

Oct. 7, 1924.

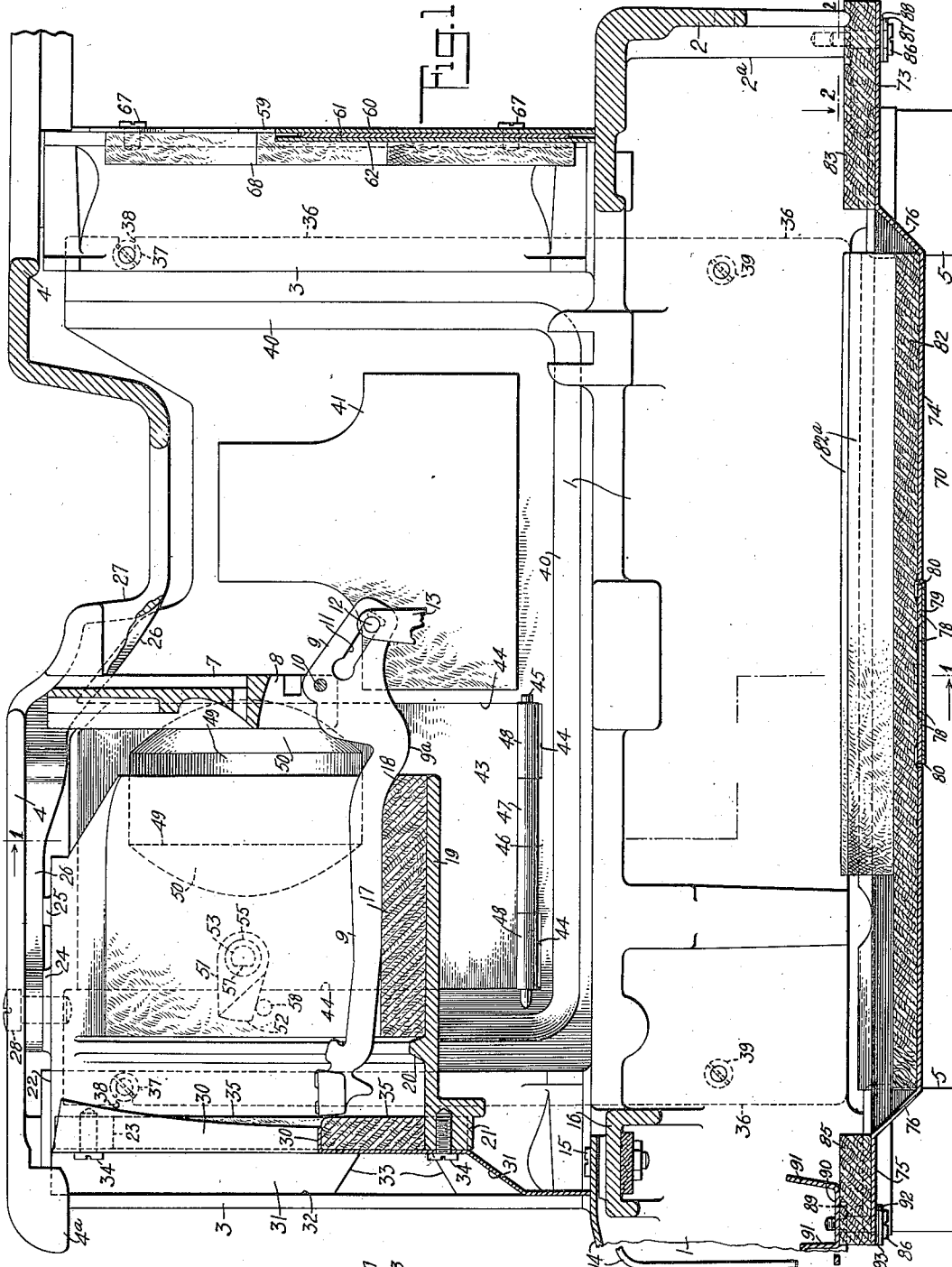
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G. A. SEIB

TYPEWRITING MACHINE

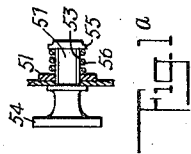
Filed Nov. 29, 1922

4 Sheets-Sheet 1



WITNESSES

E. M. Wells.
m.w. Pool



INVENTOR

George A. Seib
By Jacob Fabel
HIS ATTORNEY

Oct. 7, 1924.

