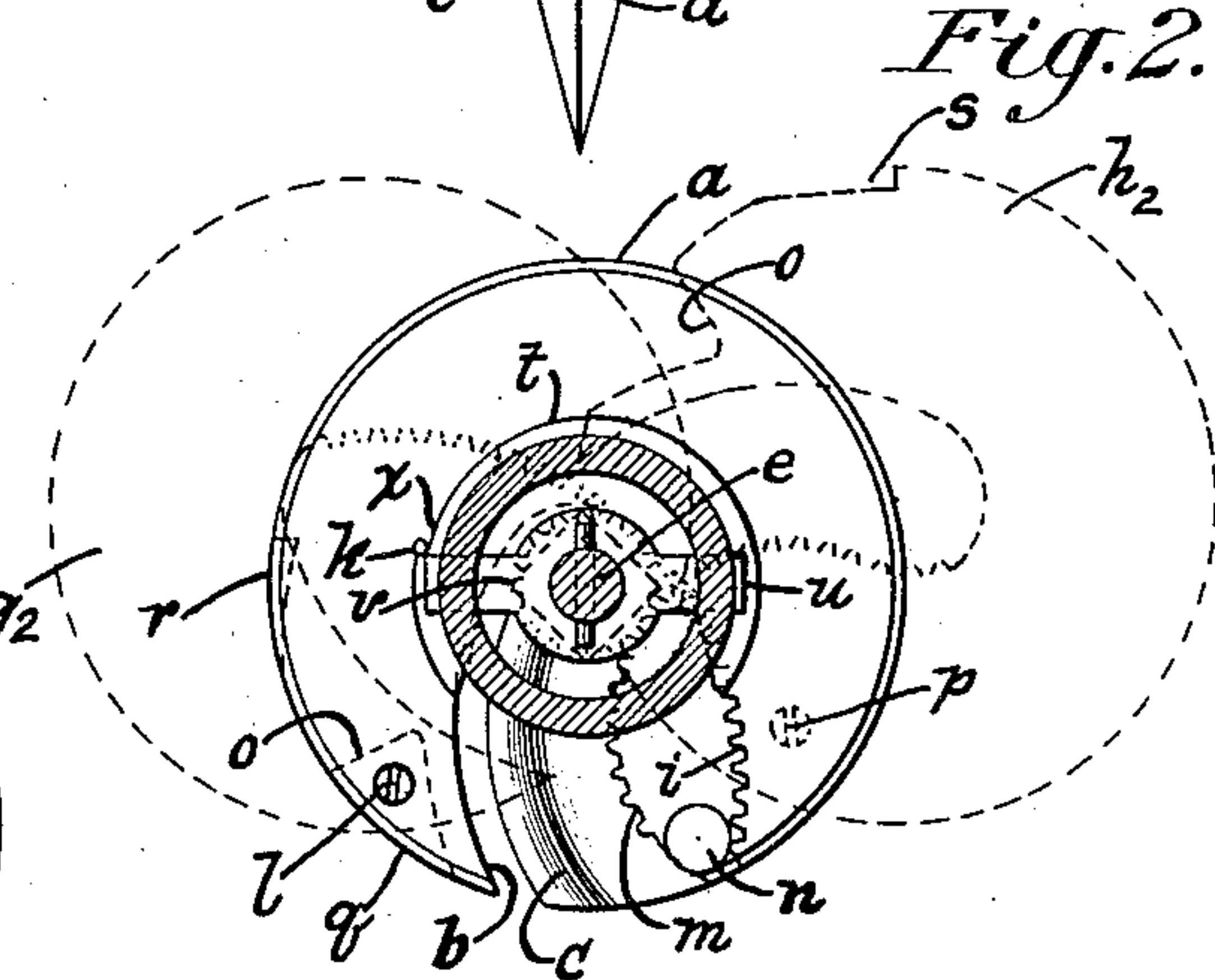
