

J. HARWOOD.
Watch-Case Springs.

No. 151,021.

Patented May 19, 1874.



Fig. 1

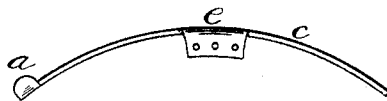


Fig. 2

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN HARWOOD, OF SOMERVILLE, MASSACHUSETTS.

IMPROVEMENT IN WATCH-CASE SPRINGS.

Specification forming part of Letters Patent No. **151,021**, dated May 19, 1874; application filed March 9, 1874.

To all whom it may concern:

Be it known that I, JOHN HARWOOD, of Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and valuable Improvement in Watch-Case Springs, of which the following, when taken in connection with the accompanying drawings, is a full, clear, and exact specification.

This improvement is applicable to a catch-spring or to a case-lifting spring. The latter only is shown in the drawings, and described below.

Case-lifting springs are usually made of a comparatively thick piece of metal, thus occupying considerable space; some, however, are made from sheet metal, having a curved flange bent back and outward from the shank and extending along its entire length, so that, practically, as much or more room is taken as by those made of thicker metal. It is hardly necessary to state that as little room must be taken up by the spring as possible.

My invention is intended to occupy much less space than the springs now in use, and yet be as perfect as any in its practical operation.

In the accompanying drawings, Figure 1 is a view, in perspective, of a case-lifting spring

embodying my invention. Fig. 2 is a plan view of the same.

Similar letters of reference indicate corresponding parts.

a is the lip, constructed substantially as usual. *c* is a sheet-metal shank, bent into circular form, and fitting against the case. *e* is a small flange or lift, extending from the shank *c* toward the center of the case, and attaching to the case by screws. Inasmuch as the flange *e* extends inward instead of outward, the shank *c* is allowed to press back tightly against the case, thus taking but little room, and not interfering with the movement. The catch-spring is made in exactly the same manner.

Having thus fully described my invention, I do not claim a sheet-metal shank as anything new or novel; but

What I claim, and desire to secure by Letters Patent, is—

A sheet-metal case lifting or catch spring, having the flange *e* extending from the shank *c* inwardly or toward the center of the case, substantially as herein specified.

Witnesses:

JOHN HARWOOD.

HENRY W. WILLIAMS,

E. H. OBER.