

April 29, 1969

M. FRESARD
SEWING MACHINE

3,440,986

Filed Oct. 11, 1967

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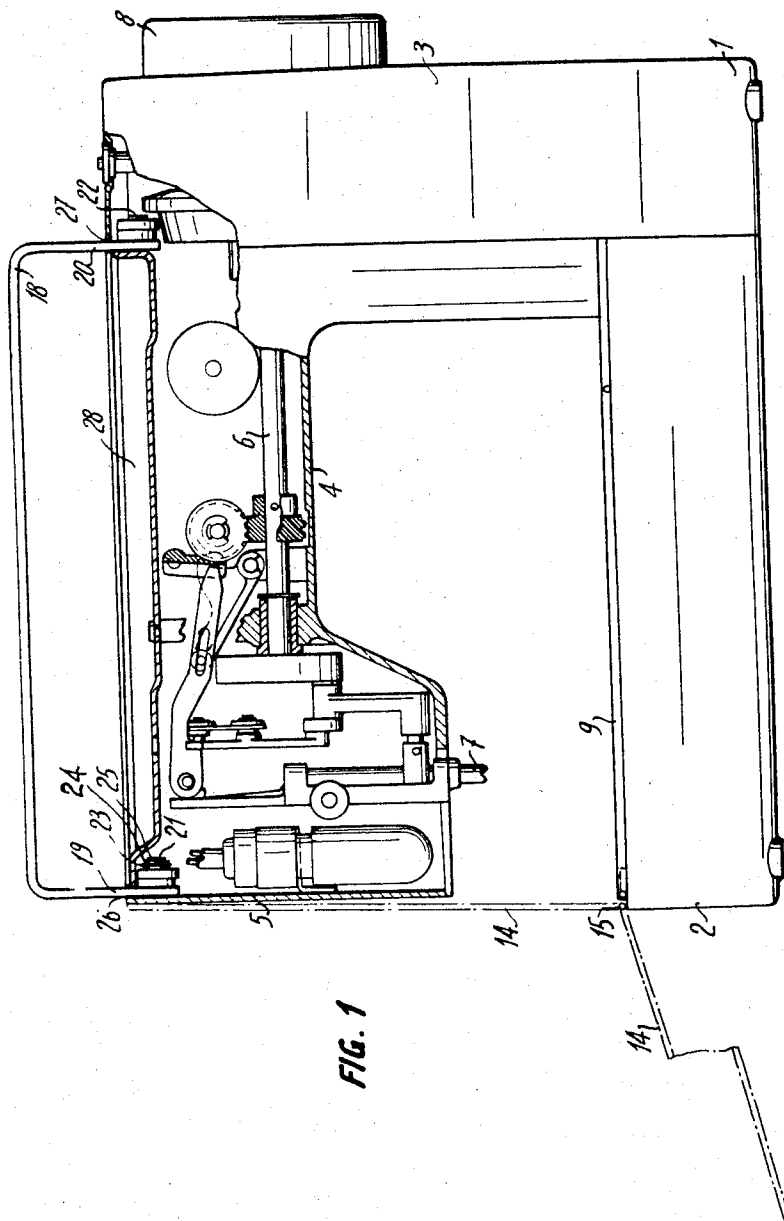


FIG. 1

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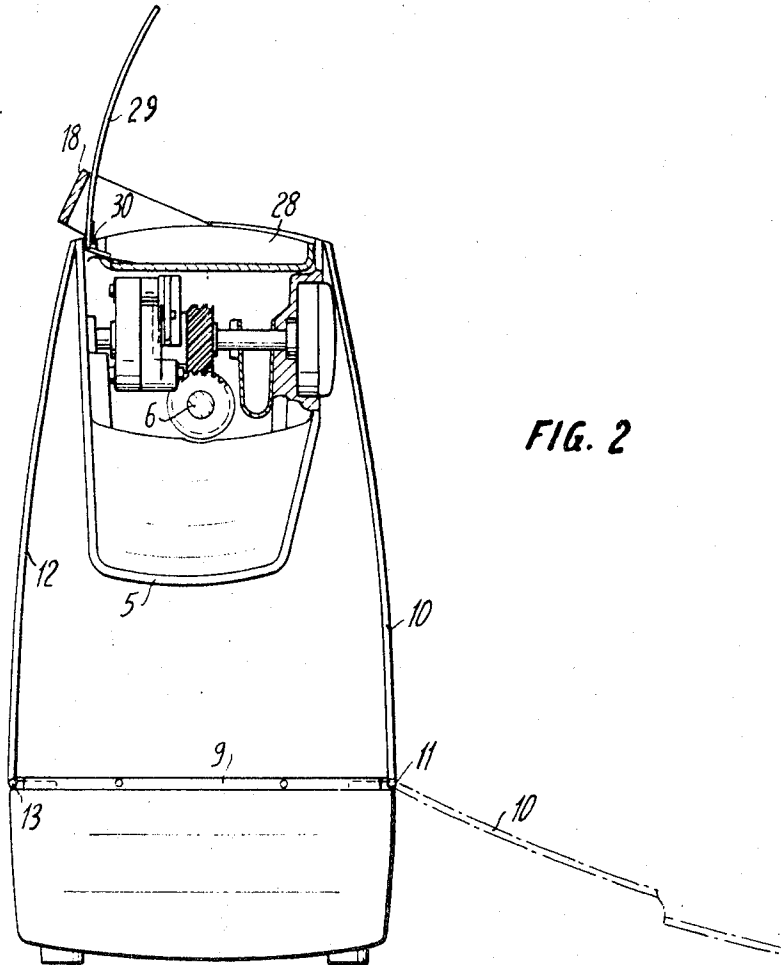


