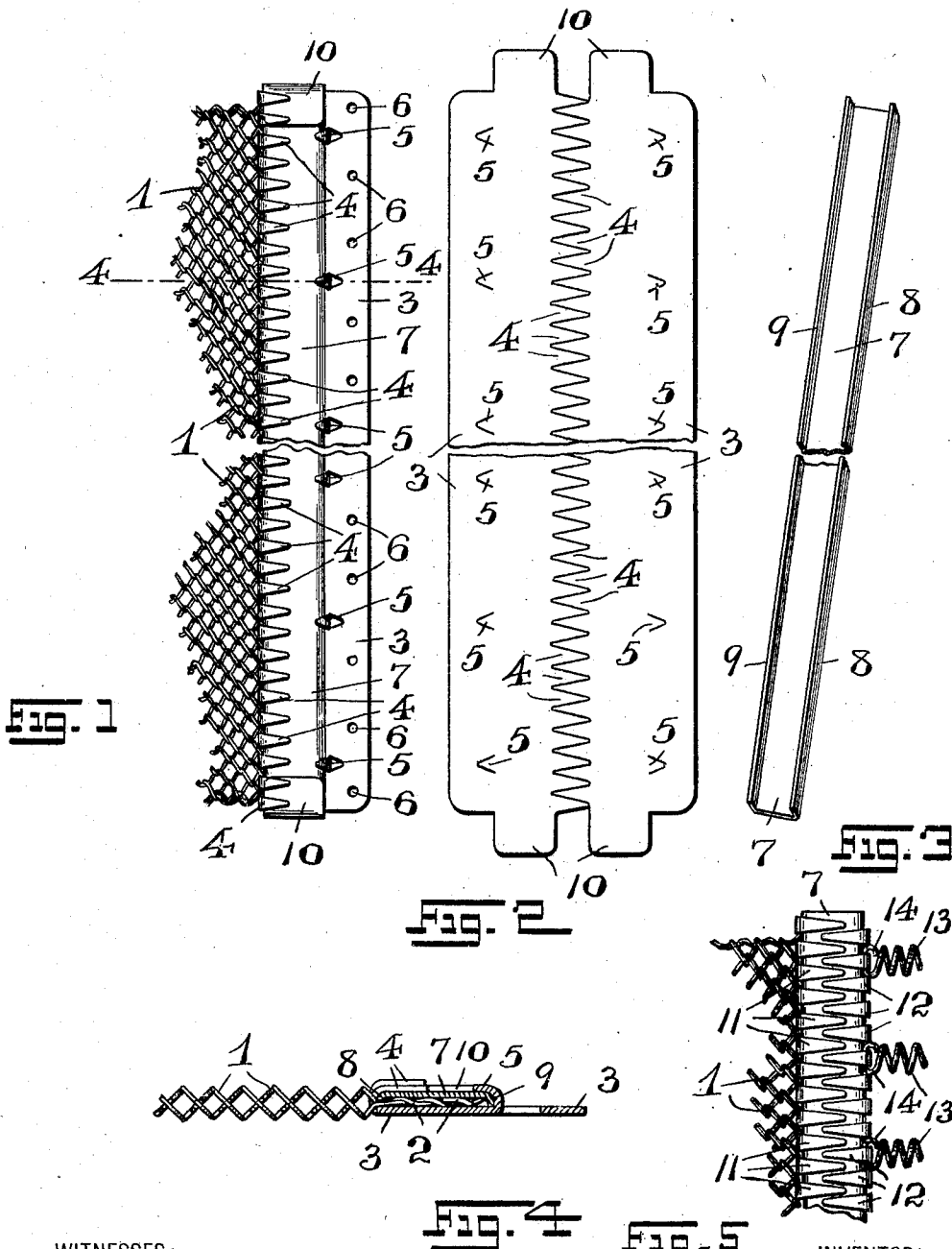


J. SCHWARTZMAN.
BED SPRING.
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980,568.

Patented Jan. 3, 1911.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JACUB SCHWARTZMAN, OF NEWARK, NEW JERSEY.

BED-SPRING.

980,568.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JACUB SCHWARTZMAN, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Bed-Springs; and I do hereby 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 characters of reference marked thereon, which form a part of this specification.

This invention has reference, generally, to improvements in bed-springs; and the invention relates, more particularly, to improvement in bed-springs made from a wire-woven or spring-constructed metallic fabric provided at its respective end-portions with a metal cross-bar or element to which the rough end-portions of the wire fabric are secured, and by means of which the bed-springs is supported in the usual framework for supporting the springs in its operative position in a bed, couch, or other article of furniture.

