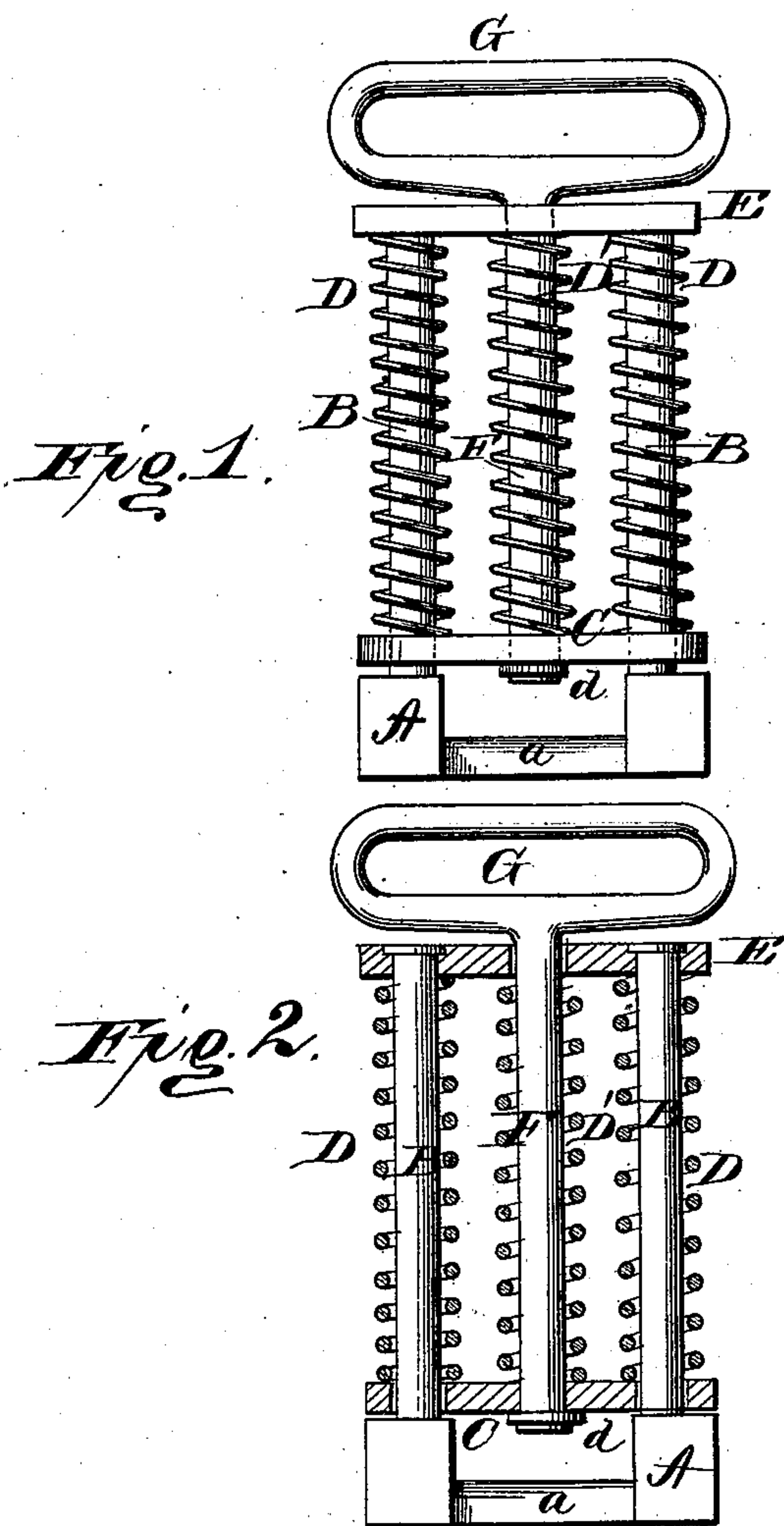


J. BULL.  
Attachment for Stirrup-Straps.

No. 227,727.

Patented May 18, 1880.



Witnesses:  
Frank L. Curand  
J. J. McCarthy.

Inventor:  
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7/8

# UNITED STATES PATENT OFFICE.

JOHN BULL, OF CHATTANOOGA, TENNESSEE.

## ATTACHMENT FOR STIRRUP-STRAPS.

SPECIFICATION forming part of Letters Patent No. 227,727, dated May 18, 1880.

Application filed February 28, 1880.

*To all whom it may concern:*

Be it known that I, JOHN BULL, of Chattanooga, in the county of Hamilton, and in the State of Tennessee, have invented certain new and useful Improvements in Attachments for Stirrup-Straps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a stirrup-spring, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side view of my invention, and Fig. 2 a central vertical section of the same.

A represents a metal bar having its central portion reduced in dimensions, as shown at *a*, and to which part the stirrup is to be connected in any suitable manner. From the ends of the bar A extend two parallel rods, B B, upward for a suitable distance, and on these rods is placed a movable plate, C. Above the plate C, on each rod, is a spiral spring, D, which bears against said movable plate, and also against a plate, E, secured on the upper ends of the two rods, and fastened by riveting or otherwise.

Through the center of the top plate, E, is loosely passed a rod, F, the upper end of which is formed or provided with a loop, G, for the attachment of the stirrup-strap. The lower end of the rod F is passed through the center of the movable plate C, a washer, *d*, put on, and the end of the rod riveted, whereby said rod becomes swiveled and can turn in either direction. On the rod F, between the two plates C E, is, however, first placed a spiral spring, D', as shown.

There is thus in my stirrup-spring three separate and independent springs, which admits of the device being made comparatively small, and yet have the requisite strength and elasticity and not have too much weight.

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

In an attachment for stirrup-straps, the metal bar A, having the reduced portion *a* for the suspension of the stirrup, and provided with the rods B B, in combination with the plates C E, swiveled rod F, having loop G, and the springs D, D, and D', all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 4th day of February, 1880.

JOHN BULL.

Witnesses:

C. P. JONES,  
EDGAR MCKENNEY.