

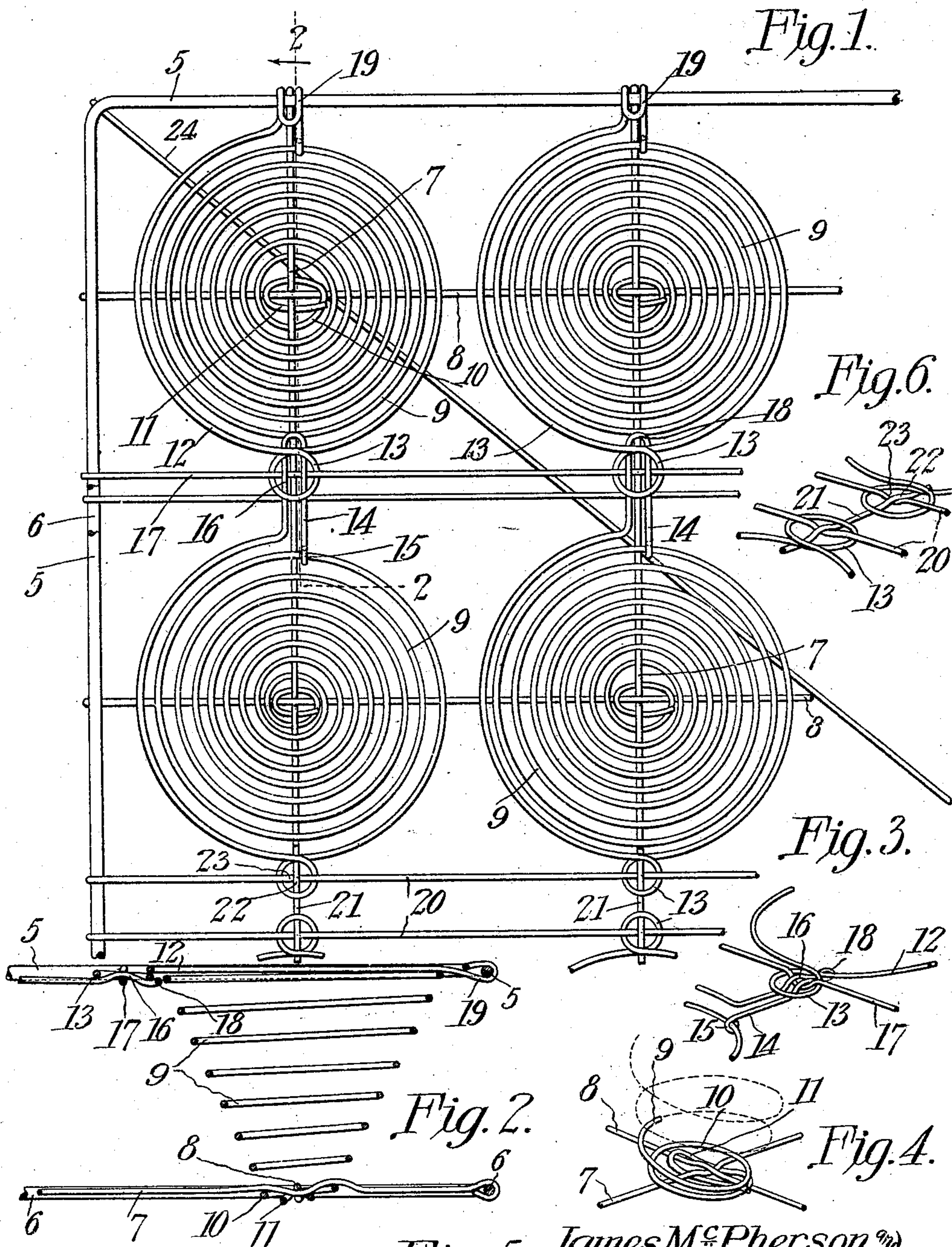
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PATENTED JAN. 22, 1907.

J. McPHERSON & R. HOOKER.

BED SPRING.

APPLICATION FILED NOV. 10, 1906.