My present invention has for its principal object to provide a novel and simply constructed bed-springs in which the spring-body or wire-fabric is securely attached at each end to a metal cross-bar or element with a view of providing a means of connection between these parts in which the free and rough end-pieces of the spring-body or wire-fabric are hidden from view, being inclosed in a suitable casing or shell, and furthermore to provide a means which will perfectly protect the bed-clothes, or a person in handling the bed-springs, from coming in contact with the rough and sharp ends of the spring-wire to the damage of the bed-clothes, or possible injury of the person.

A further object of this invention is to provide a very simple means of connection between these parts for firmly securing them together, while at the same time providing a neat construction, and one which is sanitary and bug-proof.

Other objects of this invention not at this time more particularly enumerated will be clearly understood from the following detailed description of my present invention.

The invention consists in the novel metallic bed-springs hereinafter set forth; and,

the invention consists, furthermore, in the novel arrangements and combinations of the various devices and parts, as well as in the details of the construction of the same, all of which will be hereinafter more fully described and then finally embodied in the clauses of the claims, which are appended to and which form an essential part of this specification.

The present invention is clearly illustrated in the accompanying drawings, in which;—

Figure 1 is a plan view of an end-portion of a bed-springs embodying the principles of my present invention; and Fig. 2 is a plan view of a blank piece of metal out of which the two cross-bars are forced. Fig. 3 is a perspective view of a cover or casing to be secured upon each cross-bar for covering the rough and sharp ends of the wires from which the spring-body or wire-fabric is made. Fig. 4 is a transverse section, taken on line 4—4 in said Fig. 1, said section being made on an enlarged scale. Fig. 5 is a plan view of an end-portion of a bed-springs of a slightly modified form of construction, but embodying the principal features of this invention.

Similar characters of reference are employed in all of the above described views, to indicate corresponding parts.

Referring now to the several figures of the drawings, the reference-character 1 indicates any suitable wire-mesh or fabric, such as is used in the ordinary construction of bed-springs, and 2 are the free and sharp or rough end-portions of the wire strands from which the said wire-fabric is made. Suitably arranged against one side of the said free end-portions 2 of the wire strands, at each end of the wire-mesh or wire-fabric 1, is a cross-bar or plate, as 3, which is made from suitable sheet-metal, the same being provided with suitably formed and preferably V-shaped clamping lugs or tongues 4, and an arrangement of a second set of suitably formed and preferably V-shaped clamping lugs or tongues 5 and suitably disposed holes or perforations 6 in which may be arranged and suitably secured the end-portions of the usual coiled or helical supporting springs used in the constructions of bed-springs, and not shown in the drawings. The said clamping lugs or tongues 4 and 5, as will be seen from an inspection of Figs. 1 and 4 of the drawings, are bent in an up-

ward direction and extending along the long and opposite marginal edge-portions of a suitably formed cover or shell 7, said lugs or tongues being bent over upon said cover or shell, so as to firmly secure said cover or shell in place, as shown.

The cover or shell 7 is usually made in the form of a piece of channel-shaped plate or bar, being provided with the two longitudinally extending marginal edge-portions 8 and 9 bent at right angles, or approximately so, to the main body of the bar or shell 7. This plate or bar 7 is placed directly over the free and rough or sharp ends 2 of the wire-strands, in the manner shown, and when clamped or secured in place by means of the lugs or tongues 4 and 5 serves as a suitable cover or shell which incloses the said ends 2 of the wire-strands, so that a protector-plate or guard is provided to protect one against contact and being cut by the rough or sharp ends of the wire-strands, and preventing the tearing of the bed-clothes which might otherwise come in contact with the ends 2 of the wire-strands. As an extra and sanitary precaution, to prevent a resting plate for the lugs, or to prevent any accumulation of dust between the assembled parts, the end-portions of the cross-bar or plate 3 may be made with laps or end-members, as 10, which are bent in upward directions and then made to lap over the open end-portions of the cover or shell 7, so as to positively close the open ends, said laps or overlying members or elements 10 being firmly closed and suitably secured in place, preferably as shown in Fig. 1 of the drawings.

In Fig. 2 of the drawings, I have illustrated one manner of making the two end-bars or plates 3 for a bed-springs, so as to reduce the waste of material to a minimum, but it will be evident that each end-bar or plate 3 may be made in any other suitable and practical manner.

Referring now to the modified construction represented in Fig. 5 of the drawings, I have shown a cross-bar or plate which is formed at its respective longitudinal marginal edges with a series of clamping tongues or lugs, as 11 and 12, for clamping the form of cover or shell 7, shown in Fig. 3, over the free ends of the wire-strands; some of said tongues or lugs, as 12, having attached thereto the free end-portions 14 of suitable supporting springs 13, substantially as illustrated.

