Feb. 2, 1943. A. GOLD ET AL 2,309,894

FAN ATTACHMENT FOR SEWING MACHINES

Filed April 18, 1941

Fig. 1.

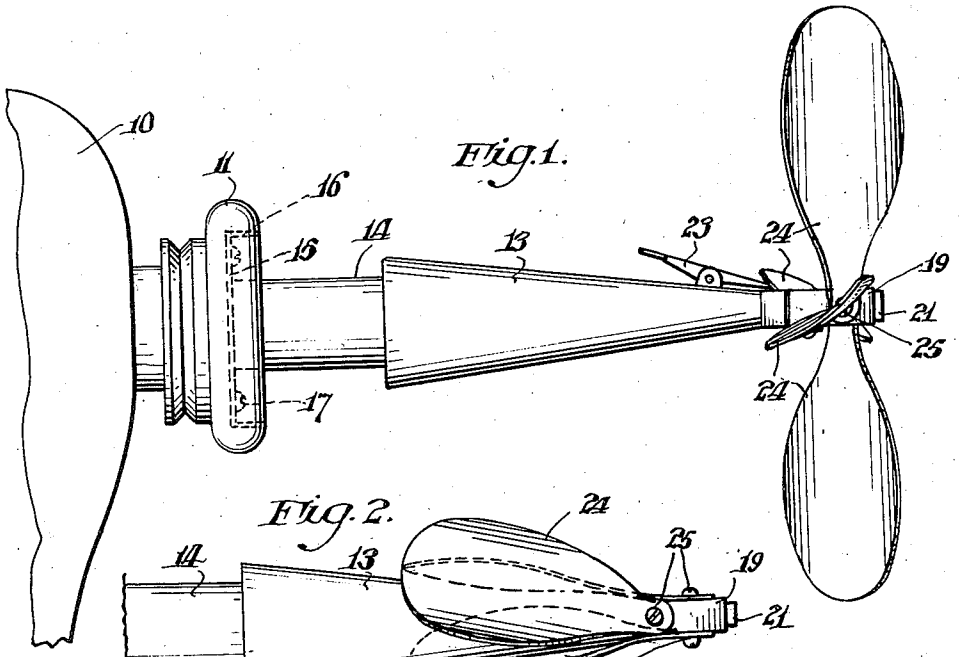


Fig. 2.



Fig. 8.

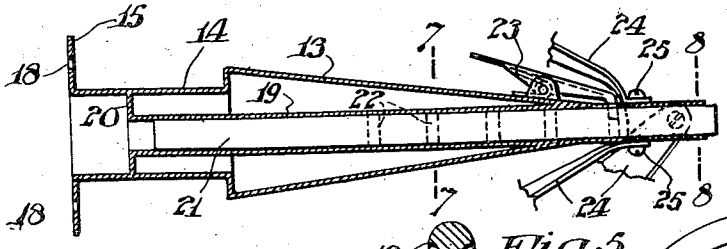


Fig. 3.

Fig. 6.

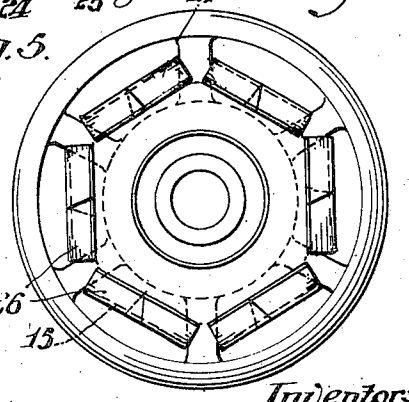


Fig. 5.

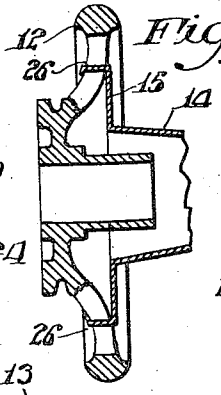
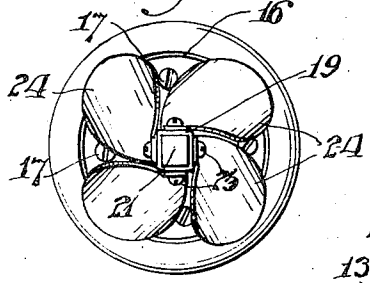


Fig. 4.



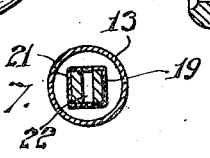


Fig. 7.

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FAN ATTACHMENT FOR SEWING MACHINES

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6 Claims. (Cl. 230—248)

Our invention relates to a new and useful fan attachment for sewing machines, and while it is adapted to be assembled on the hand or fly wheel of any type of sewing machine, it is particularly adapted for attachment to a fur sewing machine.

Generally work on fur garments is done during the warm seasons of the year when operators often perspire freely. Under such conditions, particles of hair from the fur cling to the operators' faces, hands and arms or other exposed parts of the body making it exceedingly uncomfortable and annoying. Therefore one object of the present invention is to provide a fan that can be attached to the machine in a position for blowing particles of material away from the operator and also agitate the air to cause evaporation of the perspiration thus cooling the operator.

Another object of this invention is to construct the fan attachment in a manner to permit it to be easily and readily removably connected to the hand or fly wheel of a sewing machine.

A further object of the invention is to provide a structure of the kind described whereby the fan proper may be adjusted to and fro relative to the hand or fly wheel or the operator using the machine.

