

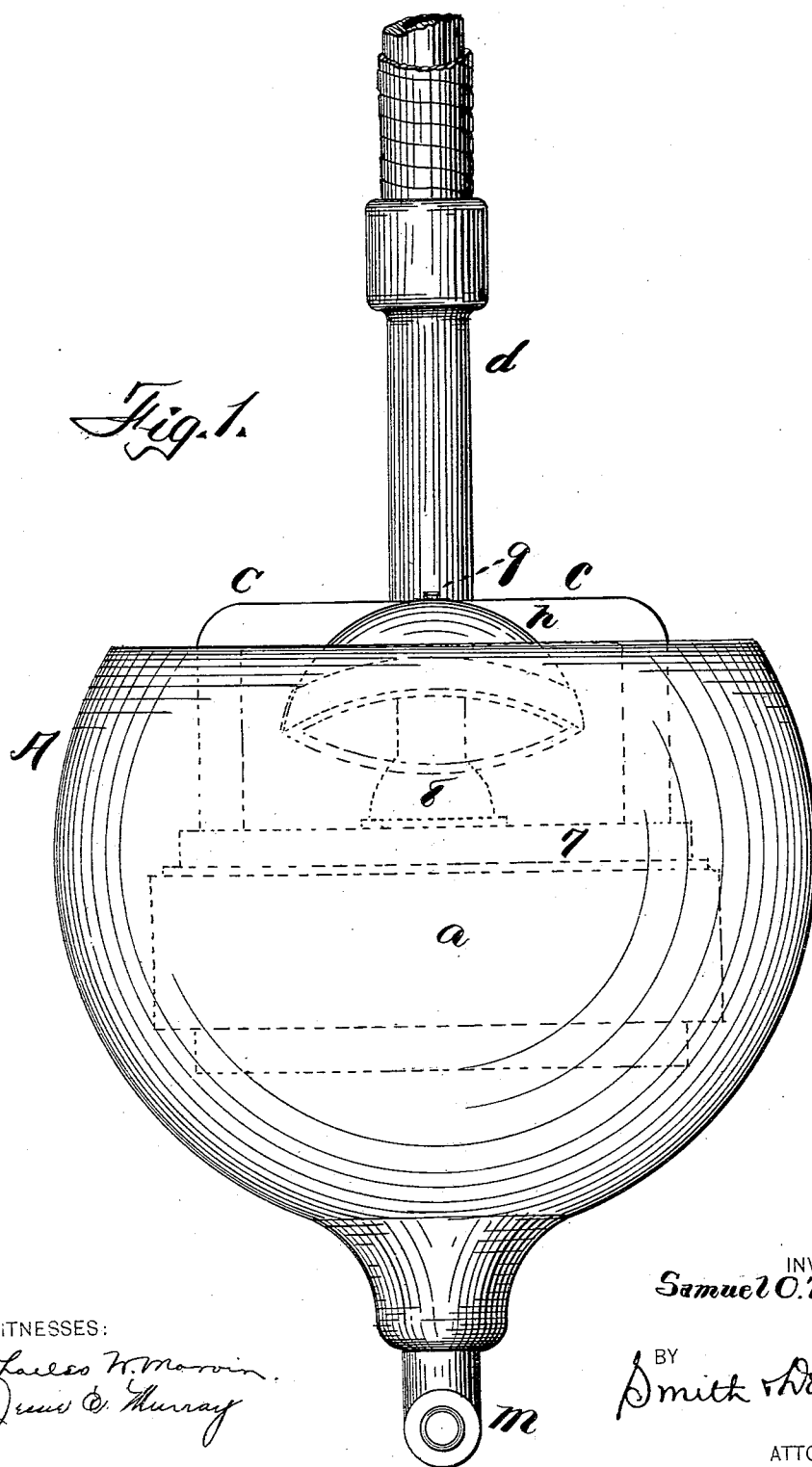
(No Model.)

