

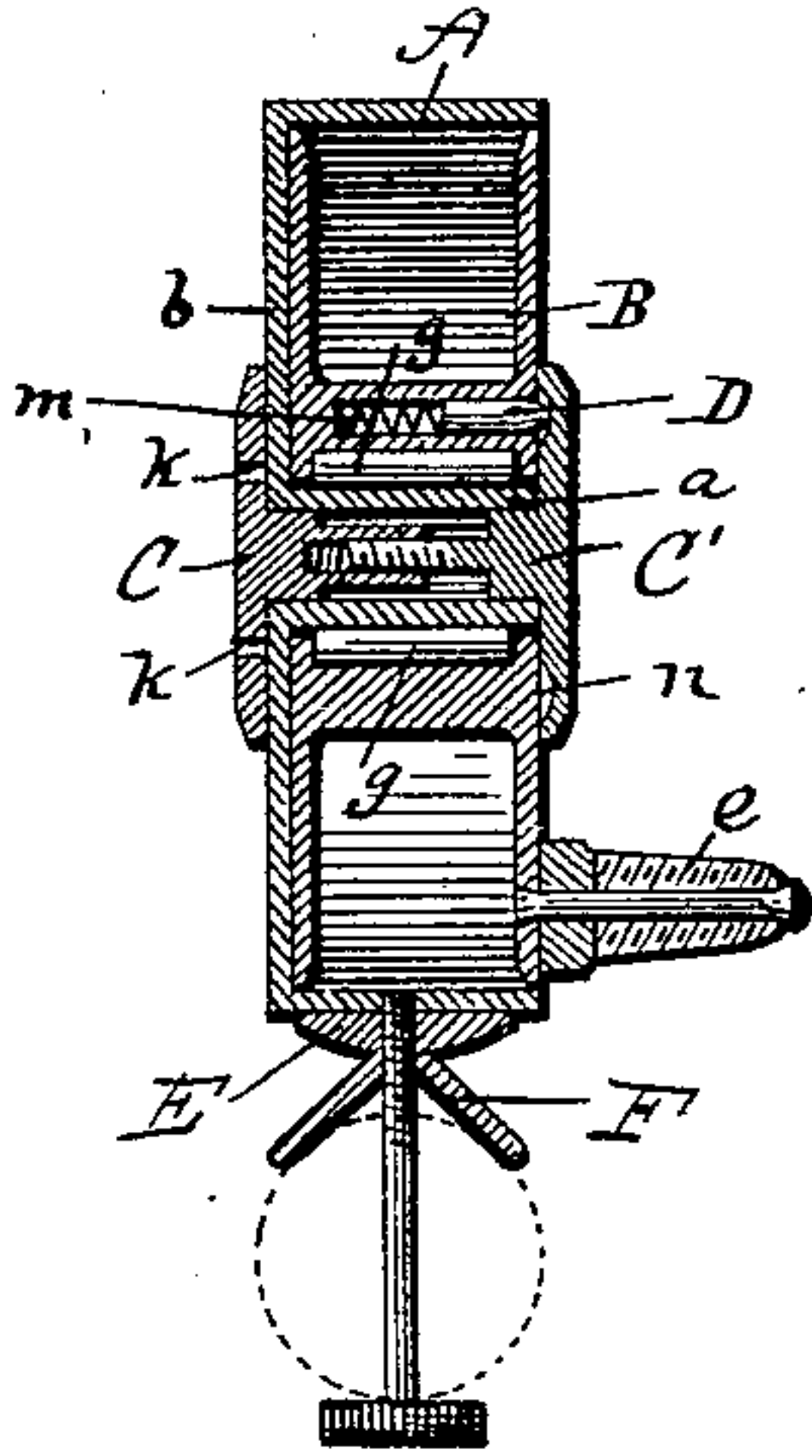
(No Model.)

