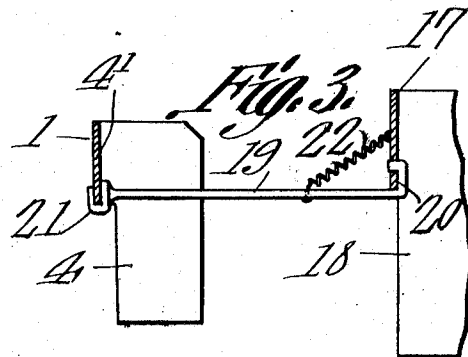
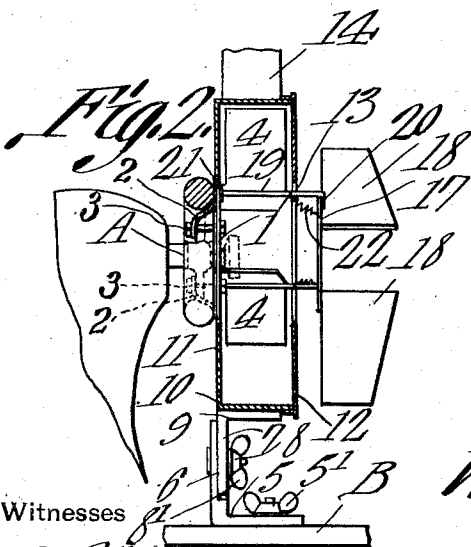
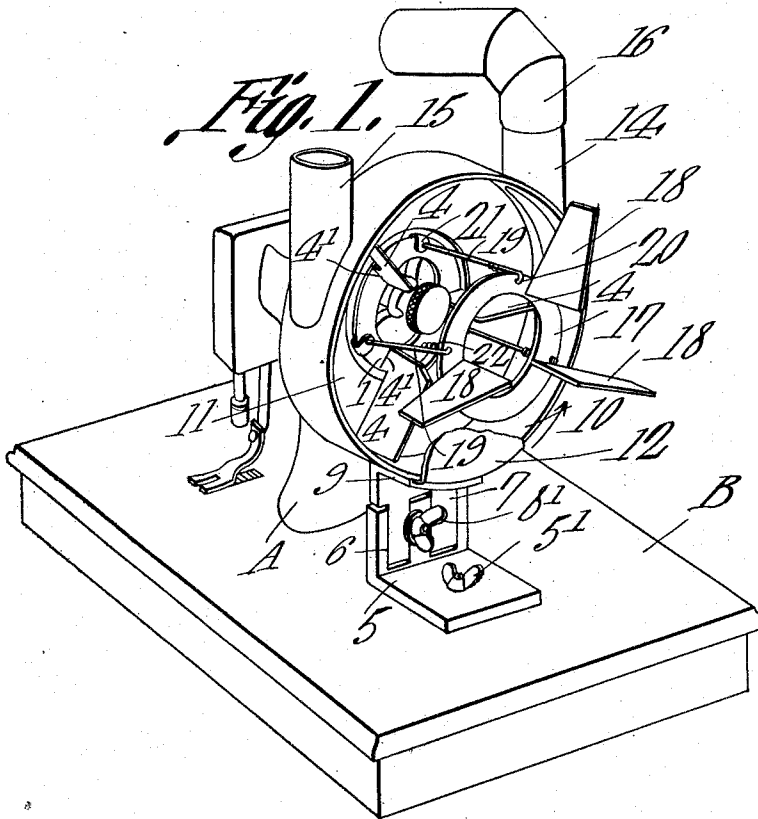


W. J. WHITE.
FAN ATTACHMENT FOR SEWING MACHINES.
APPLICATION FILED AUG. 4, 1911.

1,015,367.

Patented Jan. 23, 1912.



Witnesses

J. H. White
L. H. White

Wilson J. White,
Inventor

by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

WILSON J. WHITE, OF ARKANSAS CITY, KANSAS.

FAN ATTACHMENT FOR SEWING-MACHINES.

1,015,367.

Specification of Letters Patent.

Patented Jan. 23, 1912.

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To all whom it may concern:

Be it known that I, WILSON J. WHITE, a citizen of the United States, residing at Arkansas City, in the county of Cowley and State of Kansas, have invented a new and useful Fan Attachment for Sewing-Machines, of which the following is a specification.

The present invention relates to improvements in a fan attachment for sewing machines, the primary object of the invention, being the provision of an attachment adapted to be connected to the fly wheel and top respectively, of a sewing machine, so that rotation of the shaft in either direction will create a suction to dispel the air in confined currents toward the operator and away from the machine, as desired, the device being so constructed as to act as a momentum device to assist in the rotation of the fly or balance wheel of the machine, and not to in any way effect the easy running of the drive shaft of the machine.

A further object of this invention is the provision of a novel construction of detachable fans, one fan being disposed to create current, which is conducted toward the operator during the sewing operation and yet not affect the work being operated upon by the needle, in combination with an auxiliary fan disposed exteriorly of the first mentioned fan so as to direct currents of air away from the machine and agitate the air within the room.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a perspective view of the device in operable relation, the cover of the casing being broken away to clearly show the interior construction. Fig. 2 is a vertical central sectional view through the complete device as attached to a sewing machine. Fig. 3 is an enlarged detail view of the auxiliary fan and its connecting means.