2 Sheets—Sheet 1.

S. O. TUERK.
MOTOR DRIVEN FAN.

No. 555,294.

Patented Feb. 25, 1896.



WITNESSES:

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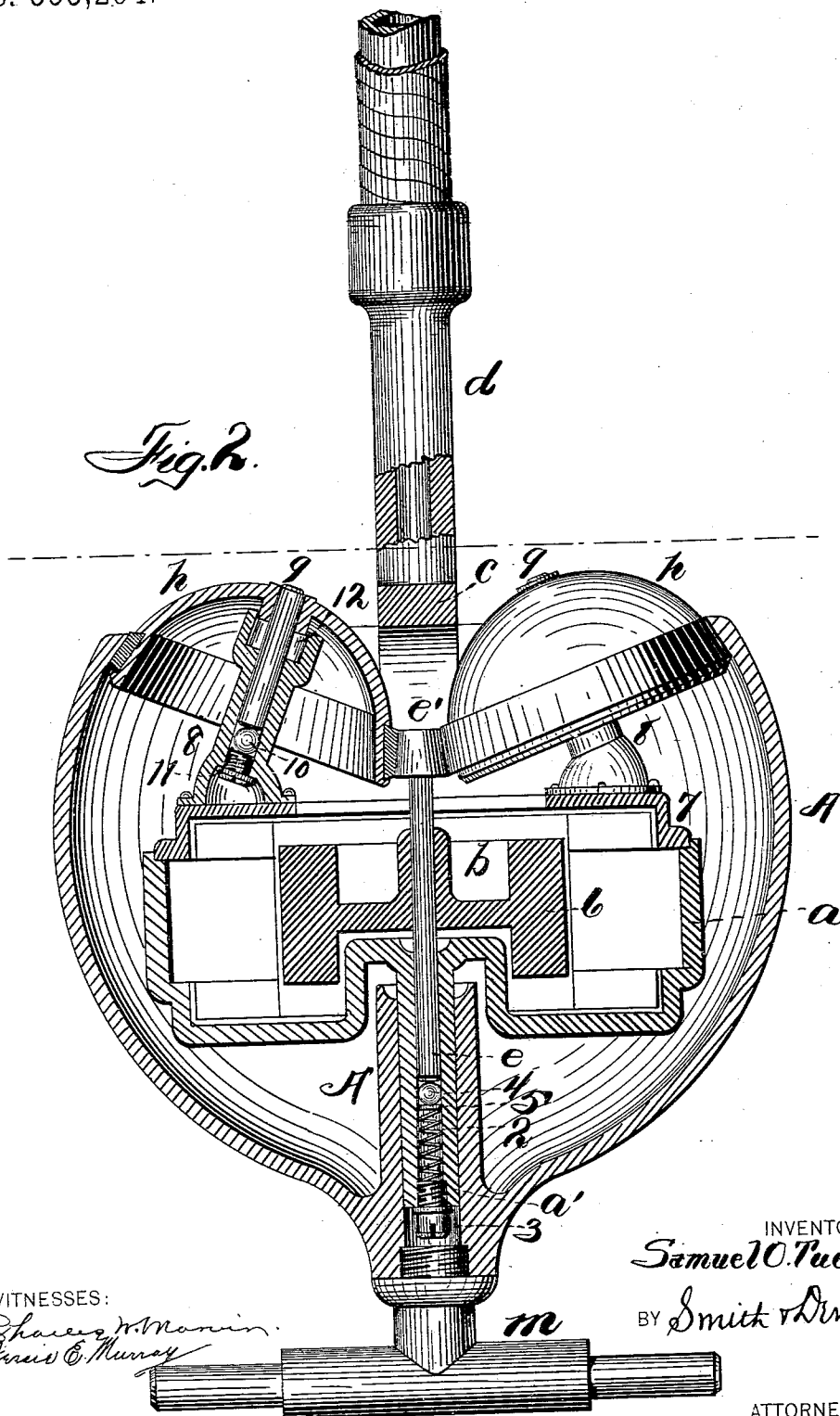
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UNITED STATES PATENT OFFICE.

