Dec. 26, 1950 R. J. COOKE 2,535,722

SURVEYOR'S MONUMENT SETTER

Filed May 10, 1948

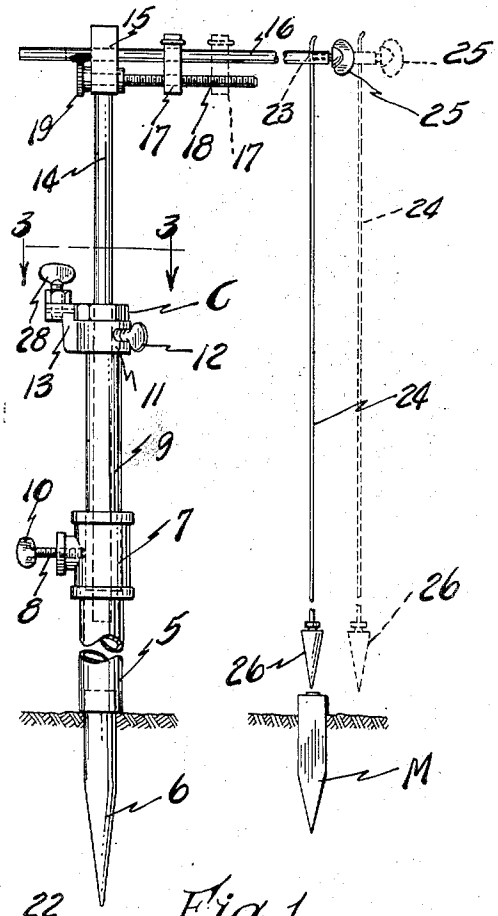


Fig. 1

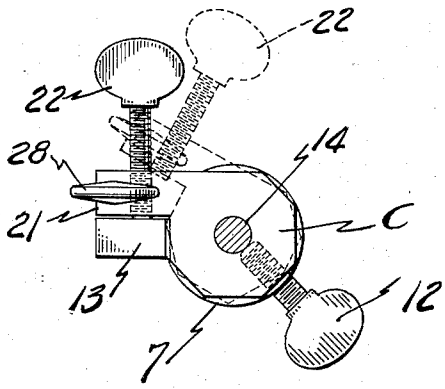
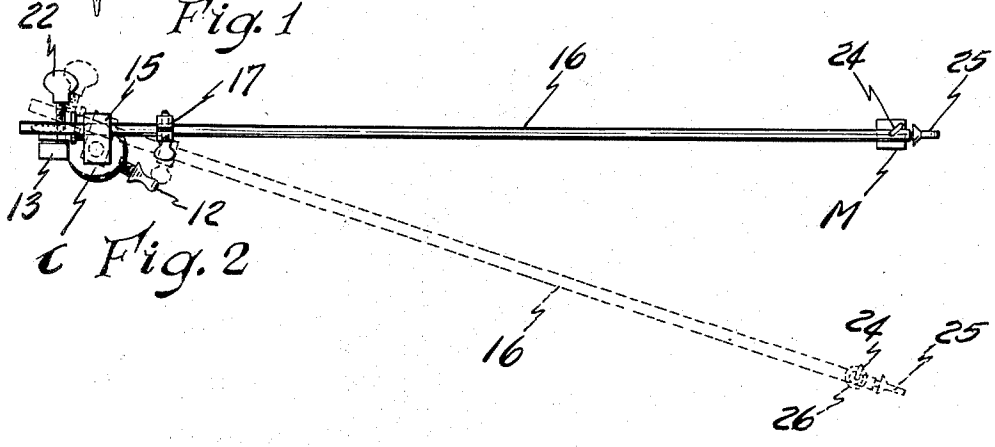


Fig. 3



C Fig. 2

INVENTOR.

Raynold J. Cooke.

BY

Frank C. Fearman.

