

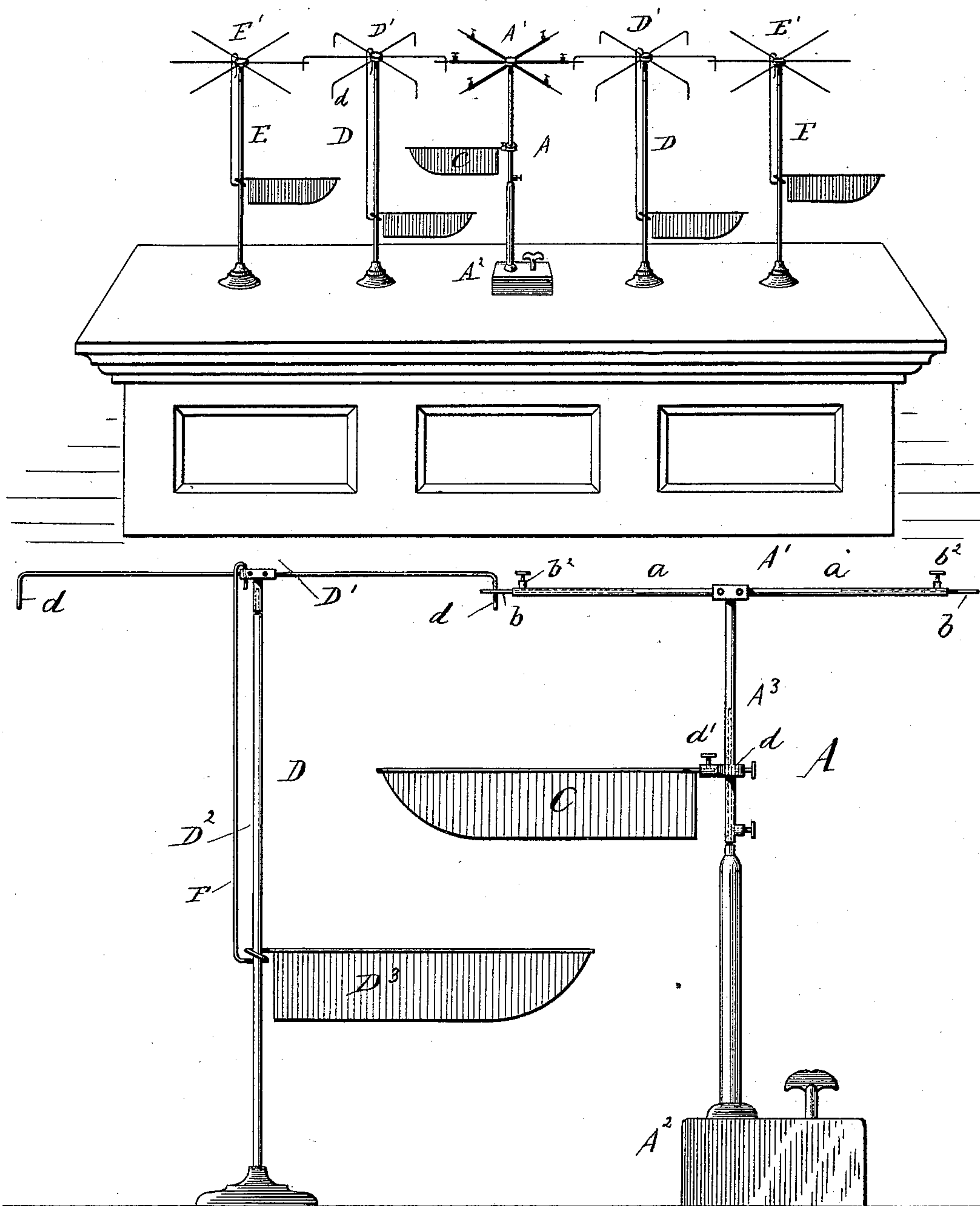
(No Model.)

C. F. WISLOH.  
FLY FAN.

No. 405,063.

Patented June 11, 1889.

Fig. 1.



WITNESSES:

J. H. Rosenbaum.  
Martin Petry.

Fig. 2.

INVENTOR

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BY

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# UNITED STATES PATENT OFFICE.

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## FLY-FAN.

SPECIFICATION forming part of Letters Patent No. 405,063, dated June 11, 1889.

