(No Model.)

J. AINSLIE, Jr. & A. K. M. AINSLIE.

SPRING BED BOTTOM.

No. 332,471. Patented Dec. 15, 1885.

Fig. 1.

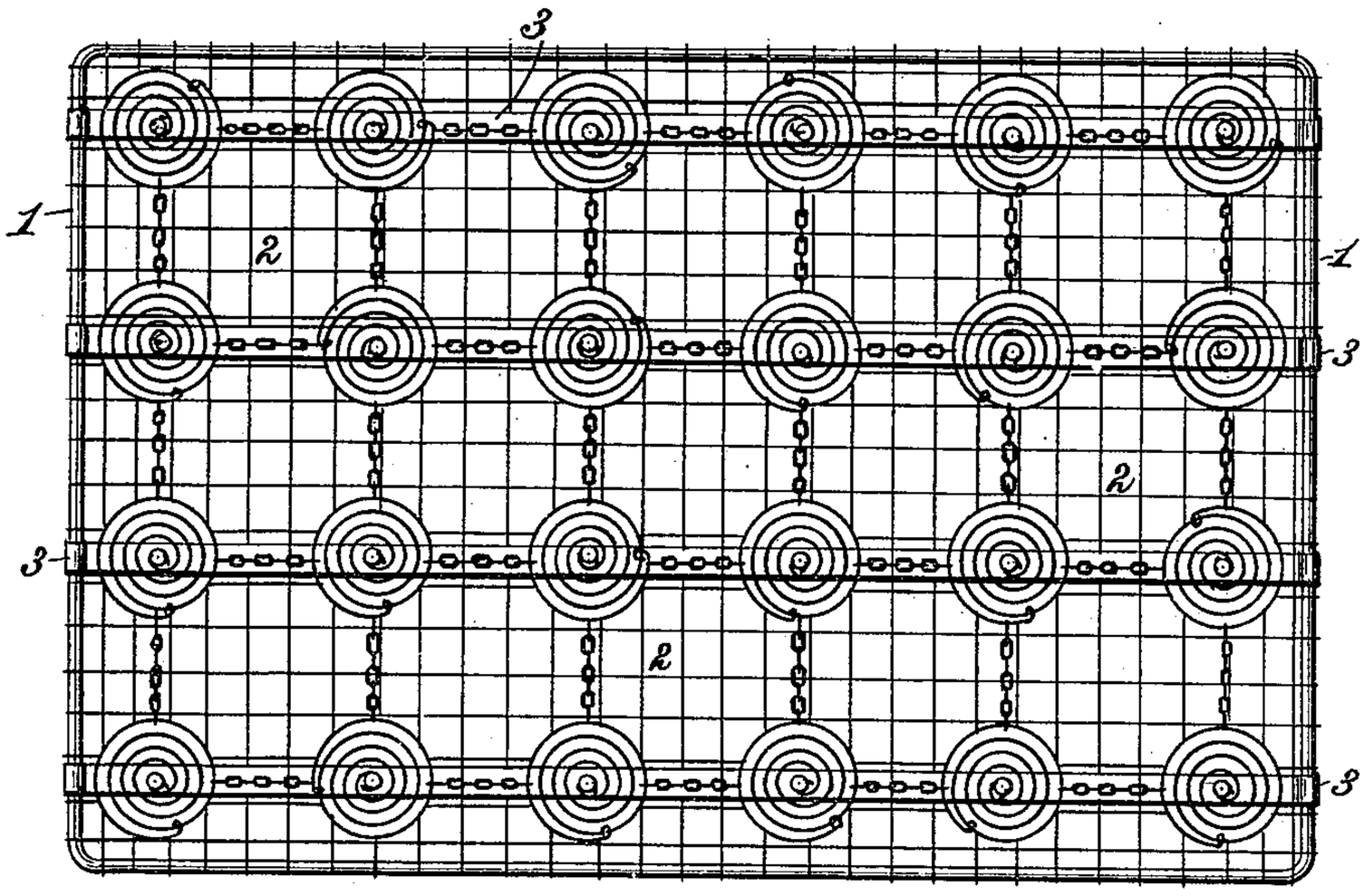


Fig. 2.

