(No Model.)

E. A. DARLING.

SURFACE GAGE.

No. 275,892. Patented Apr. 17, 1883.

Fig. 1.

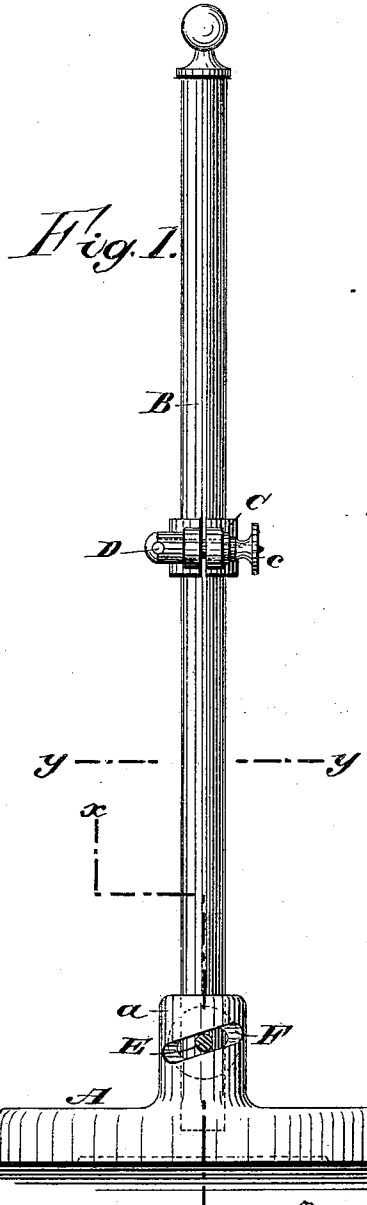


Fig. 2.

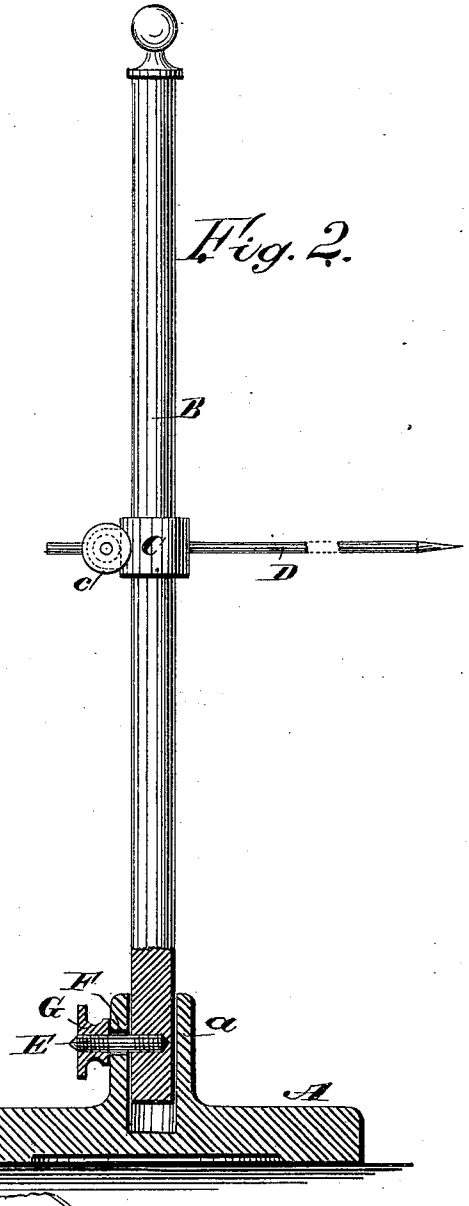
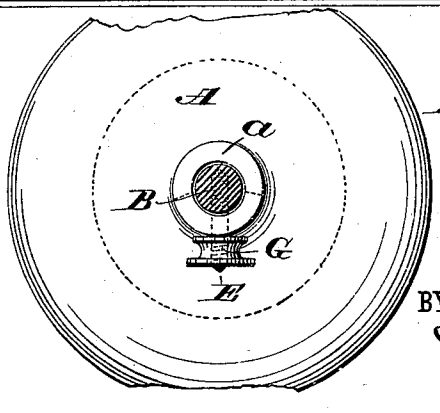


Fig. 3.



