

(No Model.)

C. NOBS.
WATCHCASE SPRING.

No. 528,207.

Patented Oct. 30, 1894.

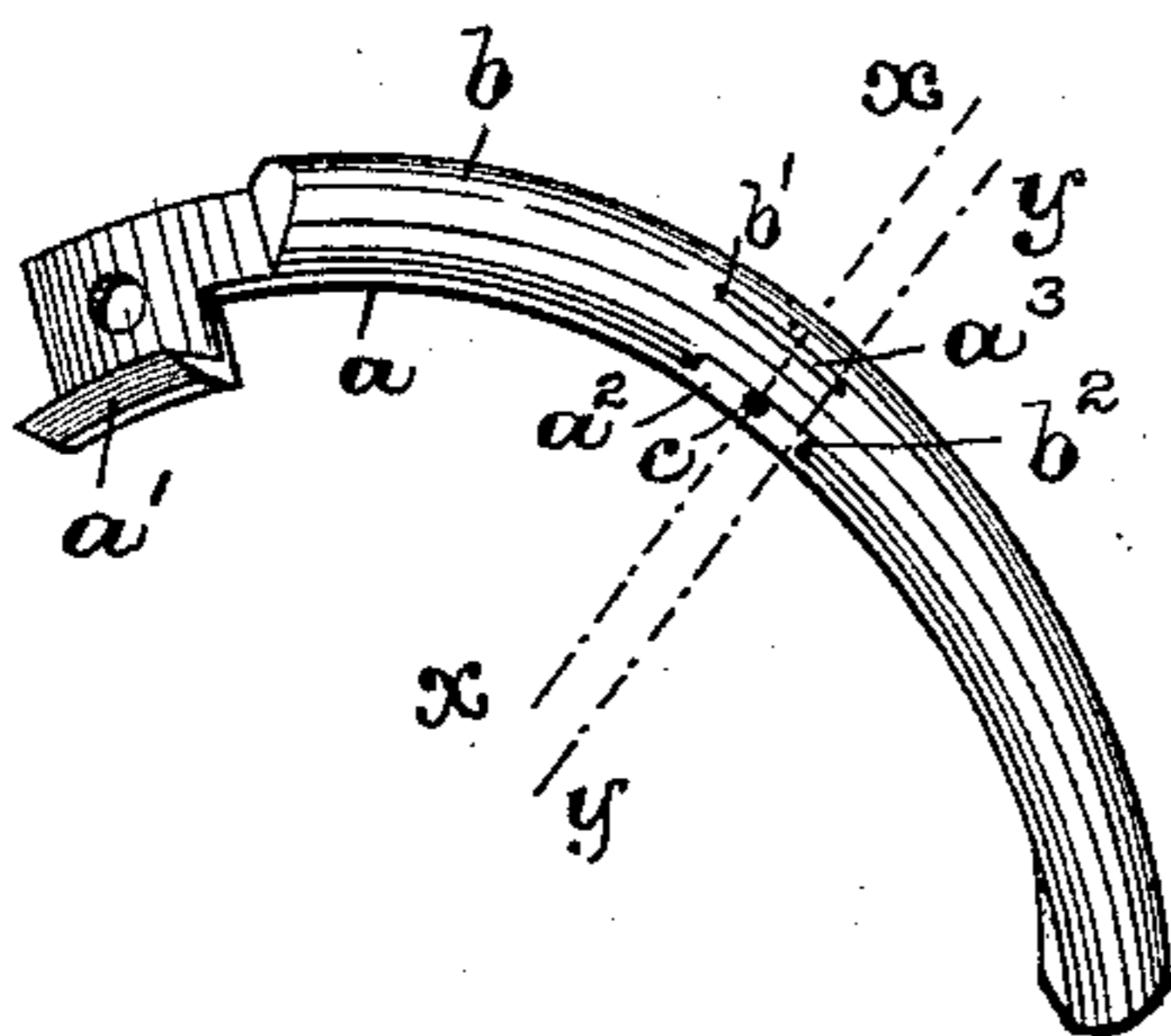


Fig. 1

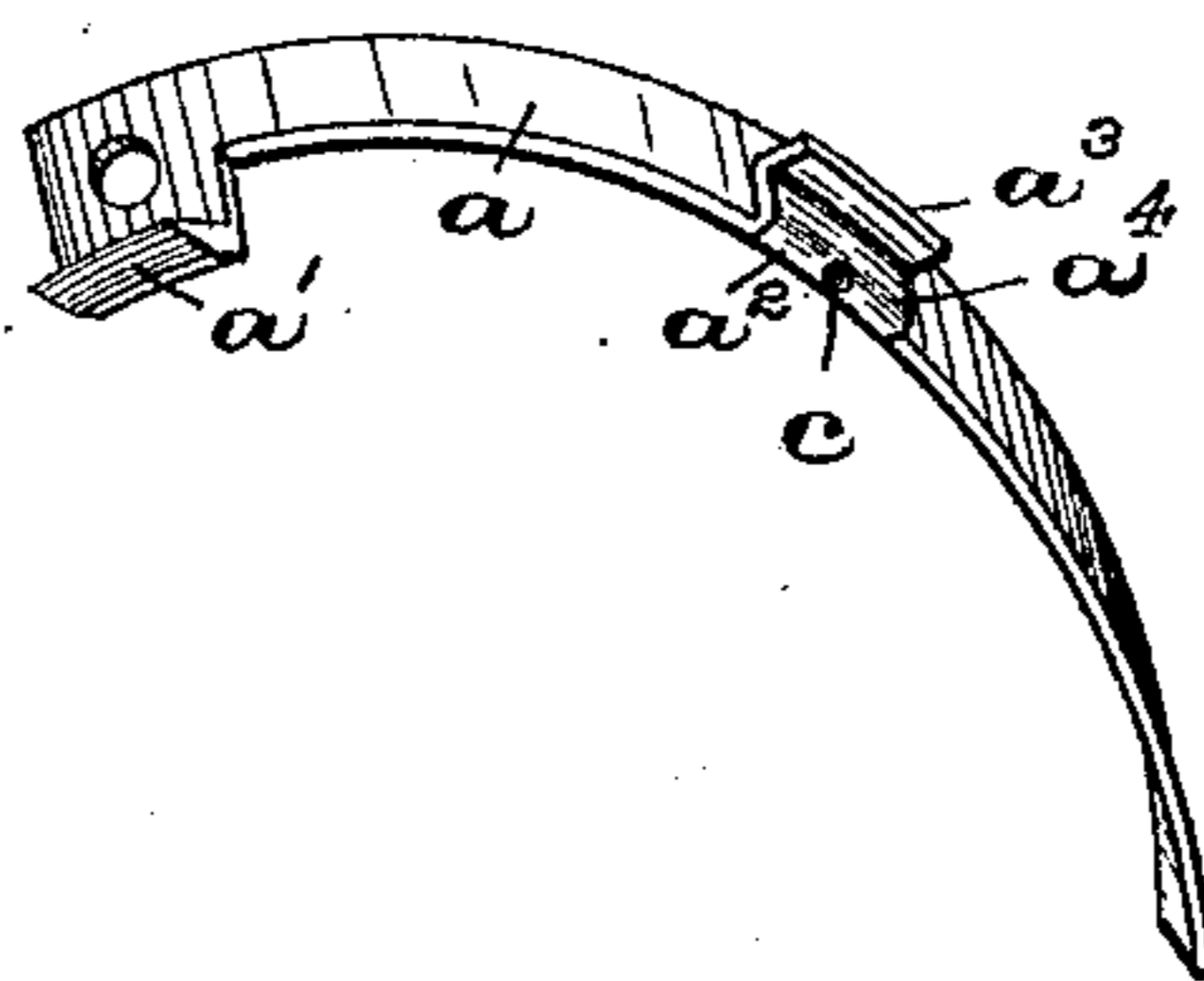


Fig. 2

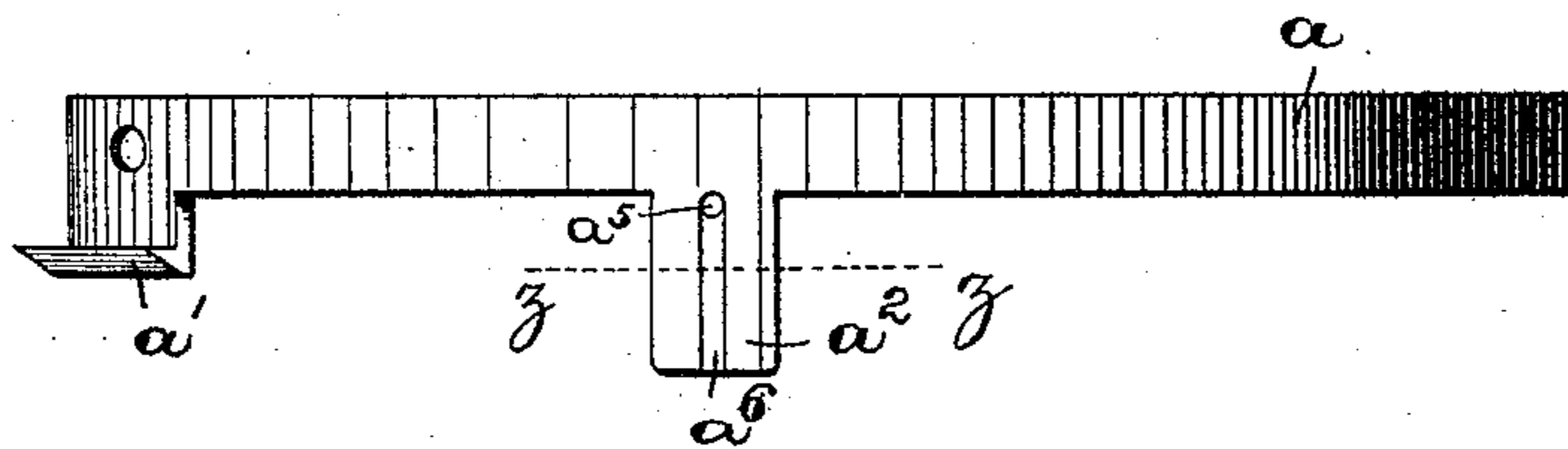


Fig. 3

Fig. 3a

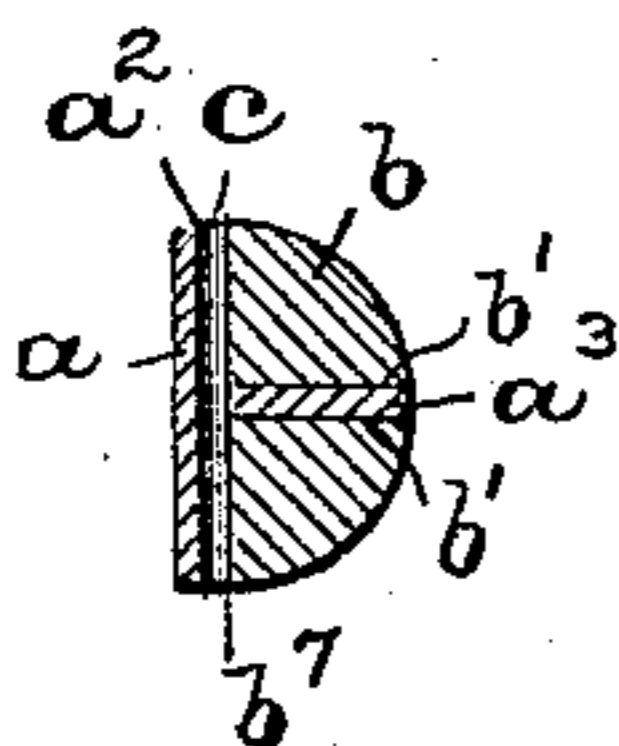


Fig. 4

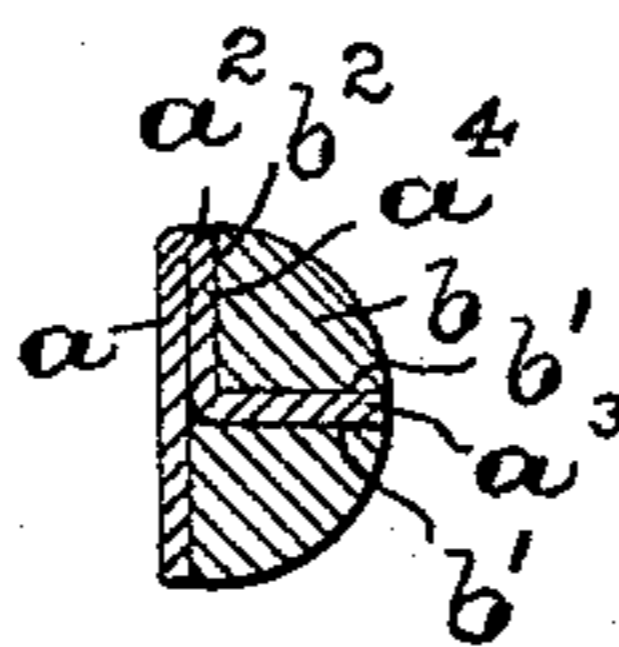


Fig. 5

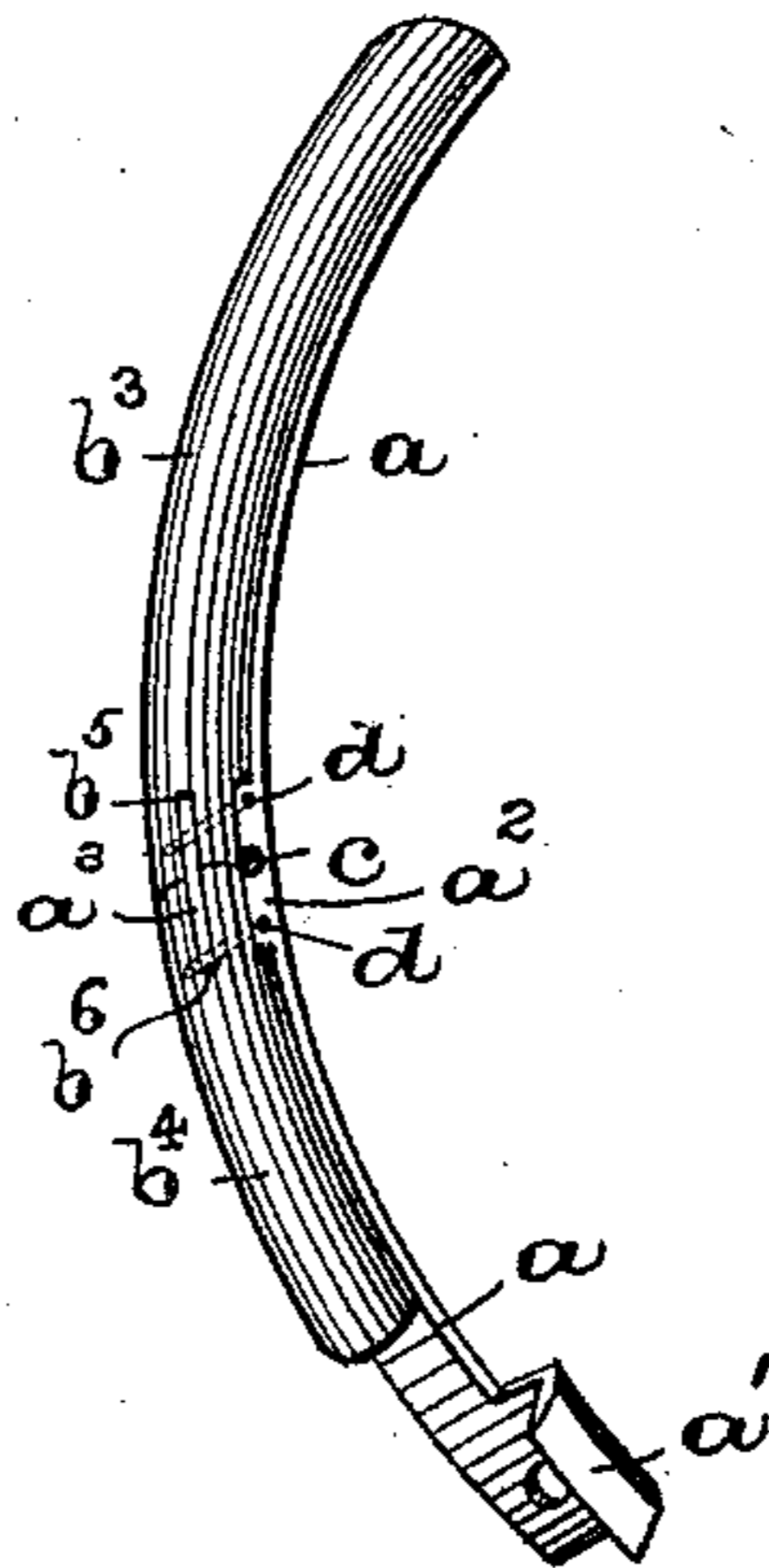


Fig. 6

WITNESSES:

Wm. H. Campfield, Jr.
G. Basil Hooper.

INVENTOR:

Charles Nobs,
BY Fred H. Fraentzel, ATT'Y.

