

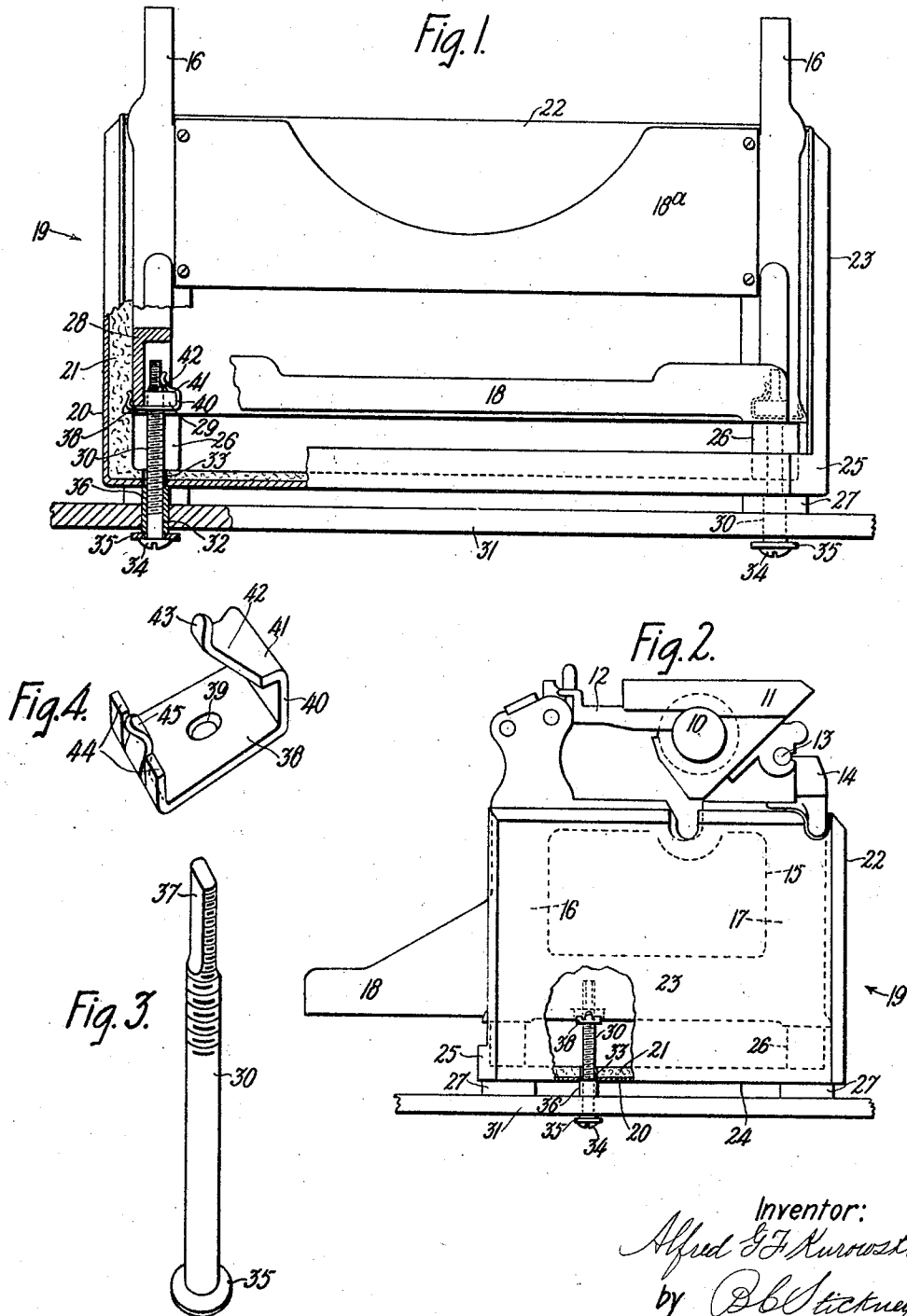
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TYPEWRITING MACHINE

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TYPEWRITING MACHINE.

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The present invention relates to typewriting machines, and, more particularly, to means therein for preventing loosening of the screws by which the machine is anchored to a drop-leaf, or other base-board or support.

The object of the invention is the provision of detent-pieces, adapted to be set onto the frame of the machine, for engagement with flats, or the equivalent, on the anchoring screws, so as to prevent any loosening, rotary, movement of the screws after the latter are in home-positions.

It is a feature of the invention that it may consist, in its entirety, of a single piece of sheet-metal, formed in one or more stamping or bending operations; and that, without requiring any attachments whatsoever, it may be quickly and easily set to and removed from the machine frame, and be made flexible to accommodate itself to inequalities in the castings or dimensions of the frame.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 is a view, in front elevation, of an Underwood standard typewriting machine in a sound-deadening shoe; the machine and the shoe being partly in cross section to show the screws, and retaining means therefor, for securing the machine to the drop-leaf.

