(No Model.)

C. S. GUERNSEY.

BALANCE WHEEL FOR WATCHES.

No. 325,602. Patented Sept. 1, 1885.

Fig. 1.

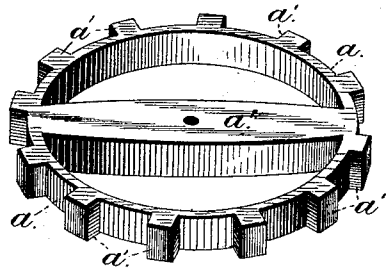


Fig. 2.

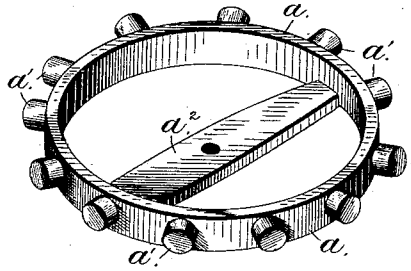
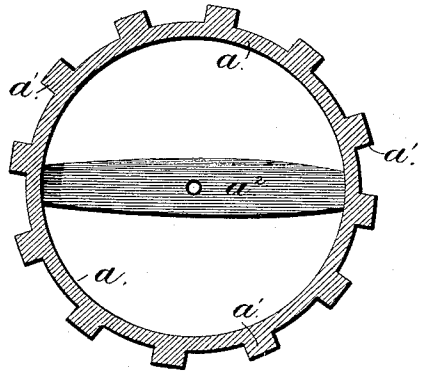


Fig. 3.



Witnesses:
Jas. E. Hutchinson
Henry C. Hazard

Inventor.
Chas. S. Guernsey, by
Prindle and Russell, his Attys

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

UNITED STATES PATENT OFFICE.

CHARLES S. GUERNSEY, OF WATERBURY, CONNECTICUT.

BALANCE-WHEEL FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 325,602, dated September 1, 1885.

Application filed November 13, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. GUERNSEY, of Waterbury, in the county of New Haven, and in the State of Connecticut, have invented certain new and useful Improvements in Balance-Wheels for Watches; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being made to the accompanying drawings, in which—

Figure 1 is a perspective view of the blank for my balance. Fig. 2 is a like view of the same after completion; and Fig. 3 is a central section of the latter upon a line having a right angle to its axis.

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

The design of my invention is to lessen the cost of balances used for the cheaper grades of watches; and said invention consists, as a new article of manufacture, in a watch-balance having a rim, cross-bar, and a series of cylindrical peripheral protuberances formed of one piece, substantially as and for the purpose hereinafter specified.

In the construction of my balance, by means of a die a blank is cut from sheet metal, which blank has in plan view the required form and dimensions, except that at suitable points around the periphery of the rim *a* are left square protuberances *a'*, that have transverse dimensions slightly greater than the diameter of the screw usually employed. Each protuberance *a'* is now subjected to the operation of a hollow mill, which changes its form from square to round, after which the cross-bar a^2 is cut away upon one side until about one-half its former thickness, when the balance is complete and ready for gilding.

The balance thus constructed is in all respects as perfect in its operation and appearance as is a large proportion of those used, and can be produced at a fraction of the expense required for the construction of those of quite ordinary appearance.

The method of construction described is not claimed herein, the same being the subject of a separate application for patent.

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

As a new article of manufacture, a watch-balance composed of a rim which is concentric with its axis, and is provided upon its periphery with a series of cylindrical protuberances that are axially arranged upon radial lines, and a cross-bar which extends between opposite sides of said rim, and has one of its sides cut away or sunk below the contiguous edge of said rim, said balance being formed of one piece and its said parts integral, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of July, 1884.

CHAS. S. GUERNSEY.

Witnesses:
GEO. S. PRINDLE,
D. A. A. BUCK.