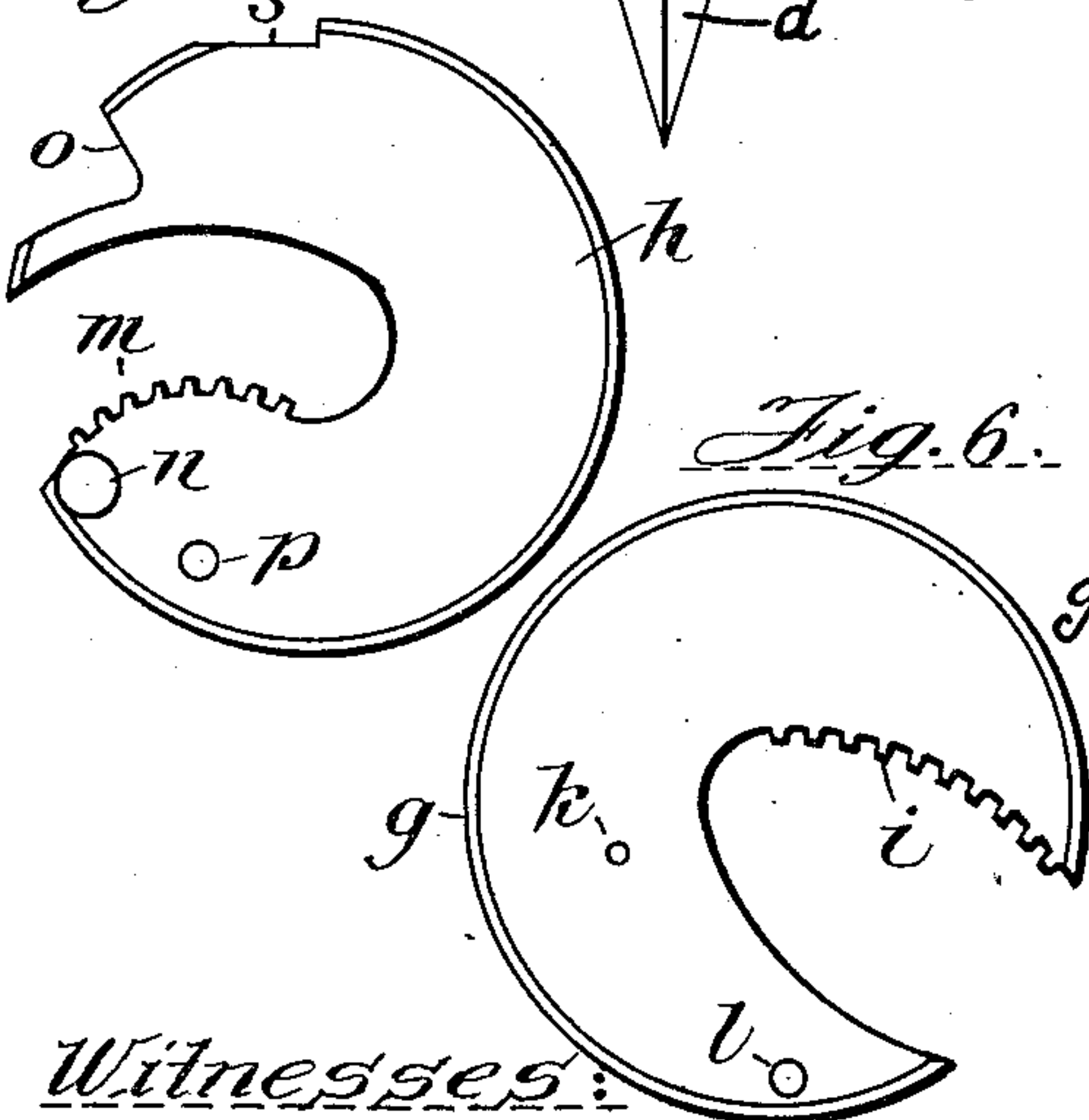
