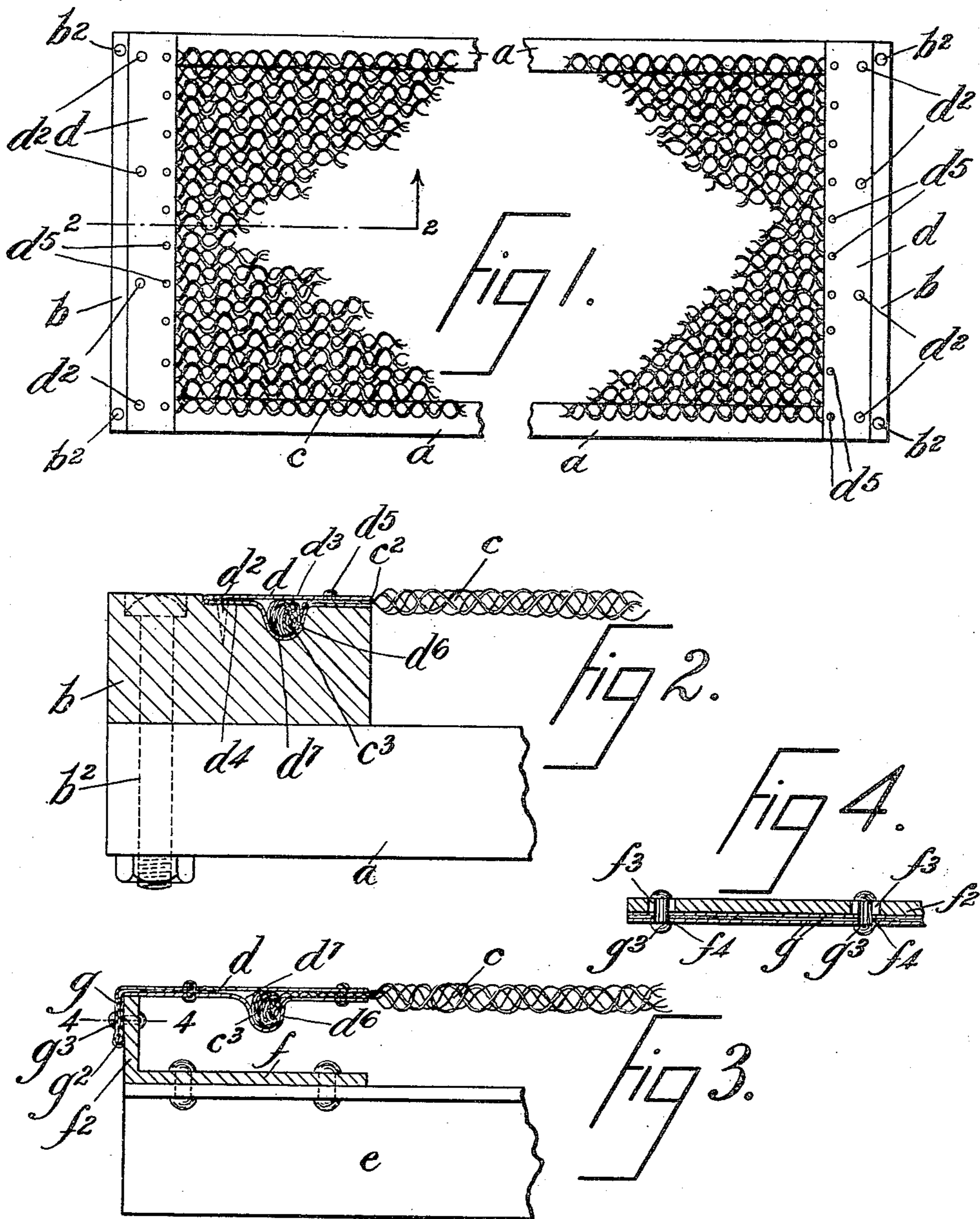


No. 824,295.

PATENTED JUNE 26, 1906.

F. L. GROFF.
BED SPRING.

APPLICATION FILED MAR. 13, 1905.



WITNESSES
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FRANKLIN L. GROFF, OF NEW YORK, N. Y.

BED-SPRING.

No. 824,295.

Specification of Letters Patent.

Patented June 26, 1906.

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To all whom it may concern.

Be it known that I, FRANKLIN L. GROFF, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Bed-Springs, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

10 This invention relates to bed-springs and bed-spring frames; and the object thereof is to provide a bed-spring of the fabric type with improved end connections which facilitate the connection of the bed-spring with an ordinary bed-spring frame composed either of wood or angle-iron.

