the handle by local yielding, comprising a thin flexible sealing strip of resilient material mounted on the cover obliquely to the path of the cover and co-operative means in the path of said strip on the body to engage said strip and flex it as the cover is closed, so that the strip will present a side margin and not an edge toward the handle, the arrangement being such that the strip may yield in the direction of its least dimension in response to the pressure of the handle, and so does not oppose substantial resistance to the travel of the handle.

7. The combination with a typewriting machine having a traveling carriage and an operating handle of substantial thickness extending from said carriage, of a sound-deadening casing for said machine, comprising a body, a cover hinged thereto, the body and cover being constructed to provide a slot between their adjacent front edges when the cover is closed through which the handle extends and along which it travels, and slot-sealing means closing the slot in advance of the handle and in the wake of the handle and conforming to the handle by local yielding, comprising thin flexible sealing strips of resilient material mounted on the cover and the body to engage each other at a re-entrant angle as the cover is closed, so that they will be bent inward by engagement with each other, and resilient reinforcing strips secured to extend partially over the inner faces of said strips to oppose bending of the strips and therefore tending to force the free margins of the strips toward each other so that said margins are held in engagement with each other under stress, the arrangement being such that each of said margins may yield in the direction of its least dimension in response to the pressure of the handle, and so does not oppose substantial resistance to the travel of the handle.

8. The combination with a typewriting machine having a traveling carriage and an

operating handle of substantial thickness extending from said carriage, of a sound-deadening casing for said machine, comprising a body, a cover hinged thereto, the body and cover being constructed to provide a slot between their adjacent front edges when the cover is closed through which the handle extends and along which it travels, and slot-sealing means closing the slot in advance of the handle and in the wake of the handle and conforming to the handle by local yielding, comprising thin flexible sealing strips of resilient material mounted on the cover and the body to engage each other at a re-entrant angle as the cover is closed, so that they will be bent inward by engagement with each other and will have their outer free margins in engagement with each other for a substantial distance, resilient reinforcing strips secured to extend partially over the inner faces of the flexible strips to oppose bending thereof, and a pair of flat bars between which the sealing and reinforcing strips are clamped at their bases, each bar, reinforcing strip and sealing strip fastened together constituting a unit prior to securement on the casing.

9. The combination of a typewriting machine having a carriage and a controlling finger-piece extending from the front thereof, and a sound-deadening casing for the machine, said casing comprising a body and a cover hinged thereover, there being a slot formed between the body and the cover at the front through which the finger-piece extends and along which it travels, oppositely-disposed felt strips fastened respectively to the body and cover along the edges of the slot, the free margins of the strips being folded inwardly substantially at right angles to the fastened margins when the cover is in its closed position and abutting each other, and means preventing said strips from straightening out when the cover is open.

10. The combination with a typewriting machine having a carriage and an operating handle projecting therefrom, of a sound-deadening casing for the machine, said casing having a body and a hinged cover, there being a longitudinal slot between the body and the cover at the front of the casing when the cover is closed through which the operating handle extends and along which it travels, flexible flat sealing strips secured respectively to the body and to the cover and extending past the edges of the opening in positions to engage each other when the cover is closed, and inbent rigid ribs on the edges of the body and the cover at the slot deflecting the sealing strips inwardly, so that they will be disposed at an angle to one another when the cover is open and therefore will not hit head-on at the closing of the cover, but can bend inwardly to an effective slot-sealing position with their free margins in engagement with each other.

11. The combination with a typewriting machine having a margin-release key, of a sound-deadening casing for said machine, said casing comprising an open-top body and a cover, a key on said cover, the last-named key being movable with the cover into effective position for actuating the margin-release key, and a return spring for the key on the cover to hold the key up when the cover is open.

12. The combination with a typewriting machine having a carriage, carriage-propelling mechanism and escapement mechanism, of a sound-deadening casing for said machine having a horizontal slot extending in the direction of carriage travel, and a plunger operable to release the carriage from the control of the escapement mechanism, the plunger being mounted on the carriage and extending forward through the slot for travel horizontally along the slot as the carriage moves and being constructed and arranged to be pushed inward horizontally to effect the release of the carriage from the escapement mechanism.

13. In a typewriting machine, the combination of a carriage, carriage-feeding means, a finger-piece mounted on said carriage by which said carriage may be returned, a carriage-release key pivoted on the carriage, a carriage-release key slidably mounted on said finger-piece, and a cam on the last-named release key to actuate the first-named release key.

14. The combination with a typewriting machine and a sound-deadening casing therefor, said casing having a slot in its front wall, of a typewriter carriage, carriage-feeding means, a detachable finger-piece mounted on said carriage by which the latter may be returned, a carriage-release lever to release said carriage from the carriage-feeding means, and a carriage-release key mounted on said finger-piece, so that it may be pushed inwardly to actuate the release lever to release said carriage.