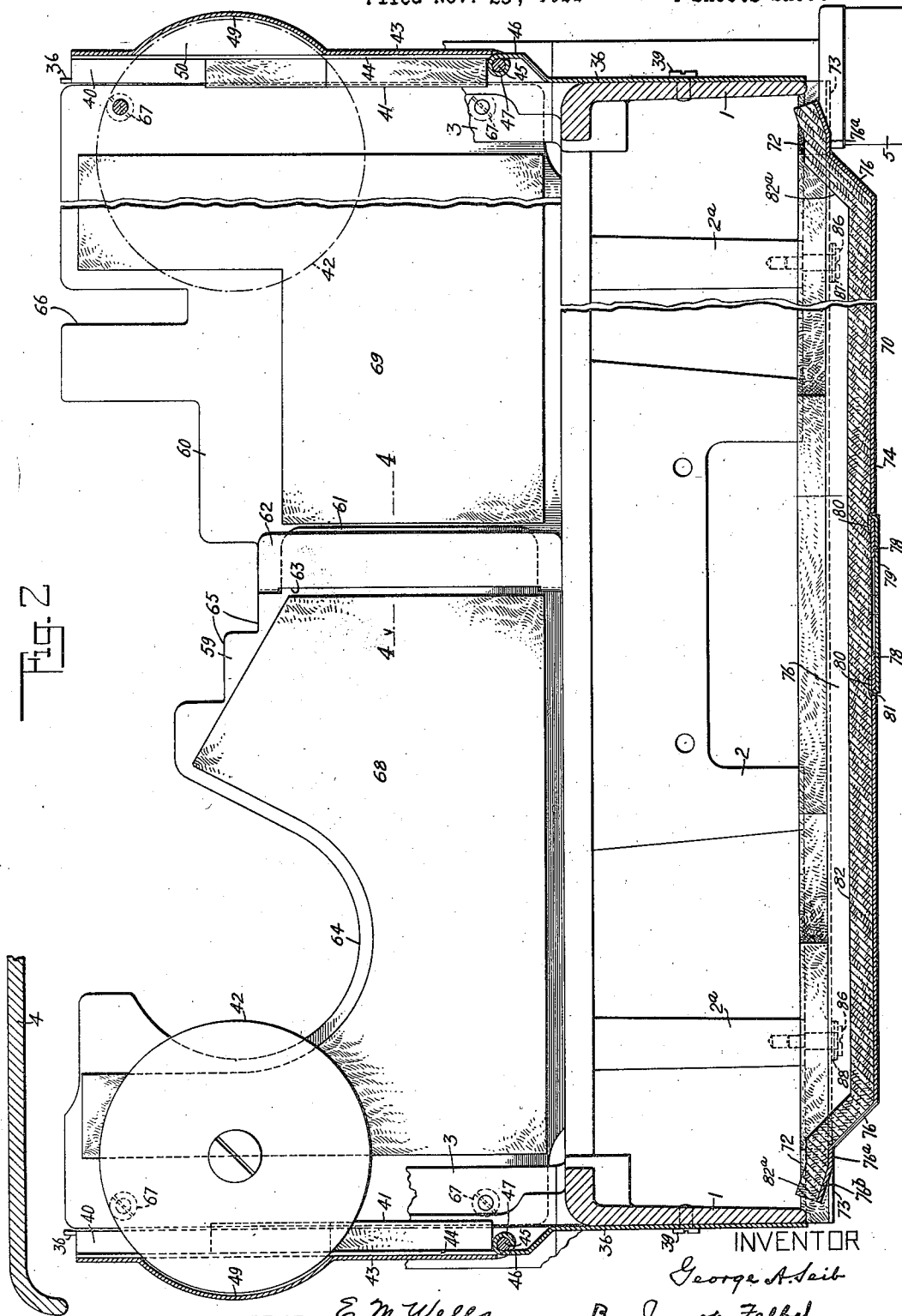
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4 Sheets-Sheet 2



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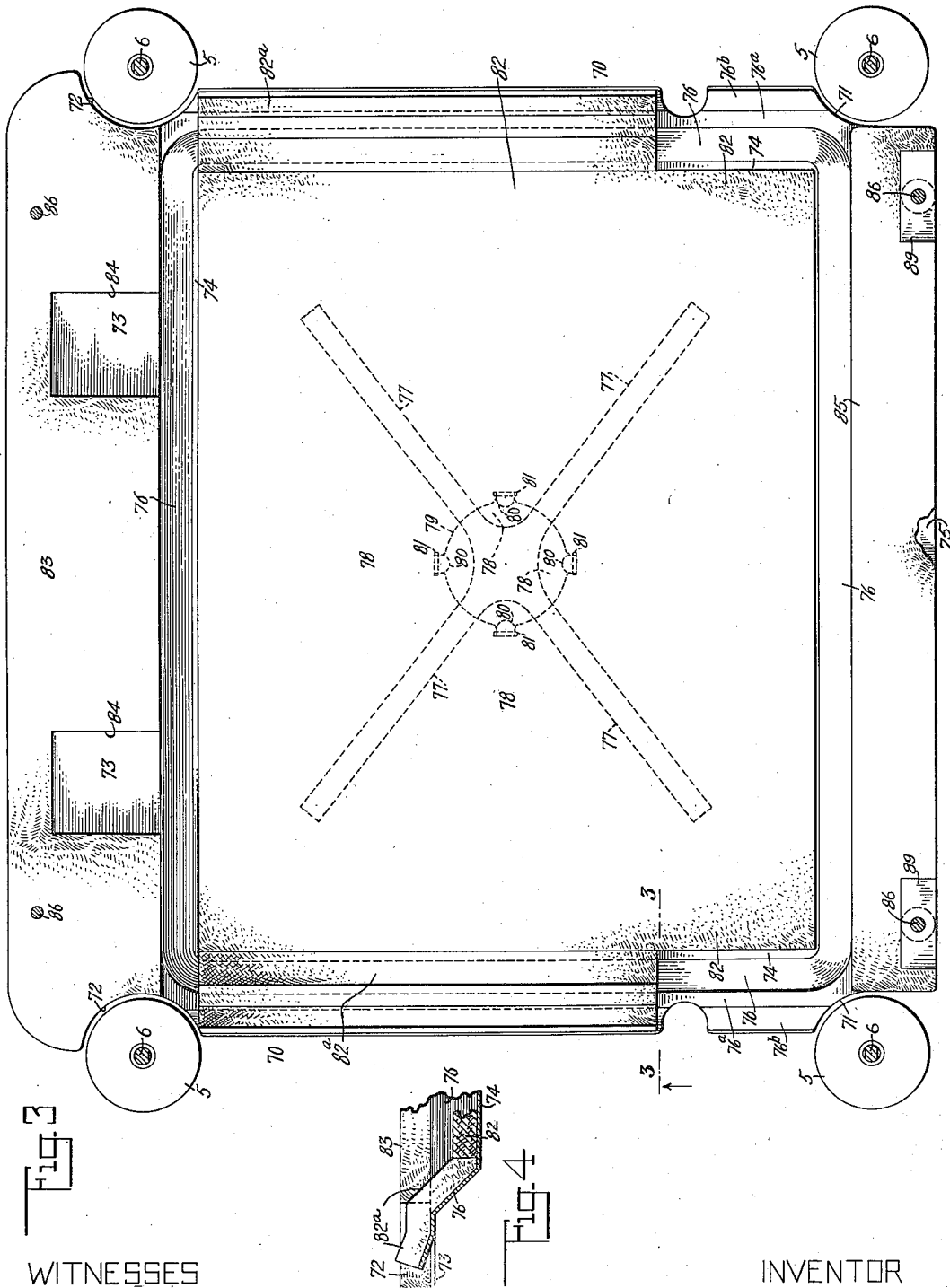
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TYPEWRITING MACHINE

