

No. 608,362.

Patented Aug. 2, 1898.

G. W. DOVER.
GEM SETTING.

(Application filed Nov. 23, 1897.)

(No Model.)

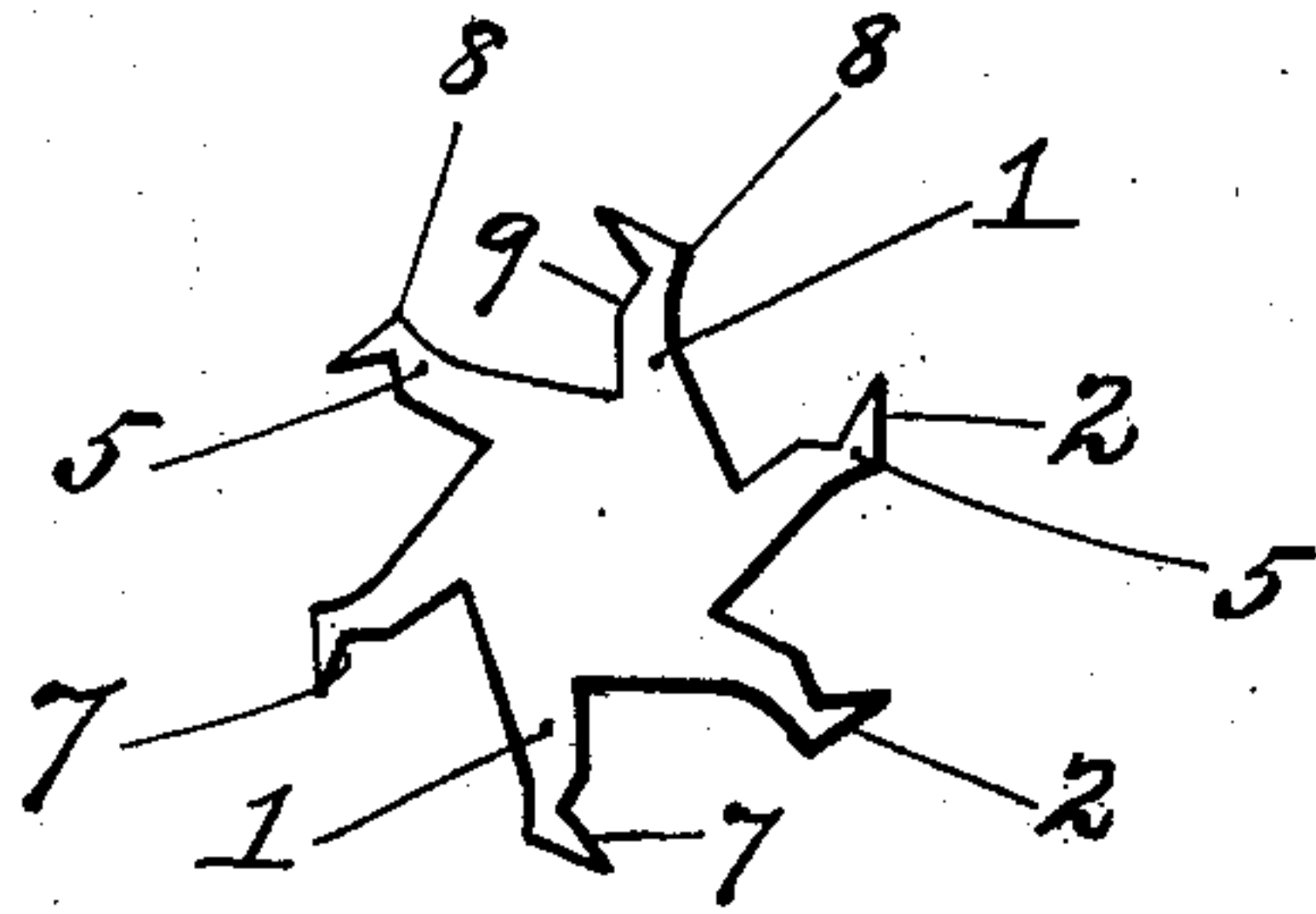


FIG. 1.

