B. D. COURTS.

SPRING BED.

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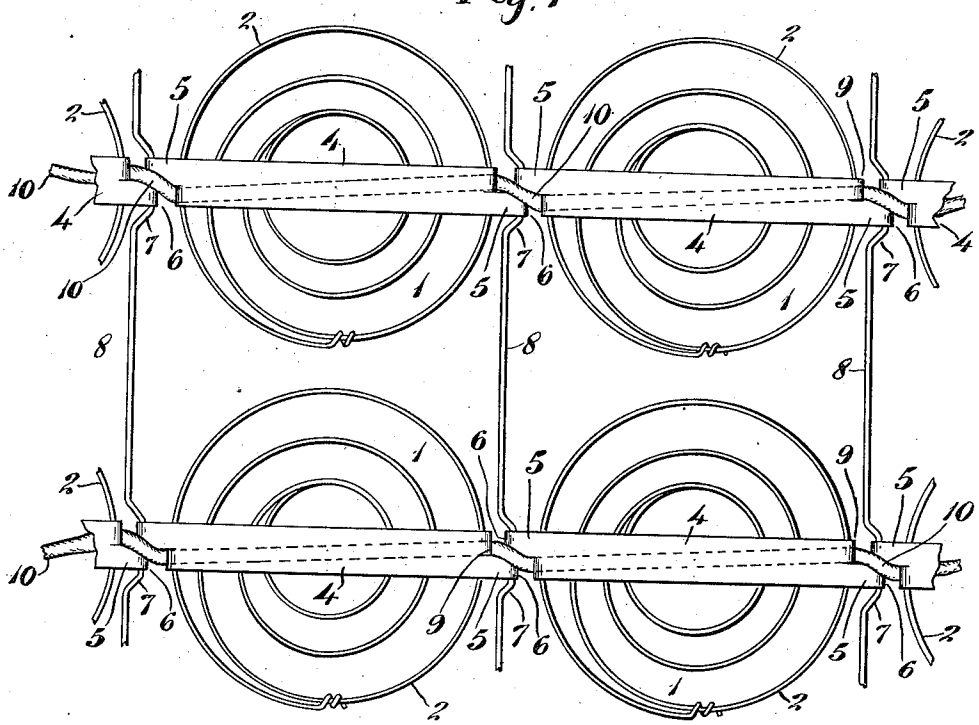
1,013,642.

Patented Jan. 2, 1912.

Fig. 1



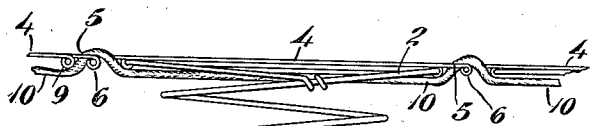


Fig. 2

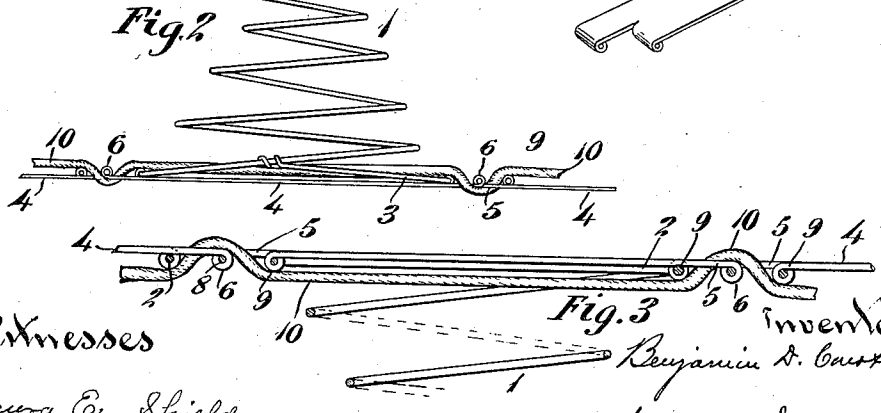


Fig. 3

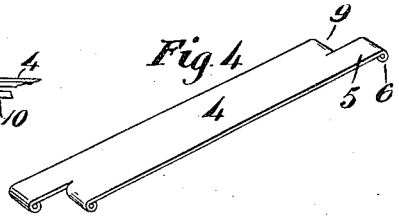


Fig. 4

Witnesses

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SPRING-BED.

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To all whom it may concern:

Be it known that I, BENJAMIN D. COURTS, a citizen of the United States of America, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Spring-Beds, of which the following is a specification.

