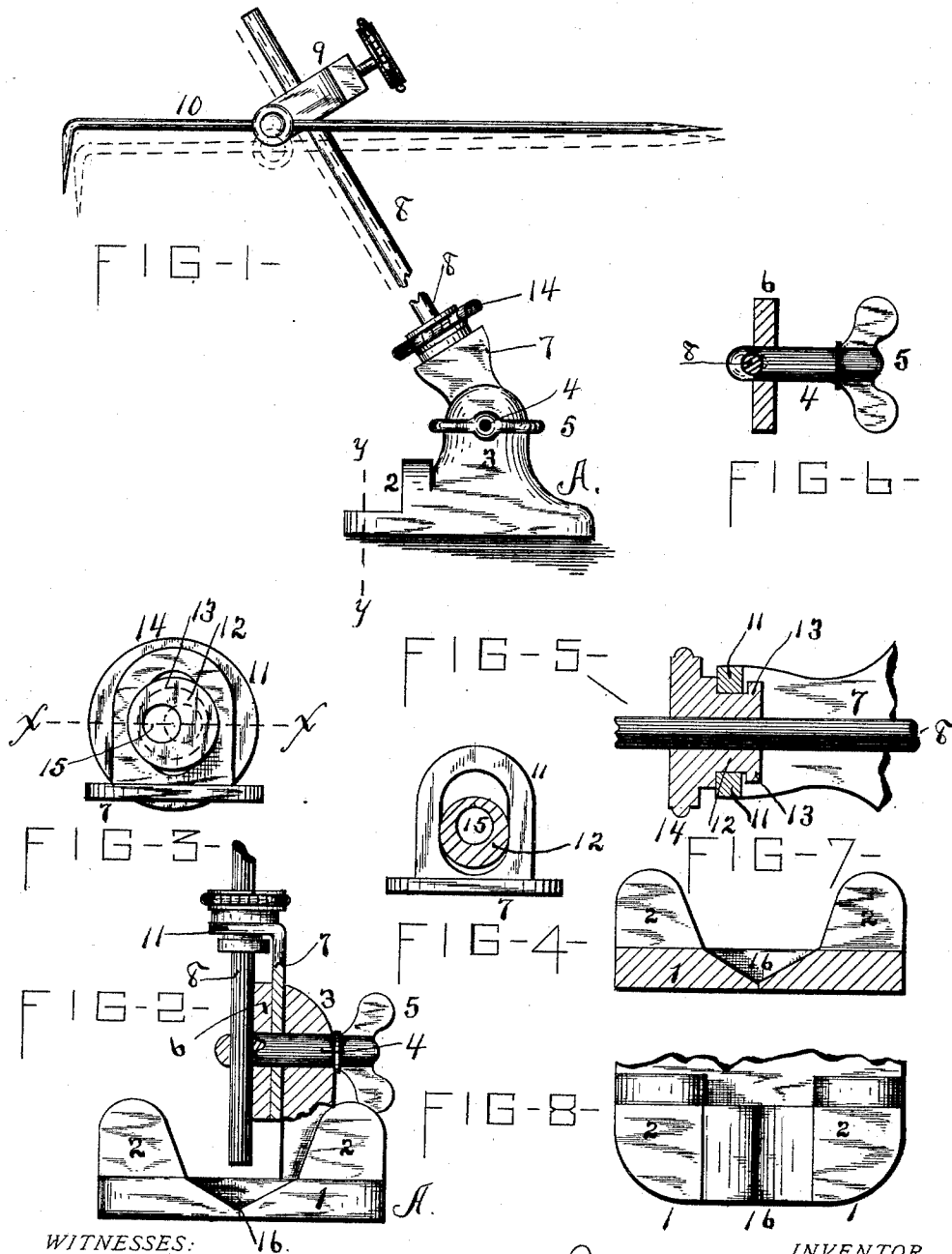


(No Model.)

J. CARR.
SURFACE GAGE.

No. 468,093.

Patented Feb. 2, 1892.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES CARR, OF SYRACUSE, NEW YORK.

SURFACE-GAGE.

SPECIFICATION forming part of Letters Patent No. 468,093, dated February 2, 1892.

Application filed June 6, 1891. Serial No. 395,371. (No model.)

To all whom it may concern:

Be it known that I, JAMES CARR, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful
5 Improvements in Surface-Gages, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to surface-gages and
10 scribers, and especially to that class in which the needle is mounted and adjustable upon a standard which can be tilted sidewise by the turning of the pivotally-mounted standard-holder.