WITNESSES:

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JAMES McPHERSON AND RENZY HOOKER, OF CARTHAGE, MISSOURI

BED-SPRING.

No. 841,808.

Specification of Letters Patent.

Patented Jan. 22, 1907.

Application filed November 10, 1906. Serial No. 342,861.

To all whom it may concern:

Be it known that we, JAMES McPHERSON and RENZY HOOKER, citizens of the United States, residing at Carthage, in the county of Jasper and State of Missouri, have invented a new and useful Bed-Spring, of which the following is a specification.

This invention relates to springs for beds, sofas, seats, and other furniture, and has for its object to provide a bed-spring capable of being reversed and placed in position on a bed with either side up and used in such position without danger of catching in the bed-clothes and tearing or otherwise injuring the same.

A further object of the invention is to provide a bed-spring the coils of which are interlocked and braced both longitudinally and transversely, thereby to produce a strong, durable, and yieldable support for the mattress.

A still further object of the invention is to generally improve this class of devices so as to increase their utility and efficiency as well as to reduce the cost of manufacture.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, and illustrated in the accompanying drawings, it being understood that various changes in form, proportions, and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings, forming a part of this specification, Figure 1 is a top plan view of a portion of a bed-spring constructed in accordance with my invention. Fig. 2 is a longitudinal sectional view taken on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of the interlocked ends of the spring-coils. Fig. 4 is a similar view showing the manner of locking the reduced convolutions of the coils in engagement with the brace-wires. Fig. 5 is a perspective view showing the manner of attaching the springs to the upper supporting-frame. Fig. 6 is a similar view of the lock used for uniting adjacent springs at the center of the supporting-frame.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved device consists of spaced supporting-frames 5 and 6, formed of wire or other suitable material and preferably rectangular in shape, as shown, the lower supporting-frame 6 being connected by a plurality of longitudinal and transverse brace-wires 7 and 8. Interposed between the upper and lower supporting-frames are a plurality of coiled springs 9, the lower reduced convolution 10 of each of which is passed beneath the adjacent longitudinal brace-wire 7 and over the transverse brace-wire 8 and thence extended to form an elongated loop 11, disposed at the juncture of the longitudinal and transverse brace-wires, as best shown in Fig. 4 of the drawings.

The closed end of the loop 11 passes over and bears against the transverse wire 8, while the side walls thereof are extended beneath the longitudinal wire 7, with the terminal of the wire forming the loop extending above and resting on the lower convolution 10, thus effectually locking the reduced end of the spring in engagement with the brace-wires and the latter in engagement with each other.

The upper or enlarged convolution 12 of each coil is bent to form a laterally-extending loop or eye 13, disposed in the same horizontal plane with the coil 12, while the wire at the opposite side of the spring is projected laterally and is bent upon itself to form a connecting shank or stem 14, the end of the wire forming the stem 14 being twisted or otherwise coiled around one of the convolutions of the adjacent spring, as indicated at 15. The shanks or stems 14 are extended beneath the walls of the loop 13 and are bowed upwardly, as indicated at 16, to permit passage of a locking member or rod 17, the latter being bent to form a socket for the reception of the bowed portion 16 of the connecting-stem and also to cause the adjacent portions of the locking member 17 to bear against the upper surface of the loop 13, thereby locking the upper or enlarged ends of the coils in engagement with each other.

Attention is called to the fact that the closed end 18 of the connecting-stem 14 is deflected upwardly and bears against the upper convolution of the spring where the wire is twisted to form the coil 13, thereby to assist in preventing accidental displacement of the

parts. The shanks or stems forming the outer or marginal row or springs are bent around the adjacent upper supporting-frame, as indicated at 19, the ends of the stems being pressed downwardly, so as to present a smooth unobstructed bearing-surface for engagement with the mattress.

The springs at the center of the supporting-frame are united by spaced transverse tie rods or wires 20, which extend over and in engagement with the adjacent loops 13 of the springs, there being short longitudinal wires or locking-keys 21 extending beneath the loops or eyes 13 and over the tie-wires 20 to form a lock-joint.