Referring to the drawings, A designates the fly wheel of a machine, and B the top of the table thereof.

The active portion of the fan device consists of an open disk or flat ring 1, provided with a series of spring clamping arms 2, by means of the bolts 3, of which, the said clamps are secured to the fly wheel of the machine and are retained in operable relation thereto as clearly shown in Figs. 1 and 2. Connected to the outer face of the ring disk 1 and extending at a slight tangent and peripherally thereof are the blades 4, each one of which is provided with the short engaging lug 5' forming the attaching means to the ring 1. Detachably connected to the top B is a right angled inside elevation supporting plate 5, provided with the grooved and slotted portion 6, the winged screw 5' being adapted to secure the plate to the machine top as clearly shown, so that the coöperative portion 6 and 8 of the bracket 7 are adjustably secured together by means of the winged screw 8', so that the device may be attached to various types of machines, the main shaft of which may vary relatively to the top B of the machine table. The upper member 9 of the bracket 7 is connected to the forward portion of the circular rim 10 of the fan chamber, and is provided with the inner annular wall 11 having an aperture adapted to aline with the fly wheel and through which the clamping arm 2 and annular ring 1 are adapted to project, and rotate without touching the body of the fan chamber, the diameter of the fan chamber being sufficient to permit the rotation of the fan blades 4 therein. Rotatably mounted upon the outer rim 10 of the casing is a circular cover 12 having a concentric opening 13 which is of substantially the same diameter as the central opening of the wall 11, and providing means whereby access may be had to the interior of the fan chamber and the fan therein.

Communicating with the fan chamber at a tangent thereto and projecting upwardly from opposite sides thereof are the respective conduits 14 and 15, which according to the rotation of the fan within the casing are the respective intakes and outlets of the same, the conduit 14 being the outlet when the fan is rotated in the direction of the arrow in Fig. 1, and vice versa when rotated in the opposite direction. Adapted to be detachably connected to the upper end of either of the conduits 14 and 15 is an elbow 16, to be disposed, or swiveled, to

permit the turning thereof, to conduct the current of air caused by the fan rotating within the fan chamber during the operation of the machine, upon the operator without affecting the work which is being acted upon by the needle of the machine.

A further attachment for this device consists of the flat annular ring 17, which has attached thereto the series of fan blades 18, as clearly shown in Figs. 1 and 2, and connected to said ring and adapted to project through the opening 13 of the cover 12 are a series of rods or connecting arms 19, whose hooked ends 20 are pivotally connected in the body of the ring 17 as clearly shown, and are provided upon their other ends with the clamping plates 21 which are adapted to clamp upon the periphery of the annular flat ring 1, as clearly shown in Fig. 1, and be held thereagainst by means of their respective individual springs 22, said spring exerting a tension to hold the arms toward each other and therefore against the centrifugal action during the rotation of the ring 1 and upon the periphery thereof, so that the rotation of the ring 1 will impart through the arms 19 a similar rotative motion to the ring 17 and its fan blades 18, said fan blades 18 being exterior of the cover 12, and creating a current of air to agitate the air within the room. As before stated this attachment may be, or may not be, used, as desired, since by means of the spring actuated arms 19 and the clamping plates 21, it is readily placed in operable position and removed when desired.

What is claimed is:

1. The combination with a sewing machine, of a fan attachment therefor, having a fan, means for detachably connecting the same to the fly wheel of the sewing machine, a fan casing having an adjustable air conducting outlet, an adjustable support for the casing to attach the same to the top of the machine, and another fan detachably connected to the first mentioned fan and operable exterior of the casing.

2. The combination with a rotating shaft, of a fan attachment, comprising a flat disk, a series of fan blades connected to one face thereof, a series of clamping arms connected

to the other face and adapted to be detachably connected to said rotating member, a casing adapted to surround the said ring and blades and provided with an inlet and an outlet conduit, both of said conduits being disposed at a tangent in the upper portion of the casing, an adjustable conduit connected to one of said conduits for directing the current of air caused by the fan within the chamber to the desired point, two coöperatively connected supporting brackets connected to the fan casing for retaining the casing in the proper relative position to the fan, and an auxiliary fan detachably connected to the flat disk of the first mentioned fan and operable exterior of the fan casing.

3. The combination with a rotating shaft, of a fan attachment, comprising a flat disk, a series of fan blades connected to one face thereof, a series of clamping arms connected to the other face and adapted to be detachably connected to said rotating member, a casing adapted to surround said disk and blades and provided with an inlet and an outlet conduit, both of said conduits being disposed at a tangent in the upper portion of the casing, an adjustable conduit connected to one of said conduits for directing the current of air caused by the fan within the chamber to the desired point, two coöperatively connected supporting brackets connected to the fan casing for retaining the casing in the proper relative position to the fan, said fan casing being provided with a removable cover having a concentric aperture therein, an annular ring, a series of blades carried thereby, and a series of spring actuated clamping arms carried by said ring and adapted to project through the aperture in the cover of the casing and engage the flat disk to connect the outer blade and ring to the inner disk and blade.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILSON J. WHITE.

Witnesses:

W. L. CUNNINGHAM,
ETTA WARTICK.