

(No Model.)

G. E. HART.

MAINSRING BARREL FOR WATCHES.

No. 338,960.

Patented Mar. 30, 1886.

Fig. 1.

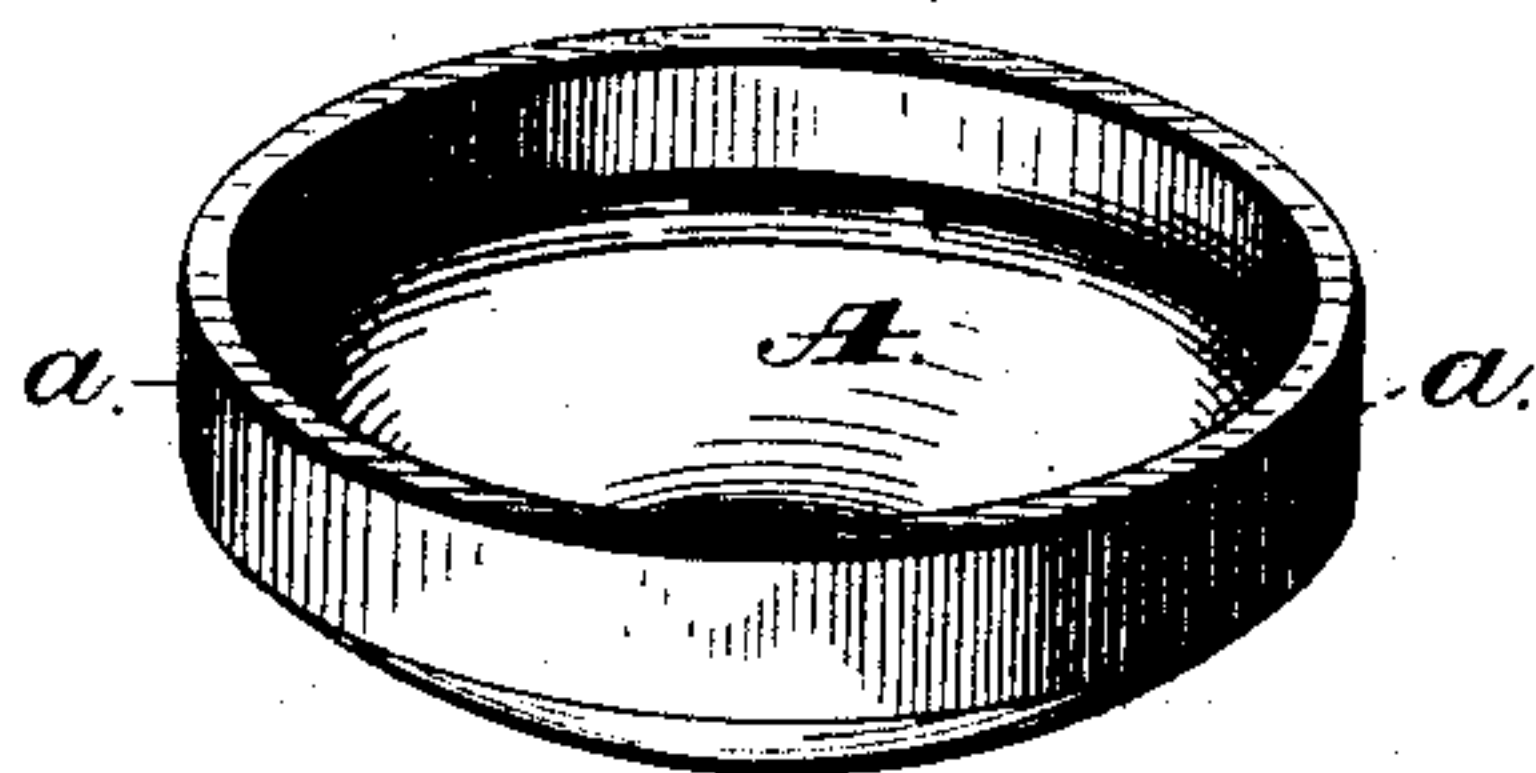


Fig. 2.

