

(No Model.)

F. H. CORTHELL.
CENTER WHEEL AND PINION FOR WATCHES.

No. 535,238.

Patented Mar. 5, 1895.

Fig. 1.

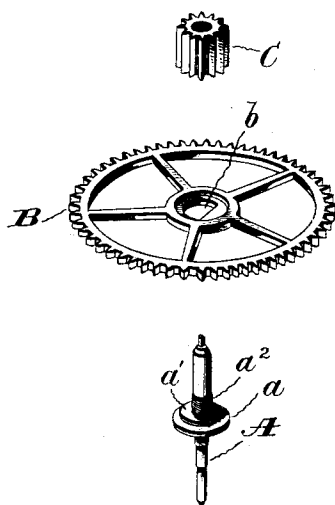


Fig. 2.

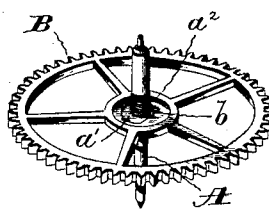


Fig. 3.

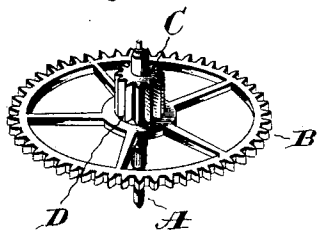
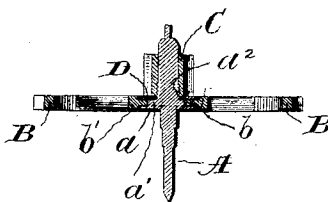


Fig. 4.



Witnesses:
Jas. Esfutchinson.
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Fred H. Corthell by
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UNITED STATES PATENT OFFICE.

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CENTER WHEEL AND PINION FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 535,238, dated March 5, 1895.

Application filed December 24, 1894. Serial No. 532,849. (No model.)

To all whom it may concern:

Be it known that I, FRED H. CORTHELL, of Elgin, in the county of Kane, and in the State of Illinois, have invented certain new and useful Improvements in Center Wheels and Arbors for Watches; 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 my improved center arbor, center wheel and pinion, separated from each other. Fig. 2 is a like view of the arbor and center wheel combined. Fig. 3 is a perspective view of said arbor, center wheel and pinion combined, and Fig. 4 is a central, longitudinal section of the same.

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

The object of my invention is to enable the center-arbor and center-wheel of a time train to be firmly and accurately secured together, in such manner as to permit of their ready separation, when required, without mutilation or injury, and to such end, my said invention consists in the construction of parts whereby the desired result is secured, substantially as and for the purpose hereinafter specified.

In the carrying of my invention into practice, the arbor A, has the usual general form, and is provided with a collar a , upon which the center wheel B is to rest. Immediately above such collar is an enlargement a' that has a diameter equal to about twice the diameter of the adjacent portion of said arbor and a length slightly less than the thickness of the center wheel, and at one side is cut away so as to give to it, in plan view, the general shape of the letter D. Above such enlargement, is a section a^2 , which is threaded exteriorly for the reception of an interiorly threaded pinion C.

The center-wheel B is provided with a central opening b which corresponds to and is adapted to fit over the D-shaped enlargement a' , of the shaft A, and below the same has a circular recess b' that corresponds to and fits over the collar a of said shaft. After said wheel has been thus placed in position upon said shaft, where it is prevented from turn-

ing by the form of the enlargement, a thin washer D is placed upon the upper side of the wheel, and the pinion C screwed down upon the same, by which means all of said parts are as firmly united, and as capable of use as though said center wheel was staked on in the usual manner, while, if necessary, they may be quickly and easily separated by the removal of said pinion.

The construction described renders the wheels and arbors readily interchangeable and materially lessens the time and expense necessary for the replacement of a center wheel or arbor, should such be necessary.

While the D-shaped enlargement of the arbor, and the correspondingly shaped opening in the wheel, are preferably employed, any other form of such parts which will prevent independent rotation of said arbor and wheel may be employed. The washer may, also, be omitted, if desired, although its use is preferred.

Having thus described my invention, what I claim is—

1. A center wheel provided with a D-shaped center opening, in combination with an arbor which has a correspondingly shaped enlargement that is adapted to fit into and fill the same, and with means for confining said wheel in position lengthwise of said arbor, substantially as and for the purpose specified.

2. The combination of the arbor provided with the D-shaped enlargement and the threaded section, the wheel having a D-shaped central opening, and the pinion adapted to fit over and upon such section, substantially as and for the purpose shown.

3. The combination of the arbor having a D-shaped enlargement, an adjacent collar and a threaded section, the wheel provided with a central D-shaped opening, and a circular recess, and the interiorly threaded pinion, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 8th day of November, 1884.

F. H. CORTHELL.

Witnesses:

CARLOS H. SMITH,
M. S. ALDRIDGE.