Sept. 15, 1942. M. INGWER 2,295,582

BELT GUARD FOR SEWING MACHINES

Filed Oct. 28, 1940

Fig. 1

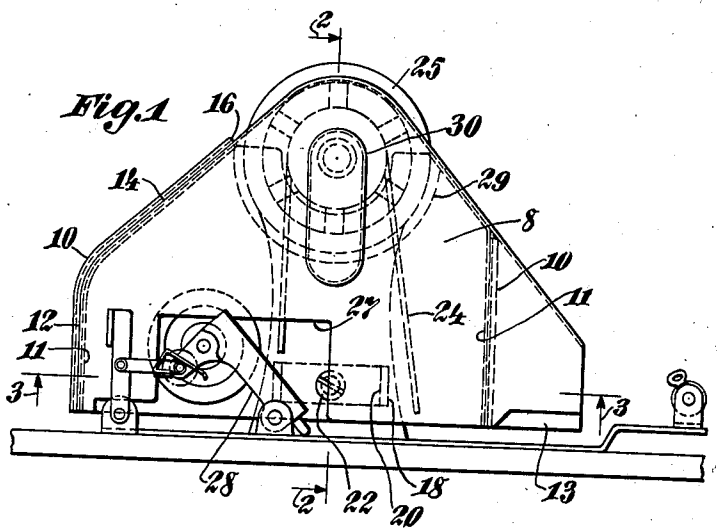


Fig. 2

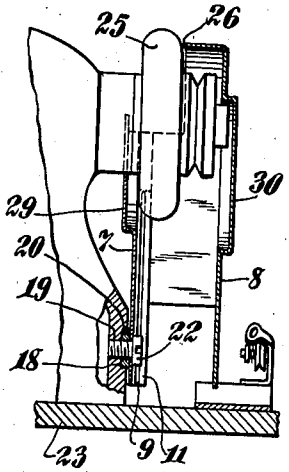


Fig. 3

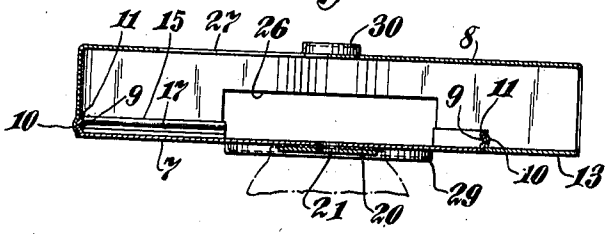


Fig. 4

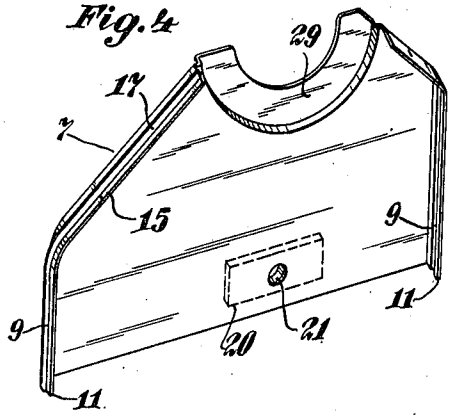
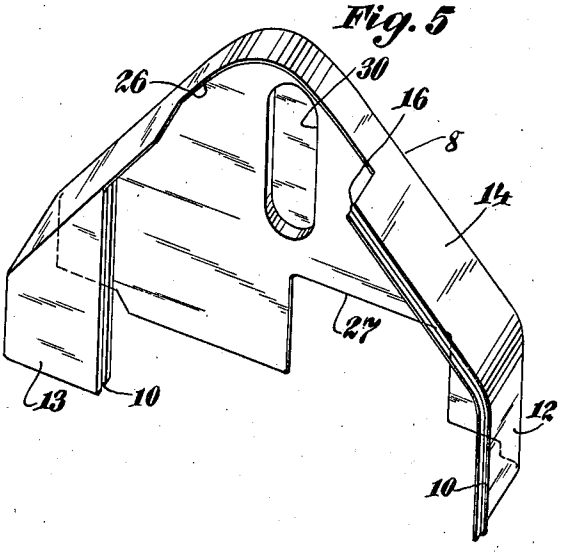


Fig. 5



INVENTOR.
Max Ingwer,

BY

Philip L. McKean.
ATTORNEY.

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UNITED STATES PATENT OFFICE

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BELT GUARD FOR SEWING MACHINES

Max Ingwer, Forest Hills, N. Y., assignor to Consolidated Sewing Machine & Supply Co. Inc., New York, N. Y., a corporation of New York

Application October 28, 1940, Serial No. 363,127

1 Claim. (Cl. 112—261)

The invention here disclosed relates to guards for the belt, handwheel, bobbin winder and related parts of sewing machines.

The objects of the invention are to provide a guard which will fully protect the operator from the belt and other moving parts, while providing access to the rim of the handwheel and as much of the bobbin winder as need be reached and which guard will be of simple, inexpensive construction, readily applied or removed and which in its application will so cooperate with the machine as to assure its proper positioning and firm holding in place, regardless of vibration and the like.