The short wires 21 are deflected upwardly, as indicated at 22, and bear against the depressed portions 23 in the transverse tie-rod 20, with their terminals bent into engagement with the upper convolution of adjacent springs at the coils 13. The lower supporting-frame 6 is preferably reinforced and strengthened by the provision of brace-wires 24, which extend diagonally across the frame and are secured thereto in any suitable manner. By having the several springs united in the manner described a smooth unobstructed bearing-surface is presented for engagement with the mattress or bedclothes, thereby permitting the bed-springs to be reversed and placed in position on the bed with either side up and used in such position without danger of catching in the bedclothes and tearing or otherwise injuring the same.

Having thus described the invention, what is claimed is—

1. A device of the class described including spaced supporting-frames, coiled springs interposed between said frames and each provided with a laterally-extending loop, connecting-stems carried by adjacent springs and extending beneath the loops, and rods for locking the stems in engagement with the loops.

2. A device of the class described including spaced supporting-frames, springs interposed between said frames, loops extending laterally from one side of each spring, a connecting-stem projecting from the opposite side of each spring and adapted to engage the loop of an adjacent spring, and means intersecting the loops and stems for locking the same in engagement with each other.

3. A device of the class described including spaced supporting-frames, coiled springs interposed between said frames, loops extending laterally from one side of each spring, a connecting-stem projecting from the opposite side of each spring and bearing beneath the adjacent loop, and locking members intersecting the loops and connecting-stems and bearing against the upper surface of said loops

4. A device of the class described including spaced supporting-frames, coiled springs interposed between the frames, loops extending laterally from one side of each spring, stems projecting from the opposite sides of the springs and having their intermediate portions bowed upwardly and extended within the loops of adjacent springs, and locking members engaging the bowed portions of the stems and bearing against the upper surface of the loops.

5. A device of the class described including spaced supporting-frames, coiled springs interposed between the frames, loops extending laterally from one side of each spring, connecting-stems projecting from the opposite sides of said springs and bearing against the lower surface of the loops, said connecting-stems having their free ends bent upwardly in engagement with one of the convolutions of the adjacent spring and its intermediate portion bowed laterally, and locking-rods engaging the bowed portions of the connecting-stems and bearing against the upper surface of the loops.

6. A device of the class described including spaced supporting-frames, coiled springs interposed between said frames and each provided with a laterally-extending loop, longitudinal tie-wires extending beneath said loops, and transverse tie-wires intersecting the longitudinal tie-wires and bearing against the upper surface of said loops.

7. A device of the class described including spaced supporting-frames, coiled springs interposed between the frames and each provided with a laterally-extending loop, longitudinal tie-wires extending beneath the loops and having their opposite ends bent upwardly, and transverse tie-wires secured to one of the supporting-frames and extending beneath the bowed portion of the longitudinal tie-wires and bearing against the upper surface of the loops.

8. A device of the class described including spaced supporting-frames, longitudinal and transverse brace-wires connecting the walls of one of the supporting-frames, spring-coils secured to the lower frame and disposed at the juncture of the brace-wires, loops extending laterally from one side of each spring at the upper frame, connecting-stems projecting laterally from the opposite sides of said springs and adapted to engage the loops of adjacent springs, and means intersecting the loops and stems for locking the same in engagement with each other.

9. A device of the class described including spaced supporting-frames one of which is provided with longitudinal and transverse brace-wires, coiled springs interposed between the frames and each having its lower reduced convolution extended beneath one

of the brace-wires and over the adjacent
brace-wire and bent to form an elongated
loop disposed at the juncture of said brace-
wires, loops extending laterally from the up-
5 per ends of the springs, connecting-stems
carried by adjacent springs and bearing be-
neath the loops, and locking members inter-
secting the stems and loops.

In testimony that we claim the foregoing
as our own we have hereto affixed our signa- 10
tures in the presence of two witnesses.

JAMES McPHERSON.
RENZY HOOKER.

Witnesses:

SAMUEL O. MORROW,
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