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4 Sheets-Sheet 3



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TYPEWRITING MACHINE

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4 Sheets-Sheet 4

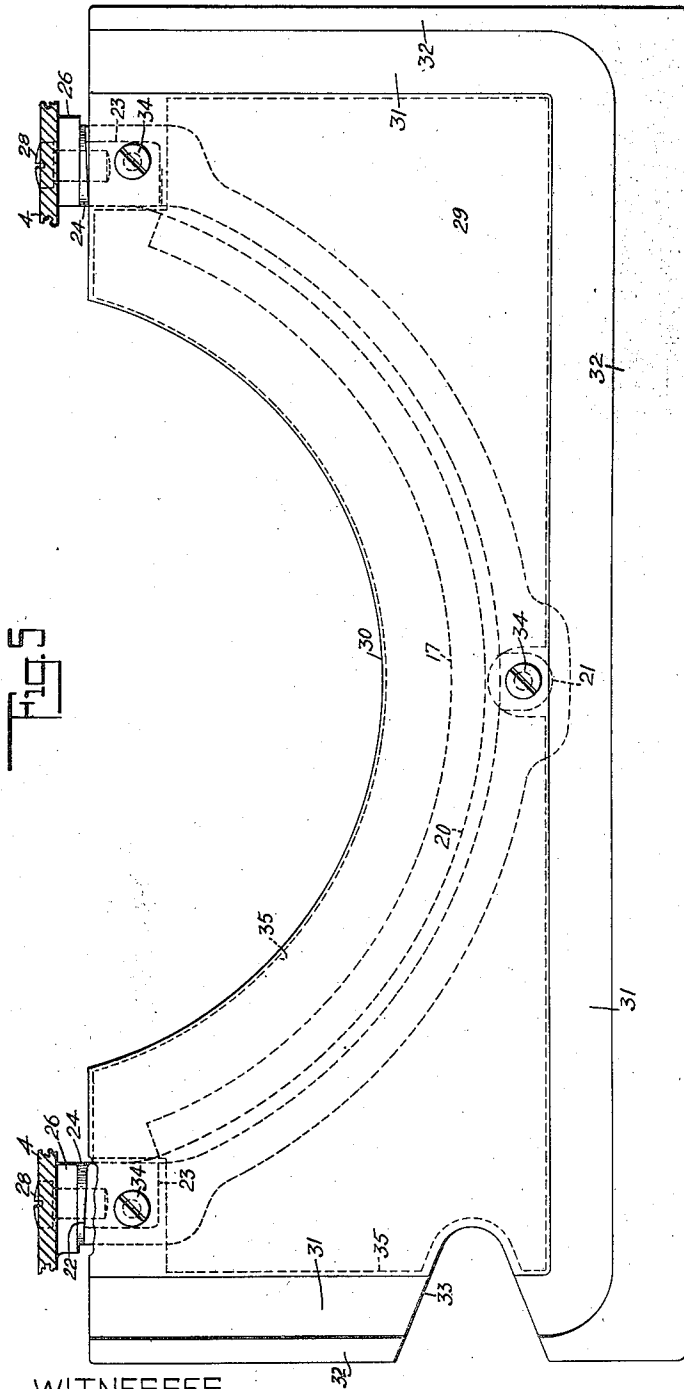


Fig. 5

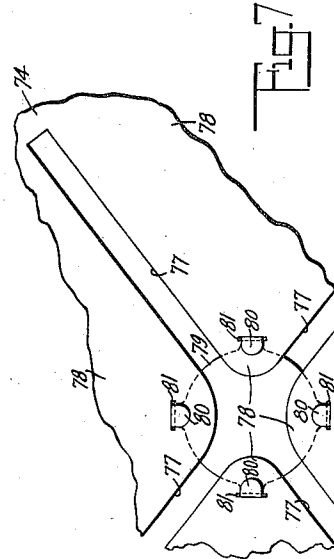


Fig. 7

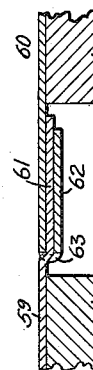


Fig. 6

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UNITED STATES PATENT OFFICE.

GEORGE A. SEIB, OF ILION, NEW YORK, ASSIGNOR TO REMINGTON TYPEWRITER COMPANY, OF ILION, NEW YORK, A CORPORATION OF NEW YORK.

TYPEWRITING MACHINE.

Application filed November 29, 1922. Serial No. 603,910.

To all whom it may concern:

Be it known that I, GEORGE A. SEIB, citizen of the United States, and resident of Ilion, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Typewriting Machines, of which the following is a specification.