Application filed February 6, 1889. Serial No. 298,882. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES F. WISLOH, of the city of New York, in the county and State of New York, a citizen of the United States, have invented certain new and useful Improvements in Fly-Fans, of which the following is a specification.

This invention relates to an improved fan of that class which is used in bar-rooms and restaurants for dispersing flies and other insects which usually congregate in large numbers on the lunch-counters in these; and the invention consists of a series of rotary fly-fans, which are provided at their upper ends with horizontal spider-frames, of which every alternating frame is provided at the ends with downwardly-bent arms. Each spider-frame is connected with the hanger-rod of a fan-blade which rotates with the spider-frame. One fan is driven by a suitable motor, and the spindle of its spider-frame is provided with an adjustable fan, the inclination of which serves to regulate the speed of the motor.

In the accompanying drawings, Figure 1 represents a perspective view of my improved fly-fan, showing the same arranged on a lunch-counter ready for use. Fig. 2 is a side elevation showing the motor-fan and one of the driven fans.

Similar letters of reference indicate corresponding parts.

My improved fly-fan for lunch-counters and other purposes consists of a motor-fan and of a number of secondary or driven fans D E, of which, preferably, an equal number is arranged at each side of the motor-fan. The motor-fan A is driven by a spring-motor A<sup>2</sup>, an electric motor, or other suitable prime motor, so as to rotate a spider-frame A', that is clamped to the upper end of the driving shaft or spindle of the prime motor A<sup>2</sup>. The spider-frame A' is provided with tubular arms a and extension-rods b in said arms, said extension-rods being clamped in position in the arms by suitable set-screws b<sup>2</sup>. The speed of the primary fan A is regulated by the fan-blade C, the angle of inclination of which is adjusted by a socket d and set-screw d', which socket is clamped to the spindle A<sup>3</sup> of the spider-frame A', as shown clearly in Fig. 2.

According to the inclination of the fan-blade C the motor rotates at a higher or lower speed.

The secondary fans D D, which are arranged adjacent to the primary or motor fan A, are also provided with spider-frames D', the arms of which are bent downward at their outer ends d, so as to be readily engaged by the arms of the primary spider-frame A'. The hubs of the spider-frames D' are provided with hollow sockets that turn on the upper ends of the upright supporting-standards D<sup>2</sup> of said secondary fans. A fan-blade D<sup>3</sup> is suspended from the hub of each spider-frame D' D' by a rod F, which is hooked into the hub at the upper end and provided with an eye or sleeve at the lower end, by which eye the fan is retained on the standard D<sup>2</sup>. The spider-frames D' of the secondary fans D engage again spider-frames E' of another set of secondary fans E, which latter are thus rotated by the secondary fans D. The spider-frames E' of the fans have no downwardly-bent ends, but are straight, like the spider-frame of the motor-fan A.

Any number of secondary spider-frames and secondary fans may be used, provided the number of the same on each side of the motor-fan is equal, and that the arms of the spider-frames of said secondary frames are provided alternately with bent and straight ends. By properly disposing the fly-fans on the lunch-counter or other place where the flies are to be kept away a very effective means is obtained for keeping the air in motion above said counter, and thereby chasing the flies away from the viands.

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

1. The combination, with a primary or motor fan having a spider-frame and fan-blade rotated by a prime motor, of a number of secondary fans arranged at both sides of the primary fan and provided with fan-blades, and the spider-frames, the alternating spider-frames having downwardly-bent and straight arms, substantially as set forth.

2. In a system of fly-fans, a primary or motor fan formed of a spider-frame and an adjustable fan-blade applied to the spindle of said spider-frame, a prime motor for rotating said spider-frame and fan-blade, and a num-



ber of secondary fans provided with rotary spider-frames, fan-blades rotating with said spider-frames, the alternating spider-frames having downwardly-bent and straight arms, 5 substantially as set forth.

3. In a fly-fan, the combination of a supporting-stand, a spider-frame supported at the upper end of said standard, a suspending hanger-rod connected with the hub of said 10 spider-frame and provided with a guide-eye

or sleeve for the upright standard, and a radial fan-blade on said hanger, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses. 15

CHAS. F. WISLOH.

Witnesses:

PAUL GOEPEL,  
JOHN A. STRALEY.