

R. & G. KRAMER.
ATTACHMENT FOR SEWING MACHINES.
APPLICATION FILED AUG. 14, 1909.

953,095.

Patented Mar. 29, 1910.

Fig. 1

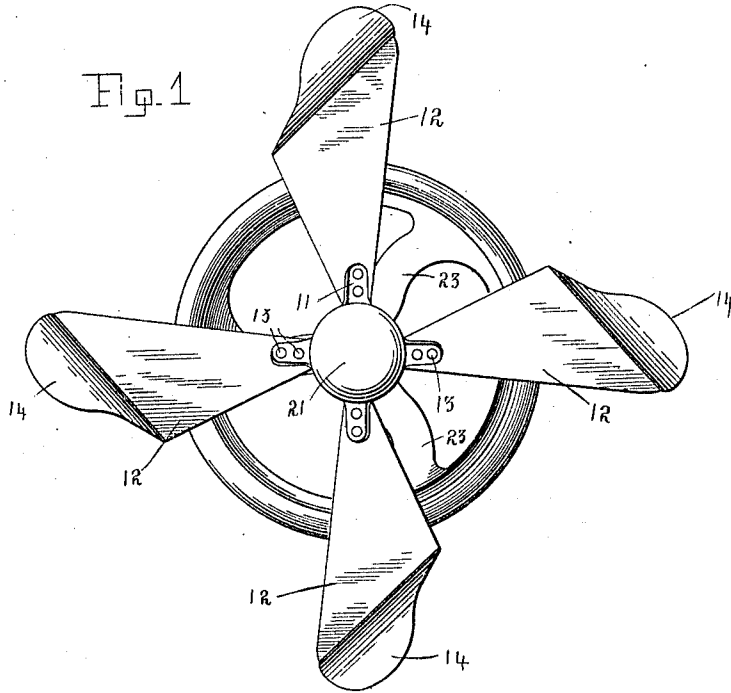


Fig. 2

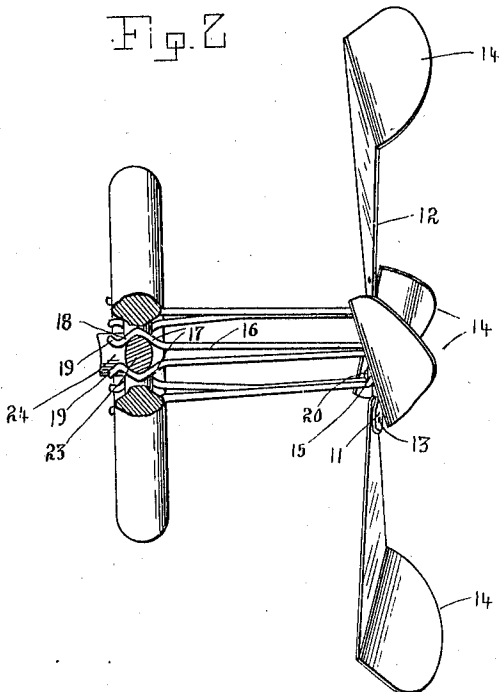


Fig. 4

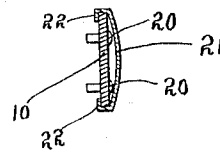
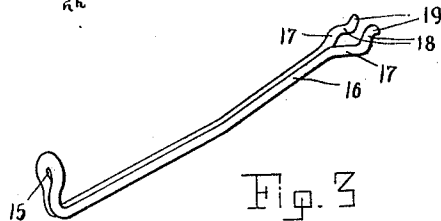


Fig. 3



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UNITED STATES PATENT OFFICE.

RUDOLPH KRAMER AND GEORGE KRAMER, OF EARLEIGH HEIGHTS, MARYLAND.

ATTACHMENT FOR SEWING-MACHINES.

953,095.

Specification of Letters Patent.

Patented Mar. 29, 1910.

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To all whom it may concern:

Be it known that we, RUDOLPH KRAMER and GEORGE KRAMER, subjects of the Emperor of Austria-Hungary, residing at Earleigh Heights, in the county of Anne Arundel, State of Maryland, have invented certain new and useful Improvements in Attachments for Sewing-Machines; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to sewing machines and has special reference to a fan adapted to be attached to the fly wheel of a sewing machine so that the operator may be kept cool while using the machine.

