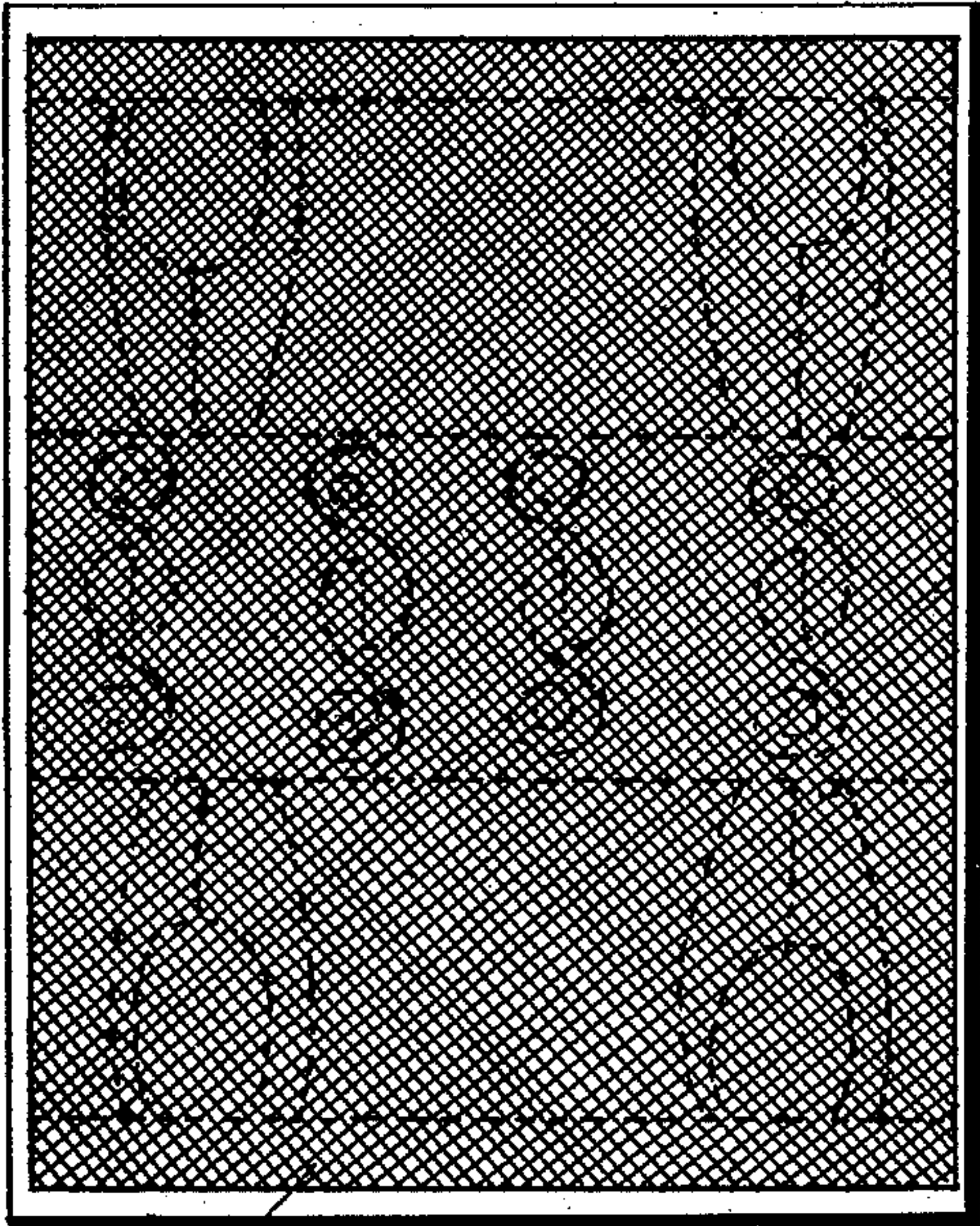


(No Model.)

J. A. KELLY.  
BED SPRING.

No. 343,641.

Patented June 15, 1886.