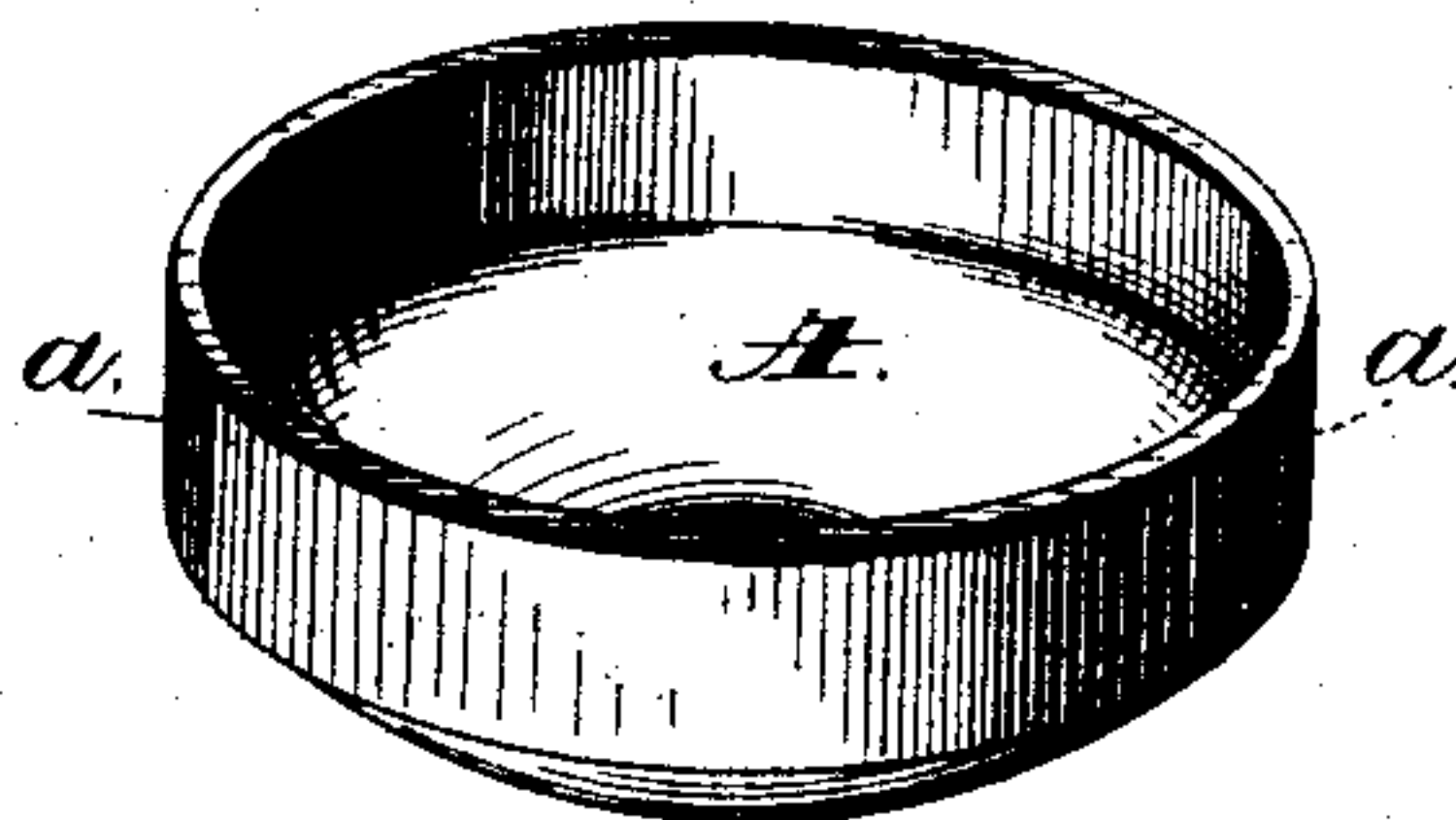


Fig. 3.

