(No Model.)

E. H. JENKINS.

WATCH CASE SPRING.

No. 294,390. Patented Mar. 4, 1884.

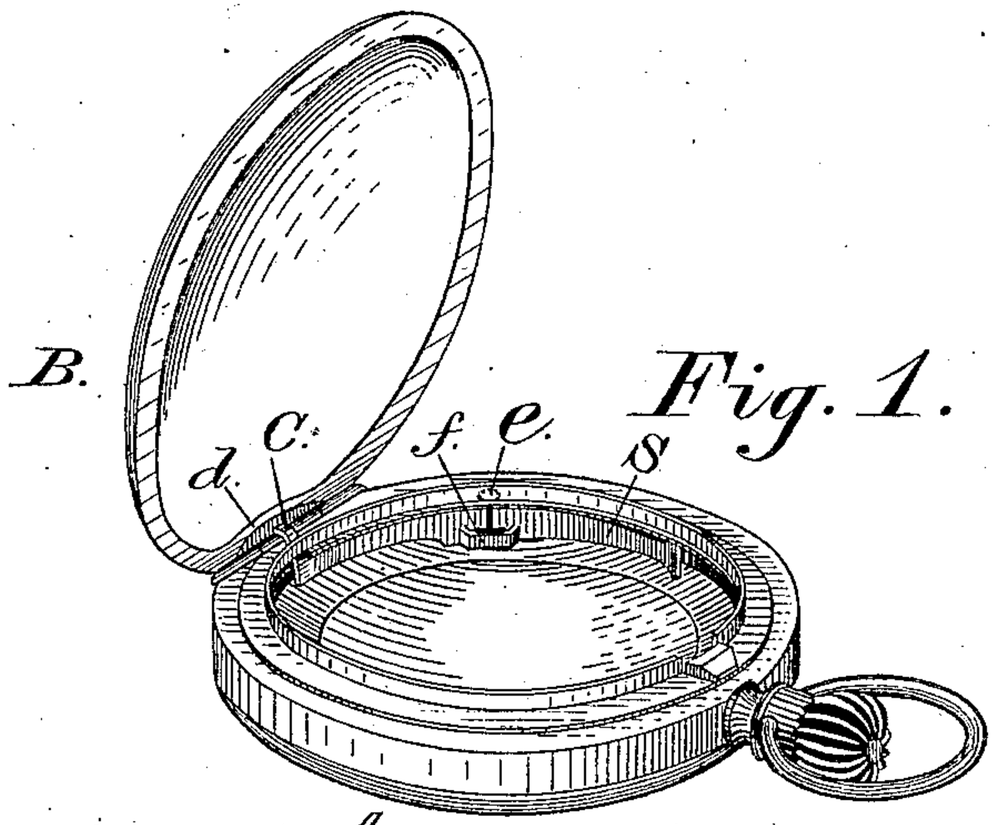
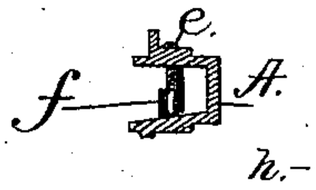


Fig. 1.

Fig. 2.



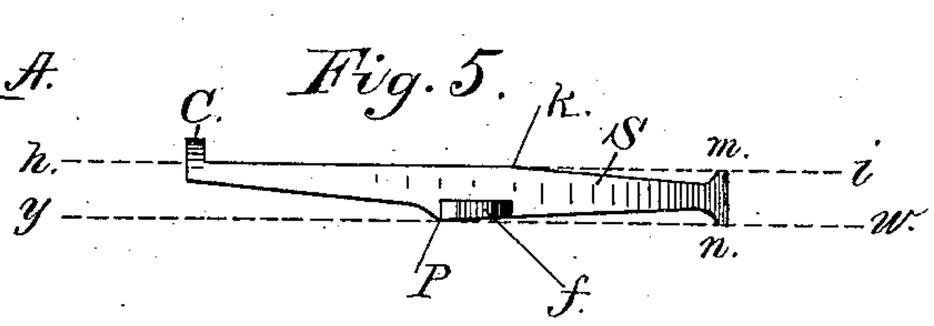


Fig. 5.

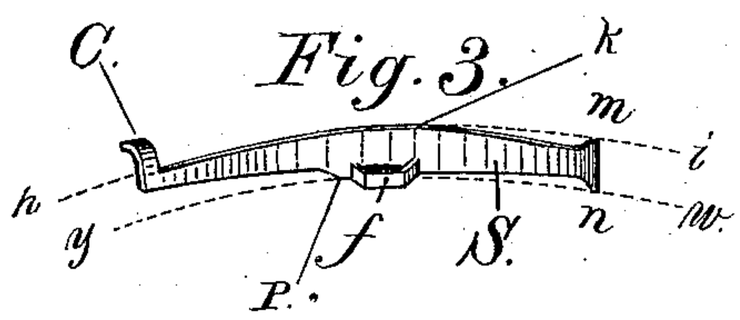


Fig. 3.

Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

EVANS H. JENKINS, OF RICHMOND, INDIANA.

WATCH-CASE SPRING.

SPECIFICATION forming part of Letters Patent No. 294,390, dated March 4, 1884.

Application filed August 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, EVANS H. JENKINS, a citizen of the United States, residing at Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Lifting-Springs for Watch-Cases, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to that class of springs attached to inner rim of watch-cases for the purpose of raising the hinged cap of the case when released from its catch, and known as "lifting-springs."

My invention consists of a longitudinal piece or strip of metal curved horizontally to fit the radius of the inside of the watch-case, and provided at or near its longitudinal center with a loop projecting inwardly, through which a pin or post passes vertically, said post having its extremities in the case to which it is secured by a screw-thread, the spring being pivoted on said post and rendered double-acting.

In the drawings which accompany this specification and form a part of the same, Figure 1 is a perspective view of an open watch-case, showing the spring in position. Fig. 2 is a vertical sectional view of the spring, the post, and the rim of the watch-case, showing their relative positions. Fig. 3 is a plan view of the spring. Fig. 4 is a top view of the spring. Fig. 5 is a front elevation of the spring previous to its being curved.

A, Fig. 1, represents a watch-case of the ordinary form, and B is the hinged cap of the same in that kind of watch-cases known as "hunting-case" watches.

C is a curved lug, constituting one end of the spring, raised above the plane of the upper edge thereof, and curved upward and outward; it passes through an opening in the rim of the case at the hinge, when it is brought in contact with a lug, *d*, attached to the inner surface of the rim of the cap B, by which that end of the spring is pressed downward and inward in an angular line by the closing down of the cap B. The action of the screw-post *e* is to hold the body or bar of the spring rigidly in a vertical position, resting on its lower edge, and when the lug C is forced downward and forward by the closing of the cap B the end of the spring bearing the lug C is both carried forward and twisted, producing a compound reaction in the spring when the cap B is released from its catch and forced open by the recoil of the spring and the reaction of the spring from the twist.

f, Fig. 1, is a loop or bracket projecting inward from the lower inside edge of the spring at or near its longitudinal center, and firmly secured to the spring, having an opening within its periphery, to receive a screw-bolt, *e*, which secures the spring to the case A. The end of the spring S, opposite to that carrying the curved lug C, is made tapering toward its extremity from the center, and terminates in a fish-tail form, *m*. The degree of taper of the edges of the spring is shown by the deflection from the straight dotted lines *i w*, Fig. 5. The end of the spring carrying the curved lug C is also made tapering from the center toward the end, and differing from the opposite end in that the taper is on the lower edge of the spring, as shown by its deflection from the dotted line *y*, commencing at P, Fig. 5. The screw-post *e* serves as a fulcrum for the spring, and as the end bearing the lug C is carried toward the center of the case the opposite end is carried in the opposite direction as far as the case A will permit, and the elasticity of the whole length of the spring is involved and its liability to break is diminished. The bracket or loop *f*, when it is attached to the spring, forms an elongated slot, as seen at Fig. 4, in which the screw-post *e* is placed, and the spring S can be adjusted lengthwise by being moved on the post *e*. The spring S has its bearing on the case A at or near the point of attachment of the loop or bracket *f*, and also at the end *n*, Fig. 5.

It is a peculiar feature of my invention that the spring S is permitted an endwise motion on the screw-post *e* by means of the elongated slot made by the loop or bracket *f*, which may be formed by slitting the spring S laterally near the lower edge, and forcing the bottom strip inward and the upper portion outward, leaving an open space of the required form between them, thus forming the loop or bracket *f* entirely from the body of the spring S; or the loop may be constructed by welding or riveting a curved piece of metal to the lower edge of the spring S at the desired point. The loop or bracket *f* may be constructed by either one

of the methods described, or in any other suitable manner.

I am aware that lifting-springs have been constructed of a single strip of metal of uniform depth and thickness, extending more than half-way around the circumference of the watch-case, and made to act both as a lifting-spring and catch. This I do not claim nor employ; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

A lifting-spring for watch-cases, consisting of a single strip of suitable metal, provided at one end with a raised curved lug, C, and the opposite end terminating in a fish-tail bearing, *m*, when said spring is provided with a loop or bracket, *f*, and is made tapering vertically from the bracket or loop *f* in the direction of the lug C by being cut away on the lower edge, and the opposite tapering from the loop or bracket *f* toward the fish-tail bearing *m* by being cut away from both edges, as herein set forth and described.

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

EVANS H. JENKINS.

Witnesses:
JOHN F. ROBBINS,
W. T. DENNIS.