A still further object of the invention is to provide the device with adjustable or pivoted fan blades for controlling the amount of air to be agitated or regulating the imaginary cone-shaped area of air that flows from the fan.

With the above and other objects in view, this invention consists of the details of construction and combination of elements hereinafter set forth and then designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, we will describe its construction in detail, referring by numerals to the accompanying drawing forming a part hereof, in which:

Fig. 1 is a side elevation of the fan attachment constructed in accordance with our invention.

Fig. 2 is a fragmentary side view thereof showing the blade folded.

Fig. 3 is a longitudinal sectional view thereof with portions of the blades broken off.

Fig. 4 is an outer end view of the device with the fan blades folded.

Fig. 5 is a fragmentary sectional view illustrating a modified form of fastening means for securing the attachment to the wheel.

Fig. 6 is a rear face view of the machine wheel and the attachment connected thereto.

Fig. 7 is a section on the line 7—7 of Fig. 3.

Fig. 8 is a section on the line 8—8 of Fig. 3.

In carrying out our invention as herein embodied 10 represents the head of a sewing machine from which projects one end of the power shaft on which is mounted the combination pulley and hand or fly wheel 11 in Figs. 1 and 4, or a similar combined instrumentality 12 illustrated in Figs. 5 and 6.

The fan attachment includes a conical hollow body 13 from the inner or base end of which projects a reduced neck 14 terminating in a flange 15. This flange, as shown in Figs. 1, 3 and 4, is set into a recess 16 in the outer face of the disc wheel 11 and secured in place by screws 17 which pass through holes 18 in said flange and screwed into threaded holes in the disc wheel.

A barrel 19, polygonal in cross section, preferably square, is located in the body 13 with the inner end extending into the neck 14 and fixed in place by a collar 20. In this barrel is slidably mounted a bar 21 of the same cross sectional shape as said barrel in order to revolve therewith. Said bar 21 has a plurality of apertures 22 therein longitudinally spaced to selectively receive the nose of the spring actuated catch 23 pivoted in a suitable bracket on the outside of the body 13.

The outer end of the bar 21 protrudes beyond the outer end of the barrel 19 and on said protruding end of the bar 21 are pivoted a number of fan blades 24 by means of fastening devices 25, such as screws. These blades can be adjusted to a full extended position as shown in Fig. 1 or swung forwardly or backwardly as illustrated in Fig. 2. By adjusting the blades to various positions the amount of air to be agitated can be regulated and by moving the bar 21 longitudinally the fan proper will be positioned toward or away from the hand or fly wheel and consequently the operator of the machine.

As shown in Figs. 5 and 6 the flange 15 is provided with a number of resilient split tongues 26 projecting at right angles from said flange and space annularly so as to fit between the spokes of the wheel 12. The splits in said tongues are preferably midway thereof and the contiguous edges of the sections of each tongue overlap to permit contraction when forced between adjacent spokes of the wheel. By the use of this construction the fan attachment can be mounted on or disengaged from the wheel without the use of fastening devices or tools.

By assembling the fan on the machine no separate source of power is required to operate said fan, it is not in the way of work and therefore

cannot be knocked off of the machine, and locates it in a position most advantageous for the purposes set forth.

Of course we do not wish to be limited to the exact details of construction herein shown and described, as these may be varied within the scope of the appended claims without departing from the spirit of our invention.

Having described our invention, what we claim as new and useful is:

1. A fan attachment comprising a hollow, conical body, a hollow reduced neck projecting from the inner end of said body, means on said neck by which the attachment can be removably mounted on the hand-fly wheel of a sewing machine, a barrel projecting through the body and extending into the neck and fixed in place, a bar slidably mounted in the barrel with one end protruding from the outer end of said barrel, means to hold said bar in various longitudinal adjustments, and fan blades on the protruding end of said bar.

2. The structure in claim 1 wherein the fan blades are pivotally attached to the bar.

3. The structure in claim 1 wherein the barrel and bar are both polygonal in cross section.

4. A fan attachment for sewing machines comprising a hollow conical body, a hollow reduced neck projecting from the inner end of said body, a flange on said neck and having holes for registration with threaded holes in a wheel of the sewing machine whereby the attachment can be removably mounted on said wheel by fastening devices, a barrel square in cross section extending through the body and into the neck and fixed in place, a bar square in cross section and slidably mounted in the barrel with an end protruding beyond the outer end of said barrel, said bar having a number of holes therein spaced longitudinally of the bar, a spring actuated catch on the body and having a nose projectable into a selected hole in the bar for maintaining the latter in any adjusted position, and fan blades pivoted to the protruding end of the bar whereby they may be swung into different angular positions.

5. In a device of the kind described, a hollow conical body, a hollow reduced neck projecting from the inner end of said body, a flange surrounding the outer end of said neck, resilient split tongues projecting from the perimeter of said flange and annularly spaced apart for insertion between the spokes of a sewing machine hand-fly wheel, a barrel extending through the body and into the neck and fixed in place, a bar slidably mounted in said barrel, means to hold said bar in various longitudinal adjustments, and fan blades pivoted to the outer end of said bar.

6. A fan attachment comprising a hollow conical body, means at the base end thereof to temporarily connect said body to the hand-fly wheel of a sewing machine, a barrel in the longitudinal center of the body, a bar slidably mounted in said barrel and projecting from the apex of the body, and fan blades on the projecting end of said bar.

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