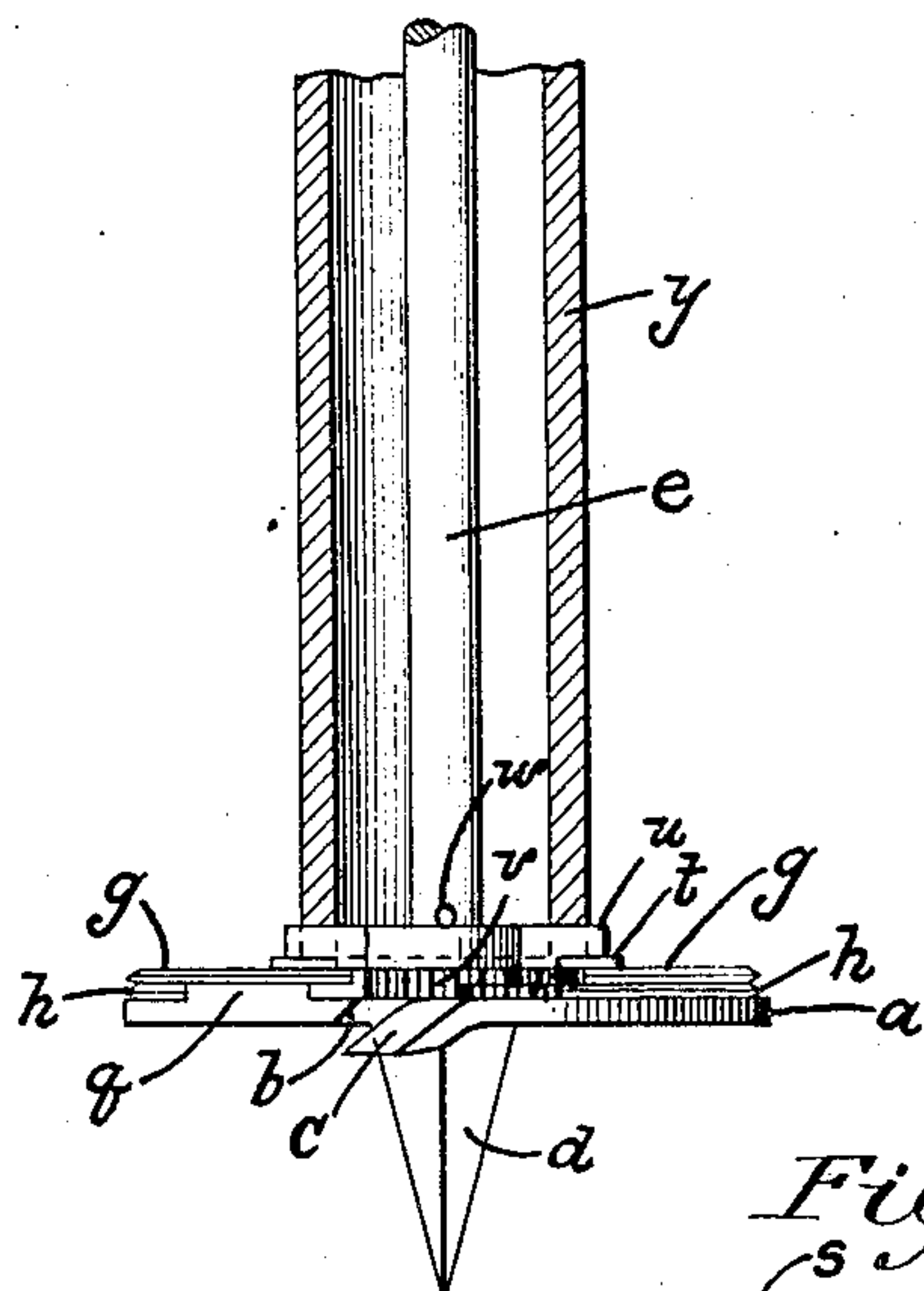