FIG. 2

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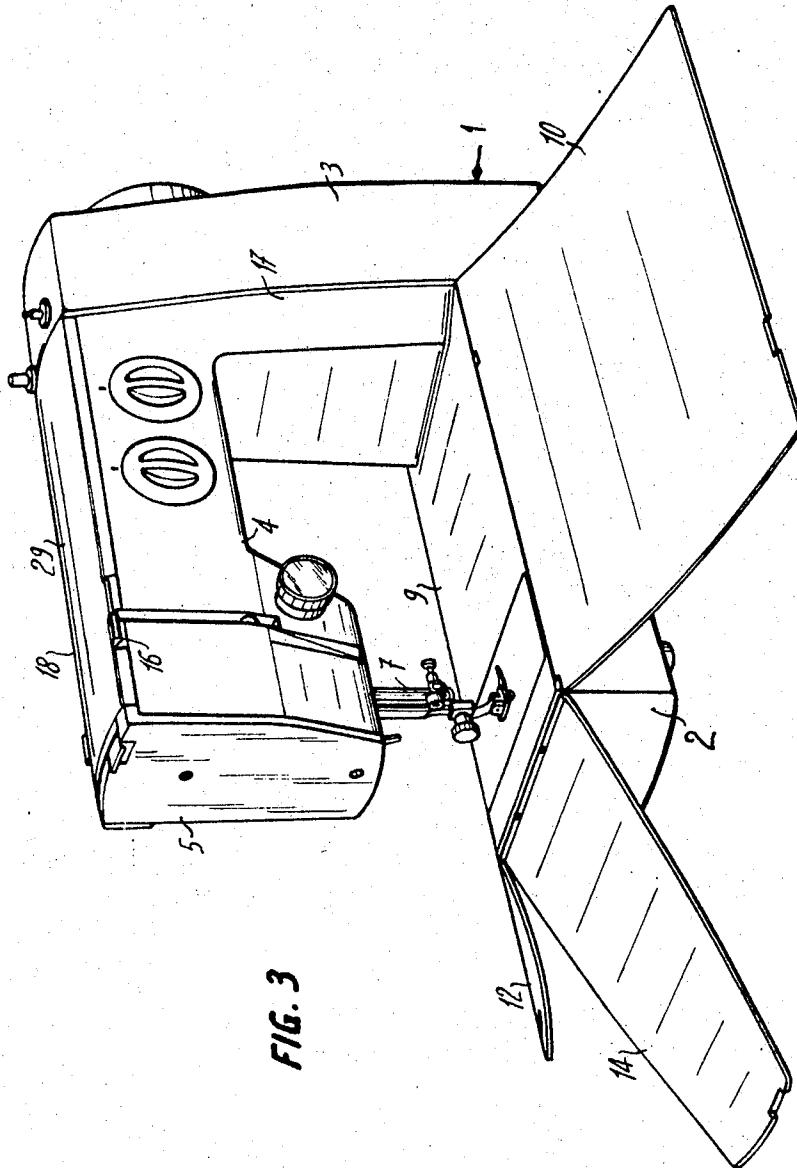


