

(No Model.)

J. CANNE.
Watch Case Spring.

No. 238,850.

Patented March 15, 1881.

Fig. 1

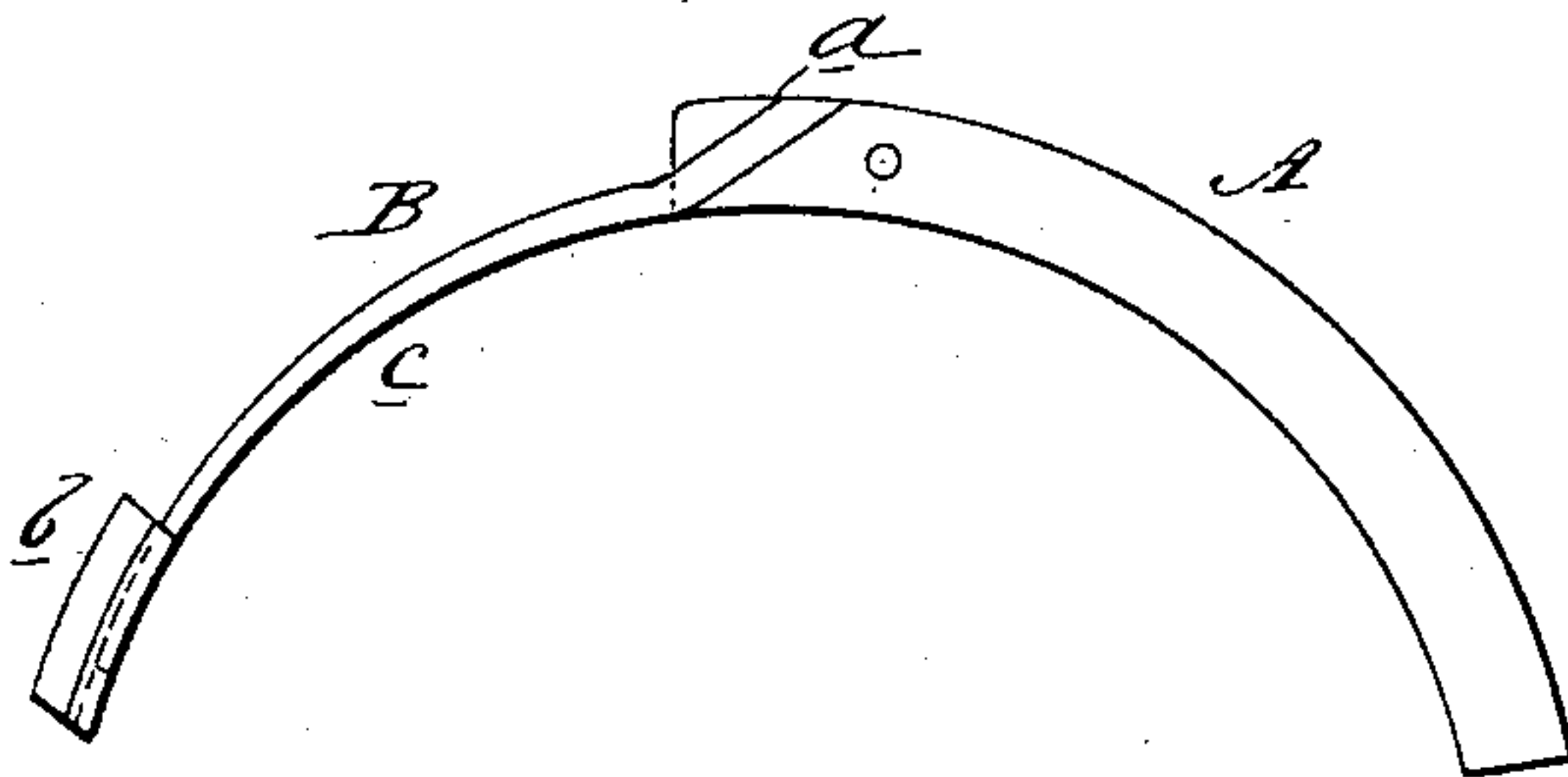


Fig. 2