My invention relates to noise reducing devices for typewriting machines, and its general object is to provide new and improved devices of the character specified. One of the specific objects of the invention is to provide a noise reducing or sound deadening frame for a typewriting machine; another object is to provide closures, plates or panels having sound deadening characteristics to a marked degree; and another object is to provide an improved type bar rest which minimizes the noise due to the impact of the type bars on their return after printing and is moreover so related to other parts of the machine as to assist in providing a substantially enclosed space to accommodate the actuating mechanism for the type bars. Other objects will hereinafter appear.

To the above ends my present invention consists in the features of construction, combinations of devices and arrangements of parts, hereinafter described and particularly pointed out in the claims.

My invention is illustrated in the accompanying drawings, wherein

Figure 1 is a fragmentary front to rear vertical sectional view of a No. 12 Remington typewriting machine embodying the invention.

Figure 1^a is a detail view of a latch.

Figure 2 is a transverse vertical sectional view taken on planes indicated by the section line 1—1 in Fig. 1, and looking in the direction of the arrows at said line.

Figure 3 is a horizontal sectional view taken on planes indicated by the section line 2—2 in Fig. 1.

Figure 4 is a fragmentary sectional view taken on the plane indicated by the section line 3—3 in Fig. 3 and looking in the direction of the arrow at said line.

Figure 5 is a fragmentary front elevation showing the type bar rest and the front plate of the machine together with the means of securing these parts in place.

Figure 6 is a fragmentary sectional view

taken on the plane indicated by the section line 4—4 of Fig. 2 and looking downward, and

Figure 7 is a fragmentary plan view showing the central part of the bottom plate.

As appears from Figs. 1 and 2, the main frame of the machine comprises a rectangular base composed of sides 1, a rear part 2 and a front part which is omitted from the drawing. Rigid with the base and rising from it are posts 3 angular in cross section, and to the top of said posts is secured a top plate 4 finished at its edges with the usual downwardly extending lip 4^a. The machine is supported on rubber feet 5 which are secured to the main frame by screws 6 (Fig. 3). Rigid with the main frame is a type bar support or segment 7 which is vertically disposed and is formed with radial guide slots indicated at 8 in which are disposed the type bars 9, said type bars being pivoted on a common fulcrum wire 10 mounted on the segment 7. The set of type bars is arranged in an arc of a circle, the bars being normally horizontally disposed and each provided at its front end with an upper case and a lower case type. At its rear portion each type bar is formed with a cam slot 11 which is engaged by an actuating pin 12 projecting laterally from the upper end of a lever 13. This lever is only fragmentarily shown herein but is one of the elements of the key operated actuating mechanism of the type bar which is of known construction, being found in the No. 12 and also the No. 10 Remington typewriting machine, said mechanism comprising an actuating train which extends below the type bar and connects it with its key lever, which is horizontally disposed and arranged within the base of the machine, all as is well understood. At their forward ends the key levers are guided in slots formed in the downwardly extending portion of a sheet metal comb plate 14 which is secured by screws 15 to a cross bar 16 rigid with the base. Below and somewhat forward of the pivot 10 each type bar is curved or necked along its under edge as indicated at 9^a, the curve projecting downward and merging into the straight under edge of the bar. Normally the type bars rest on a thick arcuate pad or cushion 17 which may be of felt or other sound deadening material, this pad being unusually wide and underlying the

straight portion of the bars from near their type ends to and partly under the curved under edges 9^a, the rear upper edge portion of the pad 17 being ground to provide a curved or rounded corner 18 which conforms substantially to the front parts of the curved, convex or hump portions 9^a of the type bar. This enables the pad 17 to be extended from near the type ends of the bars rearward comparatively close to the pivots of the bars and so that the bars may as they return contact or engage with the pad at their curved portions close to the pivot 10 without obstructing or interfering with the return movements. By bringing the point of contact of the type bars close to their fulcrum the noise due to impact may be somewhat reduced. Moreover, by reason of providing a wide or broad cushion or pad, the felt or other material of which it is composed need not be so hard or compressed to the same degree as when a narrow pad is employed. In the present instance the pad or cushion 17 is preferably of such consistency as to permit the type bars, after the machine has been in use some time, so to compress the pad as to contact with it along its full width. The pad 17 is secured in any suitable way as by shellac to the upper face of a wide arcuate basket 19 which preferably is a casting of aluminum or other light metal, and is formed along its upper face with a rib or projection 20 against which the front edge of the pad 17 may abut. The basket or casting 19 is illustrated in Figs. 1 and 5. At the middle of its under side the casting is provided with a downwardly extending lug 21 and it terminates at its ends in horizontal flanges 22. Forward of the flanges are lugs or enlargements 23 which project beyond the front edge of the casting proper and have finished front faces. The top of each end flange 22 is formed with a large boss 24 and a smaller boss 25, the top faces of which are machined or ground in order that they may contact closely with the under edge of a rib or downward projection 26 formed integral with the top plate 4 and extending rearward along and under said top plate, finally merging in the usual trough or depression 27 with which the top plate is provided. Said top plate generally corresponds with that of the No. 10 Remington machine, except for the extended rib 26. At its front said rib terminates in a circular enlargement corresponding with the underlying boss 24. Headed screws 28 pass downward through the top plate and said circular enlargements and are threaded into the bosses 24, thus securing the casting or basket 19 to the main frame of the machine. The screws 28 maintain the bosses 25 tightly against the ribs 26 and thus promote the rigidity of the wide type bar rest, comprising the basket 19 and the pad or cushion 17,

relatively to the main frame. It may be observed that the pad 17 is ground or shaped to conform to the curve or contour of the type bars after said pad has been secured to the casting 19. It is to be noted that the type bar rest terminates quite close to the type bar support or segment 7 as is clearly apparent from Fig. 1, so that there is only a small space or opening between the type bar rest and the type bar support.

