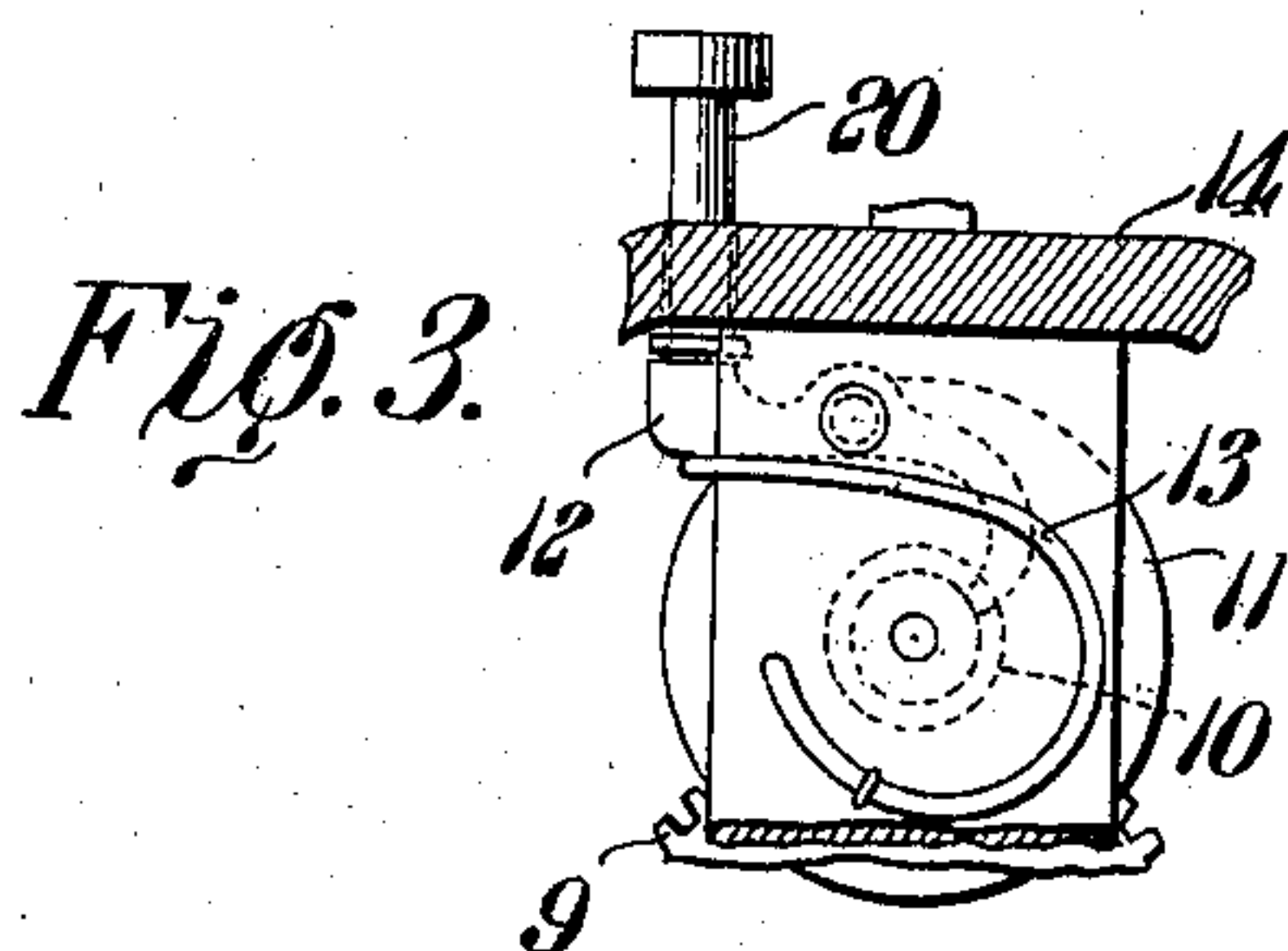
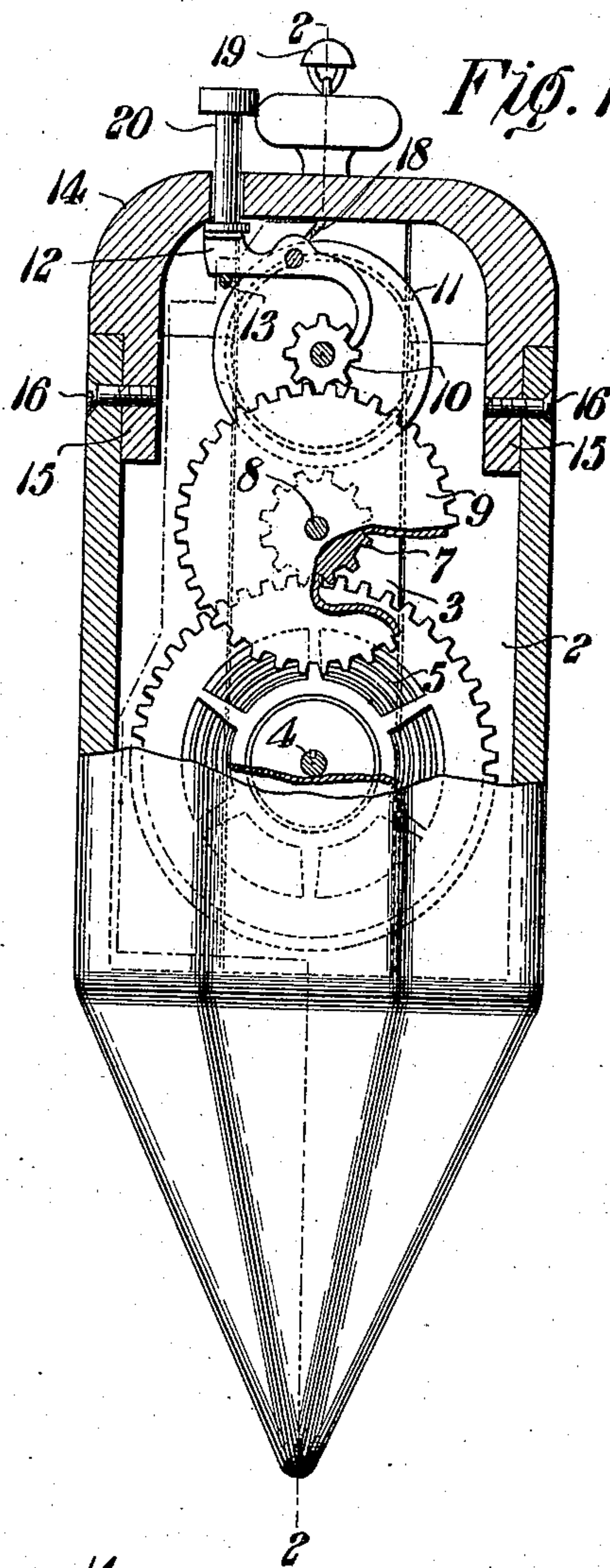