This invention relates to spring-beds, or, more particularly speaking, to spring-structures used for resiliently-supporting pads and mattresses.

An object of the invention is to provide rows of spirals with linked flat sheet-metal strips that are each attached to an end-coil of the individual spiral and are further connected together in hinge-form by means of longitudinal wires that intersect the tandem-lines of said strips at intervals or points between adjacent end-coils and not axially over said spirals.

The invention herein consists of certain novel features of construction that will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying sheets of drawings, Figure 1 is a plan view of a fragmentary portion of a spring-bed structure embodying my invention herein; Fig. 2, an elevation of one of the spirals showing at its opposite ends the preferred form of flat sheet-metal strips forming the component parts of the transverse ties or stays and, also, showing in cross-section the longitudinal tie-wires that couple said flat strips in hinge-form between adjacent spirals; Fig. 3, a cross-section, partly in elevation, of the upper end of one of the spirals, showing the flat sheet-metal strips and a muffling-tape wound or interlaced around it; and Fig. 4, a detail perspective view of one of the flat sheet-metal strips, showing it in its preferred form and one way of interlacing or winding a tape-muffler.

1 indicates each one of a number of spirals, having an upper end-coil 2 and a lower end-coil 3, as best seen in Fig. 2.

4 indicates a flat strip of sheet-metal, having at its opposite ends an extension 5, and the latter being bent or turned into loops or eyes 6. Extensions 5 form tongues that project at reverse sides of the longitudinal center of the strip at opposite ends of said strip and are each half the width of the strip so that when a number of strips are brought in tandem or in line, the loop or eye 6 of a tongue 5 of a strip 4 is brought into alinement with the loop or eye 6 of an adjacent tongue 5 of the next strip 4 in the tandem-line and adapted to receive and hold in hinge-fashion the outwardly-bent stop-portion 7 of the transverse tie-wire 8, as best seen in Fig. 1. A suitable series of parallel, duly spaced tie-wires 8 is used throughout the structure to pivotally-connect the tongues 5 of the respective flat sheet-metal strips 4 in hinged relation or fashion between adjacent end-coils 2, 2 and, also, between adjacent end-coils 3, 3. Great resiliency is thus provided in the structure and the said flat sheet-metal strips 4 are further provided with inwardly-turned loops or eyes 9 at each end thereof, but at the inner ends of said tongues 5, for fastening-engagement with the wires forming the respective end-coils 2 and 3. Each of the end-coils 2 and 3 is thus spanned diametrically-across by said flat sheet-metal strips whose loops or eyes 9 fasten them in place and prevent the spreading of said end-coils in use. A spring-structure of great firmness and stability, as well as resiliency, is provided in the use of said sheet-metal strips and the connecting tie-wires, that is very economically made, easily assembled and repaired and not easily gotten out of order or easily disassembled in use. A textile-fabric tape 10 of soft-cushioning material is interlaced or wound around each of said flat sheet-metal strips 4, as best seen in Fig. 4, for the purpose of providing a muffler between said flat metal strips and the contacting parts of the spirals.

I claim:—

1. In a spring-bed, a spring-structure comprising a plurality of spirals having end-coils, flat sheet-metal strips having loops or eyes at opposite ends thereof adapted to engage the said end-coils, longitudinal extensions or tongues at the opposite ends of said flat sheet-metal strips and having loops or eyes therein adapted for alinement with loops or eyes in adjacent tongues projecting from adjacent spirals and transverse tie-wires having inwardly-bent portions therein that are adapted to engage the alined loops or eyes in said tongues whereby a hinge-connection is provided between adjacent end-coils of said spirals.

2. In a spring-bed, a spring-structure comprising spirals each having end-coils, flat sheet-metal strips having loops or eyes at opposite ends thereof adapted to engage

said end-coils with said strips diametrically-crossing said end-coils, integral tongues projecting from the opposite ends of said flat sheet-metal strips at reverse sides of said opposite ends and having loops or eyes made therein that are adapted to aline with loops or eyes in tongues projecting from adjacent flat sheet-metal strips attached to end-coils of adjacent spirals, transverse tie-wires having bends therein that are adapted to engage said alined loops or eyes in said alined tongues and to form longitudinal stops and hinge-connections for said spirals and tapes of textile fabric interlaced or wound around said flat sheet-metal strips and adapted to form mufflers or cushions between contacting or rubbing parts of said spirals and strips.

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