

(No Model.)

J. G. WILLIAM & W. JARVIS.
SELF WINDING PLUMB BOB.

No. 599,178.

Patented Feb. 15, 1898.

Fig. 1.

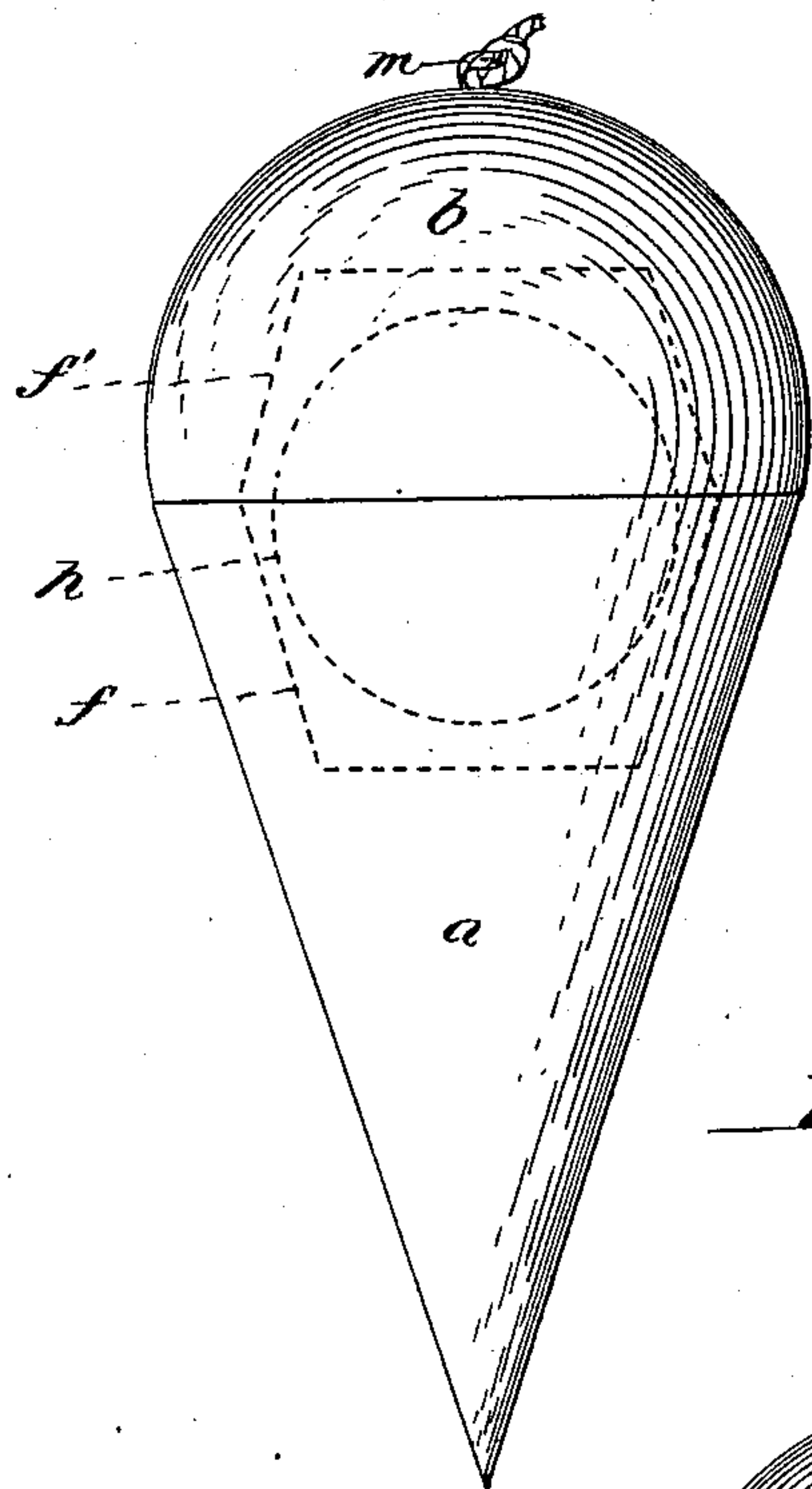


Fig. 2.

