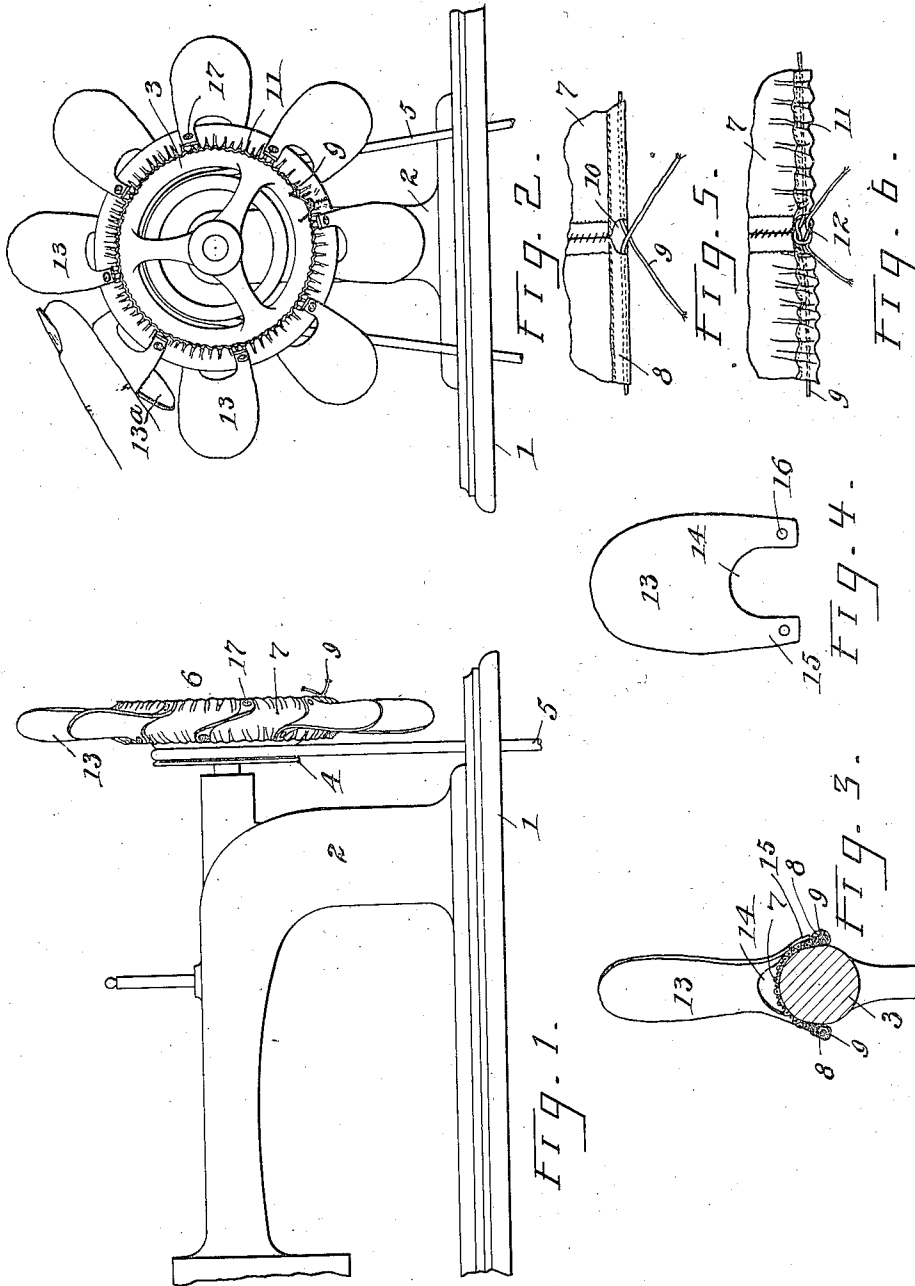


T. G. GRIGGS.
FAN ATTACHMENT FOR MACHINES.
APPLICATION FILED DEC. 2, 1911.

Patented Oct. 29, 1912.

1,042,431.



WITNESSES:

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UNITED STATES PATENT OFFICE.

THEODORE G. GRIGGS, OF SPRINGFIELD, NEW JERSEY.

FAN ATTACHMENT FOR MACHINES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THEODORE G. GRIGGS, a citizen of the United States, and resident of Springfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Fan Attachments for Machines, of which the following is a specification.

