No. 668,840. Patented Feb. 26, 1901.

A. C. MEIER.

FAN ATTACHMENT FOR SEWING MACHINES.

(Application filed July 21, 1900.)

(No Model.)

Fig. 1.

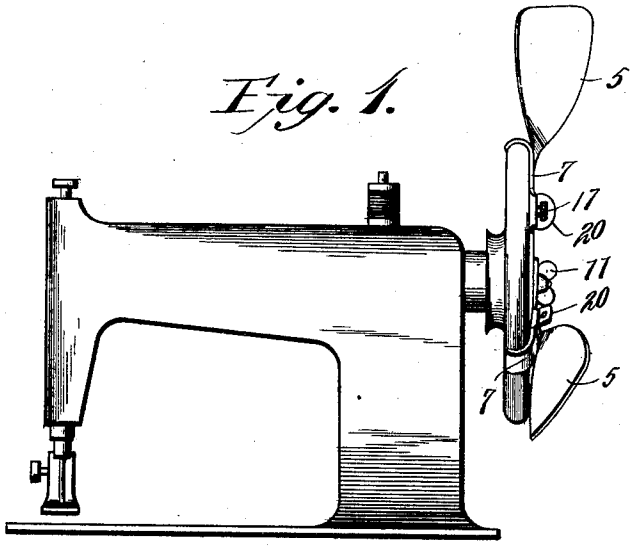


Fig. 2.

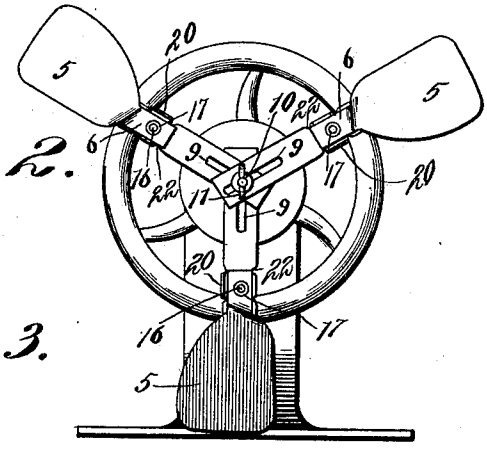
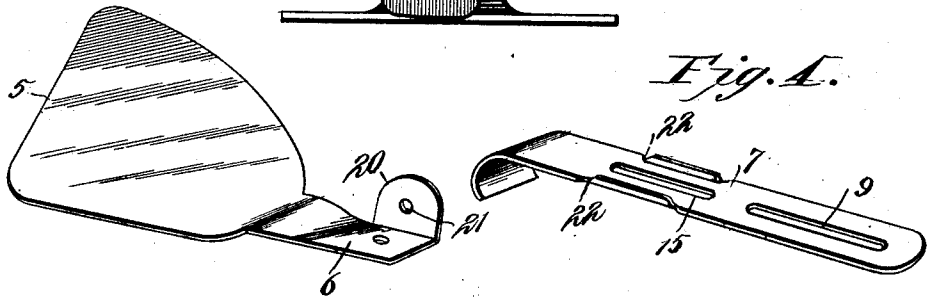


Fig. 3.

Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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FAN ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 668,840, dated February 26, 1901.

Application filed July 21, 1900. Serial No. 24,457. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH C. MEIER, a citizen of the United States, residing at Sedalia, in the county of Pettis and State of Missouri, have invented a new and useful Fan Attachment for Sewing-Machines, of which the following is a specification.

This invention relates to fan attachments in general, and more especially to that class particularly adapted for attachment to the fly-wheels of sewing-machines, although it will be understood from the following description that it may be secured to other specific machinery, the object of the invention being to provide a construction which may be easily and quickly attached and may be firmly held in place, a further object being to provide for fitting the attachment to wheels of different diameters and for accurately centering the blades.