W. A. GRAHAM.  
FISHING REEL.

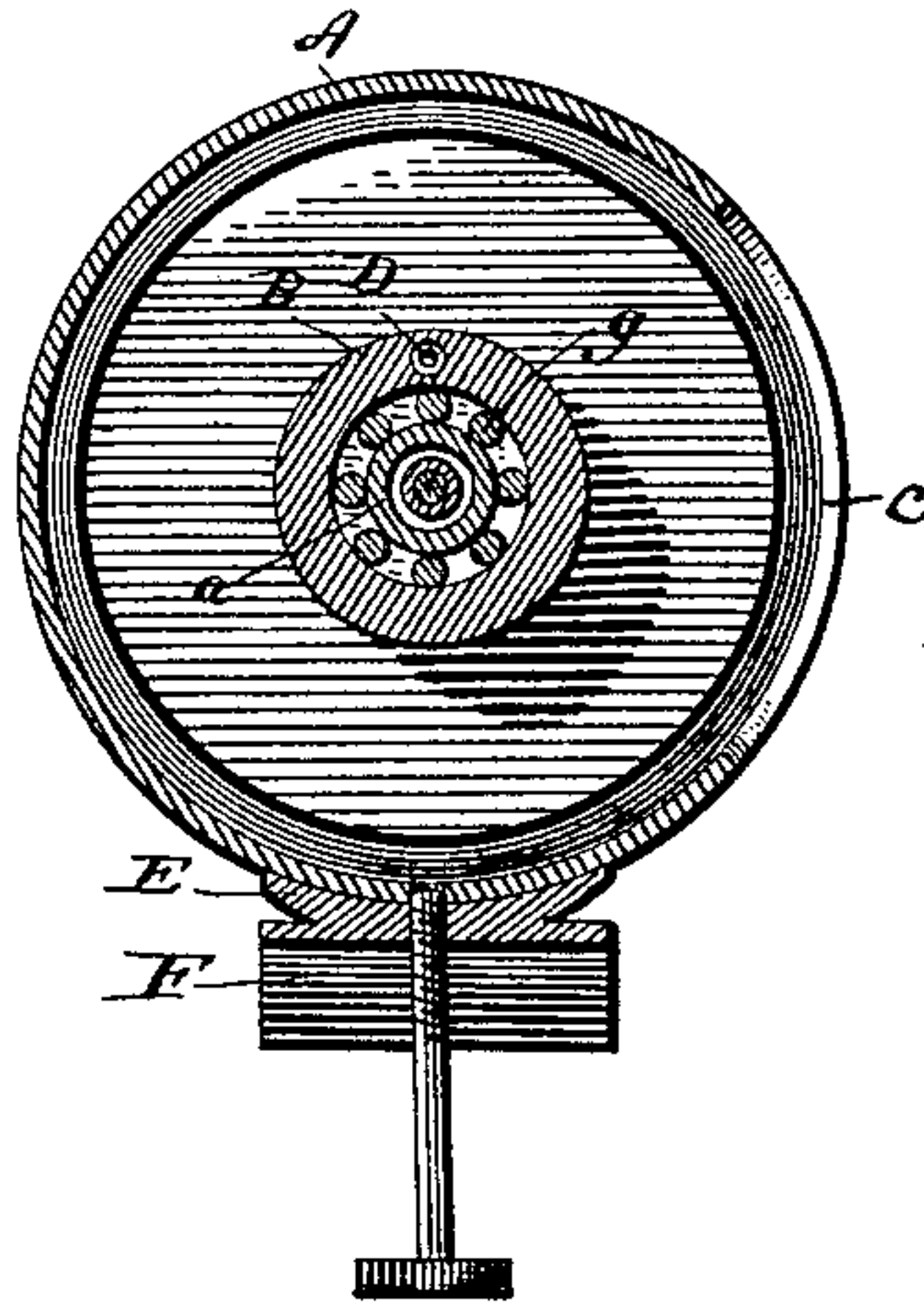
No. 386,705.

Patented July 24, 1888.

