E. GOOSCH.

FAN.

APPLICATION FILED APR. 13, 1908.

900,520. Patented Oct. 6, 1908.

Fig. 1.

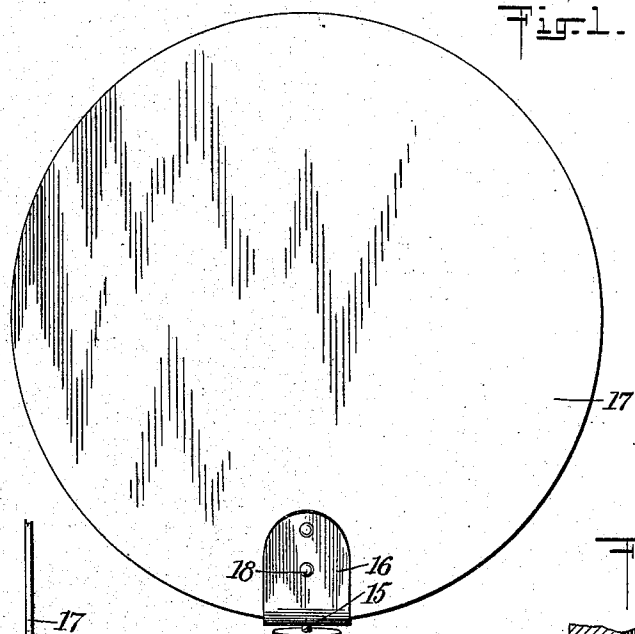
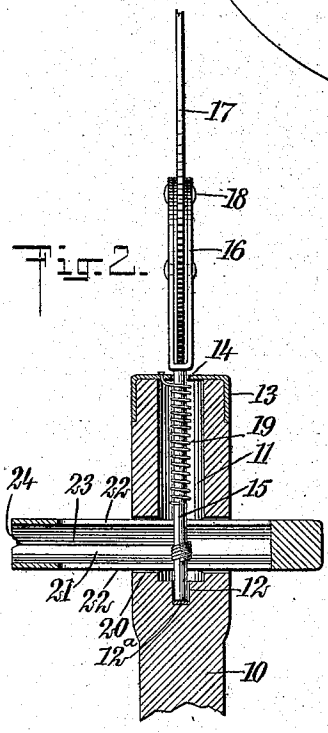


Fig. 2.



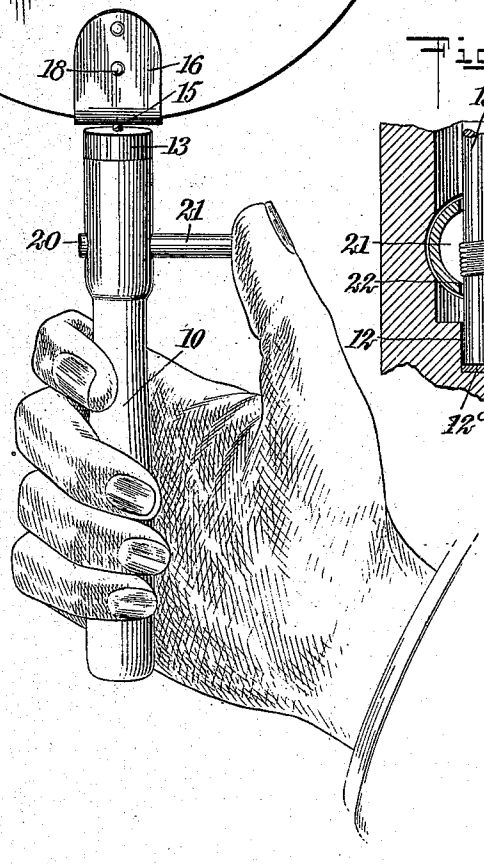
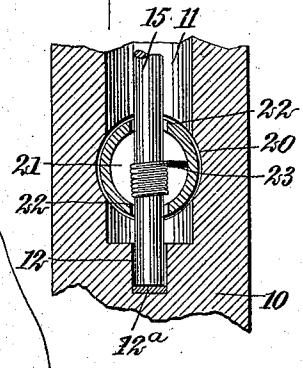


Fig. 3.



WITNESSES

John K. Buchsorgh

INVENTOR

Emil Goosch

BY Munn & Co.

ATTORNEYS

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EMIL GOOSCH, OF NEW YORK, N. Y.

FAN.

No. 900,520. Specification of Letters Patent. Patented Oct. 6, 1908.

Application filed April 13, 1908. Serial No. 426,708.

To all whom it may concern:

Be it known that I, EMIL GOOSCH, a subject of the Emperor of Austria-Hungary, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Fan, of which the following is a full, clear, and exact description.