Figure 2 is a view, in side elevation, of the structure shown in Figure 1; the side of the shoe being broken away to show one of the screws for holding the machine to the drop-leaf.

Figure 3 is a perspective view of one of the screws or studs for securing the machine to the drop-leaf.

Figure 4 is a perspective view of the spring-device for preventing the screw from loosening.

The Underwood standard typewriting machine comprises a platen 10, mounted in a platen-frame 11, which is supported by a carriage 12, mounted for movement transverse of the machine, by means including a rear rail 13, on the main frame 14 of the machine. The frame 14 of the machine has side openings 15 and a back opening, not shown, and comprises front posts 16, rear posts 17, a forward or keyboard extension 18, and a front plate 18^a.

To eliminate, in so far as possible, the noise produced in the operation of the machine, the machine has been placed in a so-called shoe 19, comprising a shell 20 of suitable material, preferably sheet-metal, having a thick soft lining 21 of sound-deadening material, such as felt, applied and secured to the shell in any suitable manner. The shell 20 may comprise a back wall 22, side walls 23, and a bottom or sole 24; these parts being secured together in any suitable manner. At its front edge the sole 24 is provided with an upstanding flange 25, having a portion of the lining 21 at its inner face. In order to protect the desk or drop-leaf on which the shoe 19 is placed, rests or supports 27, preferably of rubber, are suitably secured to the bottom or sole 24 of the shell.

The typewriter is provided with feet 26, preferably of rubber, at the lower ends of the posts 16 and 17, and the flange 25 is so positioned that, when the machine is placed in the shoe, the feet 26 at the front of the machine will rest just inside the lining at the rear of the flange.

Projecting laterally inward from the side plates 28 of the main frame, at the lower edges thereof, are lugs or ears 29. These are threaded to receive screws or studs 30 for anchoring the machine to a drop-leaf or other support 31. The screws 30, one at each side of the machine, are passed vertically upward from below the drop-leaf, through openings 32 in the drop-leaf, through openings 33 in the sole of the shoe, and are threaded into the lugs 29. As the heads 34 of the screws are of service in holding the machine, only when the drop-leaf is lowered, the heads may, as shown in Figure 1, be left spaced from the lower surface of the drop-leaf. To provide a broader holding surface for the heads of the screws when the drop-leaf is lowered, washers 35 are preferably set over the screw-heads, between the same and the under face of the drop-leaf, and, as shown in Figure 1, these washers are spaced from the drop-leaf. The spacing of the heads of the screws and the washers 35 from the drop-leaf is to prevent passage of sound waves therefrom to the drop-leaf, such as, in the operation of the machine, would cause the drop-leaf to act as a sounding board. Further to insulate the retaining screws from the drop-leaf, the

openings 32 through the drop-leaf are of a size to prevent contact of the screws with the drop-leaf. Preferably further to assure lack of contact of the screws with the drop-leaf, sleeves 36 of sound-deadening material, such as rubber, are slipped over those portions of the screws which pass through the drop-leaf. These sleeves, at their lower ends, may rest upon the washers 35 and hold the latter against movement. The sleeves 36 may extend to the under surface of the sole of the shoe which contains the machine. The openings 33 for the screws, through the sole of the shoe, are also preferably of a size to provide clearance for the screws therethrough.

The following provision is made for preventing turning or loosening of the screws. As shown in Figure 3, the ends of the screws above the lugs 29 are flattened on each side, as indicated at 37. Sheet-metal clips 38 are set against the under faces of the lugs 29. These clips have openings 39 therethrough in registration with the threaded openings in the lugs 29. The openings 39, however, are not threaded; and the screws are therefore movable freely with respect to the clips 38. Each clip 38 is turned up, as at 40, alongside the corresponding lug 29, and is offset laterally at 41, over the upper surface of the lug; so as to be interlocked with the latter against upward and downward displacement. The lateral offsets 41 of the clips are continued in the form of upwardly-inclined spring-tongues 42, bent, as at 43, to form detents adapted to bear upon the opposing flats 37 of the screws. The detents 43 are of such width, and the spring pressure of the tongues 42 is such, that the screws are held by the clips against rotary movement when the detents are in engagement with the flats of the screws.