An additional object of the invention is to provide a construction in which the blades may be easily and quickly reversed to secure the desired direction of draft irrespective of the direction of rotation.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is an elevation showing a portion of a sewing-machine with the present fan attached thereto. Fig. 2 is an end elevation of the machine, showing the face of the fly-wheel and illustrating the position of the fan-blades with respect thereto. Fig. 3 is a detail perspective view showing one of the fan-blades. Fig. 4 is a detail perspective view showing one of the clips for holding the blades to the fly-wheel.

Referring now to the drawings, the present attachment comprises a plurality of blades 5, (in the present instance three in number,) and each of these blades has a longitudinally-extending stem 6 at its inner end and with respect to which stem the blade is turned at an angle to secure the proper pitch of the resultant fan.

In connection with each fan-blade there is employed an attaching-clip consisting of a plate 7, of metal, and having a length somewhat greater than the radius of the largest wheel to which the attachment is to be applied, the outer ends of these plates being bent into hook shape to fit over the periphery of the fly-wheel, while their inner end portions are longitudinally slotted, as shown at 9, for engagement by a clamping-bolt 10, having a thumb-screw 11. The several clip-plates are pivotally movable upon the clamping-bolt and are also slidable with respect thereto and may be clamped rigidly in any of their numerous positions by means of the thumb-nut. Thus the hooked ends of the clip-plates may be engaged over the periphery of the fly-wheel, and after bringing the plates to lie radially of the wheel and with the clamping-bolt engaged with the slots thereof the thumb-nut may be screwed up, and the several clip-plates will be held firmly in place.

In order to attach the fan-blades to the clip-plates, each of the plates has a longitudinal slot 15, disposed inwardly or rearwardly from the hooked ends, and with these slots are engaged clamping-bolts 16, which are also engaged with perforations in the stems of the fan-blades, said bolts having nuts 17 to provide for clamping the blades upon the plates. The bolts are slidable longitudinally of the slots 15 in order that the blades may be projected to a greater or less degree to secure the best results under different conditions of operation.

In order that the fan-blades may be reversed, a lug or ear 20 is formed adjacent one edge of the stem of each blade, and each of these lugs has a perforation 21 for engagement by the clamping-bolt 16 interchangeably with its engagement with the perforation in the stem. The lug of each blade lies at the same angle to the blade as does the stem, but extends at the opposite side of the perpendicular to the blade, and thus when the blade is adjusted to engage the clamping-bolt with the perforation of the lug the pitch of the blade will be the same in degree, but will be reversed. To prevent pivotal movement of the blades with respect to the clip-plates, the side edges of the clip-plates are notched, as shown at 22, and the plates between the notches are bent upwardly for engagement by the stems of the blades, as shown in Fig. 2 of the drawings.

It will be understood that in practice vari-

ous modifications of the construction shown may be made and that any suitable materials and proportions may be used.

What is claimed is—

1. A fan attachment comprising a plurality of plates having hooks at their outer ends for engagement over the periphery of a wheel and having slots adjacent their inner ends, said plates being disposed with their slotted portions overlapping, a clamping-bolt engaged with the slots for clamping the plates in fixed relation, and fan-blades carried by the plates.

2. A fan attachment comprising a plurality of plates having the outer ends adapted for engagement over the periphery of a wheel and having longitudinal slots at their inner ends, said plates being disposed with their slotted portions overlapping, a clamping-bolt engaged with the slots of the plates to hold them in fixed relation, and blades adjustably connected with the plates.

3. A fan attachment comprising a supporting-plate and a fan-blade, said blade having a stem lying at an angle to the blade, and a lug upon the stem and projecting in a different direction from the blade, said stem and lug being adapted for interchangeable connection with the supporting-plate to change the position of the blade.

4. A fan attachment comprising a supporting-plate having upturned edges, and a fan-blade having a stem provided with a lug, said stem and lug lying at different angles to the blade and adapted to lie interchangeably between the upturned edges of the plate and hold the blade at different angles to the plate, said upturned edges being adapted to hold the stem or lug against lateral displacement.

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

ADOLPH C. MEIER.

Witnesses:

JOHN JULIUS,

F. E. HOFFMAN.