

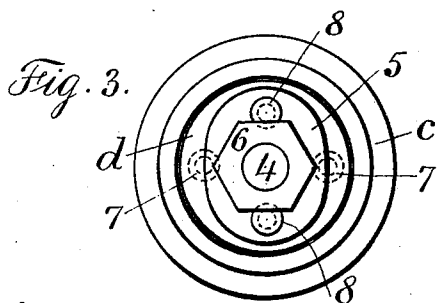
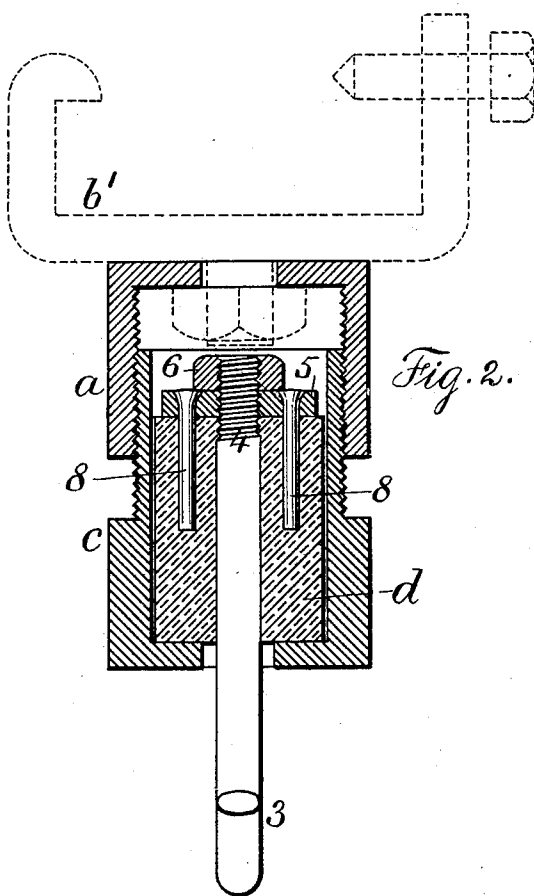
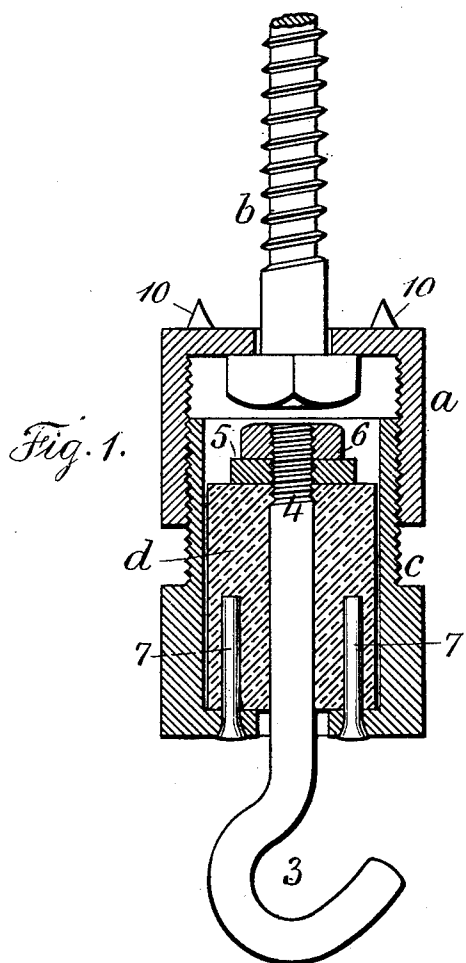
No. 645,057.

Patented Mar. 13, 1900.

W. H. AYERS & E. GROTH.
HANGER FOR ELECTRIC CEILING FANS.

(Application filed July 20, 1899.)

(No Model.)



Witnesses:
J. Staib
Chas. H. Smith

Inventors:
William H. Ayers
Emil Groth
per L. W. Serrell & Son attys.

UNITED STATES PATENT OFFICE.

WILLIAM H. AYERS, OF WEST HOBOKEN, AND EMIL GROTH, OF UNION HILL,
NEW JERSEY.

HANGER FOR ELECTRIC CEILING-FANS.

SPECIFICATION forming part of Letters Patent No. 645,057, dated March 13, 1900.

Application filed July 20, 1899. Serial No. 724,453. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. AYERS, of West Hoboken, and EMIL GROTH, of Union Hill, in the county of Hudson, State of New Jersey, citizens of the United States, have invented a new and useful Improvement in Hangers for Electric Ceiling-Fans, of which the following is a specification.