ATTORNEY

Patented Dec. 26, 1950

2,535,722

UNITED STATES PATENT OFFICE

2,535,722

SURVEYOR'S MONUMENT SETTER

Raynold J. Cooke, East Tawas, Mich.

Application May 10, 1948, Serial No. 26,015

4 Claims. (Cl. 33—207)

1

This invention relates to monument setters such as used by civil engineers, surveyors, and other craftsmen, and has for its object the production of a simple, practical, and substantial monument setter, which when once set, can be swung clear to permit unobstructed placing of the monument, and then swung back to exact original position to the required center.

Another object is to design a monument setter which can be positively set and reset as many times as desired, which requires a minimum of maintenance and/or upkeep.

A further object is to provide a monument setting mechanism which can be readily handled and set up, and which includes a rotatable, horizontally adjustable plumb bob assembly which can be swung to permit unobstructed digging and placing of a concrete monument, after which the plumb bob assembly can be swung back to original position.

Still a further object is to design a monument setter which need not be exactly vertical to secure proper setting, which eliminates the necessity of re-adjustment of the permanent marker after being once set, because the point and original center is always visible by position of previously set and adjusted plumb bob.

A further object is to design a relatively inexpensive monument setter composed of few parts, all of sturdy, substantial construction, and which can be readily manufactured and assembled.

With the above and other objects in view, the present invention consists in the combination and arrangement of parts, hereinafter more fully described, illustrated in the accompanying drawing, and more particularly pointed out in the appended claims, it being understood that changes may be made in the form, size, proportion, and minor details of construction, without departing from the spirit, or sacrificing any of the advantages of the invention.

In the drawing:

Fig. 1 is a side-elevational view showing the instrument set up for use, the broken lines illustrating the outward adjusting of the plumb bob.

Fig. 2 is a top, plan view, the broken lines illustrating the swinging of the plumb bob arm.

Fig. 3 is a transverse-sectional view taken on the line 3—3 of Fig. 1.

Referring now more particularly to the drawing in which I have shown the preferred embodiment of my invention. The numeral 5 comprises a hollow, preferably tubular body member, the lower end of which is pointed as at 6 so that it

2

may be readily driven into the ground by wooden maul (not shown) or the like. A fitting 7 is provided on the upper end of the member 5, and a setscrew 8 is provided therein in the usual manner.

A hollow post 9 is adjustably mounted in the upper end of the member 5; it is vertically adjustable therein and is held in position by means of the setscrew 8, which is formed with wings 10 for easy manipulation thereof.

A stop member 11 is secured to the upper end of the post 9 by means of a setscrew 12, said member being formed with an offset shouldered section 13 which serves as a stop, and in a manner to be presently described.

An adjusting rod 14 is rotatably mounted in the post 9, and a collar C is fixed thereon, an arm support 15 being provided on the upper end of said rod, and a transversely extending arm 16 is slidably mounted in said support.

A clamp 17 is fixedly mounted on the arm 16 at a point intermediate its length, and a tangent screw 18 is also mounted in the support 15 and is provided with a knurled head 19 for easy manipulation, said screw having threaded engagement with the clamp 17 for the purpose of making minute adjustments after the arm 16 has been roughly set at approximate position.

The collar member C is fixedly mounted on the rod 14 and bears on the member 11, said collar being formed with a split offset shoulder 21 as shown, and an adjusting screw 22 is provided in the shoulder 21 for minute adjustment after the mechanism has been roughly set.

A small opening 23 is provided on the outer end of the arm 16, and a cord 24 is threaded therein, a setscrew 25 being provided on the end of the arm, so that the cord may be secured in set position.

A plumb bob 26 is provided on the lower end of the cord 24, and this arm and plumb bob can be swung to position to provide an unobstructed digging, tamping, or monument setting area, and then swung back to identical original position over the marker M, without the necessity of resetting or adjustments of any nature.