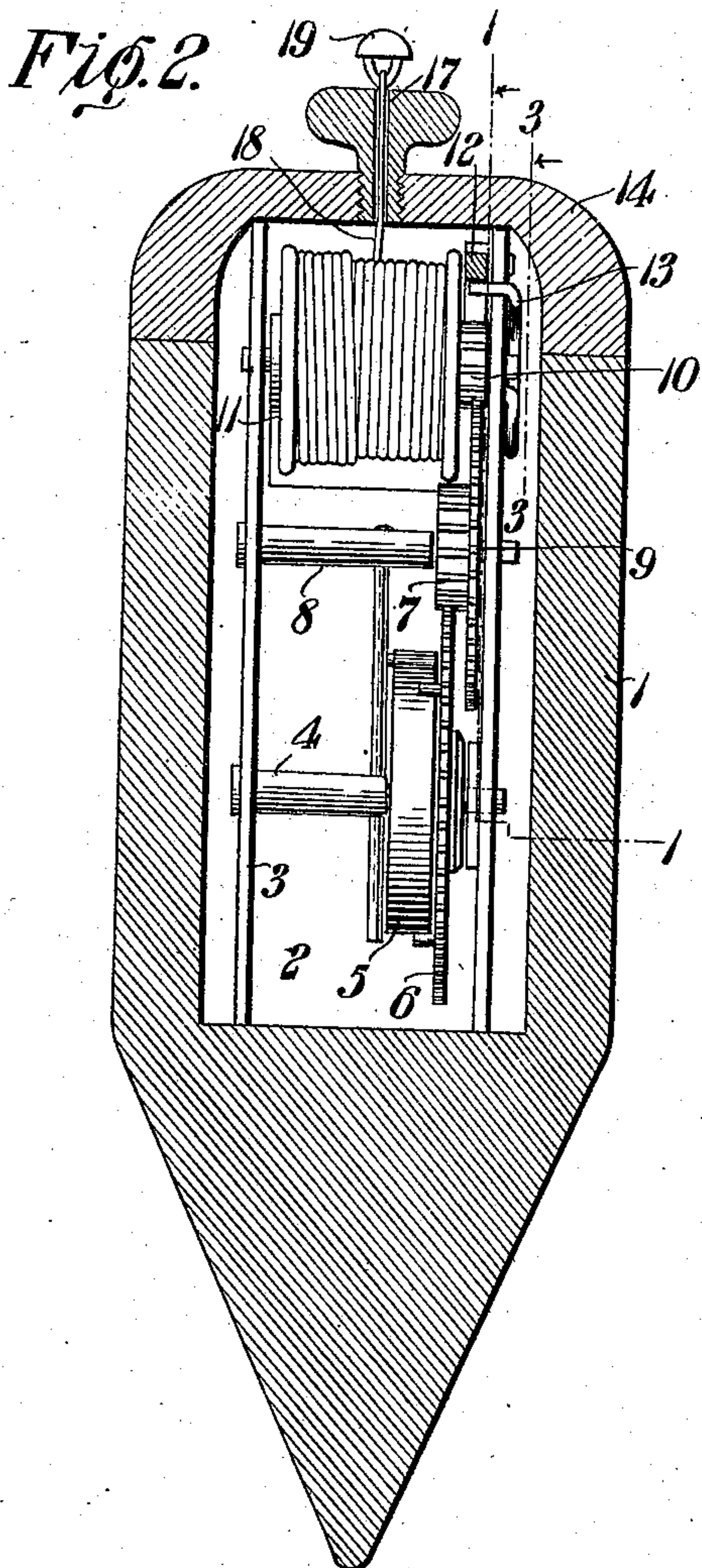