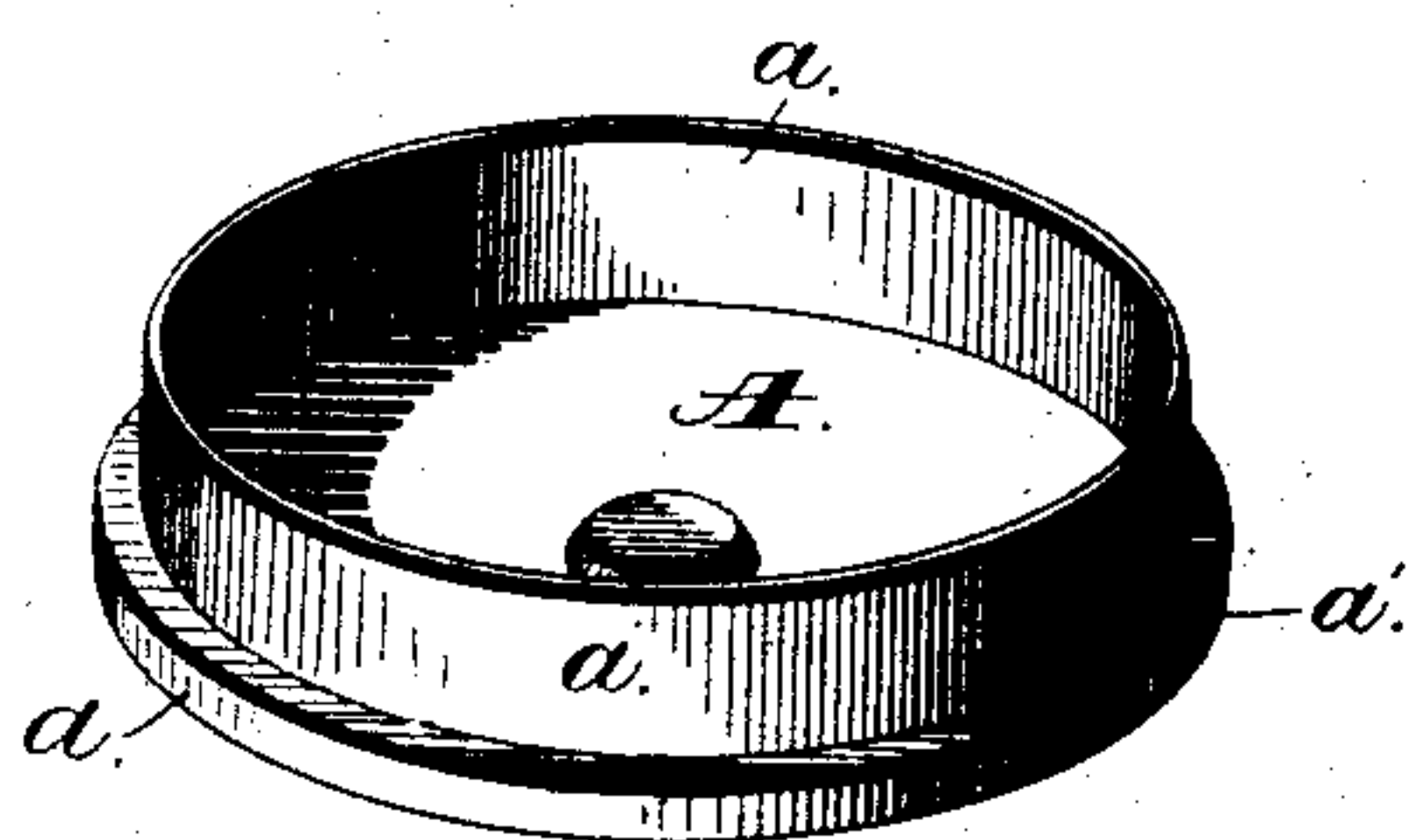


Fig. 4.