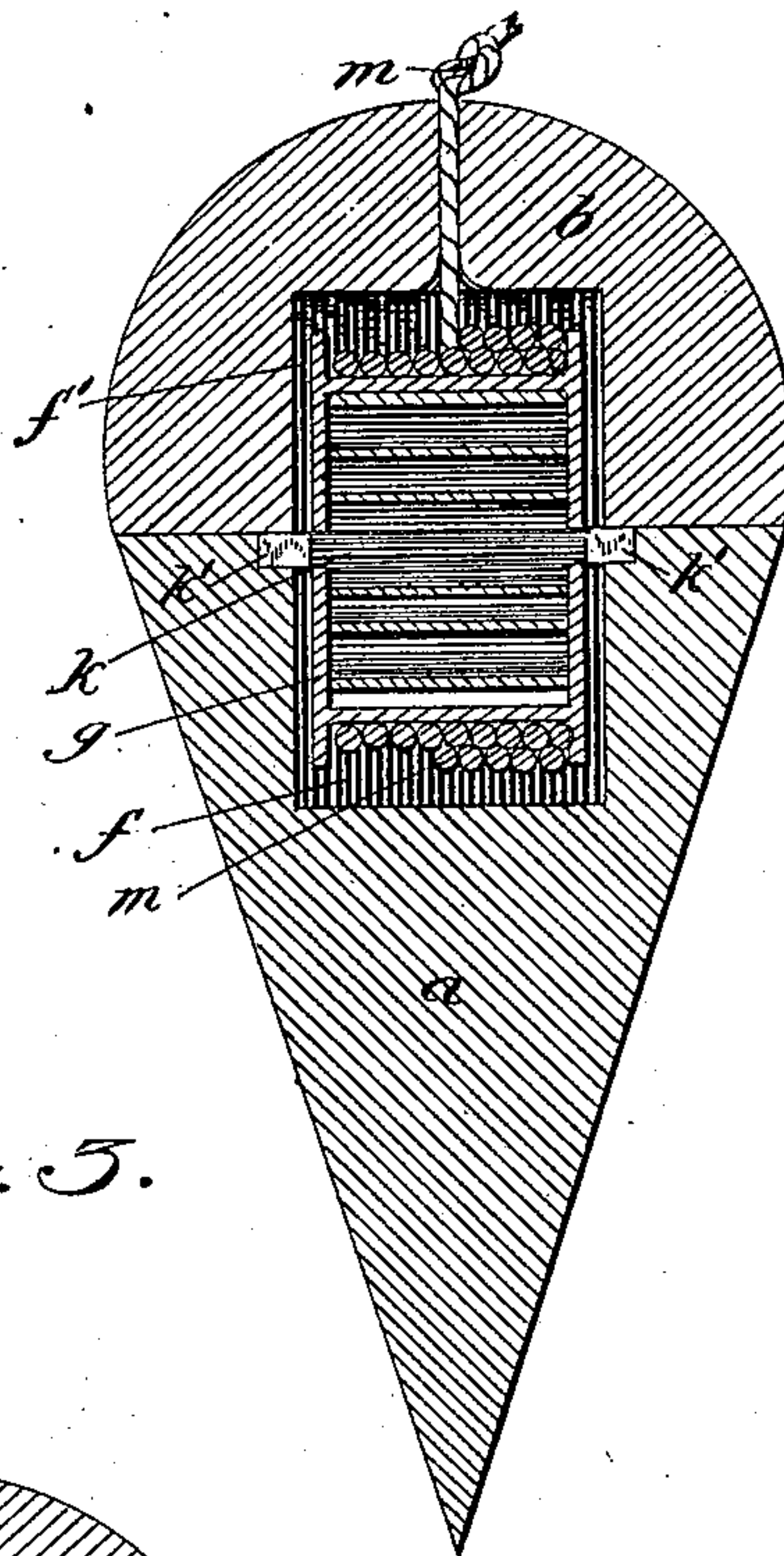


Fig. 3.

