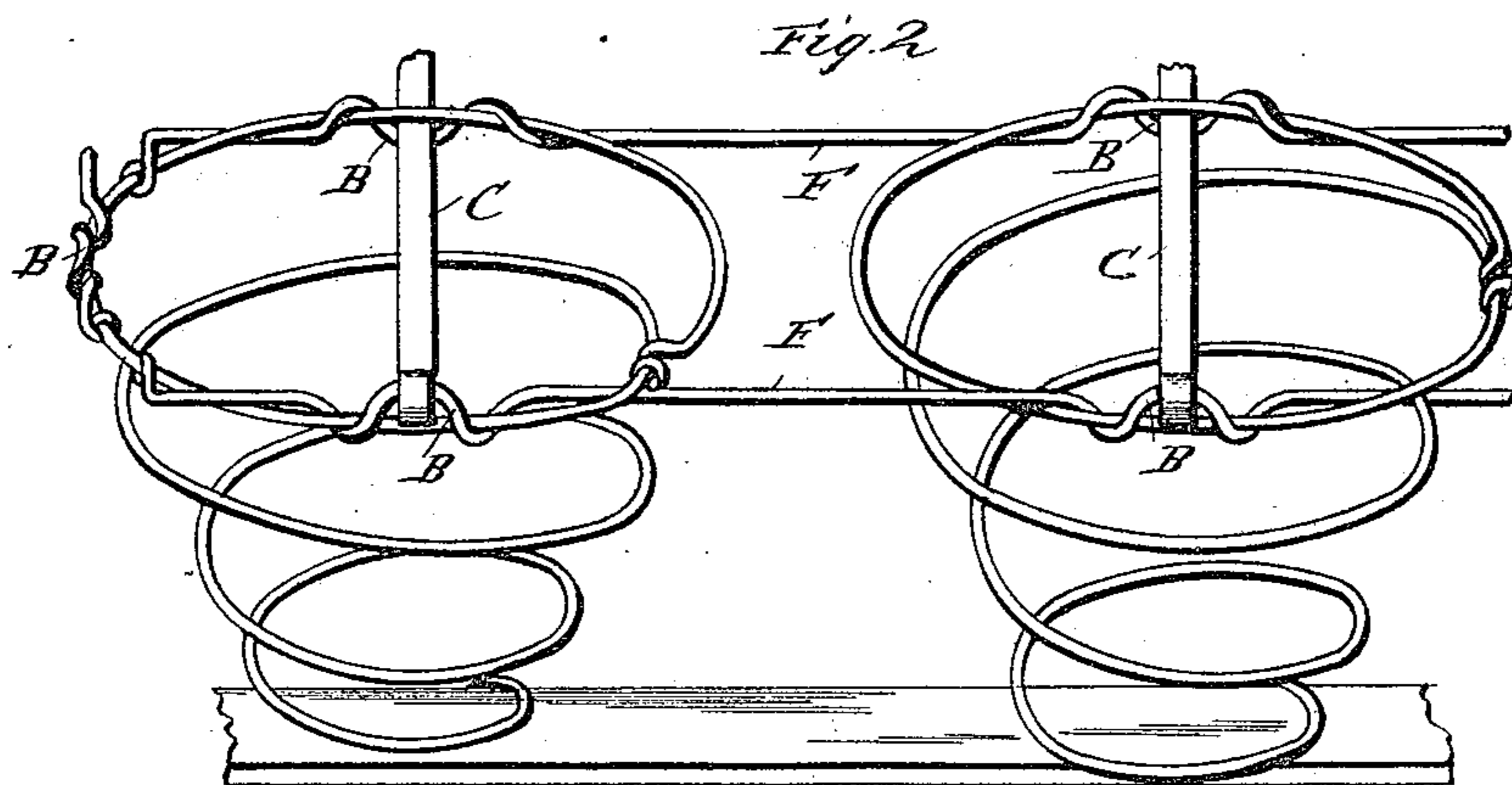
