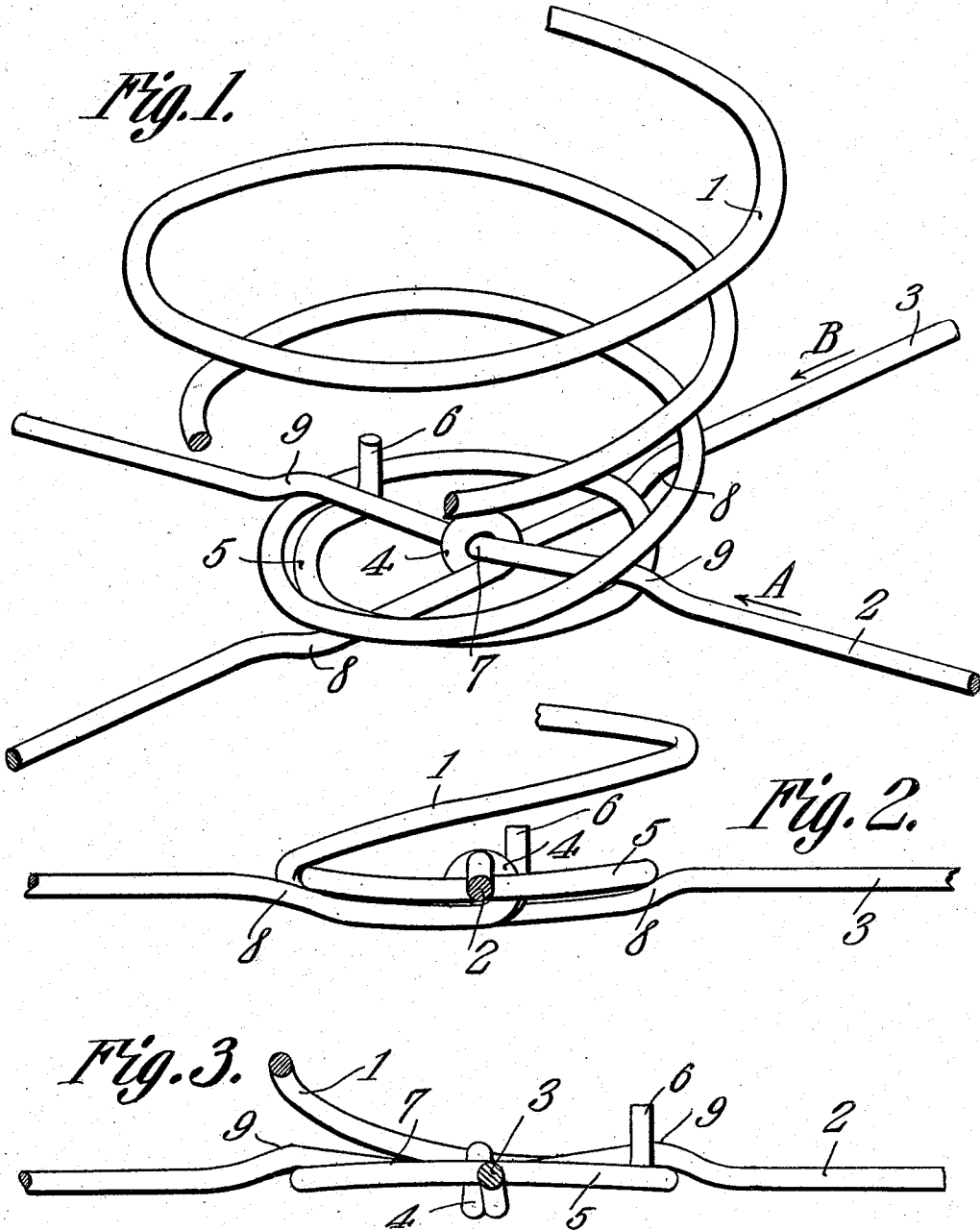


J. F. DIXON.
BED SPRING.
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930,538.

Patented Aug. 10, 1909.



Witnesses:

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UNITED STATES PATENT OFFICE.

JONAS FRANKLIN DIXON, OF CARTHAGE, MISSOURI.

BED-SPRING.

No. 930,538.

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To all whom it may concern:

Be it known that I, JONAS FRANKLIN DIXON, a citizen 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 generally to bed springs and particularly to one of that type embodying in its construction crossed wires and cone-shaped springs assembled therewith.

The objects of the invention are in a manner that will at once be simple, practical, easy to accomplish, and positive in action, so to connect the crossed wires as to prevent any sliding movement relatively to each other; to assemble the attaching coils of the springs with the crossed wires in a way that will secure the coils against the possibility of becoming detached, and at the same time mutually to brace the crossed wires and strengthen their union with each other; and to facilitate assembling of the different elements, thus to reduce the cost of manufacture and minimize the labor of construction.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a bed spring, as will be hereinafter fully described and claimed.

