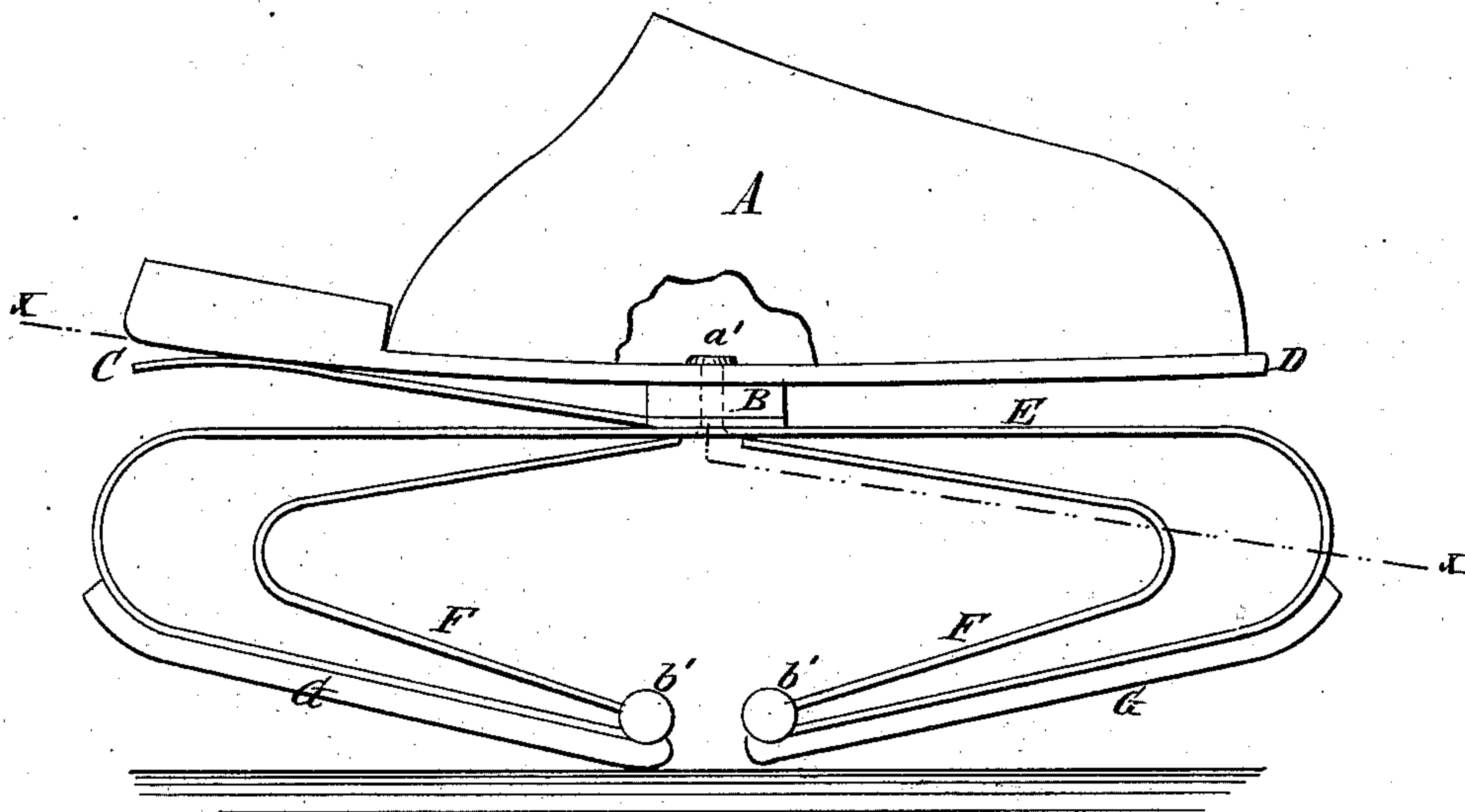


W. H. MINTZER.  
Engineer's Shoe.

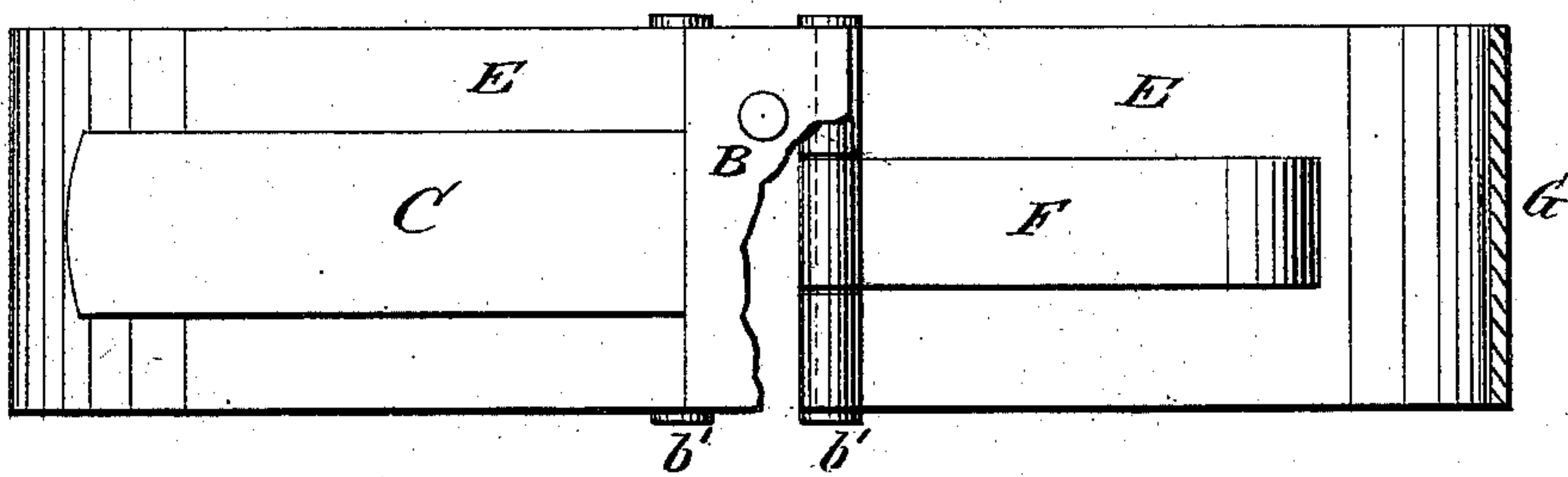
No. 224,937.

Patented Feb. 24, 1880.

*Fig: 1.*



*Fig: 2.*



WITNESSES:

*Achilles Schehl.*  
*G. Sedgwick*

INVENTOR:

*W. H. Mintzer*  
BY *Munn & Co.*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

WILLIAM H. MINTZER, OF COLTON, CALIFORNIA.

## ENGINEER'S SHOE.

SPECIFICATION forming part of Letters Patent No. 224,937, dated February 24, 1880.

Application filed September 26, 1879.

*To all whom it may concern:*

Be it known that I, WILLIAM H. MINTZER, of Colton, in the county of San Bernardino and State of California, have invented a new and Improved Engineer's Shoe, of which the following is a specification.

Figure 1 is a side elevation of the shoe, partly in section. Fig. 2 is a plan of the same on line *xx*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish a shoe for locomotive engineers, firemen, drivers of horse-cars, and others, by the use of which they will avoid the pain and diseases that they are subject to because of the jarring of the cars.

In the drawings, A represents the shoe or slipper, secured at about the middle of its sole to the block B by the bolts *a' a'*.

C is a flat slightly-curved spring, that is secured on the under side of the block B, and extends rearward under and in contact with the sole D of the shoe or slipper A.

E is a flat spring centrally secured to the under side of the block B, with its central portion extending horizontally in either direction as far as the toe and heel of the shoe A, and having its ends bent downward and inward until they nearly approach each other, and hinged or jointed at *b'*.

On each end of the spring E is a flat bent spring, F, that extends upward inside of an arm of the spring E, conforming with its curve, and terminates against the said spring E, near its point of attachment to the block B.

A strip of rubber or other elastic material may be secured at G, which is attached to the under surface of the spring E to prevent slipping.

I do not confine myself to this particular kind or arrangement of springs for this purpose, for I am aware that others may serve as well to accomplish the object intended; but,

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

1. The shoe or slipper A, in combination with the spring E and rubber G, substantially as and for the purpose described.

2. The shoe or slipper A, in combination with the spring C and rubber-shod spring E, substantially as herein shown and described.

3. The combination of the shoe or slipper A, block B, springs C E F, and elastic piece G, substantially as set forth.

WILLIAM HENRY MINTZER.

Witnesses:

A. E. CHUBBUCK,  
IRVING RUNNELS.