Nov. 6, 1951 S. ERDELYI 2,574,381

SEWING MACHINE

Filed April 20, 1948

Fig.1

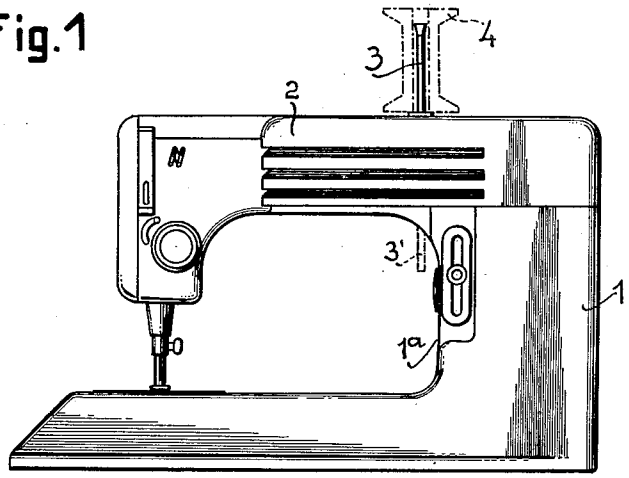



Fig.2

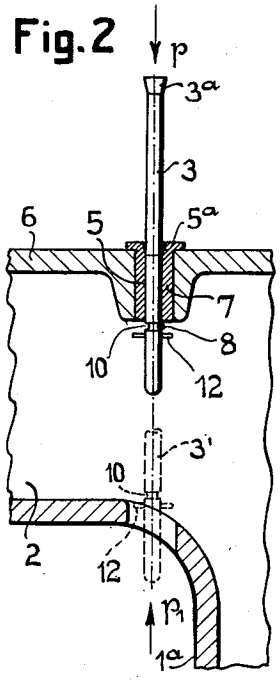



Fig.3

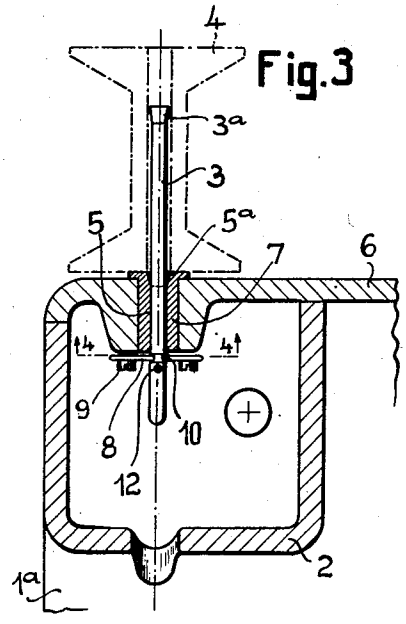
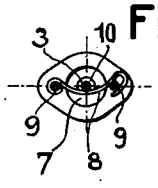



Fig.4




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## SEWING MACHINE

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In Austria March 11, 1947

1 Claim. (Cl. 112—218)

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The invention relates to an improvement in portable sewing machines i. e. in sewing machines which in the position of rest when lodged in a suitably shaped case should occupy as little space as possible. For attaining the latter end care must be taken to see that all projections of and additions to the machine body, generally found in the other usual sewing machine types, should be either entirely suppressed or reduced to a minimum.

As far as this is possible, projections of this kind are made removable. This refers in particular to the spool pin (pin for rotatably supporting the twine or twisted yarn spool usually located on the upper side of the machine body) considering that same will—in the working position of the sewing machine—considerably protrude beyond the contours of the machine body in consequence of the length of the twine spool generally employed. However, to make the spool pin removable, i. e. to form it into a perfectly separate part of the machine, is disadvantageous in so far as the spool may eventually be lost which would be a great hindrance when resuming the sewing work.