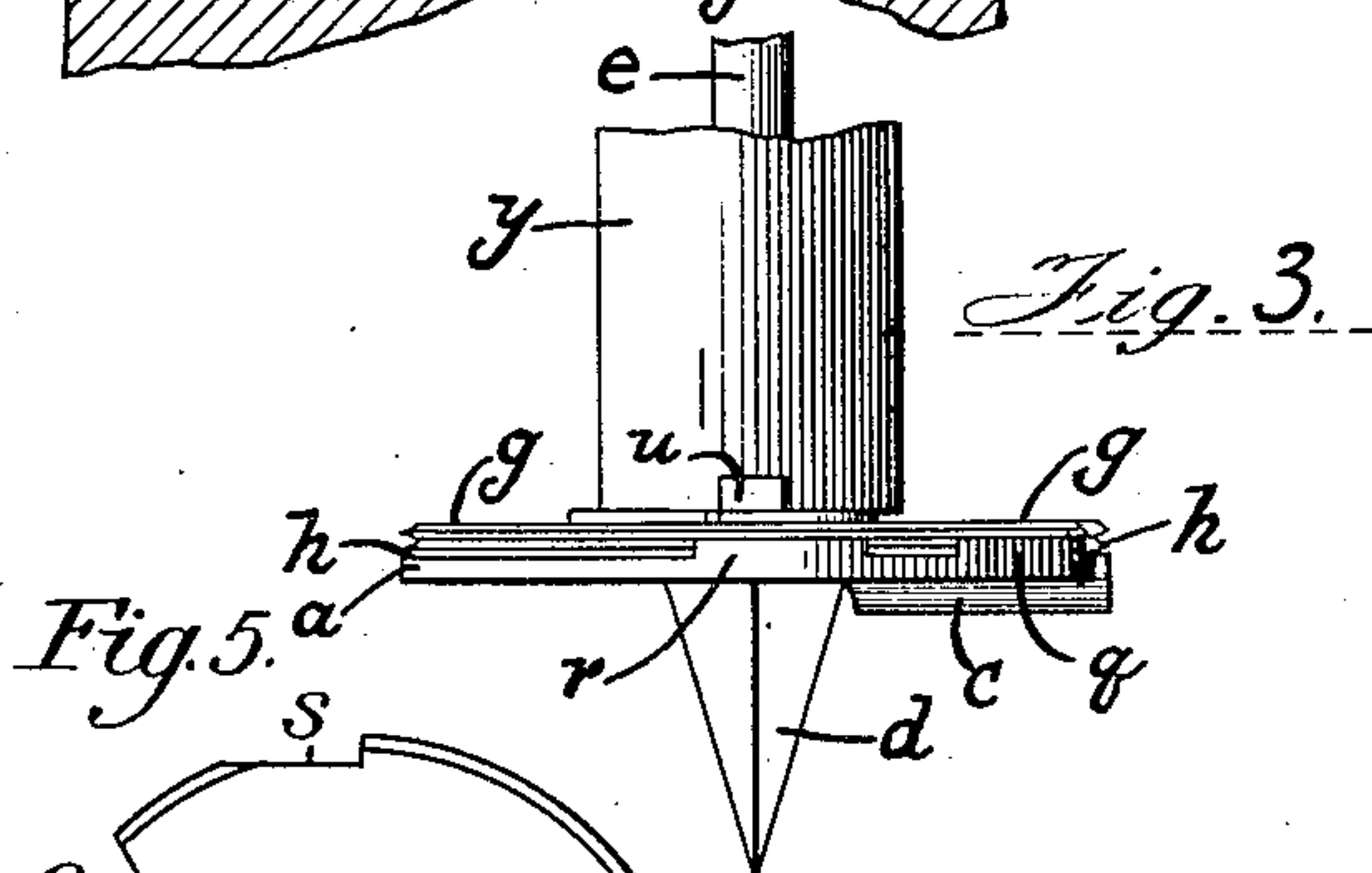
