Patented Sept. 25, 1900.

No. 658,503.

G. H. McBRIDE.

BED BOTTOM.

(Application filed Feb. 23, 1900.)

(No Model.)

Fig. 1.

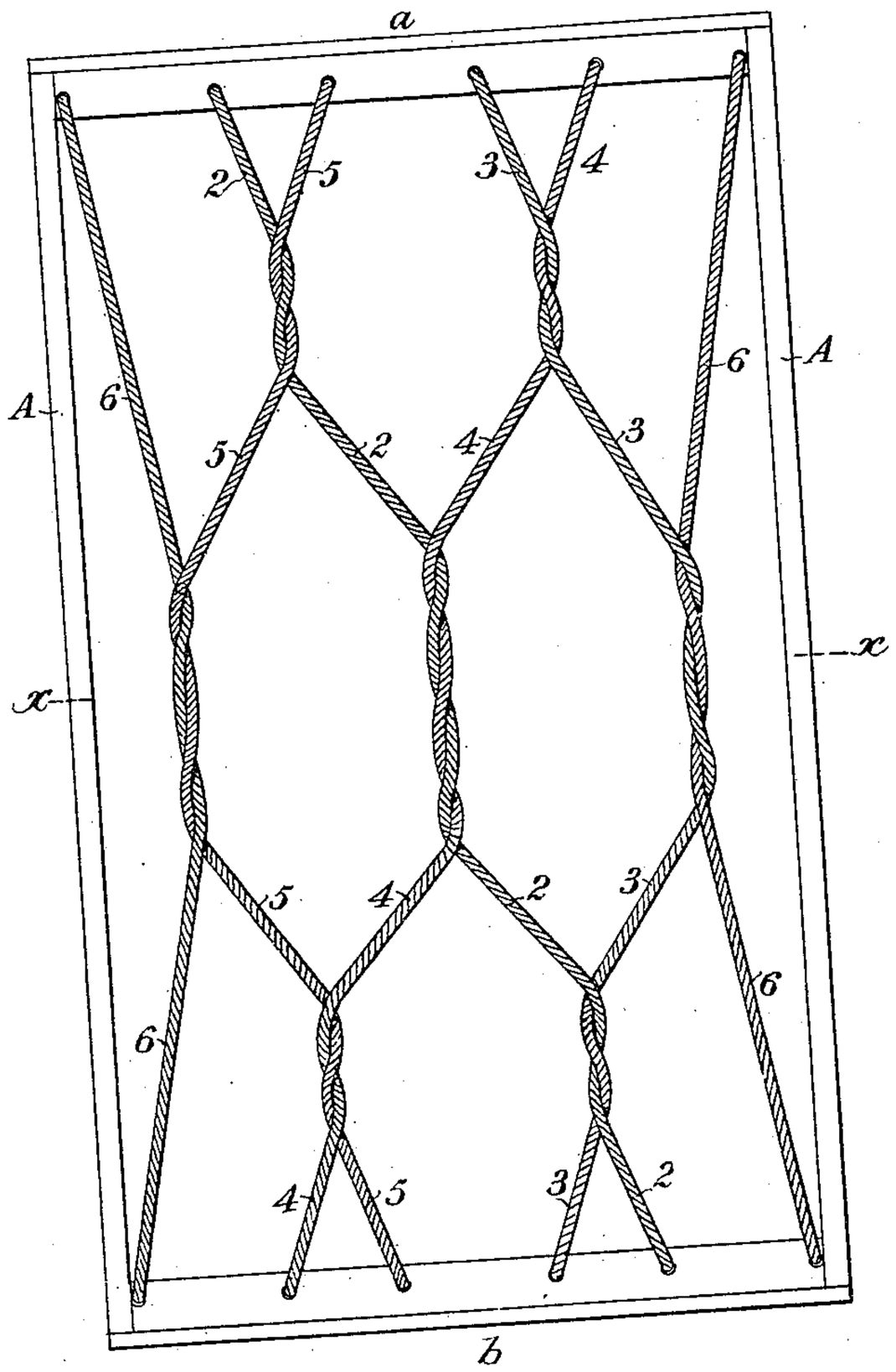
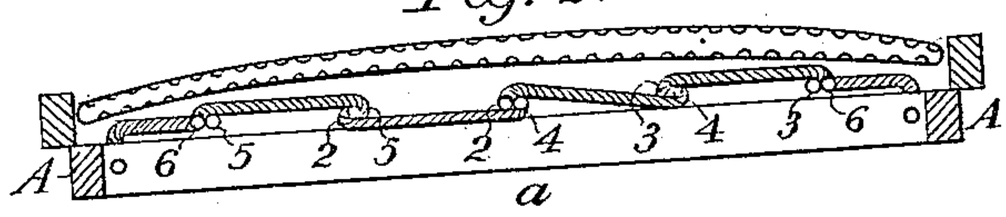


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE H. McBRIDE, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF FIFTY-ONE ONE-HUNDREDTHS TO DANDRIDGE H. BIBB, OF SAME PLACE.

BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 658,503, dated September 25, 1900.

Application filed February 23, 1900. Serial No. 6,234. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. McBRIDE, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Bed-Bottoms; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in elastic bed-bottoms.

It consists in the novel combination, with a frame and a mattress which is carried thereon, of longitudinally-disposed spirally-woven-wire cables so intertwined and extended diagonally across the frame as to provide an elastic support for the mattress and reinforces at points where the greatest weight and consequent depression of the mattress is liable to fall.

My invention also comprises details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a plan of my invention. Fig. 2 is a transverse section on the line *x x*.