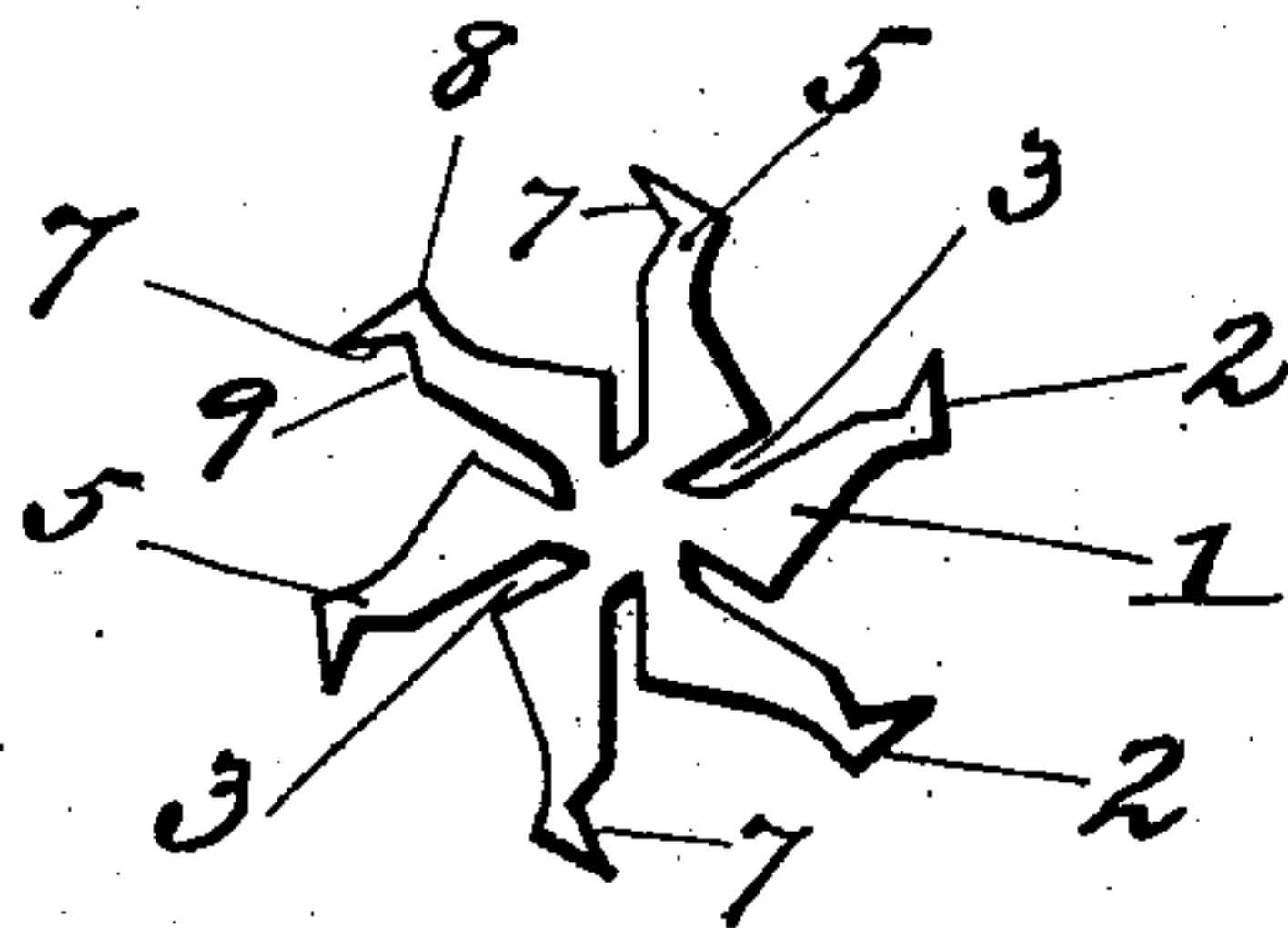


FIG. 2.