The principal object of the invention is to provide a novel form of attaching means so that the fan may be readily placed on or removed from the fly wheel of a sewing machine.

With the above and other objects in view the invention consists in general of a rotary fan provided with improved means for attaching the same to the fly wheel of a sewing machine.

The invention further consists in certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and specifically set forth in the claim.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—Figure 1 is a view of a portion of the head of a sewing machine with the attachment applied to the fly wheel, the view being taken from the fly wheel end of the machine. Fig. 2 is a similar view taken from the front of the machine. Fig. 3 is a detail perspective view of one of the attaching clamps removed from the fan. Fig. 4 is a transverse section through the center portion of the fan showing the manner of covering the rivet heads.

In the construction of this invention there is employed a central disk 10 from which radiate arms 11, these arms being twisted as shown for the purpose of attaching the inner ends of fan blades 12 thereto. In order to permit this attachment the arms 11 and the inner ends of these fan blades are provided with opposed perforations where-through pass rivets 13. These fan blades have their inner portions in the form of a

plane surface slanted with reference to the axis of rotation of the device while the outer ends 14 are curved upwardly from lines passing diagonally across the blades, the extremities of the blades being curved outwardly from these upwardly extending portions. It is to be understood that these fan blades may vary in number and size as may be deemed best adapted for the purpose.

In order to attach the device to the fly wheel a series of clamps are employed. Each of these clamps consists of a single length of resilient metal, preferably in the form of stout wire, and these lengths of metal are bent intermediate their ends to form eyes 15. From each of these eyes the lengths of wire are bent to extend perpendicular to the plane of the eye and for some distance the ends lie closely side by side, these portions being indicated at 16. At the extremities of the portions 16 the wires abruptly diverge as at 17 and are then bent to abruptly converge as at 18. The wires converge until they are substantially in contact and have their extremities bent to diverge as at 19. In order to attach these clamps to the disk a series of perforations is made in this disk and rivets 20 pass through the eyes and the perforations in the disk. In order to cover the heads of these rivets a cap 21 of thin metal is employed. This cap is dished outwardly so that the edges thereof may rest on the disk while the central portion is spaced therefrom to permit the rivet heads fitting thereunder. Tongues 22 project from this cap and when the cap is applied these tongues engage over the edge of the disk 10 and are bent to lie against the side of said disk to which the clamps are attached.

It is well known that the fly wheels of sewing machines are constructed with spokes 23 and that these spokes vary in number and disposition. While the fly wheel has here been shown as having three full spokes radiating from the hub 24 and the attachment has been consequently shown as having three clamps to engage these spokes, it will be obvious that the number of these clamps may be varied to suit the varying numbers and dispositions of the spokes. It will further be noted that the ends of the clamps fit closely against the central portion or boss 24 of the wheel.

In applying the device the central disk is grasped in the hand and the clamps are positioned on the spokes so that the diverging

portions 19 of each clamp rest upon one of the spokes. The attachment is then pushed bodily toward the wheel and this results in the ends of the clamps separating and permitting the spokes to pass into the openings between the portions 17 and 18 of each clamp. By reason of the resiliency of the clamps the attachment will thus be securely held in position on the wheel while at the same time it may be readily removed by simply grasping the central disk and pulling firmly away from the wheel.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

It is obvious that minor changes may be made in the form and construction of this invention without departing from the material principles thereof. It is not therefore desired to confine the invention to the exact form herein shown and described, but it is

wished to include all such as properly come within the scope of the appended claim.

Having thus described the invention, what is claimed as new, is:—

In an attachment for sewing machines, a fan provided with a central disk having perforations therethrough, clamps provided with spoke engaging means and each having an eye formed therein, rivets passing through said eyes and perforations to secure the clamps to the disk, and a dished cover held on said disk to inclose the heads of said rivets, said cover being provided with projections engaging over the edge of said disk.

In testimony whereof, we affix our signatures in presence of two witnesses.

RUDOLPH KRAMER.
GEORGE KRAMER.

Witnesses:

NICHOLAS H. GREEN,
J. HENRY ZELLER.