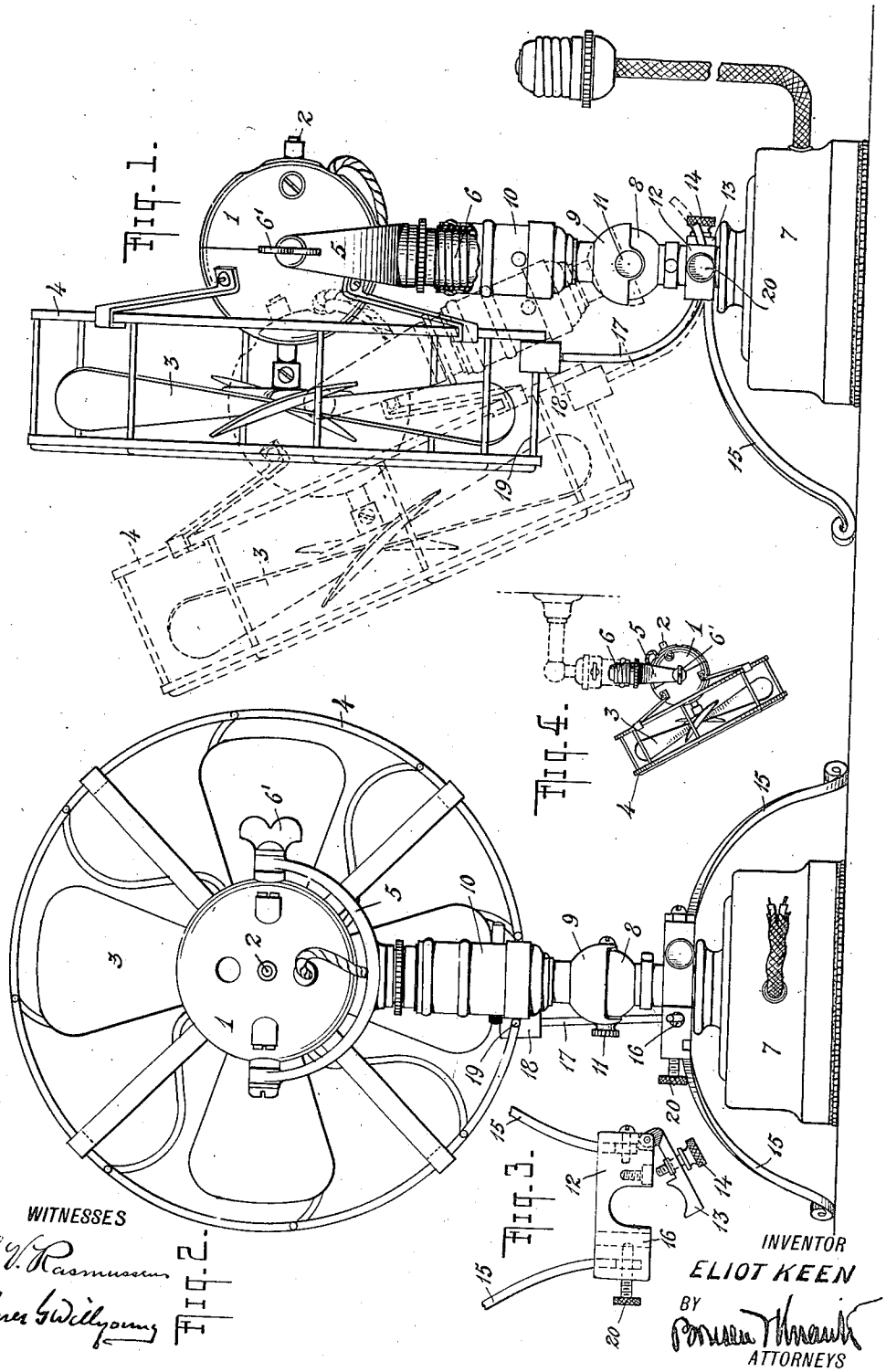
E. KEEN.

ELECTRIC FAN.

APPLICATION FILED AUG. 18, 1915.

1,219,745.

Patented Mar. 20, 1917.



WITNESSES

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ELECTRIC FAN.

1,219,745. Specification of Letters Patent. Patented Mar. 20, 1917.

Application filed August 18, 1915. Serial No. 46,103.