Other desirable objects and the novel features of construction, combination and relation of parts by which the purposes of the invention are attained will appear or are set forth in the following specification.

The drawing accompanying and forming part of the specification illustrates one practical commercial embodiment of the invention. The structure however may be modified and changed as regards this illustration, all within the true intent and broad scope of the invention as hereinafter defined and covered in the claim.

Fig. 1 is a side elevation of the guard as applied to a sewing machine.

Fig. 2 is a vertical sectional view as on substantially the plane of line 2—2 of Fig. 1.

Fig. 3 is a horizontal sectional view as on line 3—3 of Fig. 1.

Figs. 4 and 5 are inside perspective views of the two sections of the guard casing.

As appears in the several views, the guard consists of two separably connected sections, an inner section 7, and an outer section 8.

The connection between the two sections is provided in the illustration by means of an outstanding bead 9, on the inner section and an oversliding channel 10, on the outer section.

The bead on the inner wall section is shown formed in and carried by an angularly turned flange 11, about the edges of that member, and the companion interlocking groove, is shown formed in and carried by the angularly related front wall portion 12, and by the inside wall extension 13, of the outer section.

This arrangement provides vertically extending interlocking connections enabling the parts to be connected and disconnected by vertical sliding movements over the bed of the machine.

The inclined top wall portion 14, is keyed to the correspondingly inclined top flange portion 15, of the inner wall when the two parts are fully engaged by the groove 16, in the former engaging over the similarly inclined bead 17, of the inner wall.

The inner guard section is positioned and supported in the present invention by securing it in interlocked engagement with the post or column of the sewing machine head. These heads are usually machined with a horizontal groove or channel 18, across the end face of the same, used as a reference for machining the head or for locating accessory parts and a screw seat 19 is usually provided in the back of this reference face.

In accordance with this invention, the inner wall is constructed or provided with a parallel-sided boss or protrusion 20, on the outer face to engage and closely fit in the reference channel of the machine head and an opening 21, is provided through the wall with this keying projection to receive the screw 22, which by engaging the screw seat 19, secures the inner wall in the keyed position on the machine head. Secured in this relation, the outer wall is readily located and slipped down into its interlocked position over the inner wall. The two sections of the casing may terminate short of the table 23, of the machine, substantially as indicated in Figs. 1 and 2.

The shape of the sections of the guard casing may vary to suit different machines but generally they may be as illustrated, forming a narrow casing enclosing the belt 24, and handwheel 25, with sloping front and back top walls, an upright front wall and sufficiently open at the top at 26, to expose the upper rim of the handwheel and open as at 27, to expose such parts as need be of the bobbin winder 28.

In a preferred form, the guard is made of sheet metal but it may be constructed of cast metal, plastics or other materials. In the sheet material form, the parts may be stiffened, as by outward embossment of the upper edge portion of the inner wall at 29, to receive the lower rim of the handwheel and by outward embossment of the outer wall at 30, to freely receive the outer hub portion of the handwheel. The latter embossment is indicated as elongated vertically to allow the necessary vertical sliding movement of the outer section in connecting and disconnecting the same in respect to the inner section.

The provision of the outer wall member with the section 13, to line up with and form an extension of the inner wall provides a sufficiently elongated vertical sliding connection to assure positive and firm connection of the two guard

sections even when constructed of relatively light sheet metal.

The projection or protrusion 20, on the inner wall section which keys into the reference channel of the machine head may be an integral embossment or, as indicated in the drawing, may be simply a solid piece welded or otherwise secured over the outside face of the inner wall.

By providing the outer, removable cover section with an extension 13, to form a continuation of the inner fixed wall 7, the guard may be extended to the rear as much as need be to cover a belt coming up from in back of the machine and the fixed wall still be of such limited rearward extent as to not interfere with the machine head being rocked back on its hinges, as customary for cleaning, lubricating or other purposes.

What is claimed is:

A belt guard for a sewing machine having a substantially horizontally extending reference groove across the end of the same and a screw seat in said reference groove, said belt guard comprising an upright fixed back wall to fit against and be supported on the end of the machine beneath the hand wheel of the machine, a substantially horizontally extending protrusion on said back wall to fit into the reference groove of the machine and perforated for passage of a securing screw into said screw seat, said back wall having substantially parallel and upright front and rear edges with substantially vertical guide flanges thereon and a removable cover section having an outer wall, substantially parallel with the back wall, a top wall engageable over the upper edge of the back wall, a front wall engageable over the forward edge of the back wall and an extension wall cooperable with the rear edge of the back wall to form a separable rearward continuation of said fixed back wall, said front wall and the forward edge of said extension wall having substantially vertical channels slidingly fitting over said substantially vertical guide flanges on the front and rear edges of said back wall and whereby said back wall may be secured in definitely positioned and firmly supported relation on the end of the machine and the cover wall may be thereafter mounted by a straight push down over the back wall and be removed by a straight upward pull, leaving the back wall still attached to the machine.

MAX INGWER.