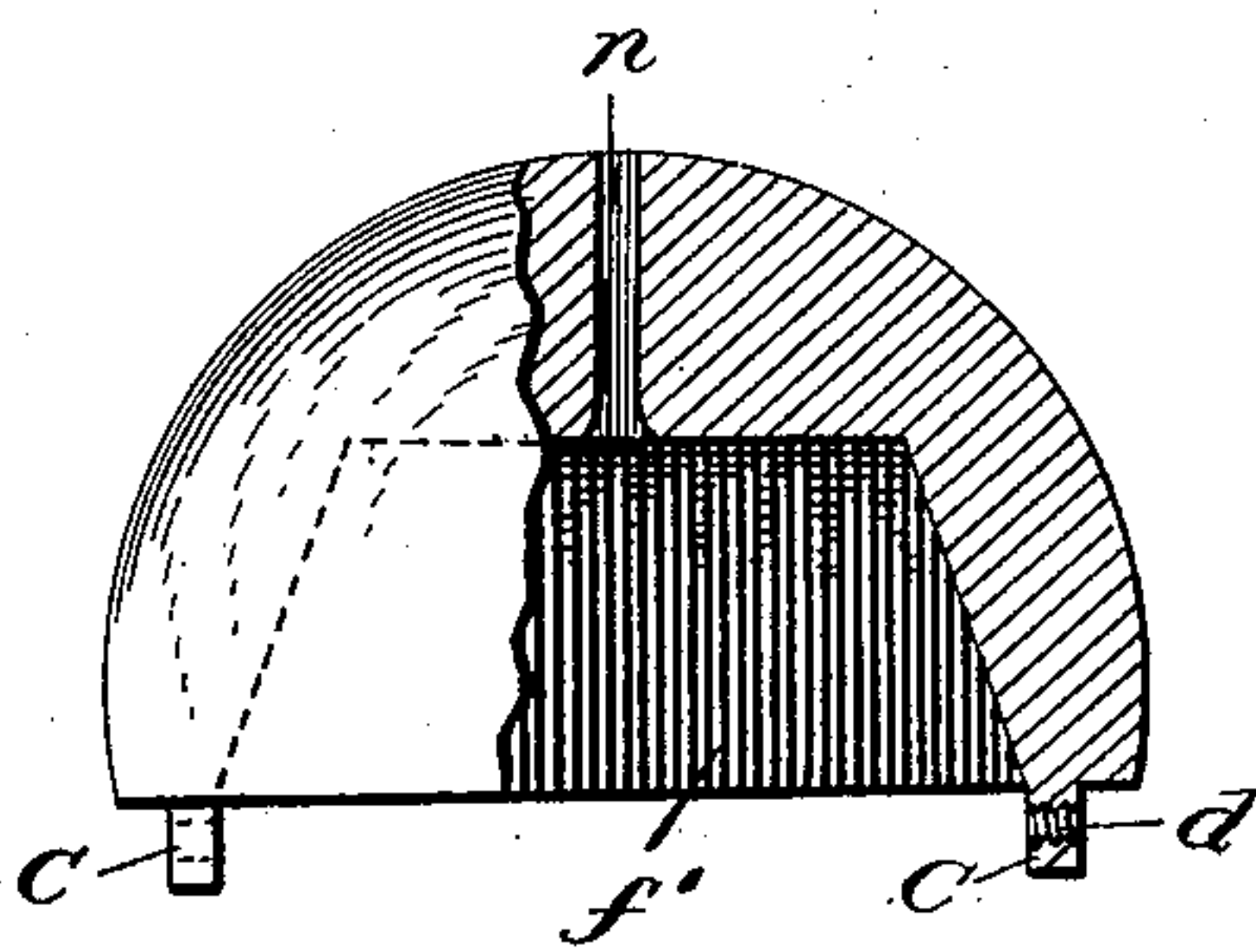


Fig. 4.