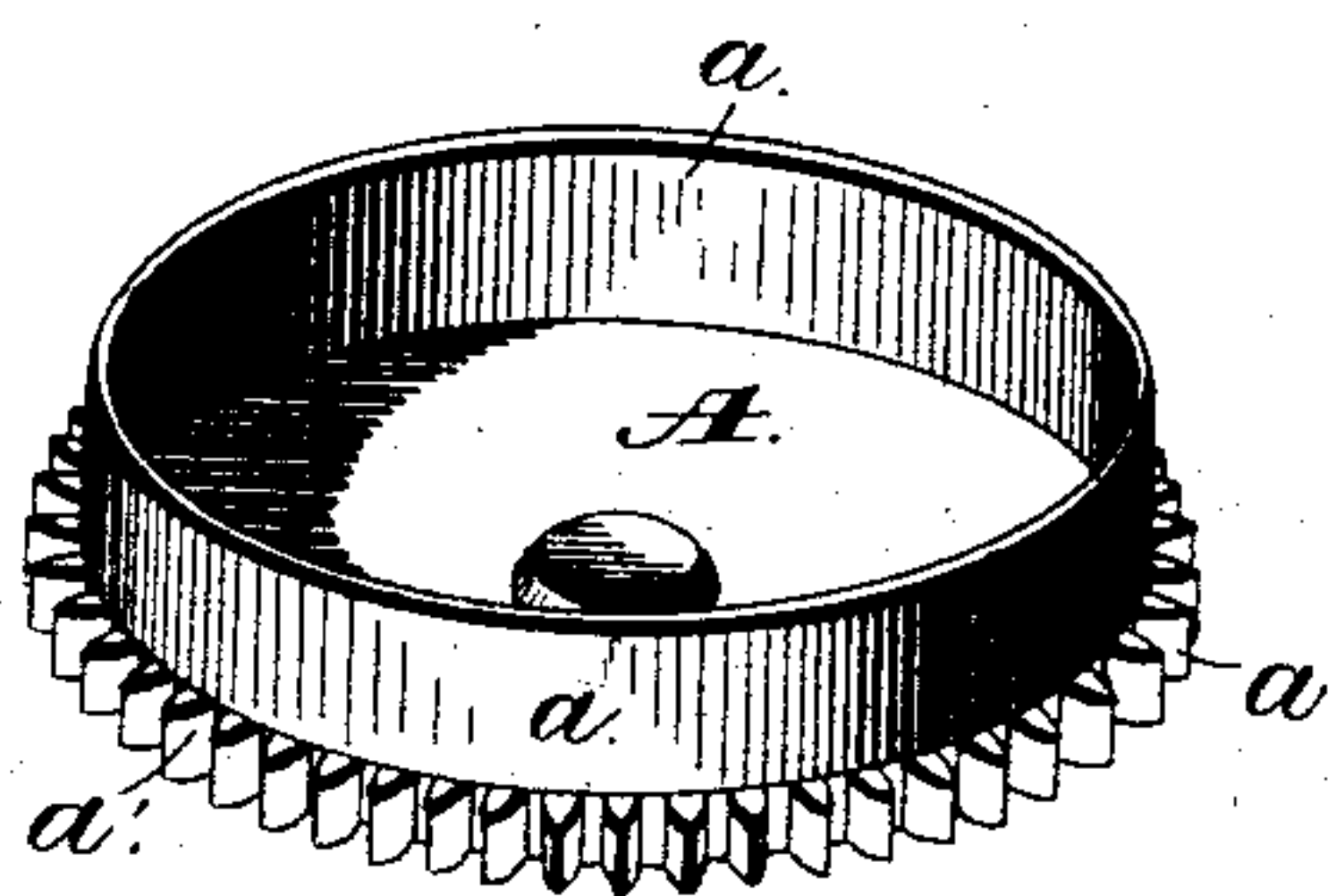


Fig. 5.



Witnesses:
Jas. C. Hutchinson.
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Inventor
Geo. E. Hart, by
Prindle & Russell, his Attys

UNITED STATES PATENT OFFICE.

GEORGE E. HART, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE
WATERBURY WATCH COMPANY, OF SAME PLACE.

MAINSRING-BARREL FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 338,960, dated March 30, 1886.

Application filed July 14, 1885. Serial No. 171,592. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. HART, of Waterbury, in the county of New Haven, and in the State of Connecticut, have invented certain Improvements in Mainspring-Barrels for Watches and in the Method of Constructing the Same; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a blank for a spring-barrel after it has passed through the first operation. Fig. 2 is a like view of the same after having been operated upon by the second pair of dies. Fig. 3 is a perspective view of said blank after the operation of the third pair of dies. Fig. 4 is a like view of the completed barrel, and Fig. 5 is a central cross-section of the same.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to lessen the expense and to increase the strength and durability of mainspring-barrels for watches; and to this end it consists, principally, as a new article of manufacture, in a blank mainspring-barrel which is constructed from sheet metal by drawing or pressing, and is provided upon its periphery with a radial flange from which to form gear-teeth, substantially as and for the purpose hereinafter specified.

It consists, further, as a new article of manufacture, in a blank mainspring-barrel which is constructed from sheet metal by drawing or pressing, and is provided upon its periphery with a radial flange from which to form gear-teeth, and within its interior with a raised central hub, substantially as and for the purpose shown.

In the carrying of my invention into practice I cut from a sheet of metal a disk, A, which at the same time or by a subsequent operation of dies is given a slight cup shape, as seen in Fig. 2. The blank A is next subjected to the action of a pair of dies, which increases the height of the side wall, *a*, after which, by means of another pair of dies, said wall is

given the precise height and diameter desired, the bottom of the blank is straightened, and a flange, *a'*, is thrown outward around the periphery at the lower edge of said wall. The flange *a'* has such transverse and radial dimensions as to enable it to form gear-teeth, and by the cutting of such teeth the forming of an axial opening, *a''*, for the reception of a mainspring-arbor and the cutting of rabbet, *a'''*, to receive the edge of a cover the barrel is completed. As the blank leaves the dies in the condition shown in Fig. 3, it is readily distinguished from a blank constructed by other means, and may be an article of sale for completion by the purchaser.

By my method of construction the barrel possesses much greater strength and rigidity for a given weight than it would be possible to obtain by the usual method of casting a blank and dressing it to shape with cutting-tools, and, in addition to such advantage, it can be produced for a fraction of the expense heretofore required and with less waste of material.

Having thus fully set forth the nature and merits of my invention, I claim—

1. As a new article of manufacture, a blank mainspring-barrel which is constructed from sheet metal by drawing or pressing, and is provided upon its periphery with a radial flange from which to form gear-teeth, substantially as and for the purpose specified.

2. As a new article of manufacture, a blank mainspring-barrel which is constructed from sheet metal by drawing or pressing, and is provided upon its periphery with a radial flange from which to form gear-teeth, and within its interior with a raised central hub, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of July, 1885.

GEORGE E. HART.

Witnesses:

CHARLES S. CHAPMAN,
GEO. E. TERRY.