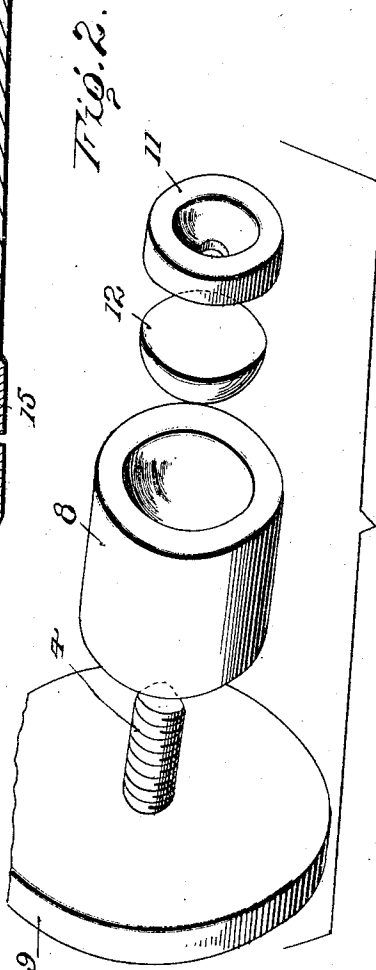
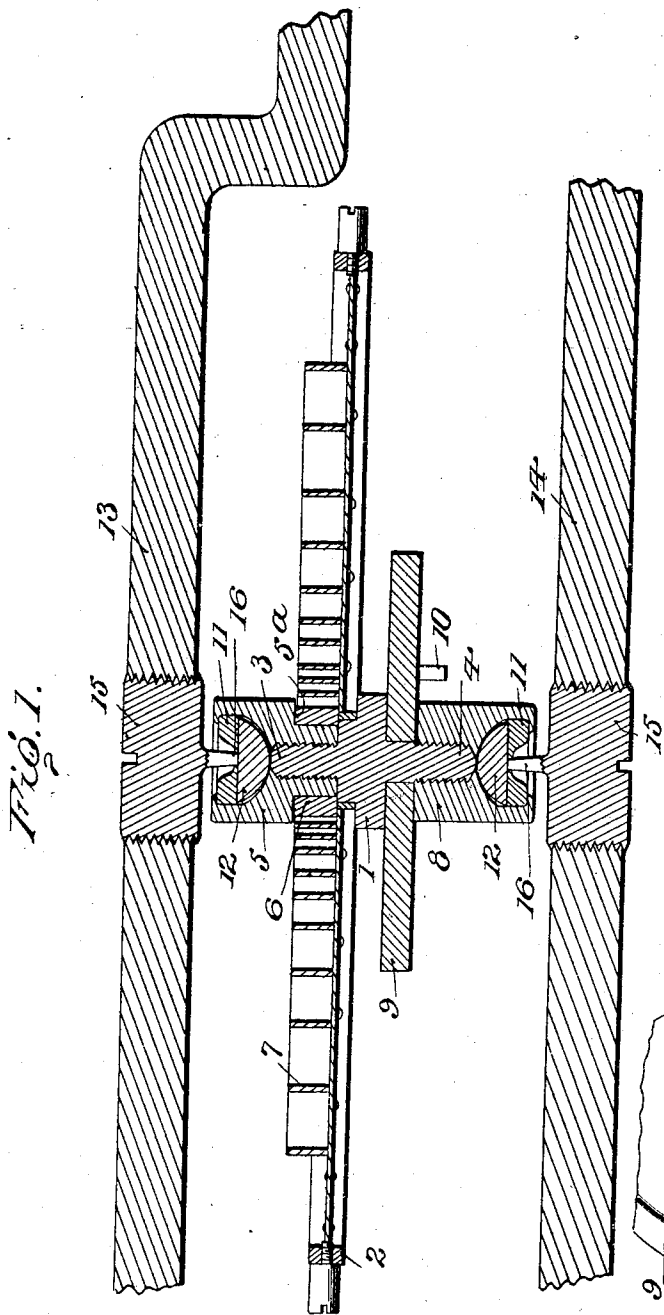


C. M. JOYE.
BALANCE WHEEL STAFF.
APPLICATION FILED OCT. 21, 1908.

927,859.

Patented July 13, 1909.



Witnesses

W. H. Woodson

By

Harvey Attorneys

Inventor
Charles M. Joye

UNITED STATES PATENT OFFICE.

CHARLES MASON JOYE, OF WAYNESBORO, GEORGIA.

BALANCE-WHEEL STAFF.

No. 927,859.

Specification of Letters Patent.

Patented July 13, 1909.

Application filed October 21, 1908. Serial No. 458,800.

To all whom it may concern:

Be it known that I, CHARLES M. JOYE, citizen of the United States, residing at Waynesboro, in the county of Burke and State of Georgia, have invented certain new and useful Improvements in Balance-Wheel Staffs, of which the following is a specification.

The present invention relates in general to horology and more particularly to a novel balance wheel construction for watches, clocks, or similar mechanisms, the object of the invention being to provide a balance wheel in which the jewels are carried by the staff and are engaged by fixed pivot studs upon the frame of the mechanism.

The invention further contemplates a device of this character which is simple and durable in its construction and in which the jewels are held accurately and securely in position.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a longitudinal sectional view through a balance wheel construction embodying the invention, and, Fig. 2 is a detail perspective view of one end of the staff, the parts being separated.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Specifically describing the embodiment of the invention shown on the drawing, the numeral 1 designates the staff to which the balance wheel 2 is riveted or otherwise permanently secured, the said staff being formed at its opposite ends with the upwardly and downwardly extending threaded stems 3 and 4 respectively. Fitted removably upon the threaded stem 3 is a cap 5 the inner end of which is reduced to form a shoulder 5^a and receives a collet 6 to which the hair spring 7 is attached, the said collet being clamped

between the said shoulder 5^a and the end of the staff 1. In a somewhat similar manner, a second cap 8 is threaded upon the lower stem 4, a roller table 9 which is fitted upon the said stem being clamped between the cap and the staff. This roller table is of the usual construction and is shown as provided with a roller jewel 10. The outer end of each of the caps 5 and 8 is formed with a socket and fitted within each of these sockets is a jewel 11 and a cap stone 12.

The balance wheel is designed to be mounted between the opposite sides of a frame and in the present instance the upper plate or bridge of the frame is indicated at 13 and the lower plate 14, each of the said members having a bearing screw 15 threaded therein and the said bearing screws being formed with pivot studs 16 which are journaled within the jewels 11 and bear against the cap stones 12. With this construction the jewels are held securely in position upon the caps which are applied to the staff and are engaged by the fixed pivot studs 16, such a construction having the advantage of enabling the bearings to be readily adjusted.

Having thus described the invention, what is claimed as new is:

The herein described balance wheel construction comprising a staff provided at its opposite ends with threaded stems, a balance wheel rigid with the staff, removable caps threaded upon the stems and formed at their outer ends with sockets, a collet clamped between one of the caps and the staff, a roller table clamped between the opposite cap and the staff, cap stones fitted within the sockets of the caps, jewels also fitted within the sockets, and fixed pivot studs engaging the jewels.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES MASON JOYE.

Witnesses:

W. KEMP HORNE,
W. O. GROSHON.