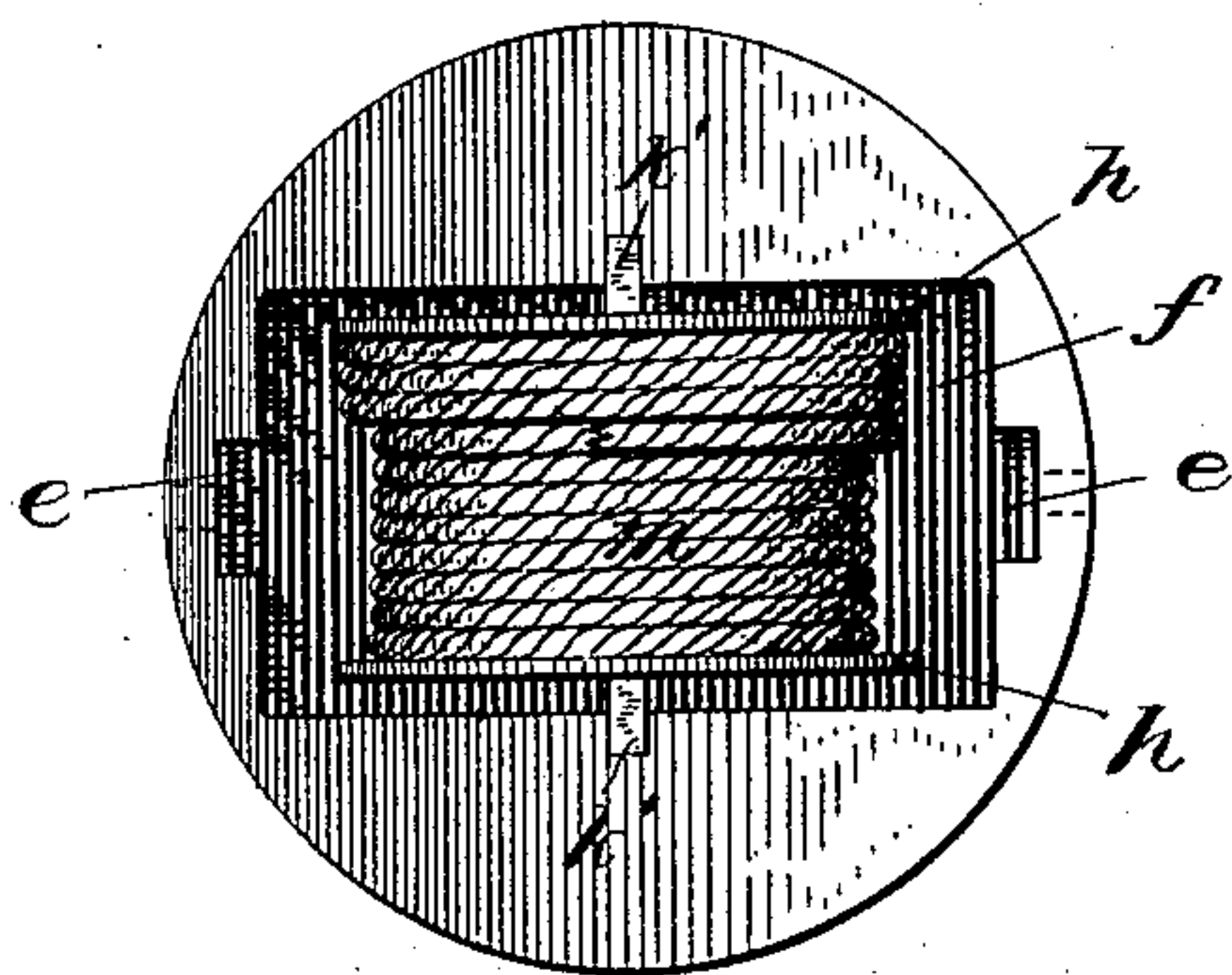