FIG. 3

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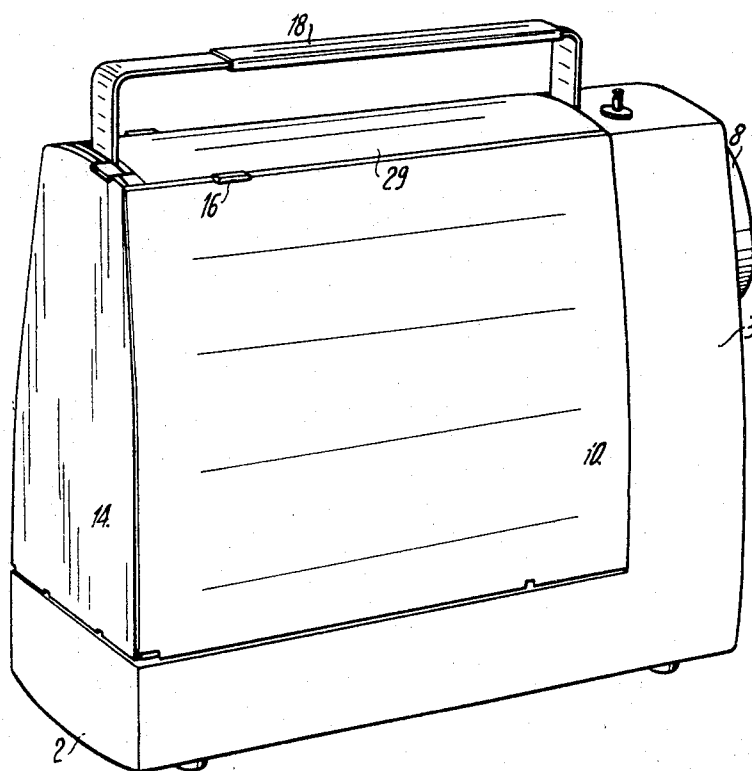


FIG. 4

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3,440,986

SEWING MACHINE

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16,187/66

Int. Cl. D05b 75/06, 77/00; A47b 43/00

U.S. Cl. 112-258

1 Claim

ABSTRACT OF THE DISCLOSURE

A sewing machine has hinged to its base, flaps which can be secured against the pillar, upper arm and head to encase the machine for storing or carrying. The flaps open to form a ramp to facilitate sliding of the sewing materials towards the work surface during operation of the machine. A pivoted carrying handle can be folded back in the working or stowed position.

The present invention relates to a sewing machine having a frame formed by a base, a pillar, an upper arm and a head.

It is an object of the invention to provide a sewing machine which is easily converted from a working position to a packaged position and vice versa.

It is another object of the invention to provide a sewing machine which has the advantage of enabling of the user to keep her hands at a normal height, namely in practice the height of the table on which the sewing machine is placed, so as to avoid any additional fatigue.

According to the invention there is provided a sewing machine having a frame formed by a base including a work surface, a pillar, an upper arm and a head. Flaps are hinged at the lower part of the frame and are capable of occupying two angular positions with respect to the latter, namely a packaged position in which the flaps are folded against the upper arm forming a chest therewith and a working position in which the flaps are opened to provide a ramp facilitating the sliding of sewing materials towards the work surface.

In order that the invention may be more clearly understood, one embodiment thereof is described below purely by way of illustrative example, with reference to the accompanying drawing in which:

FIG. 1 is a view in elevation of one embodiment of a sewing machine, according to the invention with partial section;

FIG. 2 is also a view in elevation, but in the frontal position of the sewing machine of FIG. 1, with partial section;

FIG. 3 is a perspective view of the sewing machine of FIG. 1 in position of use; and

FIG. 4 is also a perspective view of the sewing machine of FIG. 1 in the transporting or carrying position.

Referring now to the drawing, the sewing machine shown comprises a frame referred to generally by the numeral 1, this frame being formed by a base 2, a pillar 3, an upper arm 4 and a head 5. In the upper arm 4 is arranged a horizontal shaft 6, for driving the needle bar 7, as well as the control mechanism enabling, for example, the application of a lateral translation movement of the needle bar 7 to operate a zigzag stitch. On one end of this horizontal shaft 6 is fixed the flywheel 8. The motor of this sewing machine is arranged inside the pillar 3. Another horizontal shaft, not visible in the drawing, is arranged in the base 2 for driving the shuttle, on one hand, and the feeder on the other hand.

This machine has the feature of being provided with

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flaps hinged at the lower part of the frame 1, which flaps are capable of occupying two angular positions with respect to the said frame 1, either a packaged position in which the flaps are folded upwardly against the upper arm 4 to close the sewing machine in carrying position, or a working position in which the flaps are folded downwardly and form an extension of the work surface 9 while providing a ramp in the direction of the needle plate of the machine. In the example shown, the machine comprises three flaps, namely a first flap 10 hinged along an axis 11 arranged along the forward edge of the work surface 9, a second flap 12 hinged along an axis 13 arranged along the rear edge of the tablet 9 and a third flap 14 hinged along an axis 15 arranged along the side or end edge of the work surface 9 opposite the pillar 3. FIG. 4 shows the sewing machine in the packaged position, that is to say in the position wherein the flap 10 conceals the front face of the machine while the flap 12 conceals the rear face, the flap 14 concealing the head of the machine. Spring clasps 16 of spring steel or of elastic synthetic material such as plastics material, ensure the securing of the flaps 10, 12 and 14 in the packaged position, as shown in FIG. 4. The placing in a service position of the sewing machine is therefore accomplished by lifting the clasps 16 to enable the flaps to be folded down in the position shown in FIG. 3, in which position the flaps 10, 12 and 14 are supported in open position on the table on which the sewing machine is placed. The outer edge of the flaps 10, 12 and 14 are therefore at the level of the table, which facilitates the sliding of sewing materials in the direction of the work zone of the machine, that is to say the needle plate. This arrangement of flaps forming a ramp in the direction of the needle plate additionally has the advantage of enabling the user to keep her hands at a normal height, namely in practice the height of the table, which avoids any additional fatigue.

