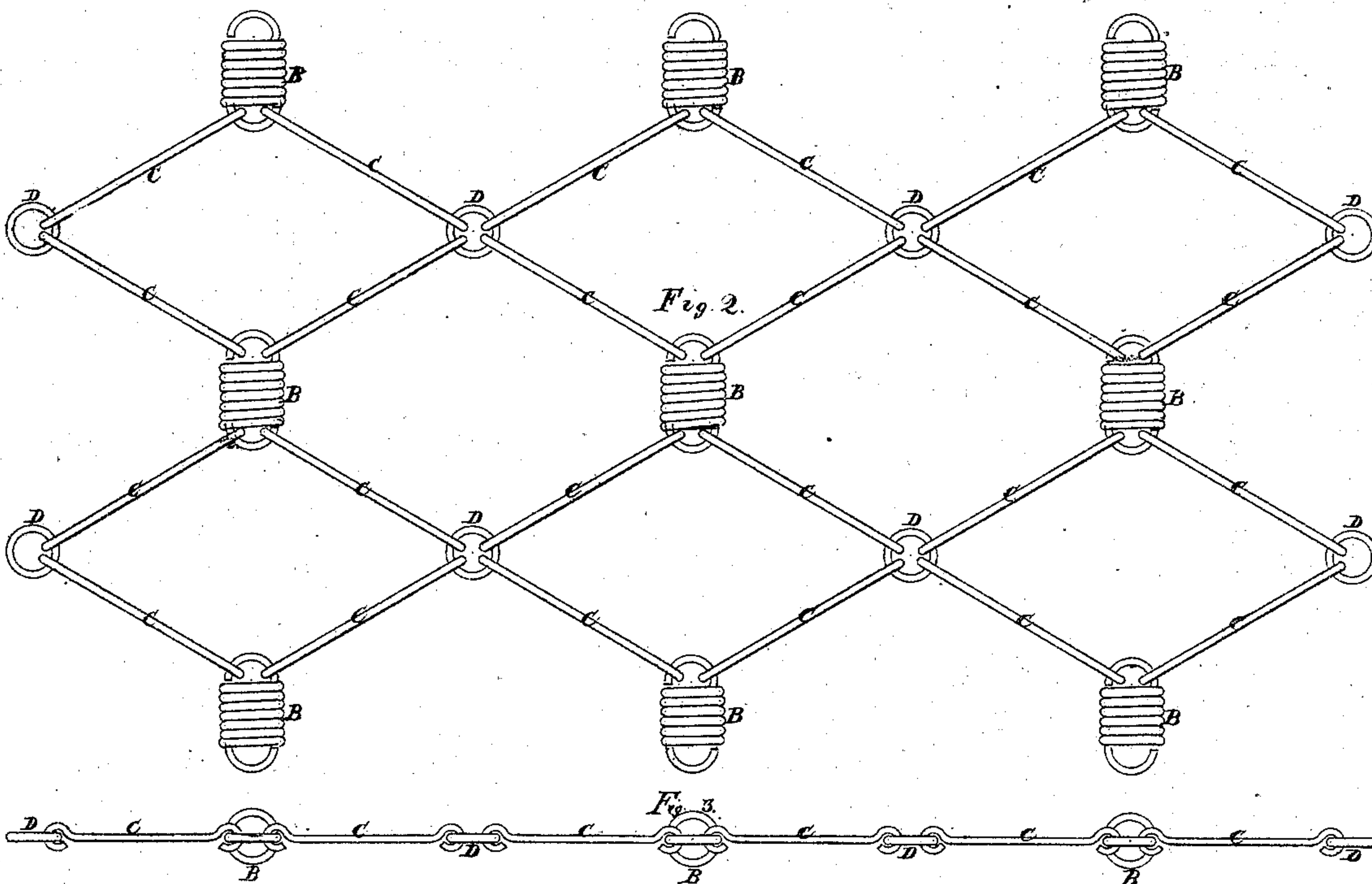
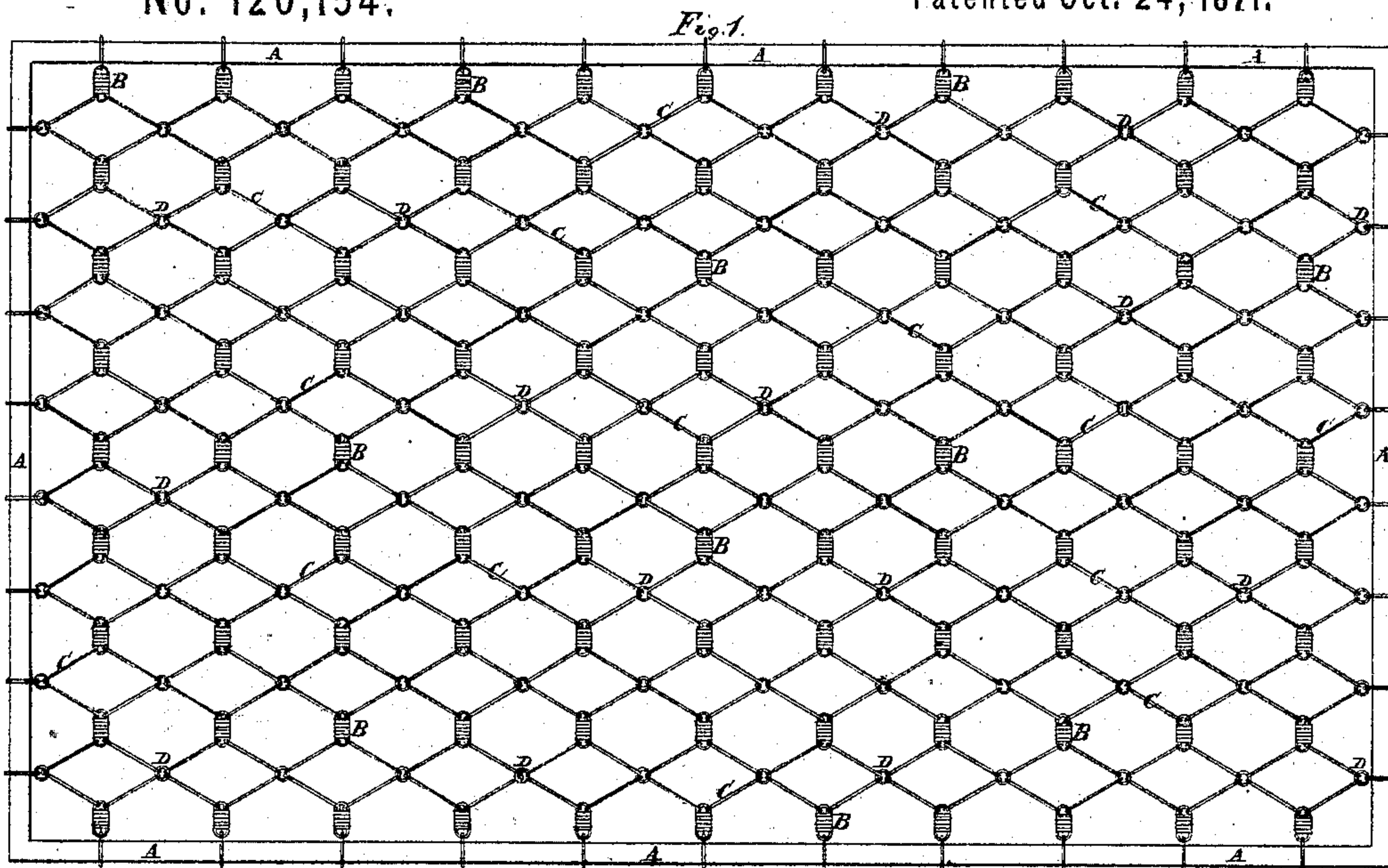