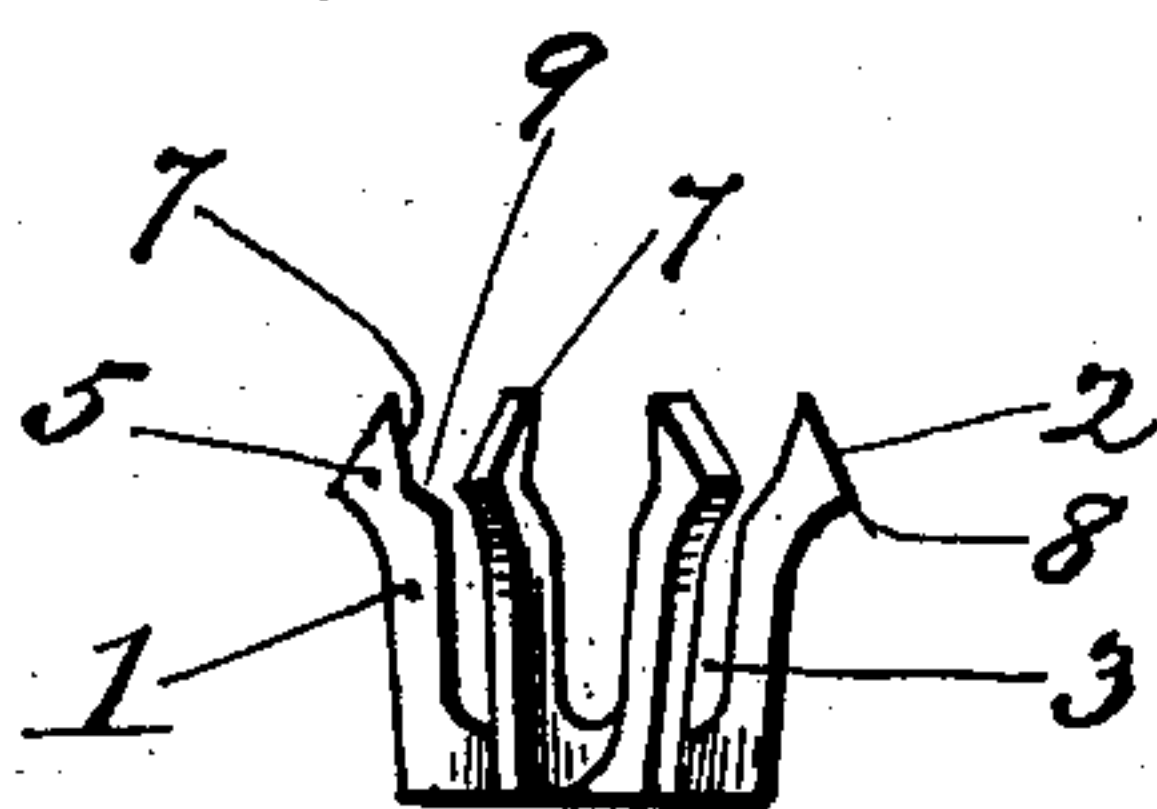


FIG. 3.

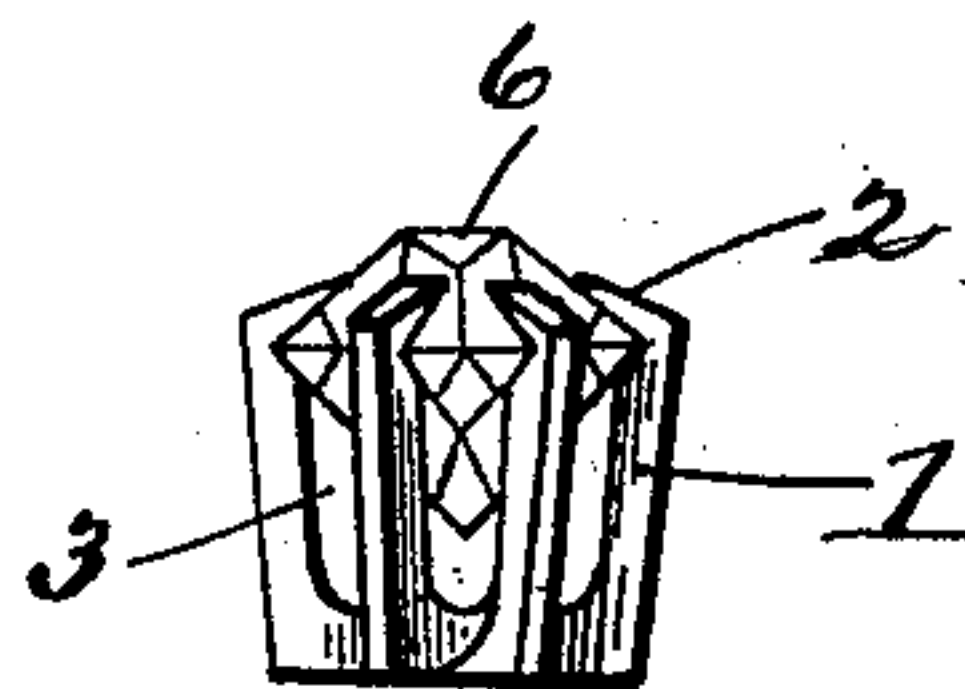


FIG. 4.



