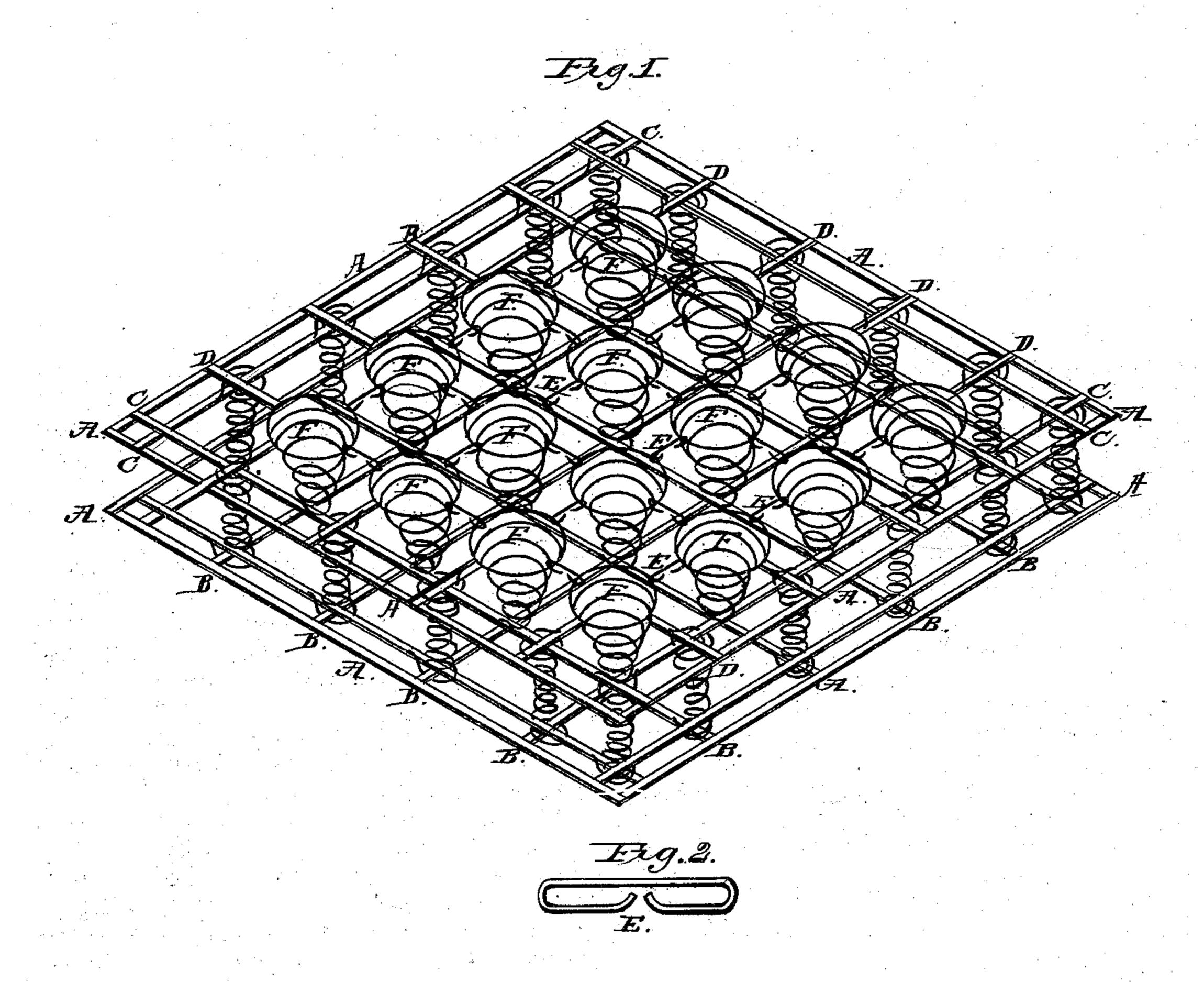
## J. E. LORD.

SPRING BED-BOTTOM

No. 174,080.

Patented Feb. 29, 1876.



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MolBAursons 66. Prerce. Inventor:

Joseph ELord.

## UNITED STATES PATENT OFFICE.

JOSEPH E. LORD, OF QUINCY, ILLINOIS.

## IMPROVEMENT IN SPRING BED-BOTTOMS.

Specification forming part of Letters Patent No. 174,080, dated February 29, 1876; application filed June 24, 1875.

To all whom it may concern:

Be it known that I, Joseph E. Lord, of the city of Quincy, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Spring Bed-Bottoms; and I declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, in which—

Figure 1 is an isometrical representation, and Fig. 2 an elevation, of an improved link.

The invention relates to that class of metalspring bed-bottoms consisting of lattice or basket work top and bottom frames, having metal springs between and connecting the same.

The object of my invention is to provide a more elastic surface for the mattress or bed to rest upon, and to provide a cheap, simple, and durable method of fastening or linking the upper part of the springs together, the invention being an improvement upon the spring bed-bottoms for which a patent was granted to E. Kreighoff, July 9, 1867; also, upon the spring bed-bottoms for which a patent was granted to me, Joseph E. Lord, bearing date February 28, 1871.

A, in the accompanying drawing, represents the upper and lower frames, which are composed of four pieces or straps of metal secured at the corners by means of rivets or other equivalent fastening. Upon the lower frame are longitudinal and transverse slats or straps B, crossing each other at right angles. At each intersection of the slats are secured the lower ends of the metal springs, the outside rows being of the shape known as the double-cone spiral spring, which are coiled upon a small-sized mandrel, to give a greater degree of stiffness and support to the upper frame.

The inside rows of springs are conical in shape, and are secured at their apex to the intersection of the slats. The upper frame is constructed in a simila: manner to the lower one, and has two longitudinal and two transverse slats, C, joined to the frame A in such a manner as to form an inside concentric square. Upon this double frame are fastened, at regular intervals, (the spaces corresponding with the spaces between the lattice-work of the lower frame,) short straps of metal D. At their intersection with the straps C or inside frame are secured the upper ends of the outside rows of double-cone springs, and the ends of the straps next to the inner rows of springs are bent into hooks, and are thus secured to the periphery of the top coils of the larger springs. The upper coils of the inside rows of springs are linked to each other by means of the B-shaped link E.

This construction allows the springs to be depressed vertically almost independent of each other by the flexibility of the link-couplings, and yet, each row of springs being attached both in a longitudinal and transverse direction to the frames A and C by means of the links E and straps D, the springs are retained in a vertical position, the outer edge of the mattress is properly supported, and all lateral motion is prevented.

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

The combination of the concentric frames A and C, straps D, springs F, and links E, the whole constructed, arranged, and operating substantially as described.

JOSEPH E. LORD.

Witnesses:

THOS. B. HARRISON, C. E. PIERCE.