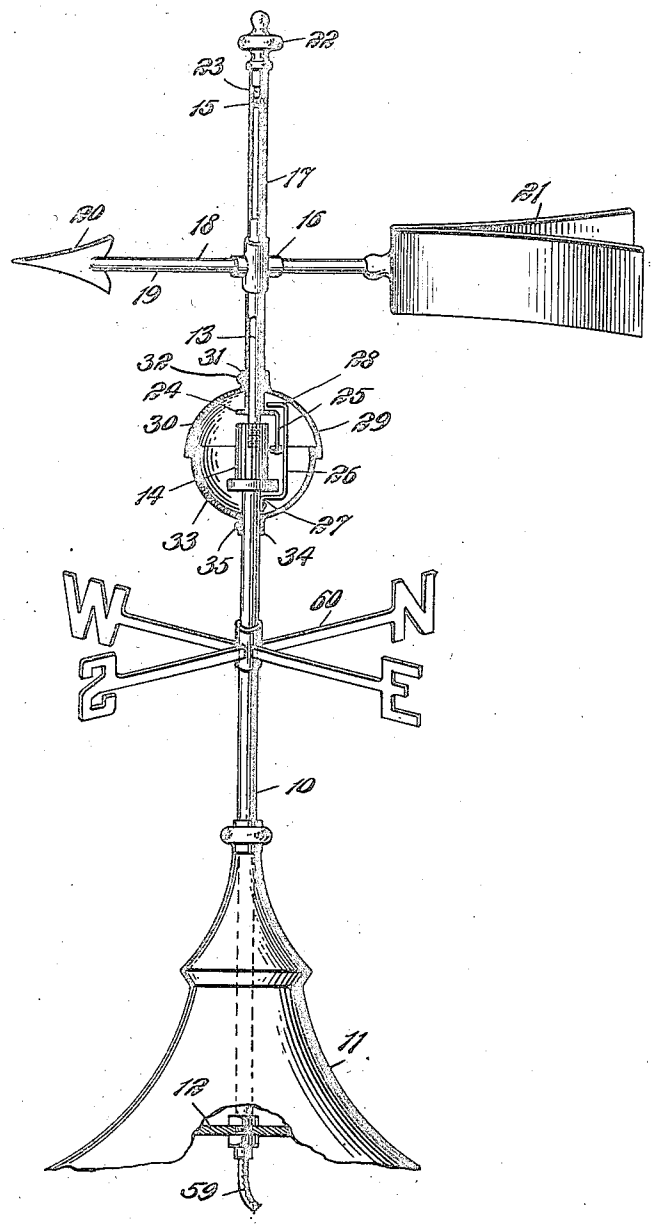
F. L. WASHBURNE & G. E. KIMMERLÉ.

ELECTRICALLY INDICATING WEATHER VANE.

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1,213,714. Patented Jan. 23, 1917.



WITNESSES:

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FRANK L. WASHBURNE, OF WESTFIELD, NEW JERSEY, AND GEORGE E. KIMMERLÉ, OF BROOKLYN, NEW YORK, ASSIGNORS TO E. G. WASHBURNE & COMPANY, OF NEW YORK, N. Y.

ELECTRICALLY-INDICATING WEATHER-VANE.

1,213,714. Specification of Letters Patent. Patented Jan. 23, 1917.

Application filed March 13, 1915. Serial No. 14,385.

To all whom it may concern:

Be it known that we, FRANK L. WASHBURNE, a citizen of the United States, and a resident of Westfield, county of Union, and State of New Jersey, and GEORGE E. KIMMERLÉ, a citizen of the United States, and a resident of Brooklyn, county of Queens, and State of New York, have made and invented certain new and useful Improvements in Electrically-Indicating Weather-Vanes, of which the following is a specification.

This invention relates to weather vanes, and more particularly to one which is adapted to electrically indicate at a distance, the exact position of the wind.

It is the object of our invention to provide an apparatus of this class which is of simple design and arrangement, and therefore of economical manufacture, wherein the moving parts are housed and protected in a suitable casing, and, furthermore, the construction is such that an electric commutator and its contact arm, are formed as a part of the weather vane itself.

The further feature is provided that the weather vane, although loosely mounted in position, is held in proper position without in any wise interfering with its free rotation or oscillation.

A further object is to provide an electrically indicating weather vane wherein the various parts may be shipped, while in a disassembled condition, and accordingly occupying but little space, and which parts may be readily assembled and erected by one of ordinary skill, and with but little labor.

Other objects and advantages will appear as the description proceeds, wherein it is to be understood that changes in the precise embodiment of the invention can be made within the scope of what is claimed, without departing from the spirit of the invention.

The preferred embodiment of our invention is disclosed in the accompanying drawings, wherein:—The drawing is a view of the weather vane as it appears upon a cupola or analogous supporting structure, parts thereof being illustrated in perspective, and other parts being broken away so as to clearly disclose the various features of construction involved.