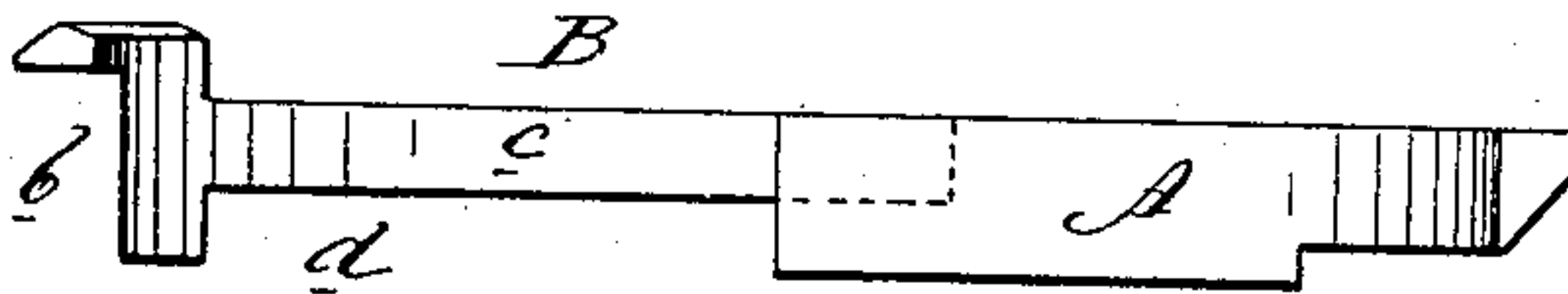


Fig. 3

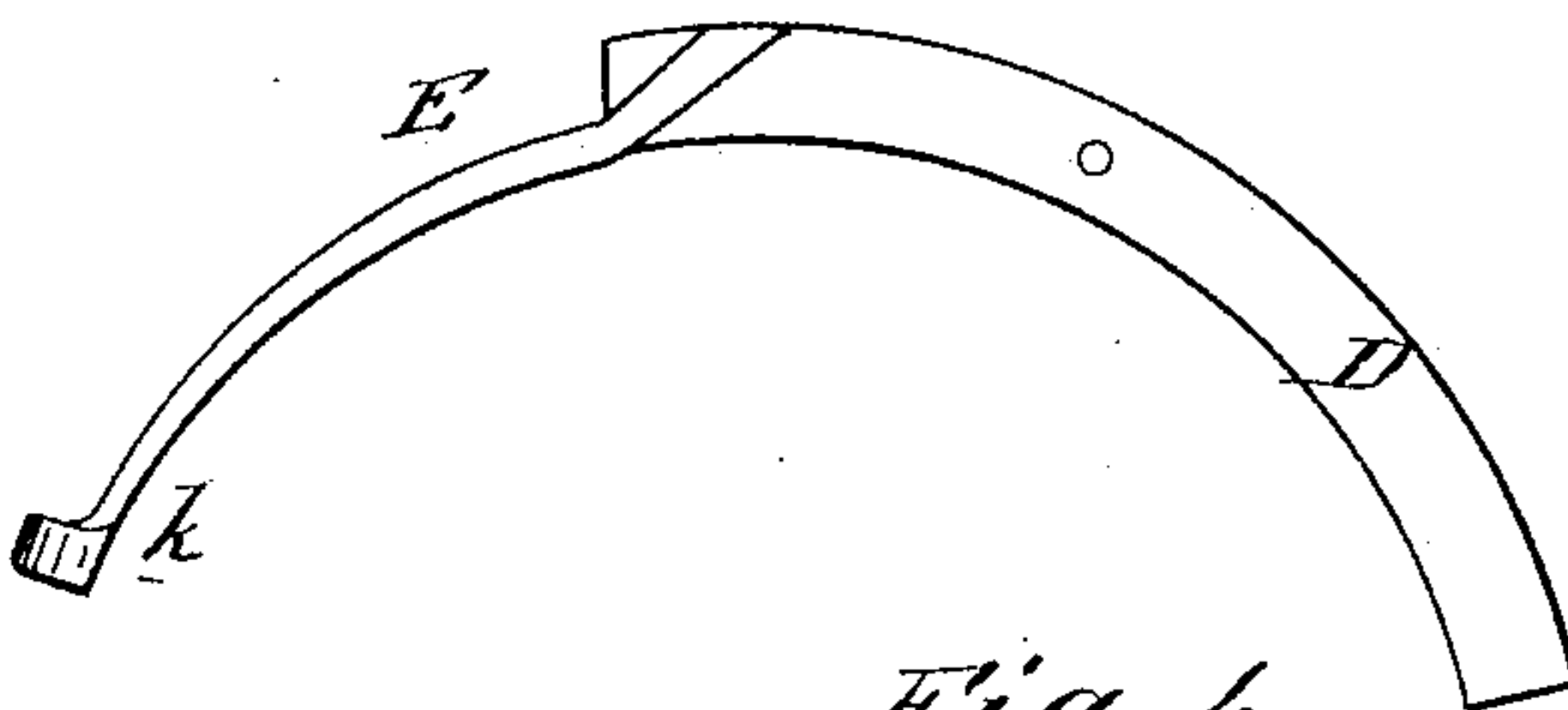


Fig. 4

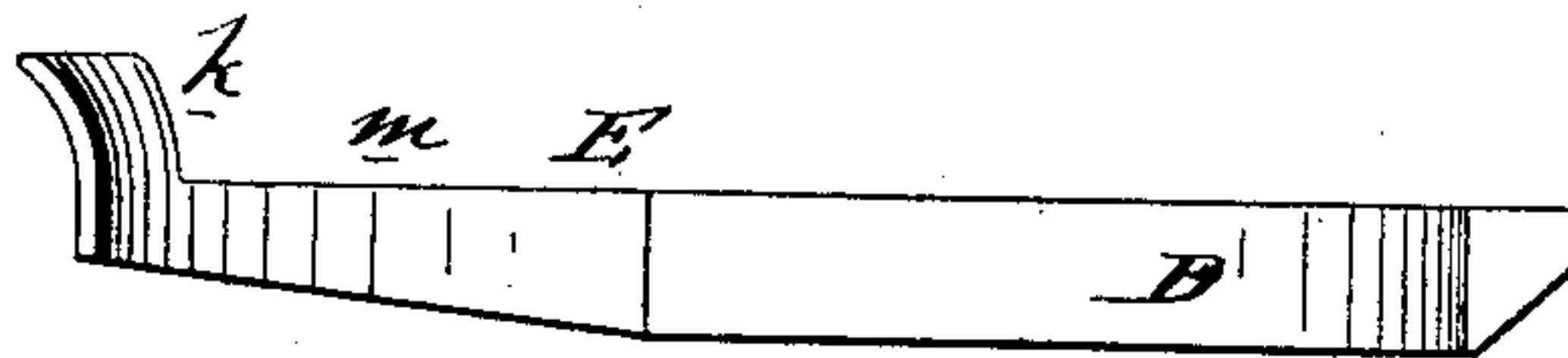
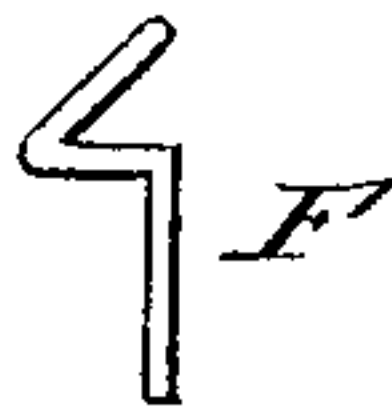


Fig. 5



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JOSEPH CANNE, OF NEWPORT, KENTUCKY.

WATCH-CASE SPRING.

