No. 888,575. PATENTED MAY 26, 1908.

A. BARTH & J. L. SAUTER.

ROTARY FAN.

APPLICATION FILED JUNE 22, 1906.

Fig. 1.

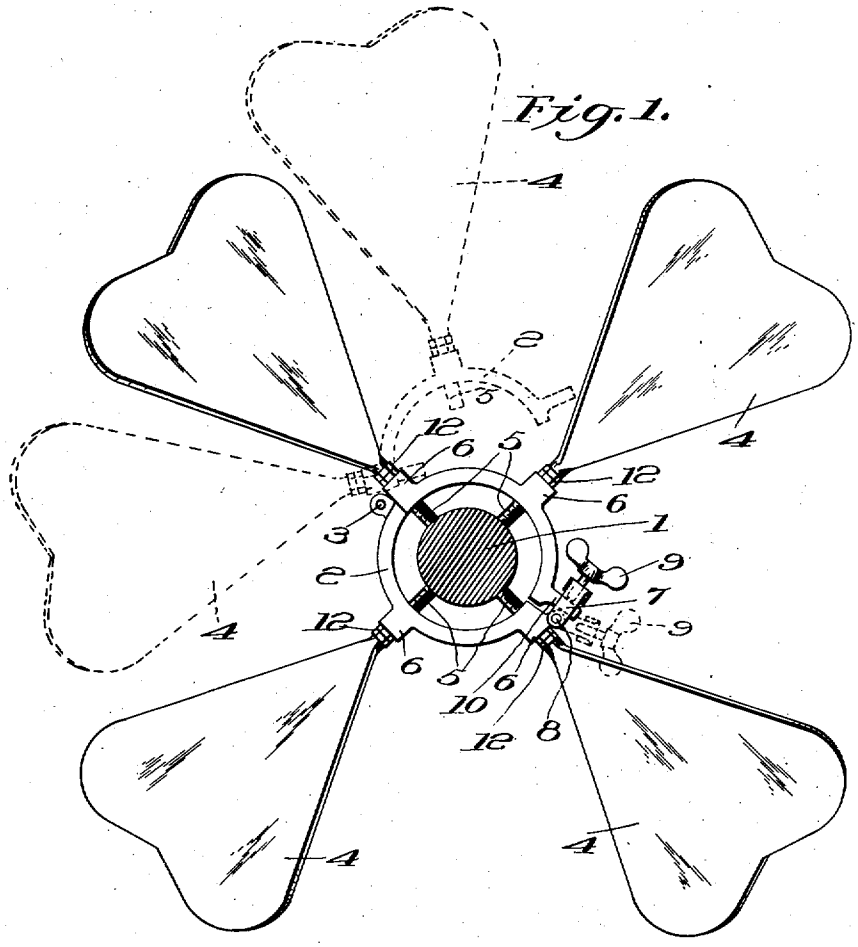


Fig. 2.

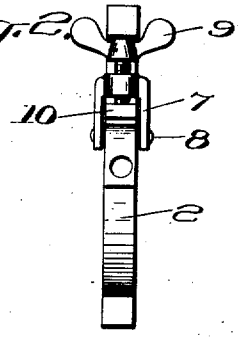
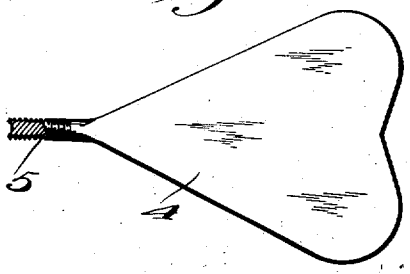


Fig. 3.



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ROTARY FAN.

No. 888,575. Specification of Letters Patent. Patented May 26, 1908.

Application filed June 22, 1906. Serial No. 322,921.

To all whom it may concern:

Be it known that we, AUGUST BARTH and JOSEPH L. SAUTER, citizens of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Rotary Fan, of which the following is a specification.

Our invention relates to a rotary fan, particularly adapted to be applied to power driving shafts, and consists of the adjustable fan blades, fitted to a clamping ring by which the fan can be secured to various size shafts and in its various details of construction.

The object of our invention is to provide a fan, of a simple, efficient and durable construction by which it can be removably secured to a power driving shaft, and the fan blades conveniently shifted to any angle without the displacement of any of the parts. It is very desirable for use in a shop and can be operated without any additional expense for power.

In the accompanying drawings Figure 1 is a face view of our invention. Fig. 2 is an end elevation thereof with the fan blades removed and Fig. 3 is a side elevation of a fan blade detached with a portion shown in section.

Like numbers refer to the same parts in all the figures.

1 indicates the power driving shaft, 2 the split clamping ring hinged at 3, 4 4 fan blades having integral stem 5 5, threaded to fit the bosses 6 6 of the clamping ring and projecting through said clamping ring to engage with the shaft.

7 is a clip pivoted at 8, and 9 a thumb screw engaging with the ear 10 integral with the clamping ring for clamping the parts around the shaft.

12 12 are lock nuts by which the stems of the fan blades are adjusted in relation to various size shafts and fan blades locked in position at any angle or pitch desired.

By this arrangement of the parts the fan can be readily secured to different size shafts without removing any of the parts and the fan blades shifted to any angle desired, to distribute the air and properly regulate the ventilation.

The tips of the stems 5 may be curved or cup shaped to fit and grip the shaft as shown ing Fig. 3.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent, is:—

1. In a fan to be secured to rotating shafts, combination with a clamping ring, of fan blades, stems integral with the fan blades to engage with said power shaft, of the means of securing the fan blades at any angle to said clamping rings, and an adjustable means for securing the fan to shafts of various sizes.

2. In a rotary fan the combination with the power shaft of the hinged clamping ring, fan blades, threaded stems integral with said fan blades, said stems being adjustably fitted to the clamping ring, of a means of securing the fan blades at various angles, said stems projecting through the ring to engage with the power shaft, and means to clamp the fan in position.

3. In a fan for rotating shafts, the combination of a clamping ring divided into two sections hinged one to the other, of an outwardly and radially extending lip on the end of one section, a clip hinged to the corresponding end of the other section and adapted to be swung to embrace said lip, a thumb screw on the lip to engage with the lip and clamp the device on the shaft, a plurality of integral bosses on the exterior of the ring, said bosses being provided with screw-threaded holes, a plurality of fan blades, threaded stems on the fan blades fitted to said threaded holes for securing the fan blades at different angles, said stems projecting through the clamping rings to engage with the shaft and jam nuts on said stems, substantially as described and shown.

4. In a rotary fan, the combination with the shaft, of the hinge clamping ring, fan blades, threaded stems integral with said fan blades, having curved, or cup shaped tips to engage with the shaft, said stems being engaged to the clamping ring for securing the fan blades in proper relation to various sized shafts, said stems projecting through the ring, of the means to clamp the fan in position, and into engagement with the shaft.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

AUGUST BARTH.
JOSEPH L. SAUTER.

Witnesses:
C. C. SCHOENECK,
A. C. THOMAS.