

(No Model.)

M. L. CROSS.  
WIRE BED BOTTOM.

No. 505,267.

Patented Sept. 19, 1893.

FIG. 1.

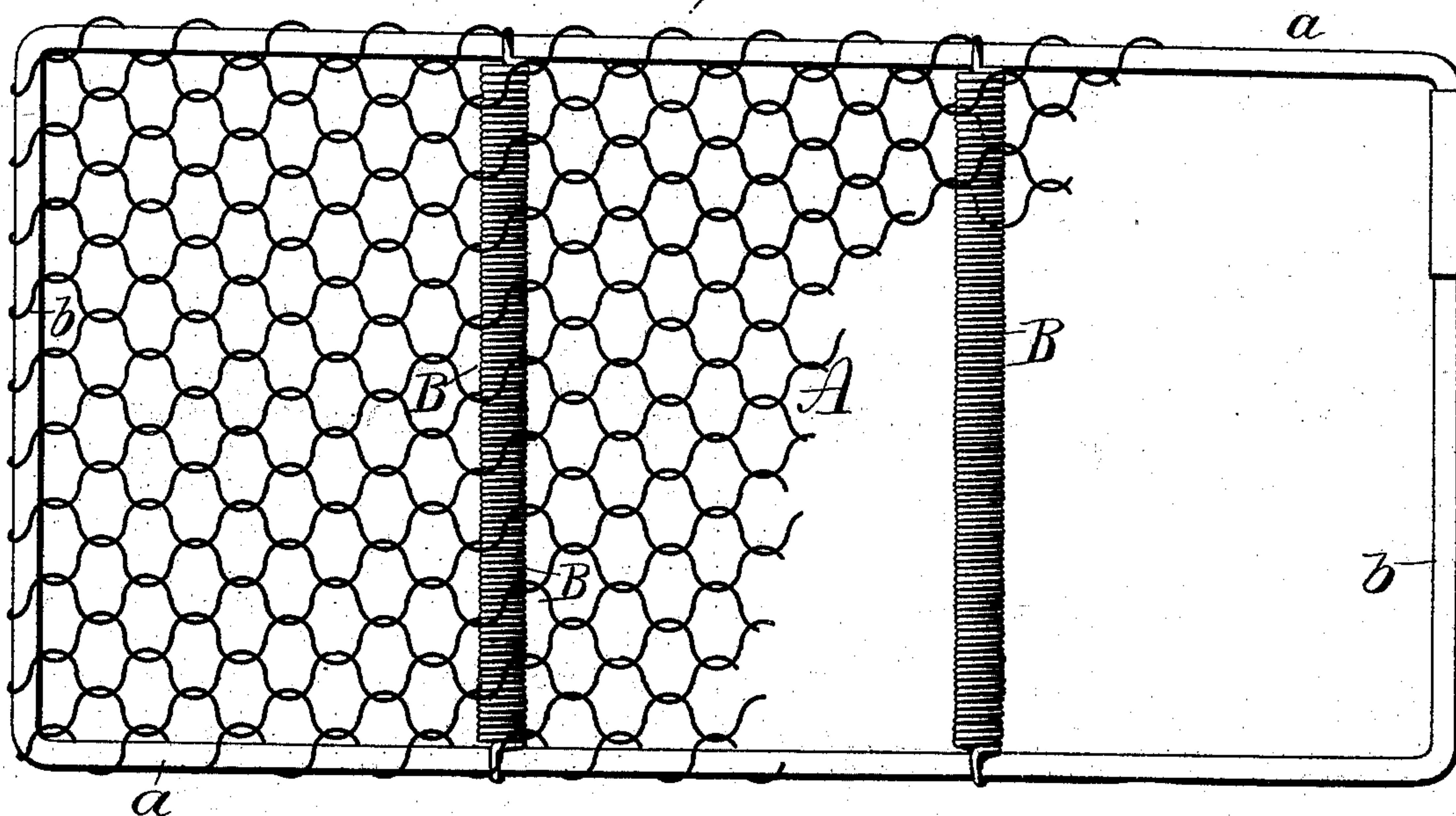
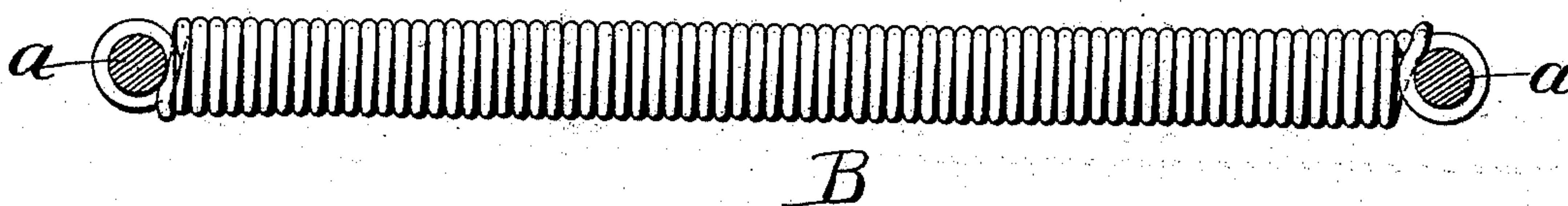


