I. C. COWLES.

Watch-Case Springs.

No. 149,839. Patented April 21, 1874.

Fig 1

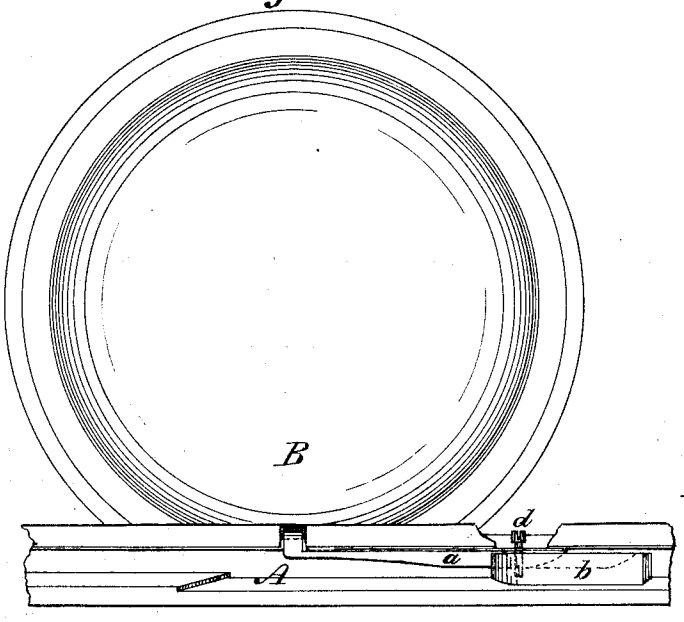

Fig 3

Fig 2

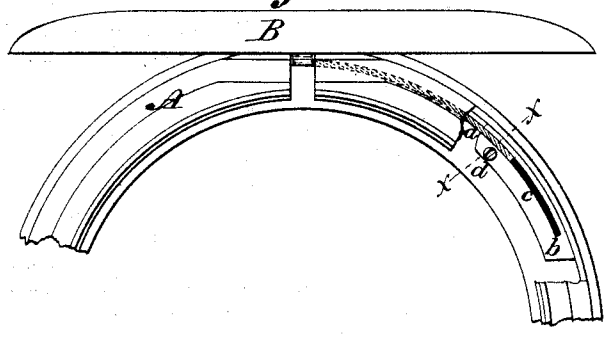

Fig 4

Witnesses

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IRVING C. COWLES, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN WATCH-CASE SPRINGS.

Specification forming part of Letters Patent No. **149,839**, dated April 21, 1874; application filed October 11, 1873.

To all whom it may concern:

Be it known that I, IRVING C. COWLES, of the city of Syracuse, Onondaga county, State of New York, have invented a Lifting-Spring for a Watch-Case, of which the following is a specification:

The object of my invention is to produce an adjustable lifting-spring for raising the case of a watch, of such a character that it will perform the work required, and may be easily adjusted to any watch without drilling additional holes in the case, and which, if worn out or broken, may be easily replaced. This is accomplished by the combination of the shank *b*, curved to fit the rim A, with slot *c*, and spring *a*, as shown in the accompanying drawings, Figs. 1 and 2. The spring is illustrated more in detail, and its adjustability and adaptation more clearly shown in the drawing, Figs. 2 and 3. Fig. 2 represents a watch-case with the spring in place, and a portion of the rim removed to show the parts.

B is the case to be raised; A, the rim. *b* is a part of this invention, and is the shank having a slot, *c*, of sufficient length and depth to receive the spring *a*, and is held in its place by screw *d*. The spring *a* is fitted so as to work closely in the slot *c*, and to rise a trifle above the sides of the shank, and is held in place by being drawn up against the case by the screw *d*.

To adjust the spring to a watch requiring a longer or shorter spring, it is only necessary to move the spring *a* to the right or left in slot *c* as far as necessary. When the spring is adjusted in its place, the screw-hole in the shank *b* will correspond with the screw-hole in the rim A.

Fig. 3 shows a cross-section of rim A with spring inserted in place, the rim A being cut at dotted line *x x*.

I claim as my invention—

A lift-spring for watch-cases consisting of the solid curved shank *b*, having a recess, *c*, and clamp-screw *d*, in combination with the spring *a*, substantially as described and shown.

IRVING C. COWLES.

Witnesses:

E. E. EWERS,

WM. COWIE.