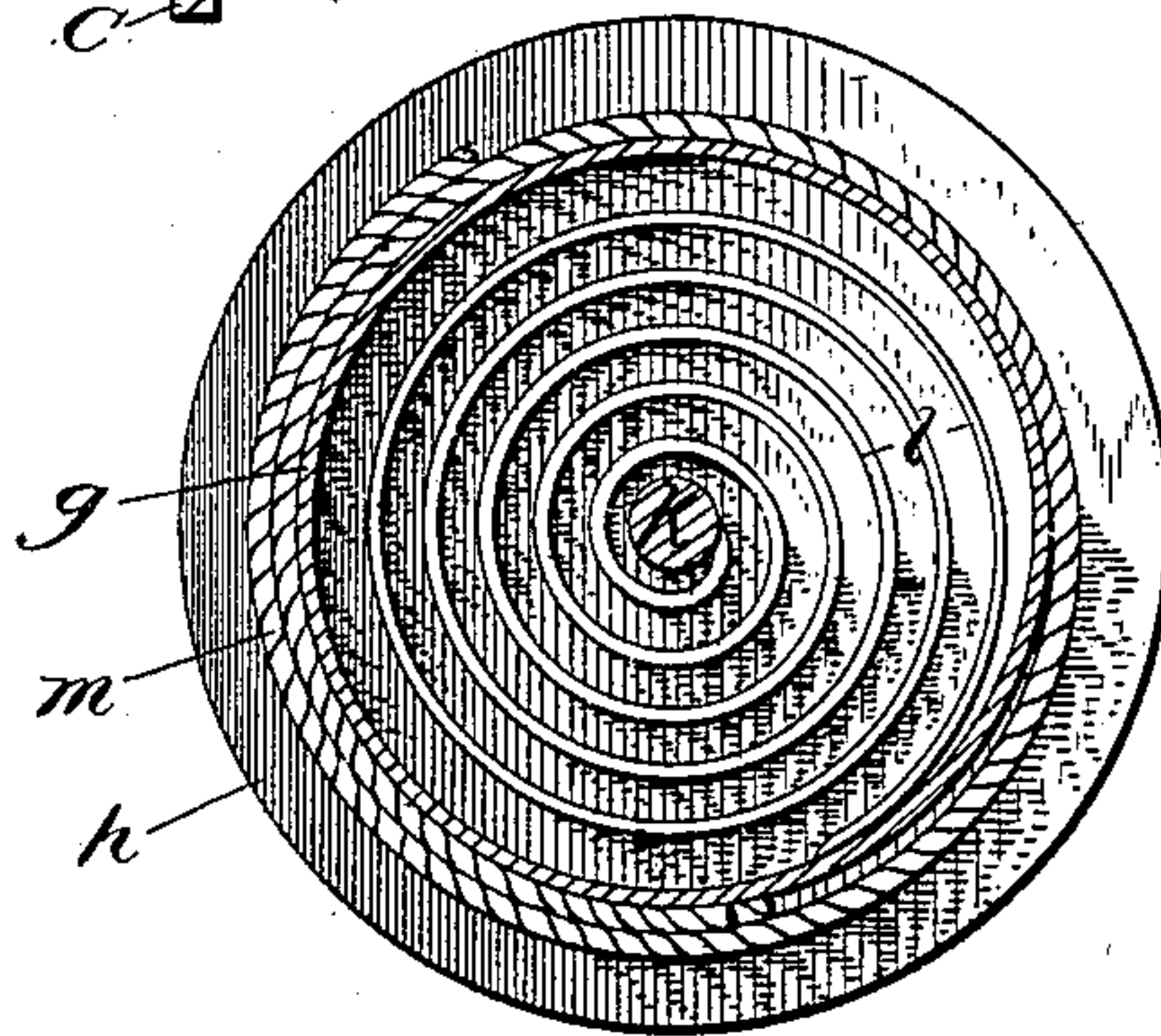