FIG. 2.



Witnesses  
*E. A. Nottingham*  
*G. F. Downing*

Inventor  
*M. L. Cross*  
By *H. A. Seymour*  
Attorney

# UNITED STATES PATENT OFFICE.

MILTON L. CROSS, OF PHILADELPHIA, PENNSYLVANIA.

## WIRE BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 505,267, dated September 19, 1893.

Application filed April 28, 1893. Serial No. 472,237. (No model.)

*To all whom it may concern:*

Be it known that I, MILTON L. CROSS, a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Wire Bed-Bottoms; 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.

My invention relates to an improvement in bed bottoms and more particularly to such as are made of woven wire,—the object of the invention being to provide simple and efficient means for maintaining the bed bottom in proper position.

A further object is to provide means for preventing a woven wire bed bottom buckling and at the same time not affect the flexibility of the bed bottom.

A further object is to provide simple and efficient means whereby to maintain the side bars of a woven wire bed bottom parallel and preventing the bed bottom itself from becoming distorted without affecting the flexibility of the bed bottom.

With these objects in view the invention consists in the combination with a bed bottom and the side bars thereof, of closed coiled springs extending from one side bar to the other.

The invention also consists in certain novel features of construction and combinations and arrangements of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings: Figure 1 is a plan view of a bed bottom embodying my improvements. Fig. 2 is a separate view of one of the spring bars.

A represents a bed bottom made of woven wire, connected with a frame comprising side bars *a, a* and end bars *b, b*.

Located between the side bars *a, a*, and connected thereto, is a series of spring bars *B*, which are preferably made to pass through the meshes of the bed bottom *A* as shown in Fig. 1. Each spring bar *B* is a closed wire spring,—that is to say it is a spring closely coiled so that its convolutions lie close to and bear against each other when the spring bars are in their normal positions, and at its ends the last coils of the spring bears snugly against the side bars *a, a*. Thus it will be seen that as the spring bars are coiled very closely, they cannot, when in their normal positions, be contracted and hence they will maintain the side bars *a* parallel and the bed bottom properly stretched, as effectually as if they were solid rods. At the same time, it will be observed, if the weight of a person be on the bed bottom the woven wire will yield and with it, the flexible connections. When the weight is removed from the bed, the woven wire and the flexible connecting rods will immediately assume their normal positions.

My improvements are very simple, but they are very effectual in the performance of their functions and overcome a hitherto very serious objection with such bed bottoms.

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

The combination with a woven wire bed bottom and its side bars, of a closed coil spring extending from one side bar to the other and bearing at its ends against said side bars, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

MILTON L. CROSS.

Witnesses:

WILLIAM S. SEYMOUR,  
A. T. RUTHERFORD.