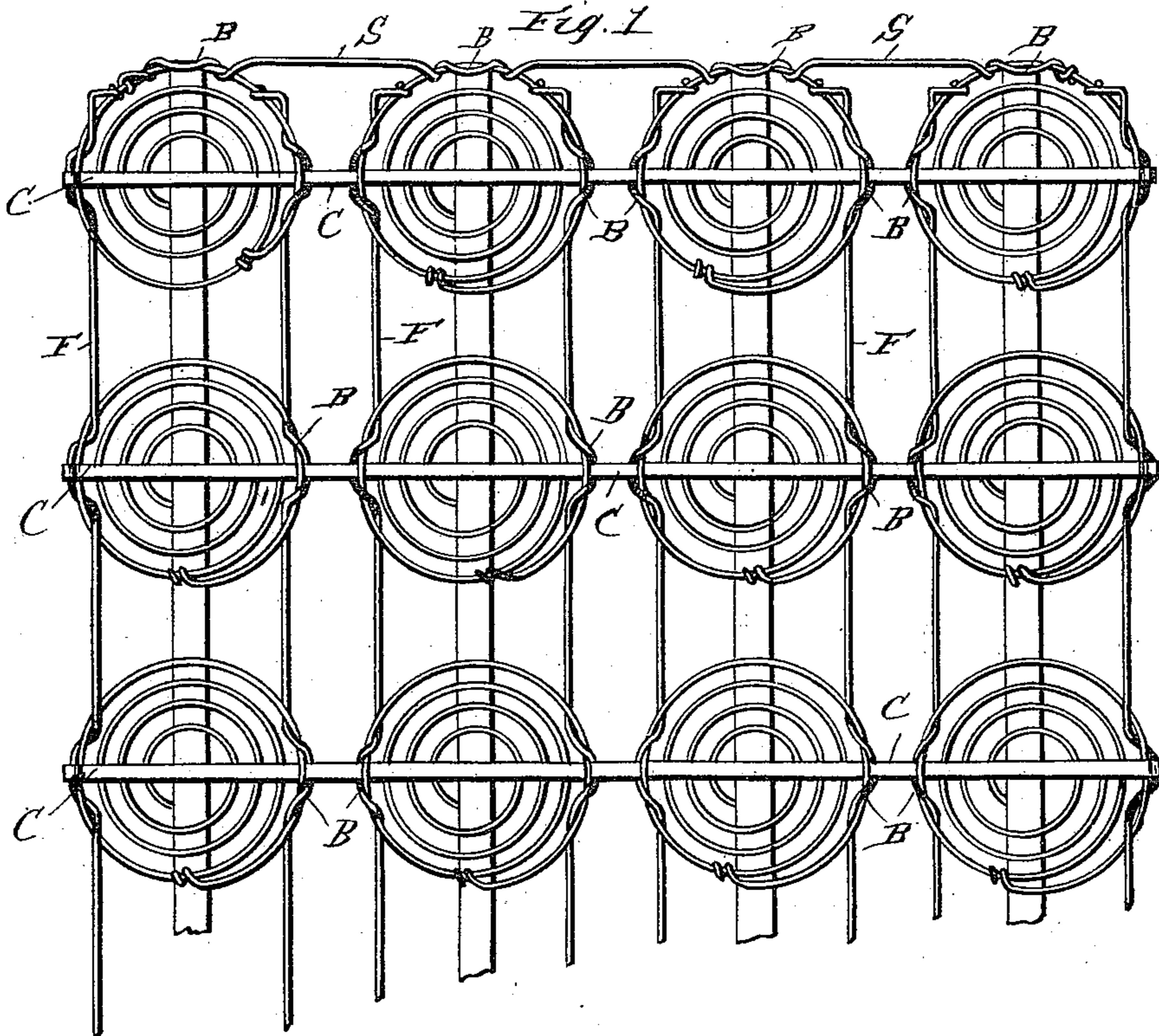