HENRY GARDNER, RODGER LOWE, JOSEPH WOOD, JAMES WOOD, & JAMES PICKERING'S  
IMPROVEMENTS

In SPRING MATTRESSES and other Articles, for sitting and reclining upon.

No. 120,154.

Patented Oct. 24, 1871.



Witnesses —  
Henry Watson  
Richard Henry Farakerley

Henry Gardner  
Rodger Lowe  
Joseph Wood  
James Wood  
James Pickering



# UNITED STATES PATENT OFFICE.

HENRY GARDNER, RODGER LOWE, JOSEPH WOOD, JAMES WOOD, AND JAMES PICKERING, OF MANCHESTER, GREAT BRITAIN.

## IMPROVEMENT IN SPRING MATTRESSES.

Specification forming part of Letters Patent No. 120,154, dated October 24, 1871.

*To all whom it may concern:*

Be it known that we, HENRY GARDNER, RODGER LOWE, JOSEPH WOOD, JAMES WOOD, and JAMES PICKERING, of the city of Manchester, Kingdom of Great Britain and Ireland, have invented certain Improvements in Spring Mattresses and other articles for sitting and reclining upon, of which the following is a specification:

This invention consists in connecting parallel series of springs together by means of metallic links, thus forming a spring net-work which, when mounted in a frame-work, is useful as a spring mattress or substitute for the lath-work or bottom of bedsteads, and is equally applicable for producing the spring or necessary elasticity in the backs and seats of sofas, chairs, omnibuses, railway-carriages, and other vehicles.

Figure 1 represents a plan or top view of a spring mattress constructed according to this invention, and Fig. 2 is an enlarged view of part of Fig. 1 showing the construction and arrangement of the spring net-work more clearly, and Fig. 3 is a side view of Fig. 2.

A is the frame of the spring mattress, which frame should be substantially constructed to resist the vibrations of the operating parts. B B B are spiral metallic springs having a loop formed at each extremity in order to connect such springs together by the diagonal metallic links C C C and rings D D D which are linked one into the other, as seen more clearly in Fig. 3. Although we prefer to use spiral metallic springs it will be readily apparent that India-rubber springs may be employed, either in the form of rings to which the diagonal links may be connected, or such India-rubber springs may be of cylindrical or other suitable form, and have loops at their extrem-

ities for the diagonal links to be connected to; and in place of the diagonal metallic links continuous cords of any suitable material may be employed threaded through the loops of the springs, and the intermediate rings thus assuming the same zig-zag shape as the metallic links, the extremities of such cords being fastened securely to the ends of the frame-work.

The action of this spring mattress may be thus described: When the weight of the body is brought to bear upon any part of the mattress, the springs immediately acted upon give the necessary elastic or springing effect by allowing the diamond-shaped interstices or meshes to close and be depressed, while at the same time the surrounding meshes are opened and stiffened or prevented being depressed.

This peculiar construction of spring net-work may be applied to the backs and seats of sofas, chairs, buffets, or other articles for sitting and reclining upon, and is also useful for forming the seats and backs of the seats of omnibuses, railway-carriages, and other wheels, in all of which cases it may be covered with the usual cushions or upholstered work.

We claim as our invention—

The combination and arrangement of parallel series of springs, when connected together in the manner and for the purposes hereinbefore described and set forth.

HENRY GARDNER.  
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Witnesses:

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