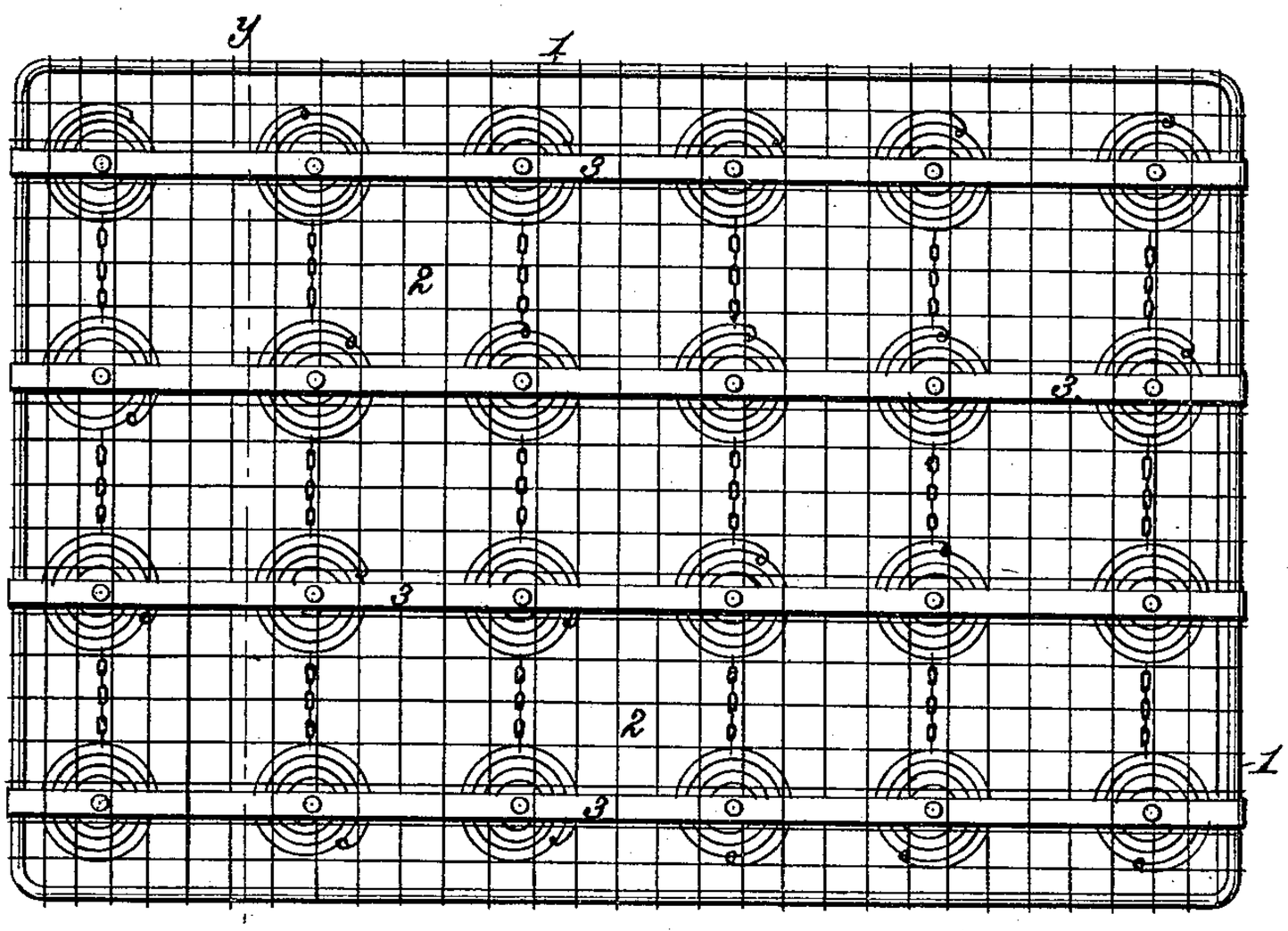


Fig. 3.

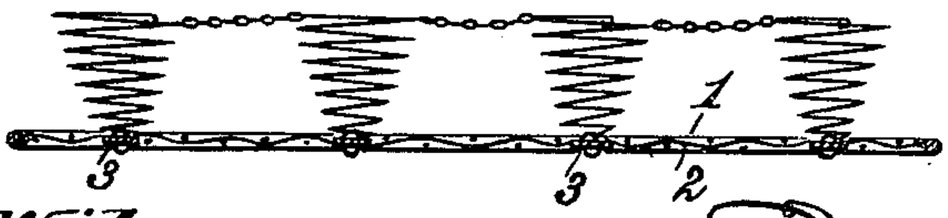


Fig. 5.

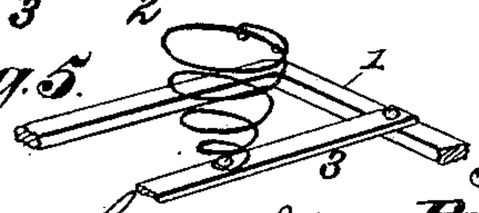
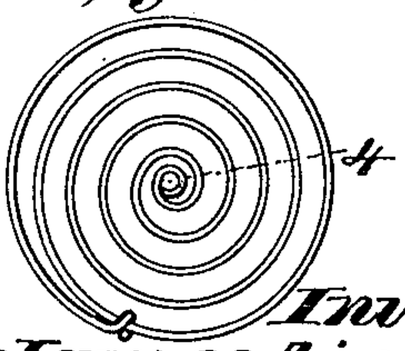


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES AINSLIE, JR., AND ARCHIBALD K. M. AINSLIE, OF BROOKLYN, N. Y.

SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 332,471, dated December 15, 1885.

Application filed October 14, 1885. Serial No. 179,892. (No model.)

To all whom it may concern:

Be it known that we, JAMES AINSLIE, Jr., and ARCHIBALD K. M. AINSLIE, citizens of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Spring Bed-Bottoms, of which the following is a specification.

The objects of our invention are to provide a metallic bed-bottom to more fully meet the demand for a strong, durable, and clean structure, and to provide an article that a lady or child can conveniently handle, is well adapted for transportation, is simple in construction, comfortable in use, and can be kept clean and free from vermin.

Metallic bed-bottoms have heretofore been constructed in which a woven-wire base is secured around its margin to a rigid metallic frame of wire or iron rods, the spiral springs being secured to such woven-wire base by screwing one end of the coil into engagement with the wires forming the side of the open spaces of the woven-wire base, so that the location of the springs on the base may be varied at will. While such a bed-bottom is useful, it materially lacks durability, rigidity, and substantiality, and, besides, the springs are liable to be accidentally disconnected from the base. These objections are avoided by our invention, in that we strengthen the woven-wire base by interwoven metallic strips, and permanently and rigidly rivet one end of the spiral springs directly to such interwoven strips, thereby providing a structure in which all the parts are permanently connected and cannot be accidentally disarranged, while the strength of the structure is considerably increased without materially adding to its weight.

The invention is illustrated in the accompanying drawings, in which Figure 1 is a top plan view of a bed-bottom constructed in accordance with our invention; Fig. 2, a bottom plan view; Fig. 3, a transverse sectional view taken on the line *y y* of Fig. 2, and Fig. 4 a plan view of one of the spiral springs. Fig. 5 is a perspective detail view of one corner of the bed-frame, omitting the woven-wire base.

In order to enable those skilled in the art to make and use our invention, we will now describe the same in detail, reference being made to the drawings, where—

The number 1 indicates a rectilinear frame, composed of a round or flat iron or steel bar, to which are secured the marginal edges of a woven-wire base 2. In order to strengthen this woven-wire base and provide for the permanent attachment of the spiral springs, as hereinafter explained, we weave through the spaces of the woven-wire base a series of longitudinal metallic strips, 3, of iron or steel, the ends of which are rigidly attached to the frame. If the frame 1 is made of round bars or rods, the ends of the metallic strips 3 will be turned around said rods or bars, and thereby secured thereto; but if the frame is composed of flat bars the ends of the metallic strips will be riveted thereto, as shown in Fig. 5. The spiral springs are conical in form, and the extremity of the wire comprising the spring and forming the smaller end of the spring is constructed with an eye made by bending around one end of said wire, as at 4. These eyes are secured to the metallic strips 3 by means of rivets passed through such eyes and strips and then upset, thereby rigidly and permanently attaching the springs to the strips to prevent their accidental displacement or disconnection. The springs, at their larger ends, are looped together, as ordinarily, by chains or links, and such larger ends serve to support the hair or other mattress which may be used.

The bed-bottoms may be made of any suitable size to fit a large or a child's bed, and, if desired, the bottom can be in two or more sections hinged or otherwise connected together, as usual, so that one section can be turned over upon the other section to economize in space when transporting, or for convenience in handling the structure.

The metallic strips interwoven through the woven-wire base may extend longitudinally, or they may extend transversely; but in either event they materially increase the strength of the base and prevent it from unduly sagging, while at the same time they provide means for permanently riveting the spiral springs in place, thereby avoiding the necessity of screwing or otherwise detachably connecting the

springs direct to the wires which compose the woven-wire base, which connection, as heretofore provided in bed-bottoms of this character, has been found objectionable.

A bed-bottom constructed in accordance with our invention has met the demand for a strong, durable, and clean bed, and provides a structure which a lady or child can conveniently handle, for the reason that while it meets the requirements as to strength, durability, and a certain rigidity, it is at the same time comparatively light and comfortable, while it can be kept clean and free from vermin with but little trouble.

Having thus described our invention, what we claim is—

A bed-bottom consisting of a rigid surrounding-frame, a woven-wire base having its edges secured to said frame, a series of metallic strips woven through the said base and having their ends attached to the surrounding frame, and a series of spiral springs having one end riveted to such metallic strips, whereby all the parts are permanently connected together, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES AINSLIE, JR.
ARCHIBALD K. M. AINSLIE.

Witnesses:
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