(No Model.)

A. F. PUREFOY.  
SPRING BED BOTTOM.

No. 440,324.

Patented Nov. 11, 1890.



Witnesses  
*C. H. Gaeder*  
*Van Buren Hillyard.*

Inventor  
*Addison Foster Purefoy.*

By his Attorneys

*R. M. P. Lacy*

# UNITED STATES PATENT OFFICE.

ADDISON FOSTER PUREFOY, OF MERIDEN, CONNECTICUT.

## SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 440,324, dated November 11, 1890.

Application filed August 8, 1889. Serial No. 320,093. (No model.)

*To all whom it may concern:*

Be it known that I, ADDISON FOSTER PUREFOY, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Spring Bed-Bottoms; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to spring bed-bottoms or structures composed of coiled wire springs, and has for its object to provide a new or improved system of connecting-braces for retaining the springs in proper relative position, and for furnishing supports or bearing-surfaces between the springs.

In accordance with said invention I provide for the springs two sets of substantially-straight brace-wires, arranged so that those in each set are parallel with each other and at right angles to those of the transverse set. I run the braces of both sets across the structure from the springs at one edge to those at the opposite edge of said structure. I place the braces of one set in pairs on opposite sides of the corresponding rows of springs tangentially, or nearly so, to the spring-coils, while those of the transverse set are run diametrically across the said coils, and, lastly, I connect the two sets of braces with each other and the spring-wires by means of lateral loops in the tangential braces—that is to say, loops extending sidewise from the tangential braces in about the plane of the spring-coils—which loops are bent around the spring-wires, while the diametrical braces are threaded through the eyes formed between the ends of the said loops and the spring-wires. By this particular construction and combination, I am enabled to prepare the braces by machinery, to pack them in very nearly the space taken by plain straight wires, and to put the bed-bottom or spring structure together in a short time without difficulty by unskilled labor, while at the same time in the finished structure the springs are well and thoroughly braced. Sufficiently numerous and well-dis-

tributed bearings are furnished over and between all the springs, and there is little or no liability for the parts to get out of order. I prefer to make the tangential braces of round wire on account of the formation of the lateral connecting-loops therein, and the diametrical braces of flat strips not only on account of the wider bearing-surfaces which such strips afford, their greater strength in proportion to thickness, and the increased friction in the eyes through which they are threaded, but also because the flatness of the strips enables me to make the aforesaid lateral loops wider at the ends, the eyes formed between said ends and the spring-wires being oblong to accommodate the oblong cross-section of said strips, and to prevent the flat wires or strips from turning in said eyes. This construction with round tangential and flat diametrical braces constitutes a special improvement.

In the accompanying drawings, which form part of this specification, Figure 1 is a plan of a spring bed-bottom constructed in accordance with the invention, and Fig. 2 a detail view in perspective.

The structure is composed of coiled wire springs A, which are connected by the two sets of substantially-straight braces F C, the braces F being of round wire, as shown, and the braces C of flat strips. The tangential braces F extend alongside of and between the springs in pairs on opposite sides of the springs, and the diametrical braces C extend across and between the springs at right angles to the tangential braces. The connection of the braces with each other and with the coiled springs is made by means of the lateral loops P, formed by bends in the said tangential braces, which loops are wrapped partly around the spring-wires, so as to form eyes between said spring-wires and the ends of said loops, the diametrical braces being threaded through said eyes.

As shown, the lateral loops are comparatively wide at the ends and form with the adjacent spring-wires oblong eyes corresponding with the oblong cross-section of the flat strips or braces C, and preventing these from turning therein after they have been threaded through the said eyes. The braces of both sets are at the ends bent into eyes or loops,

which inclose one of the spring-wires or brace-wires, or are otherwise securely fastened.

The bed-bottom shown is provided at the end with a tangential wire S, placed transversely to the tangential wires or braces F, and connected with the springs by lateral loops bent around the spring-wires.

I claim as my invention or discovery—

1. The combination, with the coiled wire springs, of the parallel substantially-straight tangential braces extending between the springs in pairs on opposite sides thereof from the springs at one edge of the structure to the springs at the opposite edge of the same and provided with lateral loops bent around the spring-wires, and the parallel diametrical braces extending across and between the springs at right angles to the said tangential braces and threaded through the eyes formed by and between the closed ends of

said lateral loops and the adjacent spring-wires, substantially as described.

2. The combination, with the coiled wire springs, of the parallel substantially-straight tangential braces of round wire arranged in pairs on opposite sides of the springs and provided with comparatively wide ended lateral loops bent around the spring-wires and forming oblong eyes between the said ends and the adjacent spring-wires, and the parallel straight diametrical braces of flat strips extending across and between the springs and threaded through said oblong eyes, substantially as described.

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

ADDISON FOSTER PUREFOY.

Witnesses:

WILBUR H. SQUIRE,  
H. R. TYLER.