As is shown by the different figures of the drawing, these flaps 10, 12 and 14 are curved to a shape corresponding to that of the pillar 3 of the sewing machine. This pillar 3 has a step 17 enabling the seating of the flaps 10 and 12 so as to form a continuous surface in the packaged position between the flaps 10 and 12 and the pillar 3.

This sewing machine also includes a carrying handle 18 hinged by its ends 19 and 20 on pivots 21 and 22 respectively fixed to the upper part of the frame 1 of the machine. An elastic ring 23 and a clip 24 engaged in a neck 25 of the pivot 21 ensure the holding in position of the handle 18 on its pivoting axes. The upper surface of the frame 1 has two transverse slots 26 and 27 respectively enabling the handle 18 to be folded back towards the rear surface of the sewing machine as shown in FIG. 2 to conceal the said handle 18 in the upper part of the sewing machine when the latter is in the using position or in the stowed position.

A chest for accessories 28 is arranged in the upper part of the frame 1. The chest 28 is intended to be covered by a lid 29 hinged along an axis 30 with respect to the frame 1, the lid 29 forming the largest part of the upper face of the frame 1.

Numerous variations of the sewing machine shown could be envisaged. Thus, in place of providing three flaps, 10, 12 and 14, only two main flaps 10 and 12 could be provided and a free opening left between the head 5 and the base 2 of the frame of the machine. This opening could also be concealed by a partial flap capable of sliding vertically in the head 5 of the sewing machine. However, the embodiment shown is preferred, for the flaps with which it is provided enable concealment and simultaneous protection against shocks of all sensitive parts of this sewing machine, especially the control but-

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tons of the latter, as well as the needle bar and the presser foot.

These flaps 10, 12 and 14 can be manufactured of metal (of pressed sheet metal or made by one operation of metal pressure casting or injection into a mould). These flaps could also be fabricated of plastics material.

In a further modification, the third flap 14 instead of being hinged on the base 2 of the sewing machine, could be hinged to one of the other principal flaps 10 and 12, for example to flap 12. In this case, the flap 14 could be used to ensure the securing of the two principal flaps 10 and 12 in packaged position. The flap 14 could be held in the flap 12 in the using position of the sewing machine.

I claim:

1. A portable sewing machine adapted for use on a supporting surface, said machine comprising in combination a base having a work surface, a pillar, an upper arm, front, rear and end cover members movably connected to said base for concealing said work surface, hinges connecting said members to said base, said hinges axially fixed during movement of said members between open and closed position, the top free edges of each of said cover members disposed substantially in a common horizontal plane adjacent the top surface of said upper arm when said cover members are in closed position and the front and the front and rear sides and the end of said upper arm are thereby concealed, said cover members when in open position providing an extension of said work surface with their free edges resting on said supporting surface and sloping downwardly from said work surface, the front and rear of said pillar provided with a step recess extending from said work surface to the top of said pillar for the reception of the adjacent edge of said front and rear cover members respectively when in the closed position whereby a smooth continuous exterior surface is provided between said front and rear cover members and said pillar when in closed position, resilient latch means on the top outer edge of each of front, rear and end

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of said upper arm engageable respectively with the top free edge of said front, rear and end cover members to releasably secure each said cover members in closed position, a lid pivotally attached to and co-extensive with the top of said upper arm from said pillar to the outer end of said arm, the front, rear and outer end edges of said lid when in closed position juxtaposed the top free edges of said front, rear and end cover members when in closed position, a carrying handle having a pair of end portions pivotally secured to said upper arm and movable downwardly toward the rear of said arm, one of said handle end portions pivotally attached at the outer end of said arm adjacent the outer end edge of said lid and the other of said handle end portions pivotally attached adjacent the opposite end edge of said lid, and the top of said upper arm beneath said lid provided with a recessed storage receptacle having a closed bottom and extending substantially the length and width of said lid.

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U.S. Cl. X.R.

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