15 The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

20 Figure 1 is a plan view of a bed-spring frame, a bed-spring secured thereto according to my invention, the frame being made of wood; Fig. 2, a section on the line 2 2 of Fig. 1; Fig. 3, a view similar to Fig. 2, but showing a frame made of angle-iron; and Fig. 4, a section on the line 4 4 of Fig. 3.

25 In the drawings forming part of this specification, reference being made to Figs. 1 and 2, I have shown a bed-spring frame comprising parallel side bars *a* and parallel end bars *b*, the end bars *b* being preferably wider in cross-section than the side bars and being placed on and bolted to the side bars, as shown at *b*², and in said figures of the drawings I have also shown at *c* a fabric bed-spring on which the mattress and bedclothing are placed in the usual manner.

30 In the practice of my invention the opposite end portions of the bed-spring are flattened out in a press or in any desired manner, as shown at *c*² in Fig. 2, and the flattened end portions are secured in transversely-arranged clips or binders *d*, which in the construction shown are countersunk in the top surface of the end bars *b* of the bed-spring frame, as clearly shown in said figure, and secured in position by nails *d*² or in any other desired manner.

35 The transversely-arranged clips or binders *d*, which are secured to the opposite ends of the bed-spring *c*, are composed of oblong strips of sheet metal folded centrally to form

bottom and top portions *d*³ and *d*⁴, which are secured together and secured to the ends of the bed-spring by rivets *d*⁵. The bottom part of the end clips or binders *d* are provided with longitudinal depressed portions *d*⁶, which range longitudinally of the end bars *b* of the bed-spring frame and transversely of said frame and which form corresponding grooves *d*⁷, and in practice the flattened-out end portion *c*² of the bed-spring is formed into coils *c*³, which are placed in said grooves, and the rivets *d*⁵ are placed between said coils and grooves and the inner edges of the clips or binders *d*, and this construction enables the rivets to securely hold the ends of the bed-spring and prevent the latter from drawing out, and the nails *d*² bind the top and bottom parts of the end clips or binders *d* together on the outer side of the grooves *d*⁷ and coils *c*³. It will therefore be seen that the end clips or binders *c* securely bind and hold the ends of the bed-spring and prevent the latter from drawing out and prevent the coils of the spring from unwinding, and at the same time said clips or binders afford a simple and effective means for securing the spring to the ends of the spring-frame.

40 Although I have shown and described the end clips or binders *d* as countersunk in the end bars of the frame, it will be apparent that this is not absolutely necessary, and said end clips or binders may be placed on the end bars *b* of the frame and may be nailed or otherwise secured thereto.

45 In Figs. 3 and 4 I have shown my improvement applied for securing a fabric bed-spring to a frame composed of angle-iron, and in this construction the frame comprises parallel side bars *e*, of angle-iron, and transverse end bars *f*, secured thereon, and the end bars *f* are provided at their outer edges with upright members *f*², and the end clips or binders *d* in this form of construction are made a little wider and provided at their outer edges with downwardly-directed flanges *g*, the folded portion of the sheet of metal from which said clips or binders are formed being bent downwardly to form the depending flanges *g*, and said folded portion is also provided in the fold thereof with a rod *g*², which gives strength thereto, and the upwardly-directed parts *f*² of the end bars *f* are provided at intervals with slots or openings *f*³, and the depending flanges or parts *g* of the clips or binders *d* are provided with holes *f*⁴, and rivets or bolts *g*³

are passed through these holes and through the slots or openings f^3 , and instead of employing the slots or openings f^3 ordinary holes may be substituted similar to the holes f^4 , the object in employing the slots or openings being to be able to cause the holes f^4 in the parts g to register more easily with the corresponding holes in the part f^2 .

In both forms of construction the end clips or binders d are composed of folded sheets of metal, the under side portion being provided with the longitudinal groove d' , designed to receive corresponding coils or rolls formed at the ends of the bed-spring.

When the bed-spring is secured to the end clips or binders in the manner described, it will be securely held and will not work loose nor become detached in use, and a bed-spring of the class described provided with end clips or binders, as herein shown and described, may be easily and conveniently secured to a frame composed either of wood or metal, and changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

A bed-spring provided with end clips or binders composed of sheet metal folded longitudinally and centrally to form top and bottom members between which the ends of the bed-spring are secured, the bottom members of said clips or binders being bent downwardly to form grooves, and the ends of the bed-spring being compressed and formed into rolls which are placed in said grooves, and the top and bottom members of said clips or binders being secured together at the opposite sides of said grooves, and the outer edges or folded portions of the clips or binders being bent downwardly to form depending flanges having bolt-holes formed therein, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 10th day of March, 1905.

FRANKLIN L. GROFF.

Witnesses:

F. A. STEWART,
C. E. MULREANY.