15. The combination with a typewriting machine and a sound-deadening casing therefor, said casing having a slot in its front wall, of a typewriter carriage, carriage-feeding means, a detachable carriage-return finger-piece mounted on said carriage by which the latter may be returned, a carriage-release lever to release said carriage from the carriage-feeding means, a carriage-release key in the form of a plunger mounted on said finger-piece, so that it may be pushed inwardly, and a cam at the rear end of said key to actuate said lever to release said carriage.

16. A sound-deadening casing for a typewriting machine having portions of its frame projecting further forward than the

rear of the keyboard, comprising ends and a continuous front plate mounted upon and connecting said ends, the front plate extending in part far enough forward to pass in front of the frame of the machine and having an intermediate portion at and above the keyboard offset rearwardly from the forwardly-extending part to pass between the forwardly-projecting portions of the machine frame and in rear of the keyboard, so as to allow room for the operator's fingers in the operation of the machine.

17. The combination with a typewriting machine having a keyboard, a frame, portions of which project further forward than the rear of the keyboard, a traveling carriage, and an operating handle extending forward from the carriage, of a sound-deadening casing for the machine consisting of a body and a cover, the body comprising ends, a continuous front plate connecting the ends, the front plate having a vertically-extending portion to the rear of the keyboard and a forwardly offset vertical portion extending from end to end of the casing and having a straight continuous upper edge forming one side of a slot along which the operating handle on the carriage travels, and continuous slot-sealing material secured to said edge from end to end thereof to prevent the escape of sound through the slot.

18. The combination with a typewriting machine having a keyboard section extending from the front thereof and a forwardly and downwardly extending key-lever guide-plate, of a sound-deadening casing having a front wall comprising a main section and an indented section depressed from the top, bottom and sides of the main section to clear the keys of the keyboard, the main section being substantially in the same plane as the forward part of the guide-plate, and a strip of sound-deadening material extending from the bottom of the main section to the lower end of the guide-plate.

19. A sound-deadening casing for a typewriting machine having portions of its frame projecting further forward than the rear of the keyboard, said casing having a removable front wall comprising a front plate having a main body-portion to pass to the front of the forwardly-projecting portions of the machine frame, and a rearwardly offset body-portion to pass between the forwardly-projecting portions of the machine frame and to the rear of and above the keyboard, the front wall also including a releasable section placeable separately immediately behind the top row of keys to enable all of the front wall to be mounted on the rest of the casing into which the machine has been placed.

20. A sound-deadening casing for a typewriting machine, said casing having a hinged cover and a removable front plate, said front plate having a rectangular opening therein through which the keyboard section of the machine projects, the top of said opening clearing the top row of keys in the keyboard, and a separate plate to close the opening in said front plate below the top row of keys.

21. The combination with a typewriting machine, said machine having a stemmed knob extending forwardly from the front thereof, of a sound-deadening casing, a detachable front plate for said casing, and a felt lining for said front plate, the front plate and the lining having a hole extending therethrough to permit passage of said knob through said plate, the felt lining having sectors formed by slits radiating from the hole, said sectors being effective to close the hole tightly upon the stem of the knob after the front plate has been attached.

22. The combination with a typewriting machine having a carriage, finger-pieces extending forwardly from the carriage, and a margin-release key centrally located at the front of the machine-frame, of a sound-deadening casing for said machine, said casing comprising an open-top body and a cover forming with the front of said body a slot through which said finger-pieces project, a centrally-located key on the cover, and a plunger-like key-stem between the last-named key and said margin-release key by which the margin-release key may be operated from the exterior of the casing, said key on the cover and its key-stem being so located as not to interfere with the movement of said finger-pieces with the carriage.

23. In a typewriting machine, a carriage, a depressible carriage-release finger-piece at one end of the carriage, a carriage-return finger-piece having a portion immediately in front of said carriage-release finger-piece and extending laterally and then forwardly, a finger projecting laterally from the forward portion of said carriage-return finger-piece to a point in front of the carriage-release finger-piece, a plunger slidably mounted on said finger and on the portion adjacent the carriage-release finger-piece, and means on said plunger and carriage-release finger-piece co-operating upon depression of said plunger to depress the carriage-release finger-piece.

24. The combination with a typewriting machine, of a sound-deadening casing therefor comprising a floor consisting of two layers of sound-deadening material and a detritus-receiving drawer in said floor of substantially the thickness of one of said layers, the upper layer of said floor having a cutout into which said drawer fits.

25. The combination with a typewriting machine having a stem provided with a

fixed knob projecting horizontally outward therefrom, of a sound-deadening casing comprising a detachable front plate and a front lining for the front plate, the front plate and the lining having a hole extending therethrough to permit the passage of the knob, the front lining being slitted at the side of said hole to form tongues which may be deflected, so that the knob may pass therethrough and the deflected tongues of the front lining may return to their normal positions tightly against the stem.

JOHN WALDHEIM.