SAMUEL O. TUERK, OF FULTON, NEW YORK.

MOTOR-DRIVEN FAN.

SPECIFICATION forming part of Letters Patent No. 555,294, dated February 25, 1896.

Application filed August 22, 1895. Serial No. 560,093. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL O. TUERK, of Fulton, in the county of Oswego, in the State of New York, have invented new and useful
5 Improvements in Motor-Driven Fans, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to motor-driven fans,
10 in which each fan is provided with a separate motor.

My object is to produce a fan comprising a case upon which the fan-arms are mounted, a motor-box supported stationary within the
15 case from the standard, a motor therein, a shaft driven by said motor and supported by a spring, a pulley thereon and wheels carried by the motor-box and engaging inwardly with said pulley and outwardly with said case,
20 whereby the speed of the motor is transmitted to the case and fans and reduced according to the ratio of the diameters of said pulley, wheels, and case, the case and fans being supported by the driving-wheels and pulley, so
25 that all wear is at once taken up and all slipping prevented, and at the same time the spring under the motor-shaft holds the pulley in proper engagement with said wheels. It is constructed as follows, reference being
30 had to the accompanying drawings, in which—

Figure 1 is a side elevation of part of the standard or hanger, the outer case, and fan-arms, the dotted lines indicating the motor-box and part of one of the intermediate wheels and its support, part of said wheel being shown
35 in full lines. Fig. 2 is a vertical sectional elevation of the same.

Inasmuch as many of the parts of this device are shown and described in another application, filed by me concurrently herewith,
40 those parts are only generally described herein, and these comprise the case A, the motor-box a, the motor b therein, the yoke c, which supports the motor and motor-box from the
45 standard or hanger d, and the fan-arms m mounted upon the case, and the motor-shaft e and its pulley e' and the driving-wheels h operate in the same manner to reduce the speed of the motor and drive said case and
50 fans at a much lower speed.

The motor-box is provided with a tubular stem a', in which the motor-shaft e is jour-

naled, and the case is provided with an internal vertical and tubular shank A', which is journaled to rotate upon and around said
55 stem. In this device a spring 2 is inserted into the stem a' and supported by a screw 3, and a ball 4 is placed on top of said spring in a suitable manner, as between washers 5, and said ball and spring carry the motor-shaft and
60 motor elastically and in such manner that the pulley always maintains the same relation to the driving-wheels, said shaft being connected to the armature 6 by an ordinary spline-joint. Upon the ring 7, to which the yoke is secured
65 and which partly closes the motor-box and to which it is secured, tubular standards 8 are mounted. In each of these standards a shaft 9 is journaled and a ball 10 and screw 11 form an adjustable supporting-bearing, a recess 12
70 being created in each standard to permit such adjustment, and upon each shaft a wheel h is secured. In this manner the case and fans are carried by these wheels, and the spring 2 holds the pulley in proper engagement with
75 said wheels.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with the supporting-
80 hanger, the motor-box stationary thereon, the motor in said box, and the motor-shaft and pulley thereon, of a case inclosing the motor-box and carrying the fans, standards erected upon the motor-box, and wheels journaled in
85 said standards and engaging with said case and pulley.

2. The combination with the supporting-hanger, the motor-box stationary thereon and provided with a tubular stem, the motor in
90 said box, the motor-shaft journaled in said stem, the spring in said stem supporting said shaft, and the pulley upon said shaft, of a case inclosing said motor-box and journaled upon its stem, and wheels journaled upon the
95 motor-box and engaging outwardly with said case and inwardly with said pulley.

In witness whereof I have hereunto set my hand on this 17th day of August, 1895.

SAMUEL O. TUERK.

In presence of—

F. G. SPENCER,
N. N. STRANAHAN.