15 My object is to produce an improved gage by which the point of the needle can be swung over onto the top of the work, the base being stationary for gage-work, or movable either upon straight or curved work for scrib-
20 ing either a straight line or a curve, by which the point of the needle is vertically adjustable by the rotation of an eccentric acting upon and moving the standard in order to obtain closer adjustment, in which the base can be
25 fitted upon and moved along the edge of a planer-bed or in any of the longitudinal or transverse slots or grooves therein, in order to scribe a line parallel with one of such grooves.

My invention consists in the several novel
30 features of construction and operation herein-after described, and which are specifically set forth in the claims hereunto annexed. It is constructed as follows, reference being had to the accompanying drawings, in which—

35 Figure 1 is a side elevation of the gage, showing the standard tilted or inclined, and also showing by the dotted lines the movement imparted to the needle and standard by the rotation of the eccentric to obtain close
40 and fine adjustment. Fig. 2 is a sectional front elevation of the gage, omitting the needle. Fig. 3 is a bottom plan view of the rock-
45 ing bar and of the eccentric mounted in a slot in the arm thereon to throw off the eccentric, being shown by the small circle in dotted lines, the other dotted lines indicating the body of the eccentric and the slot. Fig. 4 is
50 a like view of the same parts, showing the retaining-flange cut off from the eccentric. Fig. 5 is a sectional elevation on line *xx* in Fig. 3 or on a line longitudinal to the standard in Fig. 2. Fig. 6 is a detail showing in sectional

elevation the jaw-piece, the standard, and the eyebolt and thumb-screw. Fig. 7 is a transverse vertical section of the base on line *yy*, 55 Fig. 1, across the notch. Fig. 8 is a top plan of the flanged or rabbeted portion of said base.

A is the base having a flange 1 on one side and vertical walls 2 at right angles to the plane of the upper face of said flange, and a 60 boss 3, adapted to receive an eyebolt 4, parallel with the base, said bolt having a thumb-screw 5 upon its outer end, which bears against the outer face of said boss. This bolt passes through the jaw-block 6, the rock-bar 7, and 65 said boss, and the vertical standard 8 passes through the eye of said bolt, and when the thumb-screw is tightened up the standard fits in the V-jaw, (see dotted lines in Fig. 6,) the jaw is drawn tightly against the rock-bar, 70 and this bar lies against the face of the boss 3, and said standard is supported by means of this bolt. Upon the standard I mount the adjustable needle-carrier 9 and needle 10 of any desired construction. The rock-bar 7 is 75 provided with an arm 11 at right angles to the body thereof, and said arm is provided with an elongated slot having parallel sides and rounded ends, in which the eccentric 12 fits freely and is retained by means of a col- 80 lar 13, as shown in Figs. 2 and 4. This whole eccentric is in the form of a thumb-nut having an outer head 14 and a neck, which is the eccentric 12, in that the hole 15 through it is eccentric thereto, but not necessarily to the 85 head. The base is also provided with an angular notch 16, by means of which I can cause it to bear against a rounded surface.

When used as a surface-gage, I place the base alongside of the object with the stand- 90 ard more or less inclined, tilting it upon the pivot-bolt 4 until the point of the needle is close to the surface to be gaged. Then by turning the eccentric I lower the needle-point into fine adjustment and touch contact with 95 the surface of the object and then move the base along said object, noting the operation of the needle-point.

When, for illustration, I desire to mark out or scratch the outline of a groove in a piece 100 of work upon a planer, I place the flange 1 against the edge of or in one of the grooves in the planer-bed, incline the standard, and adjust the needle-point, said base-block then

resting upon the walls 2, and then slide the base-block along, scratching a line with the needle-point, and by shifting the needle or standard also I can draw a line or lines parallel with the first line.

When I wish to draw a curved line parallel with the edge of a curved or circular object, I place the notch 16 against the edge and the walls 2 on the top thereof, and then having adjusted the needle-point I slide the base around the edge, and thus scribe a curve parallel with the edge, thus, for instance, locating the line upon which holes are to be drilled at a certain fixed distance from the edge.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the standard supported by the base and the needle carried by the standard, of a base-block having a flange on one side, and a vertical wall at right angles to said flange, and a V-shaped notch in the upper face of said flange.

2. The combination, with the base and the

eyebolt through it, of the rock-bar pivoted upon said bolt, and the jaw-block upon said bolt, the eccentric mounted in said rock-bar, the standard passing through the eccentric and said eyebolt, and the needle carried by the standard.

3. The combination, with the needle-carrying standard and the jaw-block and eyebolt holding it and constituting its pivotal support, of an eccentric receiving said standard and adapted to vibrate it when rotated.

4. The combination, with the needle, the standard carrying it, the jaw-block, and eyebolt holding it and constituting the pivotal support of the standard, of an eccentric engaging with said standard and operating when rotated to adjust the needle-point vertically.

In witness whereof I have hereunto set my hand.

JAMES CARR.

In presence of—

HOWARD P. DENISON.

C. W. SMITH.