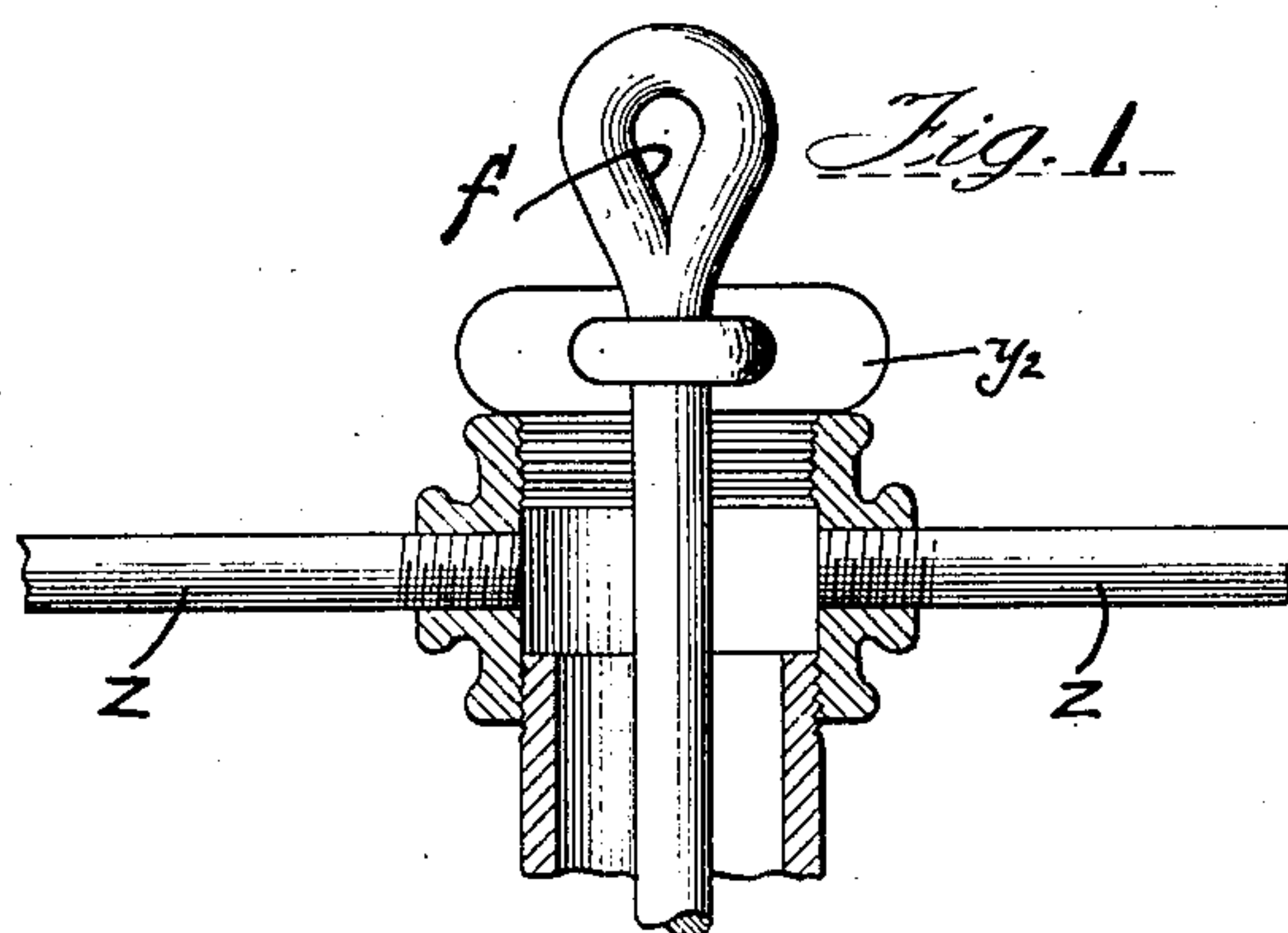