No. 854,931.

PATENTED MAY 28, 1907.

A. CROTCHETT.
PLUMB BOB.

APPLICATION FILED NOV. 30, 1906.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALONZO CROTCHETT, OF IOLA, KANSAS.

PLUMB-BOB.

No. 854,931.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed November 30, 1906. Serial No. 345,746.

To all whom it may concern:

Be it known that I, ALONZO CROTCHETT, a citizen of the United States, residing at Iola, in the county of Iola and State of Kansas, have invented a new and useful Plumb-Bob, of which the following is a specification.

This invention has relation to plumb bobs and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide a bob of simple construction which is provided with internal mechanism, spring actuated for automatically taking up the line by means of which the bob is suspended and thereby protecting the line and preventing the same from becoming entangled with itself or other tools of a kit.

The device consists primarily of a body portion having a longitudinally extending internal recess within which is mounted a spring actuated drum. The line is attached to the drum and is adapted to be wound upon and unwound therefrom. The shaft of the drum is provided with a pawl and ratchet mechanism, also spring actuated, by means of which the rotation of the drum may be checked or permitted according to engagement or disengagement of the pawl with the ratchets. The body portion is provided with a cap or closure which in turn is provided with parallel ears or lugs that fit in the recess occupied by the line actuated mechanism. The said line passes through an aperture provided in the center of the cap and the cap is provided with a push peg which is adapted to engage the spring actuated pawl and move the same out of engagement with the ratchets of the drum.

In the accompanying drawings:—Figure 1 is a side elevation of the plumb-bob partly in section cut on the line 1—1 of Fig. 2. Fig. 2 is a vertical sectional view of the same, cut on the line 2—2 of Fig. 1 and Fig. 3 is a detailed sectional view of the upper portion of the plumb-bob cut on the line 3—3 of Fig. 2.

The device comprises the body portion 1 which is of the general configuration of a usual plumb bob. The said body portion 1 is provided with a longitudinally extending recess 2. The frame 3 is located in the said recess and the shaft 4 is fixed in said frame. One end of the helical spring 5 is fixed to the shaft 4 and the opposite end thereof is fixed to the gear wheel 6 which is journaled upon the said shaft 4. The wheel 6 meshes with

the pinion 7 which is journaled upon the shaft 8 and to the side of which is fixed the gear wheel 9. Said wheel 9 meshes with the ratchet wheel 10 which is attached to the shaft of the drum 11. The pawl 12 is pivoted to the frame 3 and is actuated by the spring 13 to hold the same normally in engagement with the ratchet wheel 10. The spring 13 is also mounted upon the frame 3. The said frame 3 and its attachments above described are so arranged as to be slipped or inserted longitudinally in the recess 2 of the body 1. The cap or closure 14 is provided at opposite sides with depending lugs 15 which are also adapted to enter the recess 2 of the body 1 and which are confined therein by transversely extending screws 16 or other suitable securing devices. Said cap is provided with a central perforation 17 through which the line 18 passes and winds upon the drum 11. The outer end of the said line is provided with a button 19 which limits the movement of the said line toward the drum 11. The said cap 14 is also provided with a push peg 20, the lower end of which is directly above the free end of the pawl 12 when the said cap is in position upon the body portion 1.

To lengthen or shorten the line 18 the body portion 1 is grasped in the hand, preferably the left, and the thumb is brought to bear upon the push plug 20. The said plug is thus moved longitudinally and its lower end engages the free end of the pawl 12 and swings the opposite end thereof out of engagement with the ratchet wheel 10. Thus the drum 11 is free to rotate and by grasping the button 19 the line 18 may be drawn out through the aperture 17 for any desired length. When so drawn the pressure is removed from the peg 20 and the spring 13 operating upon the free end of the pawl 12 will force the opposite end thereof into engagement with the ratchet wheel 10 and fix the same. After the bob has been used and it is desired to house the line 18 the push peg 20 is depressed and the line is wound upon the drum 11 which is actuated by the helical spring 5 which is under constant tension and is connected with the drum through the chain of gears above described.

Having described my invention what I claim as new and desire to secure by Letters-Patent is:—

A plumb bob comprising a body portion having a longitudinally extending recess, a

frame fitting within the recess and having a
spring actuated drum, a pawl and ratchet
mechanism for controlling the rotation of a
drum, a cap having depending ears which
5 fit within the recess, a line passing through
the cap and winding upon the drum, a push
peg mounted upon the opening cap and
adapted to engage the end of said pawl.

In testimony that I claim the foregoing as
my own, I have hereto affixed my signature 10
in the presence of two witnesses.

ALONZO CROTCHETT.

Witnesses:

E. P. FULLER,
E. W. MYLER.