The main frame is closed or covered to deaden or reduce the sounds of the operating or working parts within it, the closures or coverings comprising plates or panels applied to the front, rear, sides and bottom of the frame. As appears from Figs. 1 and 5, the front plate or panel 29, which like all the others is preferably made of sheet metal, is generally rectangular in shape and is provided with a central circular cutout corresponding with the curvature of the type bar system. The plate 29 is formed with a flange or rearwardly bent portion 30, which provides the boundary of this cutout, said flange as will be understood from Fig. 1 being substantially in line with the types as they lie in the basket. At its bottom and sides the plate 29 is formed with bevels or inclines 31 terminating in straight portions 32 which lie close to the front flanges of the front corner posts. At its left the front plate is provided with a cutout indicated at 33 to accommodate parts of the ribbon changing mechanism. The front plate 29 is mounted on the type bar rest, being secured to the casting 19 by three headed screws 34. Two of these screws are threaded into the front faces of the lugs 23 and the third screw is threaded into the lug 21. Secured to the rear face of the plate 29 is a sound deadening pad 35 of felt or the like, said pad being shaped in general conformity with the shape of the plate 29 but not extending further than the bevel portion 31 thereof. The beveled plate 29 presents a finished appearance from the front of the machine and co-operates with the comb plate 14 substantially to close the front of the machine below and at the sides of the type bars as they lie in the basket. The flange 30 overlaps the top edge of the pad so that it is not visible from the front.

The closure plates employed to cover the sides of the machine are each designated as a whole by the numeral 36 and are illustrated in Figs. 1 and 2. Each of these plates extends from one of the front corner posts 3 to the companion rear corner post 3 and from the top of the machine under the top plate 4 substantially to the lower edge of the side 1 of the base. The top edge of each plate 36 is cut out or shaped to correspond generally with the outline of the top plate, said top edge being clear of the top plate but being covered by the lip 4^a of the

ment mechanism. The narrow cutout indicated at 66 in the plate 60 affords passage for certain other working parts of the releasing and retarding devices associated with the tabulating mechanism of the machine. The outer side edges and bottom edge of the two parts 59 and 60 are substantially straight, the outer side edges overlapping the corner posts 3 to which they are secured by headed screws 67, and the bottom edge terminating just above the projecting rear part of the base of the machine. Sound deadening pads 68, 69 suitably shaped are secured to the inner faces respectively of the plate parts 59, 60. The inner ends of these pads of course terminate short of the interlock which secures the two plates together.

The bottom plate, panel or closure indicated as a whole by the numeral 70 is illustrated in Figs. 1-4 and 7. This plate or panel 70 is generally rectangular in shape, being cutout at its front corners as indicated at 71 and near its rear as indicated at 72 to clear the feet 5, of which it is independent. The panel generally is flat with a central depression and bent side edges. The rear part 73 of the panel, behind and in line with the rear feet 5, is flat and horizontal. Forward of this rear part, the panel is lowered so that the main body of the bottom portion lying between the four feet 5 is depressed or dished so that its bottom 74 is considerably lower than the rear portion 73, as well as the flat horizontal front portion 75 and the side portions. It will thus be seen that from the bottom 74 the panel or plate 70 slopes upward at the front, back and sides, providing inclined portions 76. At the front and back respectively the inclined portions connect with the flat portions 75 and 73, while at the sides the inclines 76 connect with narrow flat horizontal portions 76^a which are in the plane of the portions 75 and 73. The outer edges of the flat portions 76^a are bent upward providing short inclines 76^b, which terminate just inside the vertical planes of the sides of the base.

Centrally the bottom portion 74 is slit or cut out to provide angularly disposed or diverging slotways 77, the slotways having a common center and providing separate portions or tongues 78 which diverge from a common center, which substantially is the center of the plate 70 itself. The slotways 77 extend outward towards the corners of the main body of the plate and in effect divide or separate it into several parts. Bridging the slots and connecting the tongues or parts 78 is a tie-piece or disk 79, this tie-piece being detachably secured to the under face of the bottom part 74. The tie-piece or disk is preferably formed of metal of a different thickness from the metal of the bottom plate

70, the disk 79 in the present instance being thinner than the bottom plate. The disk may be attached to the bottom plate in any suitable manner. A tongue and slot connection is shown herein, the disk 79 being formed with diametrically opposite tongues or projections 80, there being four of such tongues in the present instance, these tongues 80 passing through slots indicated at 81 near the points of the tongues 78, the tongues or projections 80 then being bent inward on themselves so as to secure the disk 79 in place. In the present instance the disk is tightly held against the bottom of the part 74. It has been found in effect that by employing the closure plate in combination with a part secured to it, the ringing noise incident to prior plates has been minimized; also the slotting of the plate to provide a number of parts or tongues and thus interrupting the vibrations of the metal sheet as a whole, minimizes the drumming noise incident to the use of plates of other constructions. A rectangular sound deadening pad 82 is secured to the inner face of the part 74, said pad having side tabs or extensions 82^a which overlie the rear portions of the sides of the bottom plate. Another pad 83 is secured to the top of rear part 73 of the plate, this pad being formed with recesses indicated at 84 to accommodate certain working parts of the tabulating mechanism. The front part 75 of the plate 70 likewise has secured to its upper face a strip 85 of sound deadening material. The bottom plate comprising the plate 70 with the tie-disk 79 and the sound deadening pads 82, 83 and 85 is detachably secured to the under face of the base of the machine by headed screws 86, there being four such screws, two at the front and two at the rear.