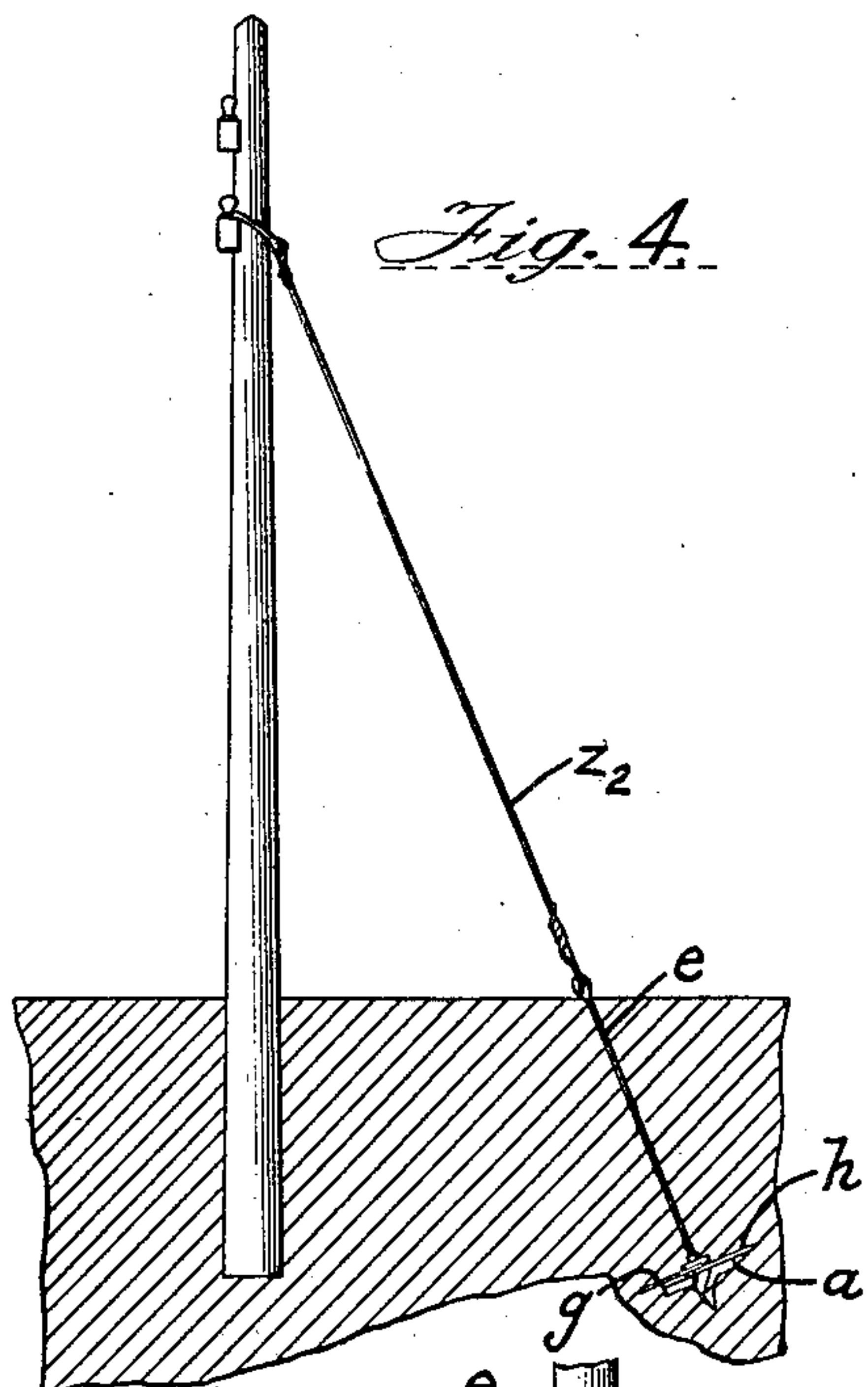