Referring to the drawing, the weather vane is formed with a tubular post 10 which acts as the main support, and has, for the purpose of illlustration, been shown as being secured to a cupola 11, with the lower extremity of the post terminating within the cupola and held in place by the cross strut, or beam 12. It is to be understood however, that the weather vane, as herein described, may be secured to a roof or analogous structure, in any desired and convenient manner.

A rod 13 is secured to the upper extremity of the post 10 by the commutator 14, which acts as a coupling in this regard. The lower extremity of the rod and upper extremity of the post are threaded within suitable openings formed in the commutator, allowing the post and rod to be easily taken apart and conveniently transported. The rod 13 is formed with the upper pointed extremity 15, which acts as a pivot bearing for the wind vane 16, the latter being of the usual and conventional type, and includes a tube 17 upon which the arrow 18 is fixedly secured. The arrow 18 includes the horizontally extending shaft 19 to which is secured the head 20 and the tail 21, the latter being formed of two rearwardly and outwardly diverging plates, providing for the accurate operation of the wind vane. The tube 17 fits down over and rotatably engages, the rod 13 and is provided with the cap 22, the lower surface 23 of which, bears down upon the pointed extremity 15 of the rod and effects a substantially frictionless bearing therewith. The cap 22 is preferably of some ornamental design agreeing with the general artistic appearance of the weather vane.

The lower extremity of the wind vane tube 17 extends down into close proximity with the top of the commutator 14 and is provided with the flange 24, to which an electrical contact arm 25 is secured. The flange thus acts as a supporting carriage for the contact arm 25 and, in addition, forms a stop or abutment which is adapted to contact with a bracket 26 carried by the post 10 and prevent the upward displacement of the wind vane. The bracket 26, whose lower extremity 27 is rigidly secured to the post 10, includes the inwardly projecting claw 28 which projects above the flange 24, but stops short of the tube 17, so that it will not in any way interfere with the free rotation thereof. However, should forces be brought to bear upon the wind vane tending to raise the same above its support, the flange 24

will contact with the claw 28 and be prevented from further upward displacement thereby. During the process of erection of the weather vane, the bracket 26 is bent outward, allowing the flange 24 to pass therebeneath, which, having once passed therebelow, is held in proper position thereby.

A casing 29 houses and protects the commutator 14 and adjacent parts, and in order to render the commutator easily accessible, the casing is formed of the upper section 30, which includes a collar 31, slidably engaging the vane-tube 17 and held in adjusted positions thereon by the set screws 32, and the lower section 33 of similar design and including the collar 34 and set screw 35. The lower section of the casing fits within the upper one, so as to provide and form a water-tight juncture therewith, the several parts being so arranged, however, that they do not interfere with the free rotation of the wind vane. The sections of the casing are preferably hemispherical, so that, collectively considered, they form a ball, such as ordinarily used for ornamentation in connection with weather vanes.

Having thus fully described our invention, what we claim is:—

1. A weather vane comprising an upright support, an electric commutator intermediate the ends thereof, a wind vane including an open-ended tube rotatably mounted upon said upright support, a flange carried at the lower end of said tube, positioned adjacent the top of said electric commutator, an electric contact arm carried by said flange and coöperating with said electric commutator, and a bracket rigidly secured to said upright support with an inwardly extending claw at the upper extremity thereof, said inwardly extending claw projecting above said commutator and engaging the upper surface of said flange and holding the same against shifting.

2. A weather vane adapted to transmit signals as to its position, comprising an upright post, an electric commutator at the upper extremity thereof, a rod secured to, and projecting above, said commutator, a wind vane provided with a supporting tube, said supporting tube fitting down over said rod, the lower extremity of said wind vane tube extending adjacent the top of said commutator and provided with a flange, a contact arm carried by said flange and engaging said commutator and a supporting bracket rigidly secured to said post, extending to the side of said commutator and contact arm, a claw at the upper extremity of said supporting bracket projecting above and engaging said flange.

3. A weather vane adapted to transmit signals as to its position, comprising an upright post, an electric commutator at the upper extremity thereof, a rod secured to, and projecting above, said commutator, a wind vane provided with a supporting tube, said supporting tube fitting down over said rod, the lower extremity of said wind vane tube extending adjacent the top of said commutator and provided with a flange, a contact arm carried by said flange and engaging said commutator and a supporting bracket rigidly secured to said post, extending to the side of said commutator and contact arm, a claw at the upper extremity of said supporting bracket projecting above and engaging said flange, and a sectional spherical-shaped casing housing the said commutator, contact arm, flange and supporting bracket therein, the upper section of said casing secured to a weather vane supporting tube and adjustable therealong.

Signed at New York city, county of New York, and State of New York, this 12″ day of March, 1915.

FRANK L. WASHBURNE.
GEORGE E. KIMMERLÉ.