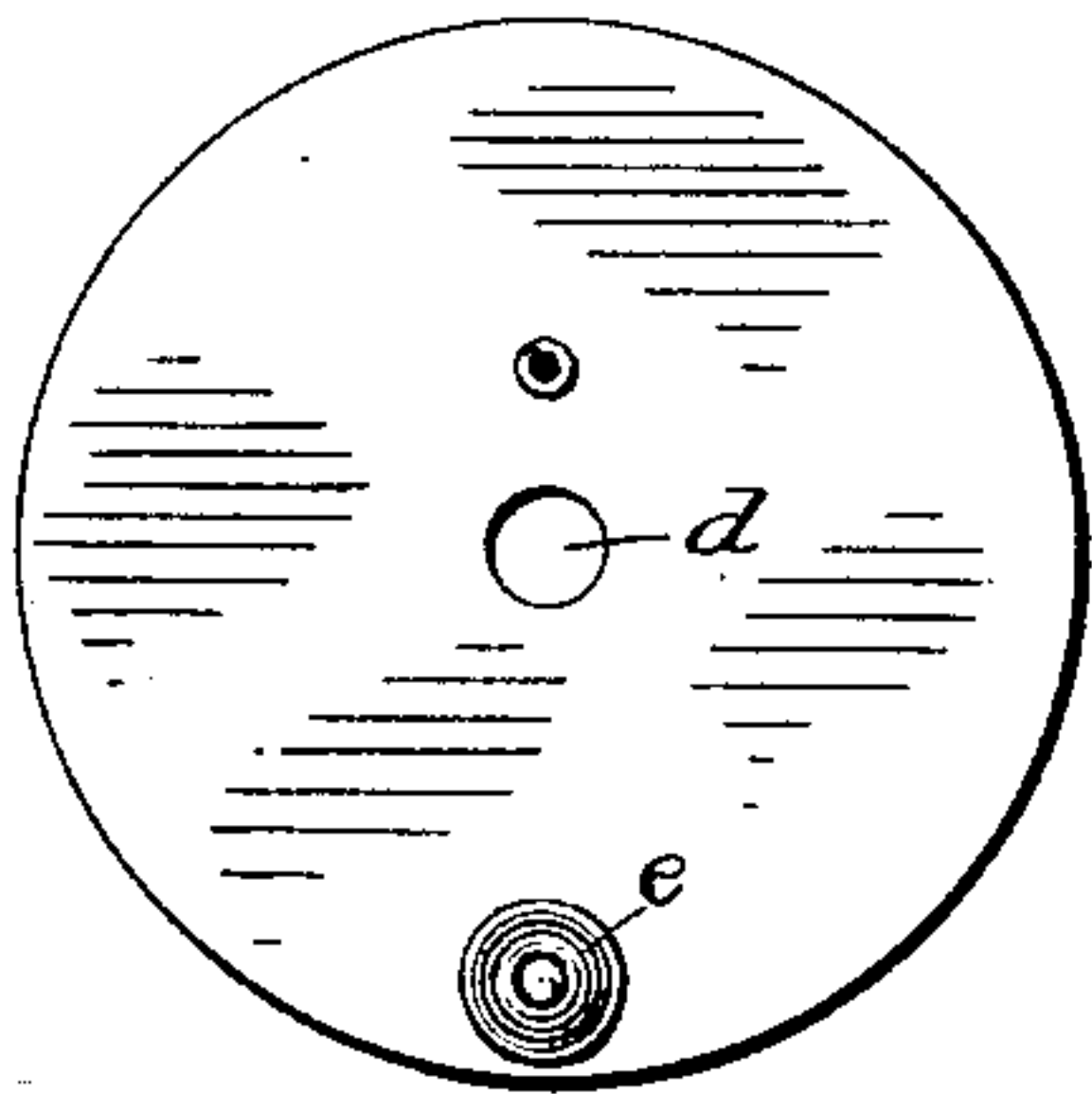
*Fig. 1.*



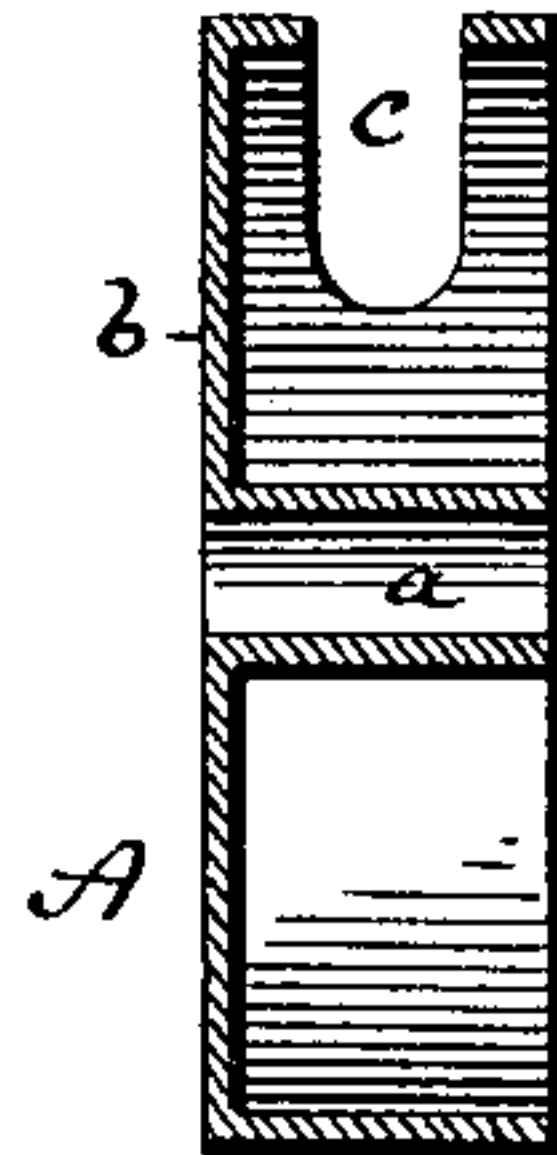
*Fig. 2.*



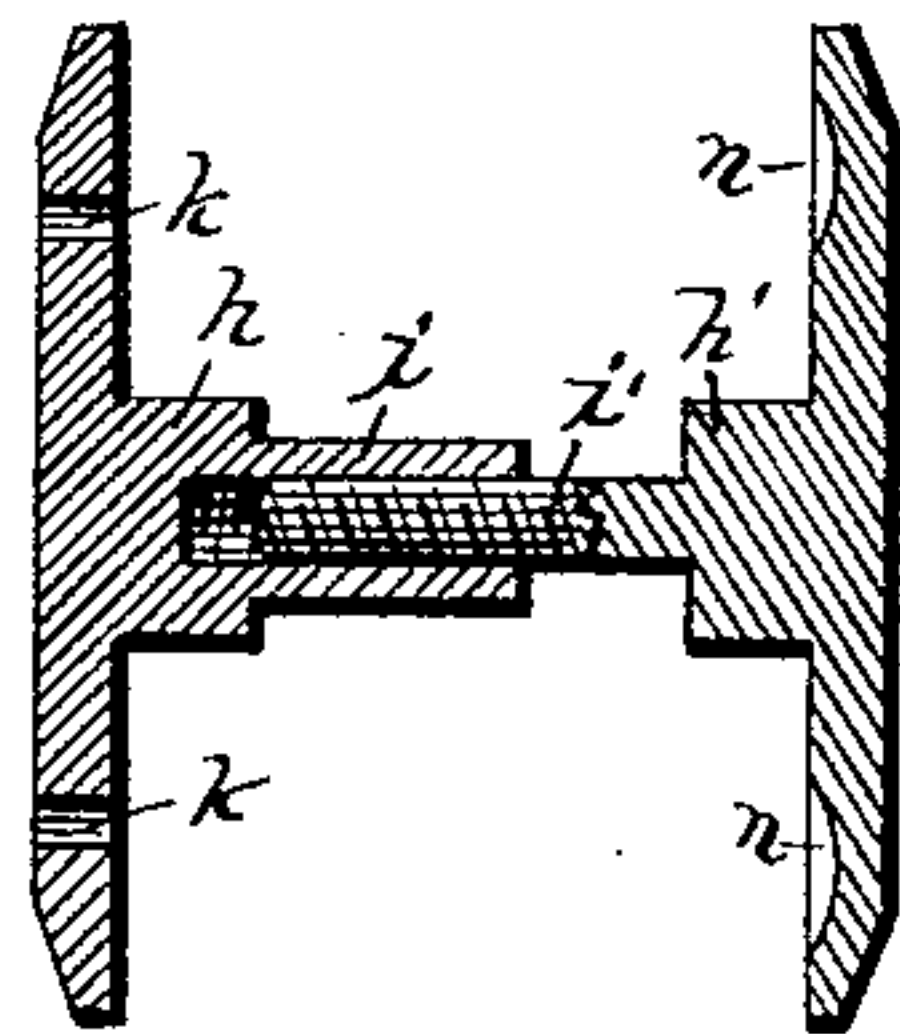
*Fig. 3.*



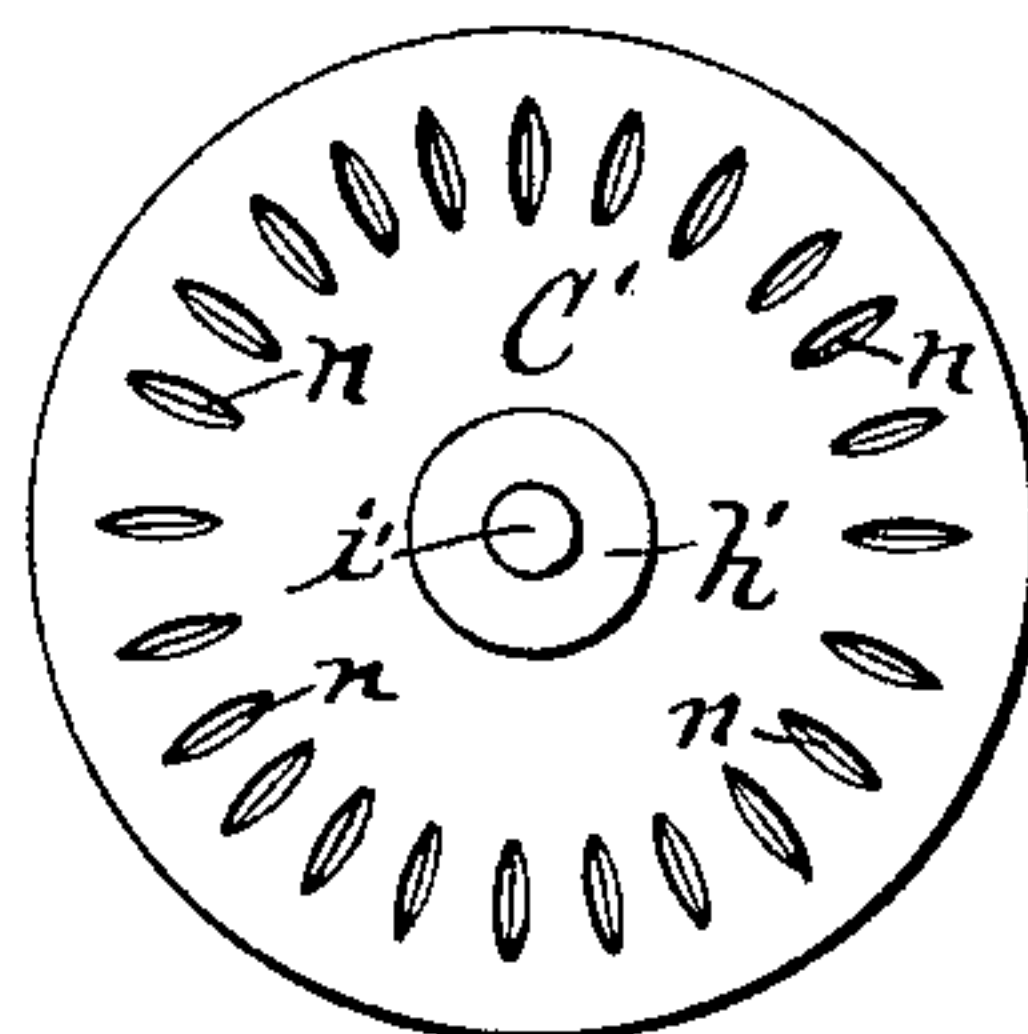
*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



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# UNITED STATES PATENT OFFICE.

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## FISHING-REEL.

SPECIFICATION forming part of Letters Patent No. 386,705, dated July 24, 1888.

Application filed May 10, 1888. Serial No. 273,429. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. GRAHAM, a citizen of the United States, residing at Carlisle, in the county of Cumberland and State of Pennsylvania, have invented certain new and useful Improvements in Fishing-Reels, of which the following is a specification, reference being had therein to the accompanying drawings.

