

J. W. MIGRATH.
CLAMP FAN ATTACHMENT FOR MACHINERY.
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898,492.

Patented Sept. 15, 1908.

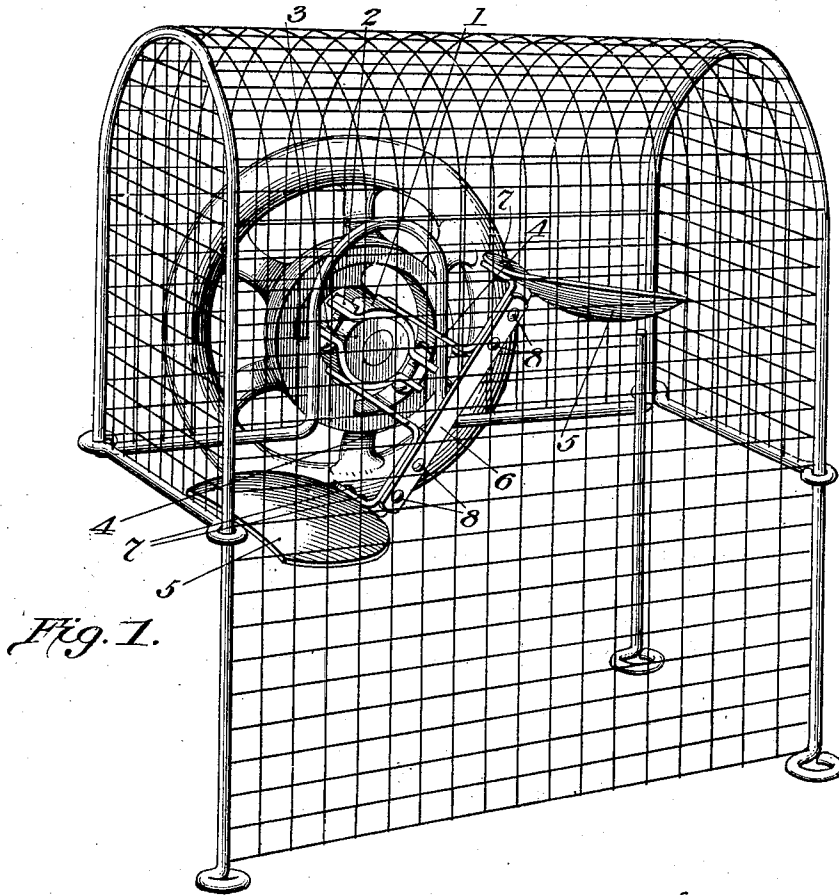


Fig. 1.

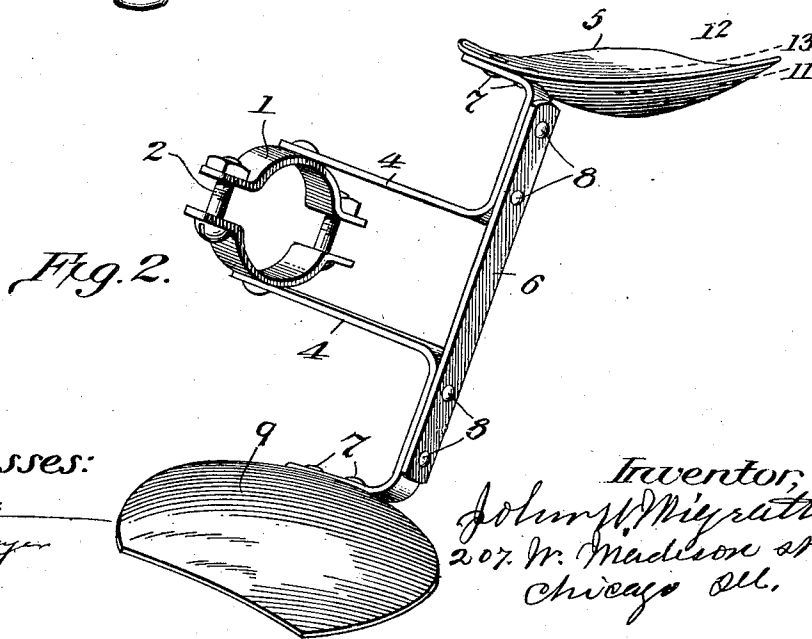


Fig. 2.