This invention relates to a fan attachment for sewing machines and similar machines.

The object of the invention is to produce an attachment of this class which is simple in construction, which can be readily applied to the wheel of a machine which is driven by an operator, and which will create a current of air to cool the operator of the machine.

A further object of the invention is to construct the fan in such a way that it can be readily attached to the wheel of the machine and to construct the fan so as to prevent any injury occurring from its blades as they revolve with the wheel.

The invention consists in the construction and combination of parts to be more fully described hereinafter, and particularly set forth in the claims.

In the drawing which fully illustrates my invention, Figure 1 is a front elevation showing the table and a portion of the housing of a sewing machine and illustrating the fan attachment applied to the hand-wheel of the machine. Fig. 2 is an end elevation of the parts shown in Fig. 1. Fig. 3 is a transverse section through the rim of the hand-wheel and through the fan attachment, further illustrating the construction of the device. Fig. 4 is a plan showing one of the blades of the device removed. Fig. 5 is a developed plan showing a portion of the edge of the ring or body of the attachment and particularly illustrating the means for securing it to the wheel. Fig. 6 is a view similar to Fig. 5, but showing the manner in which the attachment may be adjusted when being secured to the wheel.

Referring more particularly to the parts, 1 represents the sewing machine table upon which the housing 2 is mounted, in the usual manner. At the right of this housing 2 the machine is provided with a handwheel 3 of the usual construction, adjacent to which there is provided a belt pulley 4 over

which passes a driving belt or cord 5 which drives the needlebar of the machine.

My invention consists in the fan attachment 6 which is mounted on the wheel 3 as shown. The attachment consists of a band or ring 7 of flexible material, preferably cloth; the edges of this ring are formed with hems 8, and in these hems are provided running strings or draw-strings 9 which are in the form of elastic cords, the ends of which pass out of the hems through suitable openings, as illustrated at 10 in Fig. 5. The band or ring 7 may be slipped over the frame of the wheel 3, as illustrated, and the cords 9 will then tend to contract so as to produce puckers or shirring 11, and hold the band on the rim. The ends of the cords may be formed into a knot 12, as illustrated in Fig. 6.

The band or ring 7 is provided at intervals with a plurality of blades 13 which are of flexible material, such as cloth or felt, enabling them to fold or flex as indicated at 13^a. These blades are preferably of the form shown in Fig. 4, and the inner end of each blade is cut away so as to form a throat 14, conforming substantially to the curvature of the rim of the wheel 3. At the sides of this throat 14, each blade is provided with ears 15, which turn in opposite directions and are attached at the openings 16 by means of rivets or eyelets 17 to the band or ring 7 of the attachment.

The blades are attached so that they are disposed substantially radially from their point of attachment and inclined as shown so as to give them a "pitch." The direction or character of this pitch is determined by the direction of rotation of wheel 3, and the pitch should be such that a current of air will be developed longitudinally of the table, that is, in the general direction of the person operating the machine. In this way I produce a fan the blades of which will effectively induce a current of air, but which, on account of their flexibility, cannot cause any injury if they strike one's person. On account of the construction of the ring, 7, it will be evident that the cords 9 can be loosened and their tension can be readily adjusted, as the strength of the cords becomes reduced from use.

The device can evidently be very readily and economically constructed, and can

readily be attached to the wheel 3, or detached when desired.

On account of the fact that the blades 13 extend radially from their point of attachment, the centrifugal force tends to keep them extended, and stiffens them so that the effectiveness of the fan is increased.

What I claim and desire to secure by Letters Patent is:

10 1. A fan comprising a body adapted to be rotated at a high speed, and exposed unguarded flexible radial blades attached to said body and adapted to be deflected to prevent injury to an object thrust into the
15 path thereof.

2. A fan attachment having a flexible annular body adapted to be attached to the rim of a rotatable wheel and flexible blades

attached to said body extending radially from their points of attachment and adapted to induce an air current. 20

3. A fan attachment for a sewing machine hand-wheel, comprising a flexible band adapted to go over the rim of the hand-wheel, draw-strings mounted at the edges of said band and adapted to secure the same on the hand-wheel, and blades attached to said band for inducing an air current. 25

Signed at Elizabeth in the county of Union and State of New Jersey this 29th day of November, A. D. 1911. 30

THEODORE G. GRIGGS.

Witnesses:

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