In devices of this character it has heretofore been usual to suspend the electric ceiling-fan from a hook secured in the under side of a floor-beam upon the ceiling of a room from an eye at the upper end of the fan. Objection is raised to this device because of the vibration transmitted to the supporting-beam and the fact that said vibration is more perceptible overhead than beneath the fan; and the object of our invention is to overcome this difficulty and reduce vibration to a minimum.

In carrying out our invention we provide an inverted cup interiorly threaded and a means for securely connecting the same to the under side of a beam and against the surface of a ceiling, and we provide a cup screwing into the inverted cup, the latter cup receiving a block of yielding material through which and the base of the cup a suspending-hook passes and is secured, the fan being hung from the hook. The two cup portions are preferably screwed together, so that the one with the hook is suspended from the one secured, and we provide means for preventing the yielding material within the cup turning by the centrifugal motion of the fan.

In the drawings, Figure 1 is a vertical section representing our improvement. Fig. 2 is a vertical section at right angles to the position of the parts shown in Fig. 1, and Fig. 3 is a plan of the lower cup and devices therein removed from the upper cup.

The inverted cup *a* is preferably interiorly threaded, and the same is secured to a floor-beam adjacent to the ceiling. The device for securing the same may be an ordinary lag-screw *b*, passing into a wooden beam or a beam-clamp *b'*. (Shown by dotted lines in Fig. 2.) In either case a stem of said device passes through a central opening in the cup and has a head or nut within the cup. The cup *c* is preferably exteriorly threaded to

screw into the cup *a*. We, however, do not limit ourselves to thus connecting the two cups or cylindrical portions *a c*, as other equivalent mechanical means may be found equally advantageous. The yielding support *d* within the cup *c* is preferably a rubber block with a central hole for the stem 4 of the hook 3, the stem 4 also passing through a central hole in the base of the cup *c*. We provide a plate 5, adapted to rest on the upper surface of the yielding support *d*, and the same is provided with a threaded opening through which the threaded end of the stem 4 passes, and the clamping-nut 6 is upon the extreme end of the stem 4, said stem screwing through both the plate and the nut. These devices serve to support the ceiling-fan, which is hung by the eye at its upper end upon the hook 3, and the yielding support *d*, which fits loosely within the cup *c*, is slightly compressed by the weight of the fan, and the same absorbs vibration.

To overcome the tendency of the fan to rotate bodily as the result of the centrifugal force, we provide pins 7, passing upward through the base of the cup *c* into the yielding support *d*, the pins being rigidly held in the base of said cup, and at right angles or staggered to the pins 7 we provide other pins 8, passing through the plate 5 down into the said yielding support *d*. These pins prevent the yielding support turning and the plate 5 turning, and because the stem 4 of the hook is screwed and clamped to the plate 5 the said pins also prevent the hook turning and, with it, maintain the ceiling-fan in a stationary position.

Where the ordinary lag-screw 6, Fig. 1, is used, we prefer to employ the pyramidal projections 10, raised upon the upper surface of the inverted cup *a*, the office of which is to enter the ceiling or beam and to overcome any tendency of the cup *a* to turn.

We claim as our invention—

1. A hanger for electric ceiling-fans comprising an inverted cup and a means for securing the same in place, a cup connected thereto, a yielding support within the cup, a hook for the ceiling-fan, a stem connected therewith and passing through the cup and

the yielding device, and having a supporting-plate connected to the end above the yielding support, substantially as set forth.

2. A hanger for an electric ceiling-fan comprising an inverted interiorly-threaded cup and a means for rigidly connecting the same to a floor-beam at the ceiling, a cup exteriorly threaded in part and adapted to screw into the inverted cup, a yielding support within said cup having a central opening, a suspending-hook and integral stem passing through the cup and the yielding device and a plate and clamping-nut screwed to the threaded end of the stem and resting upon the upper surface of the yielding support, substantially as set forth.

3. A hanger for an electric ceiling-fan comprising an inverted interiorly-threaded cup and a means for rigidly connecting the same to a floor-beam at the ceiling, a cup exteriorly threaded in part and adapted to screw into

the inverted cup, a yielding support within said cup having a central opening, a suspending-hook and integral stem passing through the cup and the yielding device and a plate and clamping-nut screwed to the threaded end of the stem and resting upon the upper surface of the yielding support, and pins passing through the base of the cup up into the yielding support at opposite sides of the stem of the hook and other pins connected to the said plate and passing down into the yielding support at opposite sides of the stem of the hook and intermediate to the pins passing through the cup, substantially as and for the purposes set forth.

Signed by us this 17th day of July, 1899.

W. H. AYERS.
EMIL GROTH.

Witnesses:

GEO. T. PINCKNEY,
ELLA E. POHLÉ.