The two rear screws are threaded into the bottoms of lugs 2^a integral with the rear part 2 of the base. These screws are shouldered, the shoulder portions passing through smooth holes in the part 73 and pad 83 and the shoulders abutting against the bottom of the lug 2^a. Interposed between the heads of the screws 86 and the bottom face of the plate part 74 are washers 87 and 88, the outer washer 87 being of metal and the inner washer 88 of felt. At the front side, the two securing screws 86 are likewise shouldered, the shouldered portions passing upward through smooth holes in the plate part 75 and the pad 85, the shoulder of each screw abutting against a rectangular reinforcing strip 89 which is secured to the bottom part 90 of the trough-like portion 91 of a sheet metal member which is part of the regular equipment of the machine, said member in part serving as a guide for the key stems of the tabulator keys (not herein shown). Between the plate part 75 and the heads of the front screws 86 are likewise interposed

top plate so as to present a finished appearance to the eye. The side edges of the plate 36 are straight and overlap slightly the posts 3 to which the plate is secured near its top by headed screws 37 which pass through slots indicated at 38 in the plate and are threaded into the posts 3. The lower portion of each plate 36 is detachably secured to the side 1 of the base by headed screws 39. Each plate 36 is formed with a bevel 40 extending around its sides and lower portion, the bevel giving an outwardly projecting panel effect to that portion of the plate which is within it and thus adding to the appearance. At its rear portion the inner face of each plate 36 has suitably secured to it a sound deadening pad 41 of felt or the like.

The forward portion of each plate 36 is provided with a door to give access to certain of the working parts including ribbon mechanism contained within the enclosed part of the machine. The ribbon mechanism comprises ribbon spools 42 vertically arranged below the top plate, one at each side of the machine and towards the front thereof. The spools 42 are so disposed that they project outward somewhat beyond the fore and aft plane of the side plates 36. The doors 43 are arranged in cutouts indicated at 44 in the side plates, these cutouts being opposite the ribbon spools 42 and exposing them to view from the sides of the machine. The cutouts are rectangular in shape and the doors 43 which when closed completely cover the cutouts are of course correspondingly shaped. The doors 43 are hinged or pivoted along their bottom edges. Each hinge comprises a long pivot pin or rod 45 horizontally disposed at the lower side of the cutout 44 and its middle portion is supported by a tongue 46 projecting upward from the lower edge of the cutout and curled on itself to provide a tube-like bearing 47 for the pivot pin. The lower ends of the door 43 are correspondingly curled to provide tube-like portions 48 through which the outer ends of the pin 45 pass, said outer ends thereby supporting the door. One of the tubes 48 may be punched in slightly to retain the pin 45 in place. It will be understood that the door may be swung outward and downward about the hinge or pivot 45 completely to uncover the opening 44, this opening being of sufficient size to enable the hand to be introduced for the removal of the adjacent ribbon spool or other purpose. As has been stated the outer portion of each ribbon spool projects beyond the plane of the associate side plate 36. The door hinged to the side plate is substantially in the same plane and in order to accommodate and partly house or cover the projecting side portion of the ribbon spool the door is formed with a closed re-

cess or pocket 49. Opposite the spool the pocket 49 is curved outward in conformity with the curve of the ribbon spool and its sides 50 incline downward and merge into the flat face or plane of the door, giving a neat appearance.

Each door is held in place by a latch 51 provided with a beveled or inclined engaging outer end portion 52 (Figs. 1 and 1^a). The latch is pivoted to the inner face of the door near its forward side on a pivot pin 53, which bears in and projects through the door 43, the outer end of said pin being provided with a thumb piece 54. The inner end of the pin terminates in a head 55 and is confined between the head 55 and the latch 51 is a coiled spring 56 which presses the latch against the inner face of the door when it is opened. The construction permits the latch to yield inward lengthwise of the pin 53 when the door has been closed and the thumb piece is turned to rotate the latch, causing it to engage with the inner face of the plate 36 forward of the door. During this turning movement the bevel portion 52 of this latch exerts a camming effect, forcing the spring 56 to yield to permit the latch to pass behind the plate 36. The side of the pin 53 may be flattened as indicated at 57 and the hole in the latch may be correspondingly flattened so as to cause the latch always to turn with said pin while being adapted to yield lengthwise thereof. A stop pin 58 projecting inward from the plate 36 limits turning movements of the latch in locking direction.

The rear plate, panel or closure is illustrated in Figs. 1, 2 and 6 and consists of two parts 59 and 60, these parts being adapted to interlock at their inner faces, the interlock comprising an inwardly projecting tongue 61 on the part 59. The inner end portion of the plate 60 is provided with a lip 62 which is bent back on itself, the lip at the bent portion being cut to provide a slot indicated at 63 in which the tongue 61 is adapted to engage. This tongue is slightly off-set as shown in Fig. 6 and when the parts 59 and 60 are connected, said tongue is confined between the lip 62 and the inner portion of the plate 60, thus providing a tight interlock between the two parts, which however may be readily separated when the two-part plate 59, 60 is detached from the machine. The upper edges of each of the plates 59 and 60 are irregular in shape as shown in Fig. 2 to accommodate different working parts of the machine. It is not thought necessary to describe this feature in detail although it may be said that the main cutout indicated at 64 in the plate 59 is to provide space for part of the spring drum mechanism, while the central irregular cutout, indicated at 65, part of said cutout being in the plate 59 and part in the plate 60, accommodates the escape-

pairs of washers 92 and 93, the outer washer of each pair being of metal and the inner washer 93 of felt or other sound deadening material. The attaching means for the bottom plate as above described holds said plate securely against the bottom of the machine which it completely covers rearward of the front posts.