*A* Fig 1

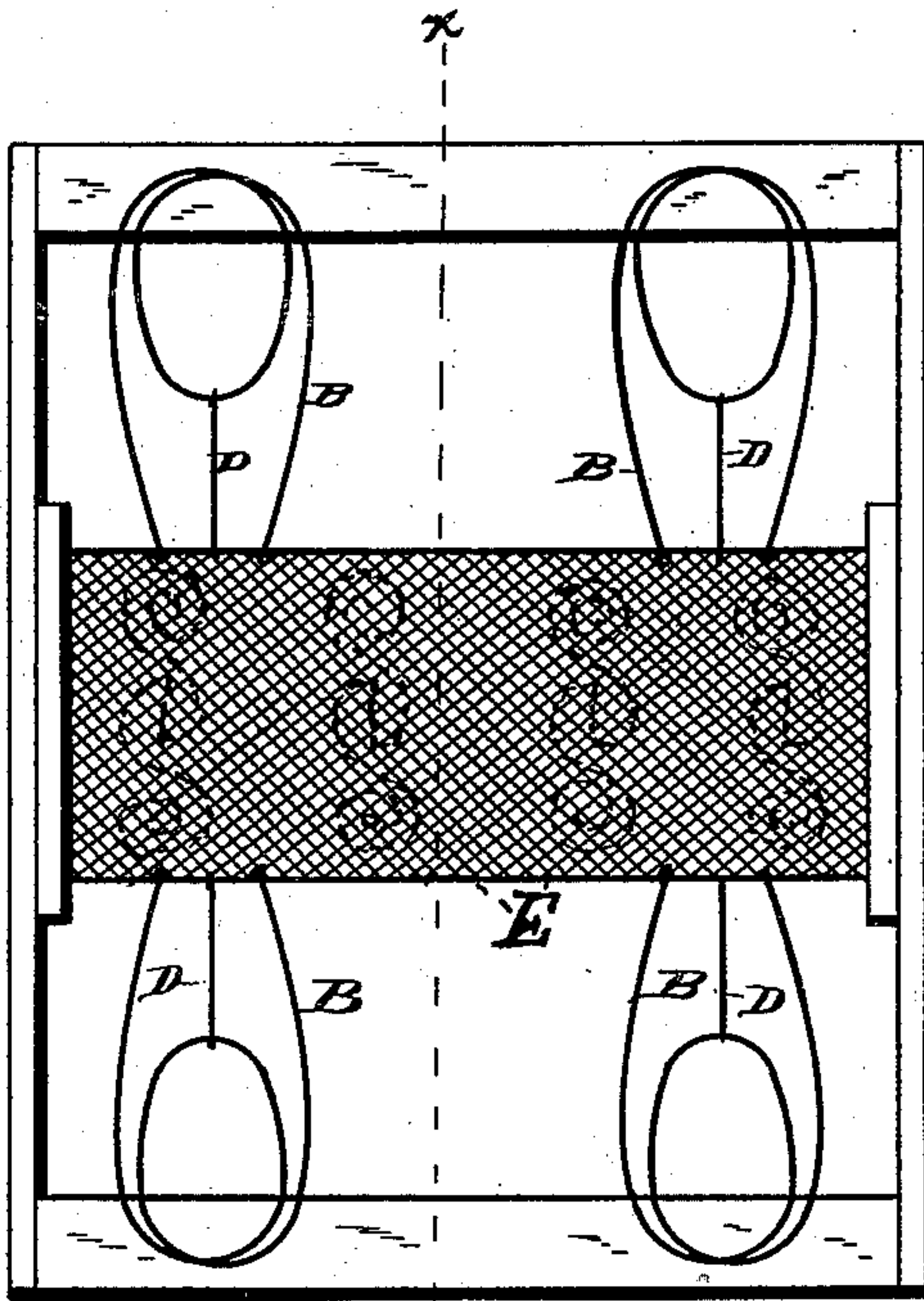


Fig 2.  
*x*

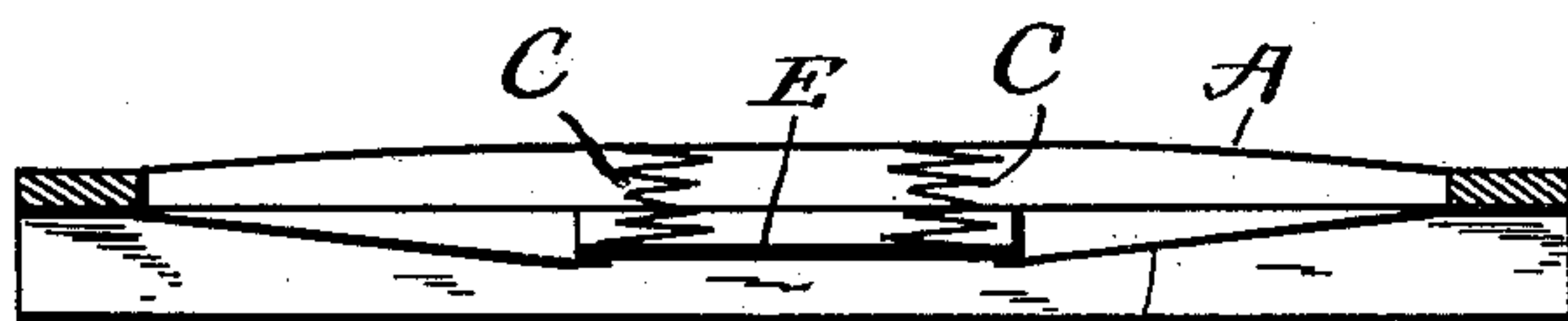


Fig 3.  
*B*

Witnesses:  
*Wm. A. Rosenbaum*  
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By *W. T. Burris*  
*Atty.*



# UNITED STATES PATENT OFFICE.

JOSEPH A. KELLY, OF CLINTON, IOWA, ASSIGNOR TO HEMMENGWAY & KELLY, OF SAME PLACE.

## BED-SPRING.

SPECIFICATION forming part of Letters Patent No. 343,641, dated June 15, 1886.

Application filed July 11, 1885. Serial No. 171,295. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH ALEXANDER KELLY, a citizen of the United States of America, residing at Clinton, in the county of Clinton and State of Iowa, have invented certain new and useful Improvements in Bed-Springs, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of my invention is to prevent undue sagging of spring-beds; and the invention consists of the combination of a woven-wire mattress attached to the ends of the bed-frame, a central transverse woven-wire support attached to the sides of the frame, spiral springs placed between the mattress and the support, coil-springs attached to the ends of the frame and to the sides of the support, forming yielding connections between the sides of the support and the ends of the frame, and stay-rods arranged to aid in sustaining the strain upon the support and springs, as hereinafter fully set forth and claimed.

In the accompanying drawings, Figure 1 is a top of a spring-bed having my improvements. Fig. 2 is a plan view of the spring-bed inverted. Fig. 3 is a longitudinal vertical section on line *x x* of Fig. 2.

A designates a woven-wire mattress attached at each end to the end bars of the frame.

E designates a woven-wire support placed transversely under the central portion of the mattress and at a suitable distance below it, and is attached at its ends to the side rails of the frame.

B designates springs, the middle portion of which are coiled and attached to the end bars of the frame, and the ends of these springs are extended inward, and are attached to the sides of the transverse support, forming yielding connections between the sides of the support and the ends of the frame.