UNITED STATES PATENT OFFICE.

CHARLES NOBS, OF NEWARK, NEW JERSEY.

WATCHCASE-SPRING.

SPECIFICATION forming part of Letters Patent No. 528,207, dated October 30, 1894.

Application filed December 15, 1893. Serial No. 493,728. (No model.)

To all whom it may concern:

Be it known that I, CHARLES NOBS, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Watchcase-Springs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My present invention relates to improvements in watch case springs, and has for its object to provide an improved construction of the same, whereby the spring is stiffened and the durability of the same is lengthened, and other superior advantages are obtained with respect to the ease and facility with which the spring may be inserted in and fastened to the case center.

The invention therefore consists in the novel arrangements and combinations of parts to be hereinafter more fully described and finally embodied in the clauses of the claim.

In the accompanying sheet of drawings, in which similar letters of reference are employed in each of the several views, to indicate corresponding parts:—Figure 1 is a perspective view of a watch-case spring provided with a segmental backing, embodying the principles of my invention. Fig. 2 is a perspective view of the spring with said backing removed, illustrating the arrangement of a flat post bent down and out centrally from said spring. Fig. 3 is a side view of said spring, considerably enlarged, with an integrally formed tongue, to be bent down and out centrally from the back of the spring, to form the flat post illustrated in said Fig. 2, and Fig. 3^a is a cross section of said tongue, taken on line *z* in said Fig. 3. Fig. 4 is a cross section, taken on line *x* in Fig. 1, and Fig. 5 is a like section, taken on line *y* in the same figure. Fig. 6 is a perspective view of a spring, embodying the principles of my invention, showing the arrangement on the back of the spring of two segmental sections or pieces forming a backing therefor.