The present invention eliminates this drawback as according to its essential feature the spool pin is arranged in such a manner that—when not employed—it is sunk into the top part of the machine body, whereby a further feature of the invention provides for means preventing the removal of the spool pin, so that the latter remains constantly joined to the machine body barring out its loss under all circumstances.

Further features of the invention refer to a suitable arrangement in the machine body of the spool pin bearing, and further to an arresting device locking the pin in its position of use whereby care is taken to see on the one hand that the design of the spool pin bearing and that of the arresting device are as simple as possible, and on the other hand that the pin is easily handled when moving it into its position of use, as well as when sinking it into its position of rest.

The drawing shows an embodiment of the invention,

Fig. 1 being a total view of the sewing machine with the spool pin pulled out, whilst

Fig. 2 is a longitudinal section through the top part of the sewing machine body along the axis of the spool pin,

Fig. 3 is a cross-section at right angles to Fig. 2 through the spool pin bearing, and

Fig. 4 a section taken on the line 4—4 of Fig. 3 seen from below, illustrating the design of the arresting device.

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In Fig. 1 the numeral 1 designates the sewing machine body carrying the spool pin 3 in the usual manner, preferably on its upper side i. e. on the upper side of the bracket or cantilever arm 2, said pin being used for supporting the twine spool 4 feeding the sewing machine with its sewing yarn.

According to the invention the spool pin is so designed, and arranged that it may be dropped into the machine body 1 or the bracket or cantilever arm 2 when reducing the machine into its position of rest i. e. inserting it into a convenient case. The spool pin is slidably supported within a guide base 5 of a bushing 7 mounted on the upper wall 6 as shown in Figures 2 and 3. Hence, the spool pin may be moved from its position of use, shown in full lines in Fig. 2, and dropped into the machine body so as to occupy the position 3', shown in dash lines.

For maintaining the spool pin in its position of use an arresting device, coacting with same, has been provided which—as shown in the embodiment according to Fig. 4—is formed by a stirrup-shaped wire spring 8, held fast by means of two bolts 9 and engaging with its central part into a recess, or preferably a groove 10 of the pin. When withdrawing the spool pin from its sunk position to the position of use the stirrup spring 8 elastically engages, at a snap, into the groove 10 so as to fix the pin in its position of use. If the pin is to be dropped into the body, it suffices to exercise a pressure on its upper end in the direction of the arrow $p$, whereby the spring 8 is forced out of the groove so that the pin may be pushed downwards into its position of rest. This displacement is limited by the upper end of the pin 3 being provided with an enlargement 3$a$, preferably conical, which—in the position of rest of the pin—engages a wider part 5$a$ of the guide bore 5 so as to secure the pin against dropping out.

For the purpose of preventing the spool pin from being pulled out upward an arresting organ is provided on same formed e. g. by a cross pin 12 (cotter).

In the sunk position of the spool pin its lower end somewhat protrudes from the lower side of the bracket, or cantilever arm 2 of the machine body as shown by dash-dot lines in Fig. 1, and by dash lines in Fig. 2. This presents the advantage to greatly facilitate the pulling out of the spool pin to its position of use, a slight pressure on the downward protruding end in the direction

of the arrow $p'$, being sufficient for lifting it so that the upper end, the enlarged or expanded one, may be easily grasped whereupon the further lifting operation will not present any difficulty.

It has been found particularly advantageous to locate the axis of the spool pin in the neighborhood of the inner lateral wall $1a$ of the central part of the machine body, as shown in Fig. 1, as the wall $1a$ will then serve as a guide for arriving at the bottom end of the spool pin when intending to press same upwards.

What I claim is:

In a sewing machine the combination of a horizontal arm having a vertical through bore and a pin for carrying a yarn spool, said pin being longer than the length of said bore and having a downwardly tapering top end, the bore having



a tapering top portion for seating said top end of the pin, the pin being longitudinally movable within the bore into a lower limiting position in which the tapering top end of the pin is seated in said top portion of the bore and in which the lower end of the pin protrudes out of the lower side of the arm.

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