M. L. HAMMITT.

SURVEYOR'S TRANSIT.

APPLICATION FILED MAY 14, 1918.

1,298,498.

Patented Mar. 25, 1919.

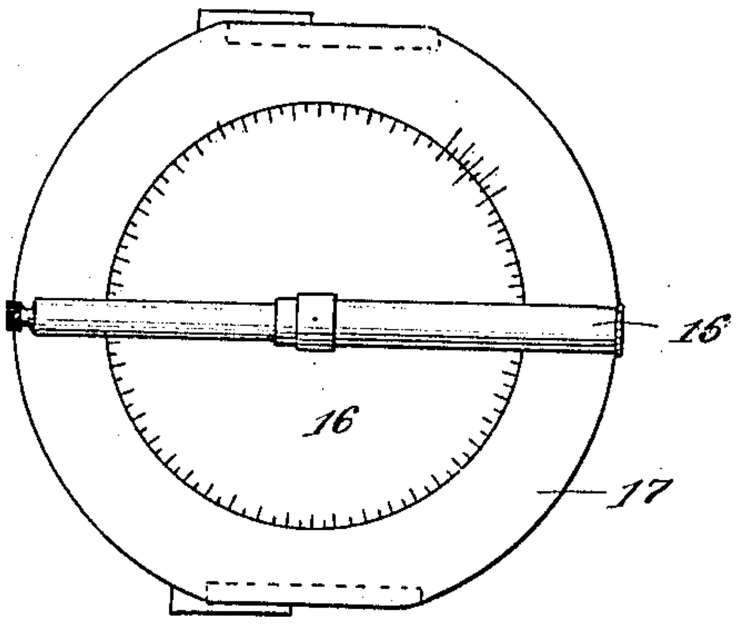


Fig. 1

Fig. 2

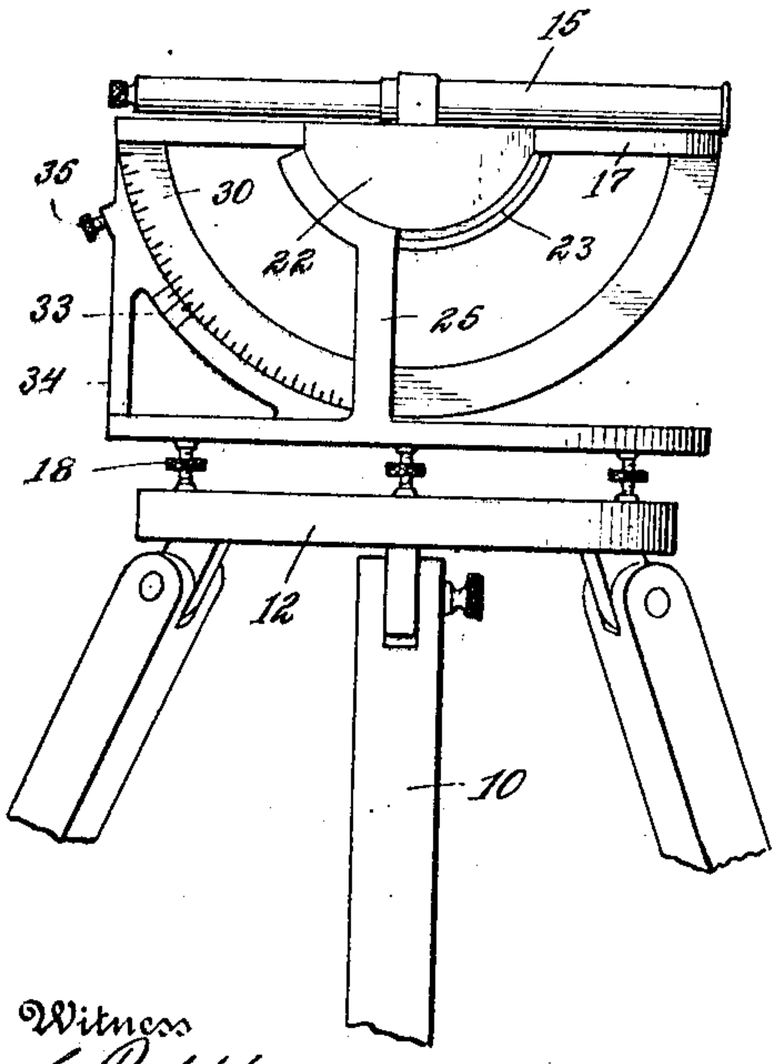
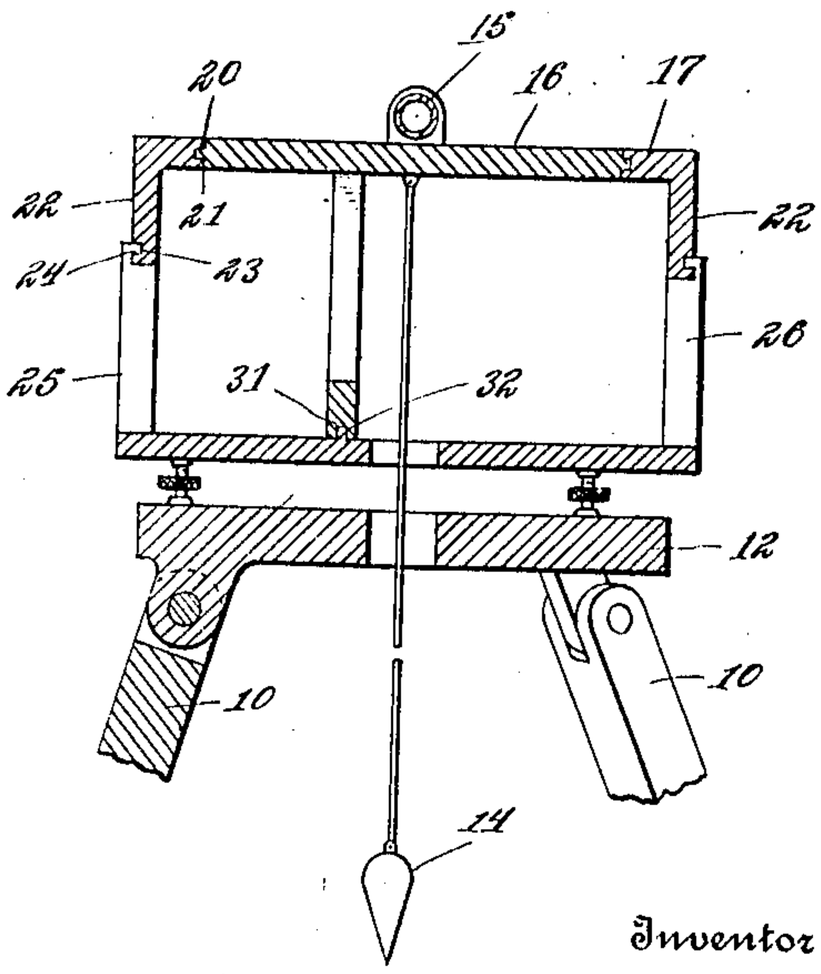