The clips themselves are held against angular displacement by means of ears 44 struck upward therefrom beyond the outer faces of the side plates 28 of the main frame. The engagement of the ears 44 with the side plates 28 prevents rotary movement of the clips. The side plates 28 of the machine, with the lugs 29 thereon, are usually castings, and therefore may not be of uniform size and shape. To assure easy placement of the clips 38, despite irregularities or lack of uniformity in the dimensions of the lugs and side plates, the distance between the ears 44 and the detent-carrying flange 40 of the clip may be such as to permit the lug and side plate, in any event, to be embraced between the ears 44 and the flange 40; and a bent or rounded lip 45 is formed between the ears 44. The lip 45, as shown in Figures 1 and 4, is bent upwardly, and inwardly beyond the plane of the inner faces of the ears 44, and thence outwardly. Since the clips 38 are of sheet-

metal, the lips 45 will be resilient and will yield outwardly to accommodate the clip to the dimensions of the lug and side plate of the machine. The upper, outer turn on the lip 45 allows the lip to be cammed easily over the edge of the side plate. When the clip is in place, the pressure of the lip 45 on the side plate tends to prevent any angular movement of the clip; and the ears 44 serve as positive stops to arrest almost immediately any angular movement of the clip which the pressure of the lip 45 might be insufficient to prevent.

The clips being of sheet-material, they may be readily sprung onto and off the lugs 29 and side plates 28. Furthermore, the detent 43 will yield, when the screws are turned, to permit placement and adjustment of the screws.

It will be noted that means is provided for securing to a base board 31 a typewriting machine 18 having cushion feet 23 and having a sound-deadening pack 20, 21, 22, 23, said pack including a sole or floor 20, 21, upon which said feet stand, and also including cushion feet 27; that said securing means includes a headed screw 34 provided with a muffled shank 32, 36 passing up through a hole in the baseboard and fitting thereto, and passing up through an oversized hole 33 in said sole, and at its upper end threaded to the typewriting machine, causing said machine to confine said pack upon the baseboard; that said screw is insulated from said baseboard by said muffled shank, and its head is spaced from the bottom of the baseboard (Figure 2), the screw being loose and having a shoulder 37; and that means 43 upon the machine frame and insulated from said baseboard engages the shoulder 37 of the screw and yields to forcible rotation of the screw, but by means of said shoulder locks the screw against accidental rotation, the yielding device being in the form of a springy clip 38 to 45 which is self-clasping upon a lug or projection 29 in the machine into which the screw is threaded, and comprising a washer-portion 38 through which the screw passes, a claw 45 grasping the machine framework, and a finger 43 opposed to said claw and engaging said shoulder.

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 the art of typewriting machines, the combination of a typewriting machine having cushion feet, a sound-deadening pack including a sole or floor upon which said cushion feet stand, cushion feet on the sound-deadening pack, a base-board, the feet on the pack standing on the base-board, and means securing the typewriting ma-

chine, pack and base-board together, the means including headed screws passed upwardly through the bottom of the base-board and through the sole and projected
 5 above the pack, sound-deadening washers and sleeves on the heads of the screws and between the screws and baseboard, and the edges of the holes in the sole through which the screws are passed not touching the
 10 screws, and the upper ends of said screws screwed into the typewriting machine, whereby the machine, pack and base-board are secured together.

2. In the typewriting machine art, the
 15 combination of a typewriting machine having cushion feet, a sound-deadening pack having a sole or floor upon which said cushion feet stand, cushion feet on the pack, a base-board, the feet on the pack stand-
 20 ing on the base-board, means securing the machine, pack and board together, the means including screws passed upwardly through the bottom of the base-board and sole, sound-deadening washers and sleeves on the
 25 heads and shanks of the screws and between the base-board and screws, and the edges of the holes in the sole through which the screws are passed not touching the screws, and the upper ends of the screws screwed
 30 into screw-threaded holes in the machines, the upper ends of the screws passed through the screw-threaded holes and projected beyond said holes in the machine and shouldered or flattened, and means upon the
 35 machine frame and insulated from the

base-board, engaging the frame and flattened ends of the screws, said last-mentioned means yielding to forcible rotation of the screws, but locking them against loose turn-
 40 ing.

3. In the typewriting machine art, the
 combination of a typewriting machine hav-
 ing cushion feet, a sound-deadening pack
 having a sole or floor upon which the
 cushion feet stand, cushion feet on the pack
 45 standing on a base-board, means securing the machine, pack and base-board together, the means including threaded lugs on the frame of the machine, screws passed up-
 50 wardly through the bottom of the base-board and sole, sound-deadening washers and sleeves on the shanks and heads of the screws and between the base-board and screws, the edges of the holes in the sole
 55 through which the screws are passed not touching the sole, the upper ends of the screws screwed into the lugs and projected above them, and the projecting ends being flattened or shouldered, and yielding spring
 60 clips encircling the screws, one end of the clips engaging the frame of the machine whereby the clips are held against being
 65 turned, and the other end of the clips engaging the shouldered or flattened ends of the screws, whereby the clips lock the screws against accidental turning, but yield against the screws to permit the screws to be forcibly turned.

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