I am aware that some changes may be made in the general arrangements and combinations of the various devices and parts, as well as in the details of the construction of the said parts, without departing from the scope of my present invention as set forth in the foregoing specification and as defined in the appended claims. Hence, I do not limit my invention to the exact ar-

rangements and combinations of the devices and parts as described in the foregoing specification, nor do I confine myself to the exact details of the construction of the said parts, as illustrated in the accompanying drawings. 70

I claim:—

1. A bed-springs comprising a wire-mesh or fabric, a laterally extending cross-bar, said wire-mesh having the free ends of the wire-strands arranged upon said cross-bar, a casing arranged over the free ends of said wire-strands so as to cover the same, and a multiplicity of clamping lugs extending from said cross-bar and upwardly along the opposite longitudinal edge-portions of said casing, said lugs being bent over upon the casing for securing said casing and the wire-mesh to said cross-bar. 75

2. A bed-springs comprising a wire-mesh or fabric, a laterally extending cross-bar, said wire mesh having the free ends of the wire-strands arranged upon said cross-bar, a casing arranged over the free ends of said wire-strands so as to cover the same, a multiplicity of clamping lugs extending from said cross-bar and upwardly along the opposite longitudinal edge-portions of said casing, said lugs being bent over upon the casing for securing said casing and the wire-mesh to said cross-bar, and means arranged over the ends of said cross-bar and said casing for closing the open portions of said assembled parts. 80

3. A bed-springs comprising a wire-mesh or fabric, a laterally extending cross-bar, said wire-mesh having the free ends of the wire-strands arranged upon said cross-bar, a channel-shaped cover arranged over the free ends of said wire-strands so as to cover the same, and a multiplicity of clamping lugs connected with said cross-bar and extending upwardly and over the longitudinal edge-portions of the said cover in clamped engagement therewith for securing said casing upon said cross-bar. 85

4. A bed-springs comprising a wire-mesh or fabric, a laterally extending cross-bar, said wire-mesh having the free ends of the wire-strands arranged upon said cross-bar, a channel-shaped cover arranged over the free ends of said wire-strands so as to cover the same, means for securing said channel-shaped cover upon said cross-bar, and means connected with and forming an integral portion of said cross-bar, said means being arranged over the ends of said cross-bar and said cover for closing the open portions of said assembled parts. 90

5. A bed-springs comprising a wire-mesh or fabric, a laterally extending cross-bar, said wire-mesh having the free ends of the wire-strands arranged upon said cross-bar, a channel-shaped cover arranged on the free ends of said wire-strands so as to cover the same, a multiplicity of clamping lugs con- 95

5 nected with said cross-bar and extending upwardly and over the longitudinal edge-
portions of the said cover in clamped en-
gagement therewith for securing said cover
upon said cross-bar, and means arranged
over the ends of said cross-bar and said
cover for closing the open end-portions of
said assembled parts.

10 6. A bed-springs comprising a wire-mesh
or fabric, a laterally extending cross-bar,
said wire-mesh having the free ends of the
wire-strands arranged upon said cross-bar,
a channel-shaped cover arranged on the free
ends of said wire-strands so as to cover the
15 same, a multiplicity of clamping lugs con-
nected with said cross-bar and extending up-
wardly and over the longitudinal edge-
portions of the said cover in clamped en-
gagement therewith for securing said cover upon
20 said cross-bar, and laps or end-members ex-
tending from the respective end-portions of
the cross-bar, said laps or end-members ex-
tending upwardly and being clamped down

over the end-portions of said cover, substan-
tially as and for the purposes set forth. 25

7. A bed-springs comprising a wire-mesh
or fabric, a cross-bar, and clamping lugs
forced out of said bar, said lugs being con-
nected with the wire-mesh or fabric for
securing it to said cross-bar, a channel- 30
shaped cover placed over the free ends of
the wire-strands of said wire-mesh or fabric,
said lugs extending upwardly and being
clamped down over one of the longitudinal
edge-portions of said cover, and a second set 35
of clamping lugs forced out of said bar, said
last-mentioned lugs extending upwardly and
being clamped down over the other longitu-
dinal edge-portion of said cover.

In testimony, that I claim the invention 40
set forth above I have hereunto set my hand
this thirteenth day of April, 1910.

JACUB SCHWARTZMAN.

Witnesses:

FREDK. C. FRAENTZEL,

FREDK. H. W. FRAENTZEL.