This invention relates to fans, and more particularly to a fan having a rotatable leaf and a reciprocable member movable transversely of the handle, and operable to rotate the leaf.

An object of the invention is to provide a simple, strong and durable fan, the leaf or blade of which can be adjusted easily, and can be rapidly rotated to set up an air current, and which requires little exertion for its operation.

A further object of the invention is to provide a fan of the class described, in which the leaf or blade is rotatable and is controlled by a reciprocable member, movable transversely of the handle and operable by the thumb of the user of the fan, the reciprocable member operating the leaf and having means tending to maintain it in a normal position.

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

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which

Figure 1 is a perspective view showing my fan in operation; Fig. 2 is an enlarged transverse section showing a portion of the leaf and the upper part of the handle, together with the reciprocable member controlling the leaf; and Fig. 3 is an enlarged longitudinal section showing the reciprocable member in cross section.

Before proceeding to a more detailed explanation of my invention, it should be clearly understood that my device is particularly useful in connection with hand fans to be used during warm weather, and in sick-rooms and the like. The fan can be operated to set up a cooling current of air, by merely moving the thumb of the hand which holds it, and thereby is obviated the necessity for moving the wrist or the arm, as well as useless exertion, which heats the body and tires the person using the fan. The leaf or blade of my fan is rotatable about an axis substantially coincident with the axis of the handle, and is controlled by a reciprocable member movable transversely of the handle and positioned so that it can be easily and conveniently operated by the thumb. A spring serves to return the reciprocable member to an initial position from which it is displaced by the thumb, and thus rotates the blade in the opposite direction to the direction of movement imparted to the leaf by the member.

Referring more particularly to the drawings, 10 represents the handle of the fan, which may be of wood or any other suitable material. Preferably the handle is formed so that it can be conveniently grasped by the hand and can be easily held in an operative position. At the upper end, the handle has a longitudinal bore or recess 11, at the bottom of which is a smaller recess 12 constituting a socket for a purpose which will appear hereinafter. A cap or ferrule 13 is mounted at the end of the handle and substantially closes the open end of the bore 11. The cap has a substantially central opening 14 which receives a spindle 15. The spindle is rotatable and has an end movably seated in the socket 12 and which has a locking plate 12^a therein.

A clip 16 preferably of U-section, is removably carried at the projecting end of the spindle 15 and serves to hold the fan leaf or blade 17. The latter may be of paper or any other suitable material, and is secured to the clip by means of rivets 18. A helical spring 19 is arranged upon the spindle 15 within the bore 11 and has one end permanently secured at the cap 13 and the other end fastened to the spindle, so that the latter is held resiliently in an initial or normal position.

The handle has a transverse bore or opening 20 therethrough, which intersects the bore 11. A substantially cylindrical or tubular reciprocable member 21 is movably arranged within the bore 20 and is provided with registering slots 22 which receive the spindle 15. The slots permit the spindle to extend through the reciprocable member without interfering with a limited movement thereof. The movement of the member is limited by its engagement at the ends of the slots with the spindle. A flexible, elongated member 23 consisting of a cord or the like, has one end permanently secured to the spindle within the reciprocable member, and

is wound upon the spindle. The other end of the line is fastened in a notched or tapered recess 24 at the end of the reciprocable member.

The arrangement of the parts is such that when the reciprocable member is moved in the direction of its length, the line 23 is unwound from the spindle and the latter is thereby rotated against the tension of the spring 19. In this way the fan leaf or blade is also rotated. When the reciprocable member is released, the spring at once rotates the spindle in the opposite direction and this returns the reciprocable member to its initial position and rotates the leaf in the opposite direction.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A fan, comprising a handle, a spindle arranged longitudinally of said handle, a leaf carried thereby, a resilient member wound upon said spindle and having the ends secured respectively to said spindle and said handle, a reciprocable member arranged to move transversely of said handle and having a slot to receive said spindle, and a flexible member secured to said reciprocable member and said spindle and partly wound upon the latter.

2. A fan, comprising a handle having a longitudinal bore, a spindle rotatably mounted in said bore and projecting therefrom, a leaf rigid with said spindle at its projecting end, said handle having a transverse bore, a cylindrical, reciprocable member movable in said transverse bore and having registering slots in the sides thereof to receive said spindle, a spring wound upon said spindle and having the ends secured respectively to said handle and said spindle, and a flexible member arranged within said cylindrical member and having the ends secured respectively to said spindle and said cylindrical member and partly wound upon said spindle.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EMIL GOOSCH.

Witnesses:

EUGENE MICSÁK,

JOSEPH MACISJEWSKEN.