The device can be readily disassembled and compactly bundled for transportation or storage, and in use, the marker M is first located; the pointed end 6 of the barrel 5 is then driven into the ground at a point not greater than the length of the arm 16 from the marker M.

The surveyor then places the post 9 in the member 5 and tightens the setscrew 8 to secure the members in set position. He then mounts the rod 14 in the barrel 9 and inserts the arm 16

in the support 15. The cord 24 with plumb bob attached, is then placed in position and the screw 25 tightened to securely suspend the plumb bob in set position.

The arm 16 is then swung so that the plumb bob is roughly over the marker to be permanented, with the end of the adjusting screw 22 in contact with the one face of the shoulder 13; the screws 8 and 28 are then tightened to secure the barrel 9 and prevent rotation of the rod 14, the arm 16 being free for extension or retraction by means of the tangent screw 18.

With the plumb bob directly over the marker M, the holding screw 28 is tightened to clamp the member 21 and secure the screw 22 in set position, and the marker M is now ready for replacement.

In order that the workman may have an unobstructed working area for digging etc., the arm 18 is swung clockwise out of the working area, and the setscrew 12 is then tightened to hold it in set position; the hole is then dug and the monument or other permanent marker (not shown) is then set.

The operator then loosens the setscrew 12 and swings the arm back to original setting, checking to see that the screw 22 is in contact with the shoulder 13; he then tightens the setscrew 12. The original center of the marker is relocated, and the tamping of the earth around the monument can then be completed. No adjustment of the monument center is necessary after the earth has been tamped, as the center is at all times shown by the plumb bob.

The operation is simple and easy; it can be quickly accomplished, and there is no readjusting necessary.

From the foregoing description, it will be obvious that I have perfected a very simple, practical, and inexpensive surveyor's monument setter, which can be compactly folded and stored, which eliminates the necessity of resetting with the possibility of error incident thereto, and which can be swung to leave the entire area clear and free for digging and setting of the monument at the point desired.

What I claim is:

1. A surveyor's monument setter comprising a sectional, hollow, telescopic stake having a rotatably adjustable stop collar mounted on the upper end thereof, a raised stop on said stop collar, a vertically adjustable rod mounted in said stake, a collar fixed thereon and engageable with said stop collar, an offset shouldered section on said second collar, a horizontally disposed adjusting screw mounted in said offset shouldered section and engageable with the raised stop for circumferentially adjusting said rod in said stake, and means for locking the adjusting screw in set position.

2. The combination defined in claim 1 in which the offset shouldered section is horizontally split, and the locking means comprises a screw for securing the adjusting screw in set position.

3. The combination set forth in claim 1 in which an arm support is provided on the upper end of the vertically adjustable rod, a transversely extending rod slidably mounted in said support, a clamp fixed thereon, and an elongated screw journaled in said support and engageable with said clamp for moving said rod horizontally in said support when the screw is actuated.

4. A surveyor's monument setter comprising a sectional, hollow stake having a stop collar on the upper end thereof with an offset shouldered stop formed integral therewith, a vertically disposed rod adjustably mounted in said stake and formed with a split, offset shoulder circumferentially engageable with said offset shouldered stop, means for circumferentially adjusting said rod in said stake, an arm support on the upper end of the rod, a transversely extending rod slidably mounted therein, a clamp fixed on said rod, a tangent screw in said support and having threaded engagement with said clamp for moving said rod in the support when said screw is actuated.

RAYNOLD J. COOKE.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
397,286	Hansel	Feb. 5, 1889
449,920	Thom	Apr. 7, 1891
503,238	Howell	Aug. 15, 1893
772,289	Newman	Oct. 11, 1904
879,052	Jeranek	Feb. 11, 1908
2,066,699	Skelton	Jan. 5, 1937
2,176,214	Falge et al.	Oct. 17, 1939
2,343,688	Maxey	Mar. 7, 1944
2,358,010	Holmes	Sept. 12, 1944