No. 825,587.

PATENTED JULY 10, 1906.

C. E. COOK.
ANCHOR.

APPLICATION FILED OCT. 19, 1905.



Witnesses:

Ed. D. Perry

Frederick R. Parker.

Inventor:

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UNITED STATES PATENT OFFICE.

CLARENCE E. COOK, OF CHICAGO, ILLINOIS, ASSIGNOR TO FRANK B. COOK, OF CHICAGO, ILLINOIS.

ANCHOR.

No. 825,587.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed October 19, 1905. Serial No. 283,544.

To all whom it may concern:

Be it known that I, CLARENCE E. COOK, a citizen of the United States of America, and a resident of the city of Chicago, in the State of Illinois, have invented a new and useful Anchor, of which the following is a specification, reference being had to the accompanying drawings, illustrating same.

My invention relates to anchors such as are used for guying telephone or telegraph poles, smoke-stacks, fence-posts, &c., my object being, first, to provide such an anchor which has great holding power; second, to provide improved means for boring the anchor into the ground and for securing and holding blades thereof in solid earth after the anchor has been bored in sufficiently, and, third, to provide improved holding blades or means for securing the anchor in place.

The anchors generally in use which have holding blades or prongs adapted to catch in the solid earth require a hole to be bored, so that they can be inserted bodily therein, and then the blades or prongs spread out into the solid earth by a mechanical means or by pulling the anchor out of the hole slightly. Then, again, there are other anchors in use which may be bored into the earth; but these anchors have no means to be spread out to catch in the solid earth. In this latter form of anchor the earth which has been loosened by boring the anchor into it is depended upon to hold the anchor in place.

In my present invention I provide an anchor which has the combined advantages of both of the above-mentioned types, as it does not require any hole to be made in the earth therefor, and at the same time does not depend solely upon the loosened earth to hold it in place. In this anchor I provide an auger-like end portion, which is bored into the earth by turning it in one direction, and disk-like blades or portions near the said auger-like end, which are then forced outward into the undisturbed earth after the auger has been fully bored down by turning the boring handle or wrench in the opposite direction. It will be readily seen that this anchor has a double holding power due to the loosened earth above the auger portion and the extension-blades holding in the solid earth. I preferably provide a wrench apart from the anchor for boring same into the earth and for opening the

extension-blades. After the anchor is bored into the earth as far as is desired and the blades opened the wrench may be removed. If one or both of the blades should strike an obstruction while being spread out, the wrench may be turned in the opposite direction and the blades closed up and the anchor bored down deeper, so that the said obstruction will not interfere with the blades when they are again opened.

I will now more particularly describe my invention by reference to the drawings, in which—

Figure 1 is a side elevation of the anchor with the extension-blades shown closed and the wrench shown in cross-section. Fig. 2 is a plan view of Fig. 1 with a portion of the top of Fig. 1 removed, showing the extension-blades extended in dotted lines. Fig. 3 is a side elevation of a portion of the lower end of the anchor and wrench, taken at right angles to Fig. 1. Fig. 4 is a view showing how the anchor is applied in guying a telephone-pole or the like, and Figs. 5 and 6 are detailed views of the respective extension-blades.

Like characters refer to like parts in the several figures.

The disk *a*, preferably made of iron or steel, is cut away, as at *b*, and is provided with an offset portion *c*, which is comparatively sharp and is used as an auger-blade to screw the disk *a* into the earth when turned in a forward direction. A point *d* is provided underneath the disk *a* to guide same in boring. The disk *a* and point or spur *d* are rigidly attached to the rod or stem *e*, which is provided with an eye *f* at its upper end, in which a rope, cable, wire, or the like may be attached. The portions *a*, *d*, and *e* may all be one and the same piece or may be made of separate pieces and secured together.

Two extension-blades *g* and *h* are placed upon the disk *a*, as shown in Fig. 1. Blade *g* is cut away between *b* and *i*, Fig. 2, to a little past the center of the auger, is provided with gear-teeth *i*, is provided with a small projecting pin *k*, and is pivoted to disk *a* at *l* by a screw or rivet, so that it may be swung out to the position *g*². Blade *h* is cut away between *b* and *m* to a little past the center of the auger, is provided with gear-teeth *m*, is provided with a projecting knob *n*, is cut away at *o*, is cut away at *s*, and is pivoted at

p by a screw or rivet, so that it may be swung out to the position h^2 . The disk a is provided with projecting portions q and r near the edge thereof to form bearings for blade g .
 5 The cut-away portions, o and s of blade h fit around the portions q and r , respectively, when blade h is in the position shown in Fig. 1. A plate t , provided with a transverse rib u on top thereof and a pinion-gear v on the
 10 bottom thereof, is placed upon the rod e , so that the gear v meshes with the gears i and m of blades g and h , and is held in place by a pin w , which passes through rod e . The plate t is cut away at x to engage pin k , which
 15 acts as a stop for the plate t when same is turned in the direction to bore the anchor into the earth.

The wrench y is preferably a pipe large enough to pass over the enlarged end f of rod
 20 e and is cut away at the bottom end to fit over the rib u , as shown in Figs. 1 and 3. The handle portions z are preferably screwed into a collar at the upper end of pipe y and are detachable for convenience. The clamp
 25 y^2 is clamped to the rod e against the upper end of the wrench to hold the latter down on the rib u and not allow it to slip off of same.