FIG. 5.

WITNESSES.

Leonard M. Horton
Eugene F. Warner

INVENTOR.

George W. Dover
BY
Horatio E. Bellows
ATTORNEY.

UNITED STATES PATENT OFFICE.

GEORGE W. DOVER, OF PROVIDENCE, RHODE ISLAND.

GEM-SETTING.

SPECIFICATION forming part of Letters Patent No. 608,362, dated August 2, 1898.

Application filed November 23, 1897. Serial No. 659,578. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. DOVER, of the city and county of Providence, in the State of Rhode Island, have invented a new and
5 useful Improvement in Gem-Settings and in the Process of Manufacturing the Same, of which the following is a specification.

In the accompanying drawings, Figures I, II, and III represent the different shapes of
10 my improved setting formed by the passage of a blank through successive dies to its completion. Fig. IV shows my setting after the insertion of a gem. Fig. V is a type of the prong and point in common use, with dotted
15 line indicating the shape after graving.

Similar figures of reference indicate corresponding parts.

Much difficulty has been experienced hitherto in making gem-settings by machinery which
20 equal in appearance those made by hand. By the latter method the ends of the prongs were recessed for the reception of the stone. The rectangular form of the prong-points made it necessary, after bending them over the edge
25 of the gem, to file or grave those portions which thus projected above the stone's surface in order to remove the shoulders formed at the end of the points.

The object of my invention is to produce a
30 gem-setting whose prong-points shall be so formed as to dispense with the necessity of graving or filing after the insertion of the gem; also, to effect this end by a mechanical process which will dispense with the labor and
35 expense attendant upon hand production. To secure this end, I manufacture my setting thus:

A blank, as illustrated in Fig. I, is struck from a metal strip, and it comprises a series
40 of substantially radial prongs 1, the extremities of which are cast upon the lines—as, for instance, of a hexagon or other angular geometric figure—according to the number of prongs with which it is designed to provide the
45 setting. The ends of the prongs are offset, in effect, by forming shoulders 9 9, produced by cutting an angular recess in one side of the prongs at their ends, and the back of the

prong opposite the recess is somewhat curved, as indicated at 8, and extends thence in a
50 straight line tangential with respect to a circle concentric with the center of the blank and substantially at right angles to the front face of the next succeeding prong. A die and plunger next perforate the blank with
55 substantially radial openings 3 3, Fig. II. The prongs 1 1 are now twisted by swaging-tools into a plane at right angles to the body of the blank and drawn up into their final upright position, Fig. III, by the customary
60 means. To set the stone 6, it is only necessary to bend the points 5 5 inwardly by slight pressure upon the hypotenuses 2 2, whereby the inner faces 7 7 of the points 5 5 contact with the upper surface of the stone 6 and the
65 shoulders 9 9 contact with its lower surface, while the slight curvatures 8 8 at the exterior bases of the points disappear.

Having thus described my improved setting and the process of its manufacture, I claim
70 as new and desire to secure by Letters Patent—

1. A gem-setting comprising a plurality of prongs provided respectively with an angular
75 recess and a concave curve at the opposite sides of their extremities whereby, when the point is bent over the gem the latter will be retained in the angular recesses and the curvature of the edges of the prongs will disappear, substantially as specified. 80

2. A gem-setting comprising a series of prongs, the extremities of which are arranged at an angle with respect to each other, each of said prongs being provided at the opposite
85 sides of its extremity with an angular recess and a concave-curved edge, the body of the setting being provided with a series of substantially radial openings extending approximately in alinement with the front faces of the prongs and at an angle with respect to
90 their rear faces, substantially as specified.

Witness my hand November 15, 1897.

GEORGE W. DOVER.

Witnesses:

SARAH E. LUMMIS,

JOHN J. MCKIERNAN.