Witnesses:

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CLAMP-FAN ATTACHMENT FOR MACHINERY.

No. 898,492.

Specification of Letters Patent.

Patented Sept. 15, 1908.

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To all whom it may concern:

Be it known that I, JOHN W. MIGRATH, a citizen of the United States, residing in the city of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Clamp-Fan Attachments for Machinery.

The objects of the invention are the following:—

10 When attached to the machine and rapidly revolved,

1st. To set in motion, to cool and purify the air in room or apartment.

2nd. To direct a current of cool air on the operator of the machine (in hot weather).

3rd. To blow away any dust that may arise from the work being done.

4th. To prevent the operator from inhaling the dust, rising from the work.

20 It is easily applied by putting the clamps on the hub projection of the balance wheel or shaft of the sewing machine, or other machinery and screwing it on very firmly. It is simple to construct. It is firmly made of the best cold rolled steel and when firmly attached to the machine is safe and serviceable.

Figure 1 in the accompanying drawing which forms a part of this specification, is a view in perspective of the fan attached to the projecting hub of the balance wheel of a machine and inclosed by a protecting guard. Fig. 2, is a view in perspective of the fan detached.

35 The following is a brief description of the different parts of the fan.

1—1 are the clamp members. 2—2 the screws and nuts. Fig. 1, shows the mode of attaching the fan firmly on the projecting hub of the balance wheel or shaft of machine, which hub is designated by 3.

4—4 are the arms which project from the clamp to end where the fan blades are riveted on.

5 is the concave or front side of a blade. 6 is the brace, holding the arms firmly.

7—7 are the rivets holding the blade on the arms.

8—8 are the rivets holding the brace that holds the arms firmly.

9 is the convex or back side of blade. The concave or front of blades is set at a

slight angle to the plane of rotation, the left edge about an inch further back than the right edge. This position of the blades is given to force the current of air to the left, as the right edge of the blades first catches the air and forces it down in the concave dish of the blade in greater volume than a flat blade would do and out in a more compact current on the upward slant of the lower left side almost at right angles towards the needle end of machine, or between the machine and operator, or directly on the operator (in hot weather) as desired.

The change in the direction of the current is made by slightly changing the front edge of the blades of the fan to the right or left. See dotted lines Nos. 11 and 12 Fig. 2. If the current is too strong on the operator and wanted more towards the machine by shifting the front edge of the blades slightly to the left the current is sent in the direction wanted. If the current is too much on the machine, then twist the blades to the right slightly. See dotted lines in drawing Fig. 2, Nos. 11 and 12. The angle of the blades can also be changed by slightly bending the section of the arm to which the blades are fastened either towards or from the axis of rotation.

The guard frame is made of $\frac{1}{8}$ tined wire and covered with fine wire mesh, and is intended to be screwed to the machine table.

The fan is made in two sizes. One with two blades with a segment cut off, and one with four blades for stronger currents of air for different kinds of work and machines. The reason why a segment is cut off the blades of the two bladed fan for the sewing machines run by power, is that a full circle blade interferes with the bobbin winder on some machines.

The reason for using the concave or dish shaped blade has been explained as to gather the current of air in a more compact volume that it can be directed better than it possibly could be done with a flat faced blade.

What I claim is—

A fan to be attached to machinery the combination with two clamp-members adapted to embrace a shaft, means for clamping them against said shaft, arms projecting from

said clamp-members in the direction of the axis of the shaft and bent into directions radial to the shaft at their outer ends, fan blade secured to the extremities of the radial
5 portions of the arms, and a brace bar secured to the radial portions of the two diametrically opposite arms.

In testimony of all which I have hereunto subscribed my name.

JOHN W. MIGRATH.

Witnesses:

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