Various changes may be made without departing from my invention.

What I claim as new and desire to secure by Letters Patent, is:—

1. In a typewriting machine, the combination of a set of type bars having their under rear edges lying partly in a curve, and a type bar rest extended to support said bars along their under edges and curved at its rear in conformity with the curve of the type bars, said type rest comprising a wide metal support arcuate in shape and attached at its outer ends to the main frame of the machine and also a wide felt pad secured to the upper face of said metal support.

2. In a typewriting machine, the combination of a set of type bars having their under edges lying partly in a curve, and a type bar rest extended to support said bars along their under edges and curved in conformity with the curve of the type bars, said type rest comprising a wide metal support arcuate in shape and attached at its outer ends to the main frame of the machine and also a wide felt pad secured to the upper face of said metal support, the rear upper edge portion of said pad being ground off to conform to the curve of the type bars.

3. In a front strike typewriting machine, the combination of a vertically disposed segment, type bars thereon, and a type bar rest normally supporting said type bars and extended rearward terminating close to said segment, and a vertical front plate arranged in front of said rest and said type bars, said plate being detachably connected to said rest.

4. In a front strike typewriting machine, the combination of a vertically disposed segment, type bars thereon, and a type bar rest normally supporting said type bars and extended rearward terminating close to said segment, and a vertical front plate arranged in front of said rest and said type bars, and a sound deadening pad of felt or the like secured to the rear face of said front plate.

5. In a front strike typewriting machine, the combination of a vertically arranged type bar support, type bars pivoted thereon and normally horizontally disposed, a type rest for said bars, and a front plate, said type rest extending from said front plate rearward close to said type bar support.

6. In a typewriting machine, the combination of a closed main frame, a type bar support, a type bar rest, arranged within the type bar compartment and type bars pivoted to said support and normally contacting with said rest, said rest being extended rearward across the type bar compartment and close to said support, the entire construction providing a substantially enclosed space for many of the working parts of the machine.

7. A typewriting machine having a main frame, sound deadening plates at the sides, front, back and under side of said main frame, a type bar segment, a type bar rest, and type bars pivoted on said segment and normally contacting with said rest, said rest extending from the front plate close to said segment, the entire construction providing a practically enclosed space for many of the working parts of the machine.

8. In a front strike typewriting machine, the combination of a main frame comprising a base, corner posts and a top plate; plates detachably secured between said corner posts at the sides, front and back of said main frame; a bottom plate detachably secured to the under side of said base; a vertical segment secured to said top plate; a wide type rest also secured to said top plate and having its rear edge adjacent to the front face of said segment; and type bars pivoted to said segment and normally resting on said rest.

9. A front strike typewriting machine having a main frame comprising a base, corner posts and a top plate; plates detachably secured between said corner posts at the sides, front and back of said main frame; a bottom plate detachably secured to the under side of said base; a vertical segment secured to said top plate; a wide type rest also secured to said top plate and having its rear edge adjacent to the front face of said segment; and type bars pivoted to said segment and normally resting on said rest, the inner faces of all of said plates being provided with pads of sound deadening material and the upper face of said rest being provided with a pad of sound deadening material.

10. The combination with the main frame of a typewriting machine, of a panel or enclosing plate detachably secured thereto, and securing means for said plate said panel comprising two interlocking parts which may be separated when the panel is detached from the main frame, said securing means holding the panel in place and also preventing separation of the two parts.

11. In combination with the main frame of a type-writing machine, a panel or enclosing plate detachably secured to said main frame and comprising two parts, one part being bent back on itself to provide a lip which is formed with a slot and the

other part being provided with a tongue which engages with said slot to interlock the two parts.

12. In combination with the main frame of a typewriting machine, a panel or enclosing plate detachably secured to said main frame and comprising two parts, one part being bent back on itself to provide a lip which is formed with a slot and the other part being provided with a tongue which engages with said slot to interlock the two parts, and felt pads secured to the inner faces of said parts.

13. An enclosed sound deadening frame for a typewriting machine comprising a two-part plate, each part provided with a sound deadening pad, and interlocking devices for normally maintaining the two parts of the plate in fixed relationship.

14. In a typewriting machine, the combination of an enclosing frame, ribbon mechanism including a spool enclosed by said frame and a plate comprised in said frame and movable relatively to the other parts of said frame, said plate being provided with a recess or pocket to cover and accommodate part of said spool.

15. In a typewriting machine, the combination of a frame including a top plate, the frame below the top plate being closed, ribbon mechanism including a spool arranged below the top plate and projecting at the side of the machine, the frame being recessed to accommodate and enclose the projecting portion of said spool.

16. In a typewriting machine, the combination of a frame including a top plate, the frame below the top plate being closed, ribbon mechanism including a spool arranged below the top plate and projecting at the side of the machine, the frame being recessed at the side to accommodate and enclose the projecting portion of said spool, the recessed part of the frame being hinged to afford access to the spool.

17. In a typewriting machine, the combination of ribbon mechanism including a spool, an enclosing frame, and a door hinged to said frame and forming a part thereof, said door being formed with a seat or recess to accommodate and cover said spool.

18. In a typewriting machine, the combination of ribbon mechanism including a pair of spools, an enclosing frame, and doors hinged to said frame and forming parts thereof, said doors each being formed with a recess or pocket to accommodate and cover in part the adjacent spool.