C designates spiral springs, a number of which are placed between the mattress and the transverse support.

D designates stay-rods attached at their

outer ends to the inner curved portions of the coil-springs B, and at their inner ends to the sides of the support E, to aid in sustaining the strain upon the support and springs.

The construction and arrangement herein set forth of the mattress attached to the ends of the frame, the central transverse woven-wire support attached to the sides of the frame, the coil-springs, and the stay-rods, forming yielding connections between the sides of the transverse support and the ends of the frame, constitute an improved spring-bed having yielding supports laterally and longitudinally, so that the strain produced by pressure upon the bed is distributed to and sustained by all these parts, preventing any undue sagging of the middle portion of the mattress.

I am aware that heretofore spiral springs supported by a web arranged lengthwise of the bed-frame and fastened to the ends thereof, and spiral springs supported by wires attached to them and fastened to the ends and sides of the bed-frame have been employed for supporting the middle portions of wire mattresses, and I do not claim spiral springs thus supported; but

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the mattress A, attached to the ends of the bed-frame, the central transverse support, E, attached to the sides of the frame, the spiral springs C, placed between the mattress and the transverse support, the springs B, the middle portions of which are coiled and fastened to the ends of the frame, and their ends are extended inward and fastened to the sides of the transverse support, and the stay-rods D, attached at their outer ends to the inner curved portions of the coiled springs and at their inner ends to the sides of the transverse support, substantially as and for the purposes described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH A. KELLY.

Witnesses:

H. F. BOWERS,

THOMAS BARROWMAN.