Fig. 3



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SURVEYOR'S TRANSIT.

1,298,498. Specification of Letters Patent. Patented Mar. 25, 1919.

Application filed May 14, 1918. Serial No. 234,515.

To all whom it may concern:

Be it known that I, MARVIN L. HAMMITT, a citizen of the United States of America, residing at Carbonite, in the State of Idaho, have invented new and useful Improvements in Surveyors' Transits, of which the following is a specification.

This invention relates to engineers' transits, and the object is to provide an instrument designed for use by engineers in locating mineral veins or in establishing grades for various purposes. The invention consists in certain novel means for mounting the telescope in such manner that it may be pointed in any direction without deviating from its correct position directly over the plumb-bob.

In the accompanying drawings:

Figure 1 is a top plan view.

Fig. 2 is a view in side elevation.

Fig. 3 is a vertical section.

The tripod is designated 10, the base 12, and plumb-bob 14. The telescope is shown at 15 and is connected in any suitable manner with disk 16 mounted for rotation within a ring 17, this ring and the adjacent edges of the disk being provided with graduations. The usual adjusting means are shown at 18. Ring 17 is provided with a groove 20 on the inner edge thereof coöperating with an annular flange 21 carried by the disk 16 Ring member 17 is further provided with trunnions 22, grooved annularly at 23 for engaging the dovetailed portion 24 of standards 25 and 26 mounted on opposite sides. This construction provides for the tilting of the ring and disk, the latter carrying the telescope, as stated.

The ring 17 carries on the underside thereof a semicircular member 30 provided with a dovetailed groove 31 coöperating with dovetailed portion 32 of segmental member 33 forming a part of the stationary element or bracket 34. A set screw 35 affords means for securing the member 30 in any adjusted position. This member is provided with the graduations 31 as shown.

The mounting means described permit of the movement of the telescope to any required position, this movement providing accurate adjustment under all conditions, no opportunity being afforded for lost motion at any point.

What is claimed is:

1. In a device of the class described, a disk member, a telescope mounted thereon, a ring member having a flange and channel connection with the disk member, standards provided with segmental rib portions, trunnions carried by the ring member and provided with annular channels engaging said segmental portions, a semicircular guiding device carried by the underside of the ring member and provided with graduations, and means for guiding the device last named.

2. In a device of the class described, a stationary element, a plurality of standards mounted thereon, each provided with a segmental rib portion at its upper end, a ring member provided with channeled trunnions engaging said segmental portions, a semicircular member mounted beneath the ring member and having rigid connection therewith, means for forming a dovetailed connection between said semicircular member and the stationary element, a disk mounted within the ring and having dovetail connection therewith, and a telescope mounted on said disk.

In testimony whereof I affix my signature.

MARVIN HAMMITT.