19. In a typewriting machine, the combination of a main frame including a top plate and side plates arranged below said top plate, and ribbon mechanism including a pair of spools arranged below the top plate and disposed vertically one at each side of the machine, said side plates including doors

hinged at their lower edges and each provided with a recess or pocket to accommodate and cover the adjacent spool, said doors when opened affording access to the spools.

20. In a typewriting machine, the combination of a main frame including a top plate and side plates arranged below said top plate, ribbon mechanism including a pair of spools arranged below the top plate and disposed vertically one at each side of the machine, said side plates including doors hinged at their lower edges and each provided with a recess or pocket to accommodate and cover the projecting portion of the adjacent spool, said doors when opened affording access to the spools, and spring pressed latches for said doors.

21. In a typewriting machine, the combination of a main frame, a closure plate applied to said main frame, and a flat part secured to said closure plate to deaden the vibrations thereof, the face of said part opposite said closure plate lying in a single plane.

22. In a typewriting machine, the combination of a main frame, a metal closure plate detachably secured to said main frame, and a flat piece of metal secured to said closure plate to deaden the vibrations thereof, the face of said flat piece opposite said closure plate lying in a single plane.

23. In a typewriting machine, the combination of a main frame, a metal closure plate detachably secured to said main frame, and a flat piece of metal tightly secured to said closure plate to deaden the vibrations thereof, said piece and said closure plate being of different thicknesses, the face of said flat piece opposite said closure plate lying in a single plane.

24. In a typewriting machine, the combination of a main frame, a closure plate applied to said main frame, said plate being formed with a slot, and a flat tie piece bridging said slot, the face of said flat piece opposite said closure plate lying in a single plane.

25. In a typewriting machine, the combination of a main frame, a closure plate applied to said main frame, said plate being formed with a slot, and a flat tie piece bridging said slot, said tie piece and said plate being of different thicknesses, the face of said flat piece opposite said closure plate lying in a single plane.

26. In a typewriting machine, the combination of a main frame, a closure plate applied to said main frame, said plate being formed with a plurality of slots, and a tie piece bridging said slots.

27. In a typewriting machine, the combination of a main frame, a closure plate applied to said main frame, said plate being formed with a plurality of slots, and a tie piece bridging said slots, said tie piece and said plate being of different thicknesses.

28. In a typewriting machine, the combination of a main frame, a closure plate applied to said main frame, said plate being formed with a plurality of slots diverging from its center, and a tie piece secured centrally to one face of said plate and overlying portions of all of the slots.

29. In a typewriting machine, the combination of a main frame, a closure plate applied to said main frame, said plate being slotted to provide a plurality of tongues extending towards a common center, and a tie disk connecting all of said tongues.

30. In a typewriting machine, the combination of a main frame, a closure plate applied to said main frame, said plate being slotted to provide a plurality of tongues extending towards a common center, and a tie disk connecting all of said tongues, said tie disk being rigidly secured to said tongues and being thinner than said tongues.

31. In a typewriting machine, the combination of a main frame, a closure plate applied to said main frame, said plate being slotted to provide a plurality of tongues extending towards a common center, and a tie disk connecting all of said tongues, said tie disk being provided with tongues which engage in slots formed in the tongues of said plate.

32. In a typewriting machine, the combination of a main frame, a slotted closure plate applied thereto, a tie piece secured to said plate and bridging the slot in said plate, said tie piece covering only part of said slot, and a pad of sound deadening material also secured to said plate and completely covering said slot.

33. In a typewriting machine, the combination of a main frame, a closure plate applied to said main frame, said plate being formed with a slot, a tie piece bridging said slot and secured to the outer face of said plate, and a pad of sound deadening material secured to the inner face of said plate.

34. In a typewriting machine, the combination of a main frame, a closure plate applied to said main frame, said plate being slotted to provide a plurality of tongues extending towards a common center, and a tie disk connecting all of said tongues, said tie disk being provided with tongues which engage in slots formed in the tongues of

said plate, and a felt pad secured to said plate independently of said tie disk.

35. In a typewriting machine, the combination of main frame, a closure plate applied to said main frame, said plate being slotted to provide a plurality of tongues extending towards a common center, a tie disk partly covering said slots and secured to said plate, and a felt pad completely covering said slots and also secured to said plate.

36. In a typewriting machine, the combination with the main frame thereof, of a sound deadening bottom plate detachably secured to the bottom of said main frame and slotted to provide a plurality of tongues having a common center, a tie disk detachably secured to said plate and connecting all of said tongues, and a pad of felt or the like also secured to said plate.

37. In a typewriting machine, the combination with the main frame thereof, of a sheet metal plate secured to the under face of the base of said main frame, said plate being dished or depressed and slotted to provide a set of separated tongues having substantially a common center, a tie disk fixed tightly to the under face of said plate and connecting all of said tongues, and a pad of felt or the like arranged in the depression in said plate and secured thereto.

38. In a typewriting machine, the combination of a machine frame, a plate depressed at its center and having its side edges inclined upward towards the sides of said frame, a pad seated in the depression in the plate, and means for securing said plate to said machine frame.

39. In a typewriting machine, the combination of a machine frame, a plate depressed at its center and having its side edges inclined upward towards the sides of said frame, a pad seated in the depression in the plate, and means for securing said plate to the front and rear of the base of said frame, said means comprising screws, and metal and felt washers under the heads of said screws.

Signed at Ilion, in the county of Herkimer and State of New York, this 27th day of November, A. D. 1922.

GEORGE A. SEIB.

Witnesses:

LINNIE F. BURNETT,
E. S. DODGE.