In said drawings, *a* designates the watch-

case spring, which consists of an arc-shaped strip of metal provided with the usual form of holding or locking tongue *a'* at one end. As will be seen from Fig. 3, said strip of metal is provided with a centrally arranged tongue *a*², projecting from one side thereof, which, by means of the proper tool is bent down and back over the back of said arc-shaped strip, and then out centrally therefrom, to form a flat post *a*³, substantially as illustrated in Fig. 2. *b* is a segmental piece or section forming a backing for the spring and is made of metal or any other suitable material. Said backing *b* is provided near its middle, or approximately so at that point, with a slot or opening *b'*, and on its under side with a suitably cut-away portion *b*², whereby said backing can be fitted over said flat post *a*³ on the spring *a*, while said cut-away portion *b'* of said backing fits over the bent down portion *a*⁴ of the tongue *a*², as will be clearly seen from Figs. 1 and 5. Said tongue *a*², as will be seen from Figs. 3 and 3^a is formed with a suitable groove or slot *a*⁶ terminating in a hole *a*⁵, forming, when said portion *a*⁴ of the post is bent down, an opening or hole across the spring. The backing *b* is provided with a correspondingly arranged hole *b*⁷, as will be seen from Fig. 4, whereby a continuous opening or hole *c* is formed, and whereby the spring can be secured in a watch case center by means of a suitable screw or pin in the usual manner. Thus it will be seen that the spring may be secured in position in the watch case center in a reliable and durable manner, the spring being strengthened and being prevented from being broken, while at the same time, in thin cases, the danger of indenting the same by pressure is successfully overcome. At the same time the proper degree of resiliency of the spring is preserved.

Instead of providing the spring *a* with the sectional piece *b* illustrated in Fig. 1, I may use two sectional pieces *b*³ and *b*⁴, as shown in Fig. 6. In this case the pieces *b*³ and *b*⁴ are respectively provided with slotted ends *b*⁵ and *b*⁶, whereby they are fitted end to end on the flat post *a*³ on the spring *a*. Holes are drilled through the flat post *a*³ and said slotted ends of said sectional pieces *b*³ and *b*⁴, and pins *d* are driven through said parts. Said pieces *b*³ and *b*⁴ are thus securely fastened or hinged

to said flat post a^3 , as will be seen. A hole c is formed in the bent down portion a^3 of the post and through the slotted end portions of said pieces b^3 and b^4 , in the manner stated
5 hereinabove, whereby the spring can be secured in the watch case center by means of a screw or pin in the usual manner. By the employment of two of such sectional pieces, instead of the one shown in Fig. 1, greater re-
10 siliency of the spring is obtained, said pieces not acting as a rigid backing, and the spring can be more readily sprung into position in the watch case.

Owing to the facility and ease with which
15 the forms of springs herein shown and described, can be adjusted and fitted in the case, they are of great advantage.

The device may be used as a locking spring or as a lifting spring, as will be evident.

20 Having thus described my invention, what I claim is—

1. A watch case spring provided with a tongue formed on the side thereof, said tongue being bent back and out to form a centrally
25 arranged post on the back of the spring, in combination, with a sectional piece or backing provided with a slot or opening extending entirely through said piece or backing, whereby said piece or backing can be ar-
30 ranged upon said post and on the back of

said spring, substantially as and for the purposes set forth.

2. The herein described watch case spring, comprising therein the metal strip a having a tongue formed thereon, said tongue being
35 bent back and out centrally to form a flat post a^3 , and a sectional piece or backing b having a slot or opening therein, whereby said piece or backing can be fitted over said flat post and over the back of the spring,
40 substantially as and for the purposes set forth.

3. The herein described watch case spring, comprising therein the metal strip a having a tongue formed thereon, said tongue being
45 bent back and out centrally to form a flat post a^3 , and a sectional piece or backing b having a slot or opening therein, whereby said piece or backing can be fitted over said flat post and over the back of the spring, said tongue
50 on the spring a and the backing b forming a continuous passage or hole c , substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 12th day of December, 1893.

CHARLES NOBS.

Witnesses:

FREDK. C. FRAENTZEL,
WM. H. CAMFIELD, Jr.