Fig. 5.



Witnesses.
J. D. Appleman.
W. L. Wilson

Inventors.
James G. William,
William Jarvis.
By *Nancy C. Everett* Attorney.

UNITED STATES PATENT OFFICE.

JAMES GWILLIAM AND WILLIAM JARVIS, OF CARNEGIE, PENNSYLVANIA.

SELF-WINDING PLUMB-BOB.

SPECIFICATION forming part of Letters Patent No. 599,178, dated February 15, 1898.

Application filed May 18, 1897. Serial No. 637,036. (No model.)

To all whom it may concern:

Be it known that we, JAMES GWILLIAM and WILLIAM JARVIS, citizens of the United States of America, residing at Carnegie, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Self-Winding Plumb-Bobs, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in plumb-bobs, and has for its object to provide simple and efficient means whereby the string attached to the bob will be wound within the bob by relieving the weight on the string; and to this end the invention consists in the novel construction, combination, and arrangement of parts to be hereinafter more specifically described, and particularly pointed out in the claim.

The invention further aims to construct a self-winding plumb-bob that will be extremely simple in its construction, strong, durable, comparatively inexpensive to manufacture, and effectual in the performance of all its functions.

Briefly described, the invention consists of the bob formed in two sections, each section being recessed and having arranged therein a drum, to which the line is attached, said drum being operated by means of a spring to return the cord onto the drum after the weight on the line or cord has been relieved, and in describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like letters of reference indicate similar parts throughout the several views, in which—

Figure 1 is a side elevation of our improved plumb-bob. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a side view, partly in section, of the upper portion of the bob. Fig. 4 is a top plan view with the upper portion removed. Fig. 5 is a transverse vertical sectional view of the drum.

Referring now to the drawings by reference-letters, *a* indicates the cone of the bob; *b*, the cap of the same, which is provided with lugs *c c*, having screw-threaded apertures *d*, said lugs engaging in recesses *e* in the flat surface of the cone, where they are fastened by means of screws engaging through the cone and into the apertures *d d*. The cone *a* is also pro-

vided on its flat end with a recess *f* to receive the drum *g*, having flanges *h h* and mounted upon a shaft *k*, said shaft being provided with square ends *k'*, which engage in recesses at the sides of the recess *f* and prevent the shaft from turning. Secured to this shaft and to the inner periphery of the drum is a coil-spring *l*, and attached to said drum is a plumb-line *m*, which is adapted to be wound around the drum by the action of the spring, said line extending through an aperture *n* in the cap, said cap being also provided with a recess *f'* in its flat face to receive the upper portion of the drum.

The operation of our improved self-winding plumb-bob will be readily apparent from the views of the same which we have shown in the drawings, as it will be observed that when the plumb-line *m* is withdrawn the coil-spring *l* will be compressed, and when the pressure or weight upon the line *m* is relieved the action of the coil-spring will tend to wind the plumb-line upon the drum within the bob. It will also be noted that various changes may be made in the details of construction without departing from the general spirit of our invention.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

A plumb-bob consisting of a cone and cap, said cone and cap each provided with a recess, said cap also provided with downwardly-projecting lugs, having screw-threaded apertures therein, said lugs engaging in recesses in the cone, a recess in the cone to receive a shaft provided with square ends, a drum mounted on said shaft, a coil-spring secured to the shaft and to the inner periphery of the drum, a line attached to and passing around said drum and passing out through an opening in the top of the cap, and carrying on the end suitable gripping means, and suitable means for securing the cap and cone together, substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES GWILLIAM.
WILLIAM JARVIS.

Witnesses:

JOHN NOLAND,
GEO. B. PARKER.