10 My invention has relation to certain new and useful improvements in reels for fishing-rods; and it has for its objects to provide an extremely simple and inexpensive article, that will be easily made and yet practical and positive in operation, as will be fully hereinafter set forth.

The invention is fully illustrated in the accompanying drawings, in which—

20 Figure 1 represents a vertical transverse sectional view of my improved reel, the fishing-rod being shown in dotted lines; Fig. 2, a longitudinal sectional view of the same; Fig. 3, a side elevation of the reel; Fig. 4, a sectional view of the reel-casing; Fig. 5, a detail sectional view of the retaining devices for the reel, and Fig. 6 a view of the inner face of one of the retaining-disks.

Referring to these drawings by letters, A designates a cylindrical casing open at one end and provided with a tubular spindle, *a*, preferably formed integral with the said casing, and projecting centrally from the closed end, *b*, of the same, this tubular spindle being approximately the same length as the casing. 30 This cylinder is provided on one side with a suitable elongated slot, *c*, for the passage of the line. Inserted in the open end of the cylinder A is a reel, B, which is journaled on the spindle *a*, the reel being provided with a central opening, *d*, for the passage of the said tubular spindle. The outer disk of this reel completely fills the open end of this cylinder and comes flush with its end and the end of the spindle *a*, as shown in Fig. 1, and is provided with an operating-handle, *e*, by which it may be rotated in either direction. 45

50 Inserted in an annular recess or groove in the wall of the central passage through the reel are small anti-friction rollers *g*, which bear upon the tubular spindle *a* and serve to reduce the friction caused by the revolving of the reel.

To removably retain the reel in its casing, and yet not prevent its free revolution, I employ two disks, C C', which are both provided with central cylindrical projections, *h h*, which fit snugly into the central tubular spindle, *a*, of the casing. 55

Projecting from the boss *h'* of the disk C' is a screw, *i'*, which works in a similarly screw-threaded shank, *i*, projecting from the opposite boss, *h*, these means serving to draw the two disks together and secure all the parts together. One of the disks, preferably the one C, is provided with apertures *k*, for the insertion of a wrench to unscrew the disks. 60

65 Inserted in a recess in the hub of the reel and projecting slightly from its outer face is a click-pin, D, which is kept pressed normally outward by means of a small spiral spring, *m*, in the bottom of the recess, the pin being somewhat sharpened or tapered off at its outer end and adapted to engage in the serrations *n*, formed in the inner face of the disk C' as the reel revolves, the said disk remaining stationary. This click-pin D serves not only as a warning when the line is unwound from it, but also as a brake to retard the too free revolution of the reel. 70

75 Formed on a plate, E, suitably secured to the periphery of the cylinder A, is an inverted-V-shaped plate, F, which is adapted to firmly grasp the fishing-rod when the reel is secured to it by the thumb-screw G, this screw being passed transversely through the rod and tapped into the plate E and the casing, as shown. 80

85 It will thus be observed that I produce a very simple and at the same time very serviceable reel, that may be cheaply made and readily put together and taken apart. 90

It is obvious that I may do away with the anti-friction rollers without departing from my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is— 95

1. The combination, with the cylindrical casing A, having one of its ends open and provided with a central tubular spindle, *a*, of a reel, B, journaled on the said spindle *a*, and completely filling the open end of the cylindrical casing, and the disks C C', provided, 100



respectively, with a central screw-threaded shank, *i*, and a central screw, *i'*, all arranged substantially as herein set forth.

2. The combination, with the cylindrical casing A, having one of its ends open and provided with a central tubular spindle, *a*, of a reel, B, journaled on the said spindle *a*, and completely filling the open end of the cylindrical casing, and the disks C C', provided, 5  
10 respectively, with a central screw-threaded shank, *i*, a central screw, *i'*, the interposed

anti-friction rollers *g*, and the spring-actuated click-pin D, inserted in a recess in the hub of the reel and engaging the inner serrated face of the said disk C', substantially as described. 15

In testimony whereof I affix my signature in presence of three witnesses.

WILLIAM A. GRAHAM.

Witnesses:

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C. M. ALEXANDER.