In using the anchor the wrench y is first slipped over the rod e , as shown in Figs. 1
 30 and 3, and the clamp y^2 put in place, the blades g and h being closed in, as shown in these figures. Then the spur d is stuck into the earth where it is desired to sink the anchor, and the wrench is turned in one direc-
 35 tion, so as to bore the anchor into the earth, the plate t engaging the pin k and the teeth of pinion v engaging portions of the blades g and h , so as to cause the turning of the wrench to turn the anchor as a whole. When
 40 the anchor has been bored into the earth as far as desired, the wrench is turned in the opposite direction, the disk a and stem e remaining stationary and the pinion v turning backward and gearing with the teeth i and
 45 m of blades g and h , and thereby spreading the latter out into the undisturbed earth in the positions shown in dotted lines at g^2 and h^2 of Fig. 2. When the blades g and h are thrown out as far as they will go, the clamp
 50 y^2 and wrench y may be removed, leaving the anchor in the earth, as shown in Fig. 4. Then the guy-strand z^2 may be fastened to the pole and anchor and tightened as desired.

The plate t may be nearly as large in diameter as the blades g and h , so as to bear on the latter over considerable surface thereof and more firmly hold same from buckling or turning up, due to an excessive strain thereon.

60 I wish it to be understood that I do not desire to limit this invention to the exact details of construction as herein shown, as many slight modifications therein may be made without departing from the scope of
 65 the invention.

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

1. In an anchor of the character described, the combination of an auger adapted to be
 70 bored into the earth, extension-blades lying in the path of the auger, means for boring the auger into the earth, and means whereby counterboring spreads the extension-blades out of the path of the auger.

2. In an anchor of the character described, the combination of an auger adapted to be
 75 bored into the earth, extension-blades lying in the path of the auger, and means whereby counterboring spreads the extension-blades
 80 out of the path of the auger.

3. In an anchor of the character described, the combination of an auger adapted to be
 85 bored into the earth, extension-blades normally lying in the path of the auger, and a pinion geared with the said blades to spread the latter out of the path of the auger.

4. In an anchor of the character described, the combination of extension-blades, and a
 90 pinion geared therewith to spread the blades apart when turned.

5. In an anchor adapted to be bored into the earth, extension-blades adapted to be
 95 spread apart, and means for spreading the blades apart by counterboring after the auger is bored into the earth.

6. In an anchor of the character described, the combination of an auger adapted to be
 100 bored into the earth, cams normally lying in the path of the auger, and means arranged to bore the auger into the earth when turned in one direction and to spread the cams apart when turned in the opposite direction.

7. In an anchor of the character described, the combination of an auger adapted to be
 105 bored into the earth, cams normally lying in the path of the auger, and a pinion arranged to bore the auger into the earth when turned in one direction, and geared with the cams to spread same apart when turned in the opposite
 110 direction.

8. In an anchor of the character described, an auger-blade provided with a stem, extension-plates lying in the path of the auger-
 115 blade and one on the other, each extension-plate being pivoted to swing out of the path of the blade, gear-teeth on each extension-plate, a pinion placed upon the said stem and geared with the said extension-plates, a stop
 120 for the pinion to prevent it from being turned in one direction, a wrench adapted to be placed over the said stem to engage the pinion, and a clamp clamped to the said stem to hold the wrench down on the pinion, the said
 125 wrench boring the auger into the earth when turned in one direction and causing the pinion to spread the extension-plates apart when turned in the opposite direction while the auger is held stationary.

9. In an anchor of the character described, 130

the combination of an auger adapted to be
bored into the earth, extension-plates nor-
mally lying in the path of the auger, a stem
for the auger, a pinion placed upon the stem
5 and geared with the extension-plates, a pin
extending through the said stem to hold the
pinion in place, and a wrench whereby the
auger is bored into the earth by turning it in
one direction and whereby the pinion turns
10 relatively to the auger and spreads the ex-

tension-plates apart when the wrench is
turned in the opposite direction.

As inventor of the foregoing I hereunto
subscribe my name, in the presence of two
subscribing witnesses, this 18th day of Octo- 15
ber, 1905.

CLARENCE E. COOK.

Witnesses:

FREDERICK R. PARKER,
F. W. PARDEE.