SPECIFICATION forming part of Letters Patent No. 238,850, dated March 15, 1881.

Application filed November 19, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH CANNE, of Newport, in the county of Campbell and State of Kentucky, have invented a new and Improved
5 Watch-Case Spring, of which the following is a specification.

The object of this invention is to provide a more durable watch-case spring, the spring part of which can be replaced, when broken,
10 without renewing the body thereof.

The ordinary way of making watch-case springs is by forging one end of a piece of steel so as to have an elevation or boss to form a head above the body of the spring, said head
15 being designed to reach above the outside surface of the central ring of the watch-case; but this forging the head disturbs the grain of the steel so that the spring is very liable to break. Watch-case springs made in the ordinary way
20 are liable to break at the junction of the spring with the body on account of the length of the spring between the head and body and the consequent leverage exerted on the springs when in use.

My invention consists in forming the spring
25 of sheet-steel, having the thinner part toward the head instead of toward or near the body, as in other watch-case springs, so as to have the head on the most elastic part of the spring,
30 and in lapping over the head instead of forging it, and in cutting away the lower edge of the spring portion for the purpose of increasing the elasticity of the spring and diminishing the stiffness thereof. By using sheet-steel
35 for the spring no forging is required, and hence the strength of the spring is not impaired, and by having the thinnest or most elastic part near the head the spring is not so liable to "stay back" after some usage, as is com-
40 monly the case with springs of even thickness and with those that are thickest near the head.

My invention further consists in the peculiar manner of connecting the spring portion
45 with the body of the spring, whereby the straight grain of the spring is retained and its "skin" is unbroken, all of which will be hereinafter described.

Figure 1 is a plan of a lock or catch spring.
50 Fig. 2 is an elevation of the same. Fig. 3 is

a plan of a lifting-spring. Fig. 4 is an elevation of the same. Fig. 5 represents a "Swiss" head on a watch-case spring.

Similar letters of reference indicate corresponding parts.

In the accompanying drawings, A represents a rigid segmental block of iron or steel that forms the body of the lock or catch spring of a watch-case, having a diagonal slot or groove, *a*, formed in its upper face, in one end;
55 and B represents the strip of steel forming the spring portion of the lock or catch spring, and having its thicker end fitted into the slot or groove *a*, while its free end is formed into a head, *b*, which is bent and shaped in the
60 usual manner to form a clasp for the back or front of the watch-case. The upper and beveled edge of the head *b* is formed by lapping the sheet or strip of steel at right angles and then milling off its edge, while the head *b* itself, below this edge, is milled or drawn down
65 to the proper thickness for elasticity and strength. The shank *c* of the spring portion B has its upper edge flush with the upper face of the body A, while its lower edge is cut
70 away, as shown at *d*, to give it greater elasticity. The shank C is also made tapering from body A to head *b*, as shown, whereby the spring is made more elastic near the head *b*, that it may retain its shape the longer.
80

In Figs. 3 and 4 is shown a lifting-spring for a watch-case, wherein the spring portion E is constructed of a strip of steel with the head or spur *k* formed by cutting away the upper edge of the strip, as shown at *m*, and is secured to the body D in the same manner as
85 spring B in Figs. 1 and 2. In both of these cases the spring portion is preferably attached to the body with soft solder.

In Fig. 5 is shown a Swiss head, F, such as
90 is formed on many lock or catch watch-case springs. This style of head may also, if desired, be easily formed on the spring portion B of the lock or catch spring shown.

Having thus described my invention, I
95 claim as new and desire to secure by Letters Patent—

1. A watch-case spring constructed substantially as herein shown and described, of body A, provided with diagonal groove or slot *a*,
100

and spring B, formed with bead *b* and shank *c*, tapering from body to head and cut away, as shown at *d*, as set forth.

2. In a watch-case spring, the combination,
5 with the body A, of the spring B, made tapering from the body to its head, and having its upper edge flush with the upper edge of the

body, substantially as and for the purpose set forth.

JOSEPH CANNE.

Witnesses:

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