The object of my invention is to provide a support for wire and like mattresses by the employment of spirally-wound tubular cables having longitudinal elasticity and the combination of such cables in a manner to provide for greater bearing strength at points where the greatest depression of the mattress is likely to occur, such as the center and points where the shoulders of the occupant of the bed will lie. In this combination I twist any two or more of the cables together at intervals, so as to form enlarged and immovable sections in which the intertwined cables reinforce each other and correspondingly increase the supporting strength at their intertwined points.

As here illustrated, A is a frame of any suitable size or description, such as is employed for a base for mattresses.

The hollow longitudinally-elastic cables are united as follows: Commencing at a point intermediate between the middle and one of the end bars of the frame, a cable 2 extends diagonally across to a point intermediate between the middle and opposite end of the opposite end bar of the frame A. Cable 4, starting at the same end with cable 2 and intermediate between the center and the opposite outer side, extends diagonally across to the other end to a point intermediate between its center and the end opposite to the one near which cable 4 starts. Cables 3 and 5 start at points intermediate between cables 2 and 4, and the center of the end bar *a*, from which I have described all these cables as starting, and terminate at the same points between the ends of cables 2 and 4 on the opposite end bar *b* of the frame, cable 6 starting near the ends of the end bar *a* and terminating near the ends of the end bar *b*.

In constructing this bed-bottom the cables 2 and 5 and 3 and 4 are twisted together with two or more turns at a point intermediate between the end *a* and the center of the frame, this point being located approximately where it will lie beneath the shoulders of an occupant of the bed. From this point the cables 2 and 4 are carried to the center, where they are twisted together by several turns, thus combining them for a considerable length at about the center of the longitudinal length of the bed. From this point these cables 2 and 4 diverge, and again meeting the cables 3 and 5 they are again twisted with these cables at a point approximately as near the end *b* as the first twists were near the opposite end, thus forming another reinforce and support at this end, so that if desired the bed can be made up with the shoulders at either end, and the reinforcing-support will be found for the shoulders at whichever end of the bed the head may be placed. The cables 3 and 5 after leaving the point where they are intertwined with 2 and 4 are carried outwardly toward the side frames A and are there intertwined by a number of turns with the cables 6, which at this point approach nearer to the longitudinal center of the bed, and after leaving this point of intertwining the cables 6 again diverge to near the ends of the end bar *b*. These intertwined portions of the cable are so twisted and secured together that there is no possibility of any slipping or sliding of the cables over each other, as this would nullify any reinforcing strength which I design to provide by thus uniting the cables at intervals. I have thus by this in-

tertwining of the cables a reinforce at three points across the center of the bed and a reinforce at two points near each end of the bed. It will be manifest that the number of these reinforces may be increased by increasing the number of cables which are employed. The central cables having been intertwined, the side cables 6 are then drawn as tightly as possible in the direction of their length by any suitable screw, turnbuckle, or other equivalent device. This provides a transverse separation of the intertwined portions of the intermediate cables, and they can be thus drawn to any required tension.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a bed-bottom and in combination with the frame thereof, a series of longitudinally-elastic cables extending diagonally from one end bar to the other end bar of the frame, intermediate cables fixed at each end between the first-named cables and the center and intertwined therewith near each end and with each other at the center and immovable with relation to each other.

2. In a bed-bottom, longitudinally-elastic cables having their ends secured to the end frames of the bed-bottom, similar cables attached to one end of the bed-bottom exterior to the first-named cables, extending diagonally across to points on the other end equally distant from the opposite side of the frame, said first-named cables being rigidly intertwined with the diagonal cables at points near the ends of the frame, and the diagonally-disposed cables being intertwined with each other at their point of crossing and midway between the ends of the frame and means for diverging the central cables outwardly toward the sides of the frame intermediate between the ends.

3. In a bed-bottom, longitudinally-elastic cables attached to each end of the frame upon each side of the center, other cables attached to one end frame outside of the first-named cables, rigidly and immovably intertwined therewith at a point between the said end and the center of the bed, thence meeting and immovably intertwined with each other centrally of the length of the bed, thence diverging toward the opposite side from the starting-point and again intertwined with the first-named cables and having their ends finally fixed to the opposite end of the frame at points diagonally opposite from the attachment to the first-named end, other cables connected to each end frame near the side frames and immovably intertwined with the outwardly-diverging central cables near the center of the length of the frame.

4. In a bed-bottom, a rectangular frame, longitudinally-elastic cables having their ends fixed to one end of the frame upon each side of the center, diagonally-extending cables fixed to the same frame exterior to the first-named cables and immovably intertwined therewith between their points of attachment and the center of the bed, said diagonal cables converging and being immovably intertwined with each other at the longitudinal center, and the first-named cables diverging from their point of union with the diagonal cables, other cables having their ends attached near the corners of the frame, and the central portions immovably intertwined with the diverging central cables whereby three reinforced lines are formed at the middle of the bed, and said central cables thence converging and again immovably intertwined with the diagonal cables which diverge from each other and toward opposite sides of the end frame from their first point of attachment.

5. In a bed-bottom, the combination of pairs of longitudinally-elastic cables fixed to the ends of the main frame with the members of the same pairs immovably intertwined near the ends, one member of one pair of cables intertwined with a corresponding member of another pair at a point near the center of the bed, and means for diverging the remaining member of each of said pairs toward the sides of the frame.

In witness whereof I have hereunto set my hand.

GEORGE H. McBRIDE.

Witnesses:

S. H. NOURSE,

JESSIE C. BRODIE.