In the accompanying drawings forming a part of this specification, and in which like characters of reference are employed to indicate corresponding parts:—Figure 1 is a view in perspective on an enlarged scale of a portion of a bed spring embodying the improvements of the present invention. Fig. 2 is a view in side elevation, looking in the direction of the arrow A, Fig. 1. Fig. 3 is a view similar to Fig. 2, but looking in the direction of the arrow B, Fig. 1.

In describing this invention appropriate terms have been selected and employed throughout the specification to specify and emphasize the arrangement of the different parts of the structure, and are to be understood as defining the relative disposition of the parts when the bed spring is in use and are as follows:—"attaching coil" in referring to the lower or smallest whirl of the helical spring, "under" and "over" as applied to the disposition of the attaching coil relatively to the crossed wires, and "upper" and "lower" in designating the crossed

wires. The term "lock" adopted in connection with the assemblage of the crossed wires is to be considered as meaning a positive interlocking of those parts as by the provision of an eye on one to receive the other, and not merely the employment of kinks or bends such as are commonly resorted to for holding the crossed wires assembled against disengagement from each other or from sliding movement arising from pressure exerted on the structure in use.

Referring to the drawings, 1 designates a helical spring, such as is commonly employed in spring beds, 2 the upper crossed wire and 3 the lower crossed wire. The wire 2 is normally straight, but the wire 3 is provided at each point in its length where a spring is to be secured with an eye or loop 4 to receive the wire 2. As is usual, the terminal of the lower or attaching coil 5 is provided with an upstanding toe or finger 6 which by engagement with the wire 2 will prevent disconnection of the spring from the crossed wires. In constructing a spring bed in accordance with the present invention, the following procedures are observed, the description for the sake of brevity being confined to the assemblage of a single coil spring with two crossed wires.

The wire 3 is placed under the attaching coil 5 with the eye 4 at the approximate center thereof and projected upward a sufficient distance beyond the coil to permit the straight wire 2 to pass loosely therethrough and over the lower coil. By this arrangement when the parts of a complete bed spring are assembled, the plane of the under side of the crossed wires 2 will be above and separated from the plane of the upper side of the crossed wires 3 by a distance a little greater than the diameter of the wire of the coil spring, this of course before the parts are finally secured together, so that the threading of the wire 2 through the eyes will require no special type of machine for the purpose.

After the crossed wires and the spring have been positioned in the manner described, they are prevented from becoming deranged by a suitable holding mechanism, such as is generally employed for the purpose, and pressure is then applied to the eye to clamp or clench the same tightly around the crossed wire 2 and at the same time bend this wire downward within the coil and at its center, thereby firmly securing the coil

between the two crossed wires, the seat 7 formed by the bend in the wire 2 serving to lock the same against any movement with relation to the wire 3. In order further to prevent any slipping of the attaching coil relatively to the crossed wires, by the same pressure employed in clenching the eye, the wire 3 is kinked upward and the wire 2 is kinked downward at each of the two points externally of the coil, forming in the first named wire seats 8 and in the last named wire seats 9 with which the coil engages, and is therefore held from spreading under pressure. The stability of the connection between the coil and the wires is still further increased by the fact that the pressure exerted in clenching the eye and in forming the seats 8 and 9 operates to bow or bend the portions of the coil under the upper crossed wire 2 downward and to bow or bend the portions of the coil over the crossed wire 3 upward, as clearly shown in Figs. 2 and 3.

From the foregoing description it will be seen that by the peculiar manner of assembling the crossed wires with each other, namely by the provision of the eye, and the seat 7 these parts will be positively locked together, and further that by the formation of the seats 8 and 9 that the attaching coil of the spring will be connected with the crossed wires in the most stable manner possible.

I claim:—

1. A bed spring comprising crossed wires, one of which is provided with an eye to receive the other, which other is kinked to form an eye-retaining seat, and a helical spring having its attaching coil disposed under one cross wire and over the other, the wires being oppositely kinked to provide

seats positively engaging the coil to hold the coil and wires securely assembled, the wires being straight between the several points of intersection with each other and the coil.

2. A bed spring comprising crossed wires, one of which is provided with an eye to receive the other, which other is kinked to form an eye-retaining seat, and a helical spring having its attaching coil disposed under one cross wire and over the other, the cross wires being oppositely kinked upon the coil to bind the same and lock it against shifting, the crossed wires being straight between the several points of intersection with each other and the coil.

3. A bed spring comprising crossed wires one of which is provided with an eye to receive the other, and a helical spring having its attaching coil disposed under one crossed wire and over the other and encircling the eye.

4. A bed spring comprising upper and lower crossed wires one of which is provided with an eye to receive the other, and a helical spring having its attaching coil disposed under one crossed wire and over the other, the wires being oppositely kinked upon the coil interiorly and exteriorly of the same to lock it against shifting, those portions of the coil engaged by the lower crossed wire being bowed upward and those portions engaged by the upper crossed wire being bowed downward whereby interlocking seats are provided in the coil and the wires.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JONAS FRANKLIN DIXON.

Witnesses:

E. H. IRWIN,
JULIA E. CLARK.