WITNESSES:

A. H. Beyer

C. Sedgwick

INVENTOR:

E. A. Darling

BY Munn & Co

ATTORNEYS.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

EDWIN A. DARLING, OF HARTFORD, CONNECTICUT.

SURFACE-GAGE.

SPECIFICATION forming part of Letters Patent No. 275,892, dated April 17, 1883.

Application filed January 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDWIN A. DARLING, of Hartford, in the county of Hartford and State of Connecticut, have invented a new and Improved Surface-Gage, of which the following is a full, clear, and exact description.

My invention relates to tools known as "surface-gages," employed by metal-workers and others in marking out work, the object of the invention being to provide for more convenient final vertical adjustment of the upright or standard carrying the marking-point, and for more accurate and unchangeable set of the point.

The invention consists in fitting a pin in the standard through an inclined or spiral slot in the base of the gage, the pin carrying a screw-nut, which serves as a convenient handle for setting the marker, and also for clamping the standard immovably in the desired position, as hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an elevation of a surface-gage fitted with my improvements, with the standard adjusting pin in section. Fig. 2 is a sectional elevation on the line *x x* of Fig. 1; and Fig. 3 is a broken plan view of the base, with the standard in section, on line *y y*, Fig. 1.

In any suitable base, A, having a boss, *a*, I fit snugly the standard or post B, carrying any approved form of collar C, fitted with a marking stylus or point, D, the collar C being arranged to slide on the standard, and to be clamped thereto by the screw *c*, in the usual or any approved way, to set the marking-point to the work as closely as may be done by sliding and setting the collar C directly by hand; but as tools of this class in most instances must be capable of close or accurate adjustments independently of the above setting of the marking-point on the standard, I propose to afford such independent adjustment by fitting a pin or stud, E, tightly in the standard through an inclined or spiral slot, F, of the boss *a* of the base, the pin being of a diameter to slide snugly in the slot, and projecting outside the boss to receive on its threaded end the screw-nut G, which, when loosened, serves as a convenient grasp or handle for moving the pin E from side to side in the inclined slot F to raise and lower the standard B to accurately position the marking-point, as desired, whereupon the nut G may be tightened against the boss *a*, or an interposed washer, to firmly hold the standard and marking-point against displacement.

It will be observed that by fitting the pin E into standard B through the slot F the standard, when once set for final adjustment of the marking-point, will be secure against either upward or downward movement, and will thus insure close and accurate measurements in use.

The pin E may be fixed in the standard by a driving fit, or be screwed therein, and that part of the pin that works in slot E may have a round form, as shown in the drawings, or be made with flat faces to bear against the sides of slot F for increased steadiness and durability; and my improvement will serve equally well with any style of marker, the contrivance affording a tool at once cheap of construction, capable of close, quick, and convenient adjustment, and durable in use.

I am aware that it is not new to combine with the standard having a pin at the lower end, and the hollow base, a loose sleeve, a collar, a slotted screw, and pin, or a pin, a cross-bar, guides, and spring; also that it is not new to use a cylindrical standard with a longitudinal groove, an adjusting screw and nut, a guide, and a clamp-screw; but these are much more complicated and expensive than mine, while they are also more liable to get out of order.

What I claim as new and of my invention is—

A surface-gage formed of the base A, having hollow spirally-slotted boss *a*, the post B, carrying the marker-slide C D and screw-stud E, and the compound handle and nut G, for the purpose specified.

EDWIN A. DARLING.

Witnesses:
CHARLES H. SLOCUM,
JOHN T. PETERS.