To all whom it may concern:

Be it known that I, ELIOT KEEN, a citizen of the United States, and resident of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Electric Fans, of which the following is a specification.

My invention relates to electric fans and more particularly to portable electric fans for office and domestic purposes.

The object of my invention is to provide a compact and simple electric fan of inexpensive construction and of extreme portability. A further object of my invention is to provide a fan of the character described which is so arranged that it may be attached to any usual form of lamp fixture whether the same be a portable desk fixture, wall or ceiling fixture or a swinging socket. When so attached my improved fan may be set to operate at any desired and selected angle.

Electric fans as commonly made comprise not only fan and motor but a heavy more or less bulky and comparatively expensive base permanently attached to or a part of the motor. As a consequence such fans cannot be conveniently moved from place to place. It is, furthermore, often desirable to place a fan in a place where there is no bracket, shelf or other means of supporting it but where there is a lamp fixture. Still further, when reading by electric light in warm weather, the ideal place for a fan is close to the light beneath or near which the reader sits. To all of these demands my improved fan readily lends itself.

In my improved fan herein described I eliminate the usual motor base altogether and substitute therefor a standard plug, as, *e. g.*, an Edison screw plug, whereby I am able to instantly substitute the fan for an ordinary lamp in almost any usual form of lamp fixture whether the same be one suspended from the ceiling, attached to the wall, or be a portable affair intended to stand upon a table. In thus providing the fan with a standard plug I also arrange a suitable system of supports for fan and motor whereby the fan when attached to any lamp fixture may be set at any desirable operative angle.

My invention will be better understood by referring to the drawing, in which Figure 1 shows a preferred form of fan fitted to a well known portable lamp fixture; Fig. 2 is a front view of Fig. 1; Fig. 3 is a plan view showing the clamp carrying the extra feet and the tilt determining means; and Fig. 4 shows the fan attached to an ordinary downwardly directed wall fixture.

In the drawings, the motor 1 may be of any usual type and wound for driving from any usual circuit. On its shaft 2 is carried a fan 3 of usual form inclosed in a protecting cage 4. The motor is rotatably mounted on a transverse central axis, perpendicular to its shaft 2, which is held in a fork 5 carrying a centrally attached screw plug 6 adapted to be inserted in any usual screw socket. A clamping nut 6′ serves to fix the plane of the fan at any desired angle with respect to the plane of the fork.

As shown in Figs. 1 and 2 the fan, as above described, is attached to a well known portable lamp fixture 7. In this fixture, a rotatable vertical spindle is provided with a spherical head 8 having a transverse axis upon which is pivoted a spherical shell 9 carrying the screw socket 10; the head 8, shell 9, and the rotatable vertical spindle, considered as one, constitute a universal joint. A nut 11 ordinarily clamps the head and shell together.

When the plug 6 is inserted in the socket 10, the side of the motor carrying the fan is overbalanced and the nuts 6′ and 11 cannot be depended upon to hold the fan securely. I, therefore, provide a clamp comprising a block 12 and a locking member 13 to slip over the vertical spindle. A screw 14 holds the clamp rigidly in position. To this clamp are attached forwardly and outwardly extending feet 15. The block 12 is also perforated by a hole 16 which is arranged to receive a stiff wire 17 attached to a block 18 which is loosely fitted over one of the peripheral rods 19 of the cage 4.

When the clamp is locked upon the vertical spindle and the fan and motor are in position on the fixture 7, the said fan and motor may be given any desired inclination downwardly (as shown in Fig. 1) by merely rotating the shell 9 upon the head 8 and clamping it by screwing up the nut 11 and the nut 20 which latter holds the wire 17 fast in the perforation 16. The feet 15 will prevent the fan falling any farther forward. If it is desired to tilt the fan upwardly the nut 6′ may be unscrewed and the fan and

motor rotated in the fork 5, and nut 6′ being again screwed up when the fan is in the desired position.

When attached to a wall or hanging fixture (see Fig. 4) the desired upward or downward inclination of the fan is obtained entirely by its adjustment with reference to the fork 5.

Having described my invention, I claim:

In combination, a motor, an electric fan upon one end of the shaft thereof, a stem, pivotal connections between motor and stem at right angles to the motor axis, a universal joint at the base of said stem, means for fixing the motor with reference to the fork, and means for clamping the universal joint.

In testimony whereof I have hereunto set my hand.

ELIOT KEEN.