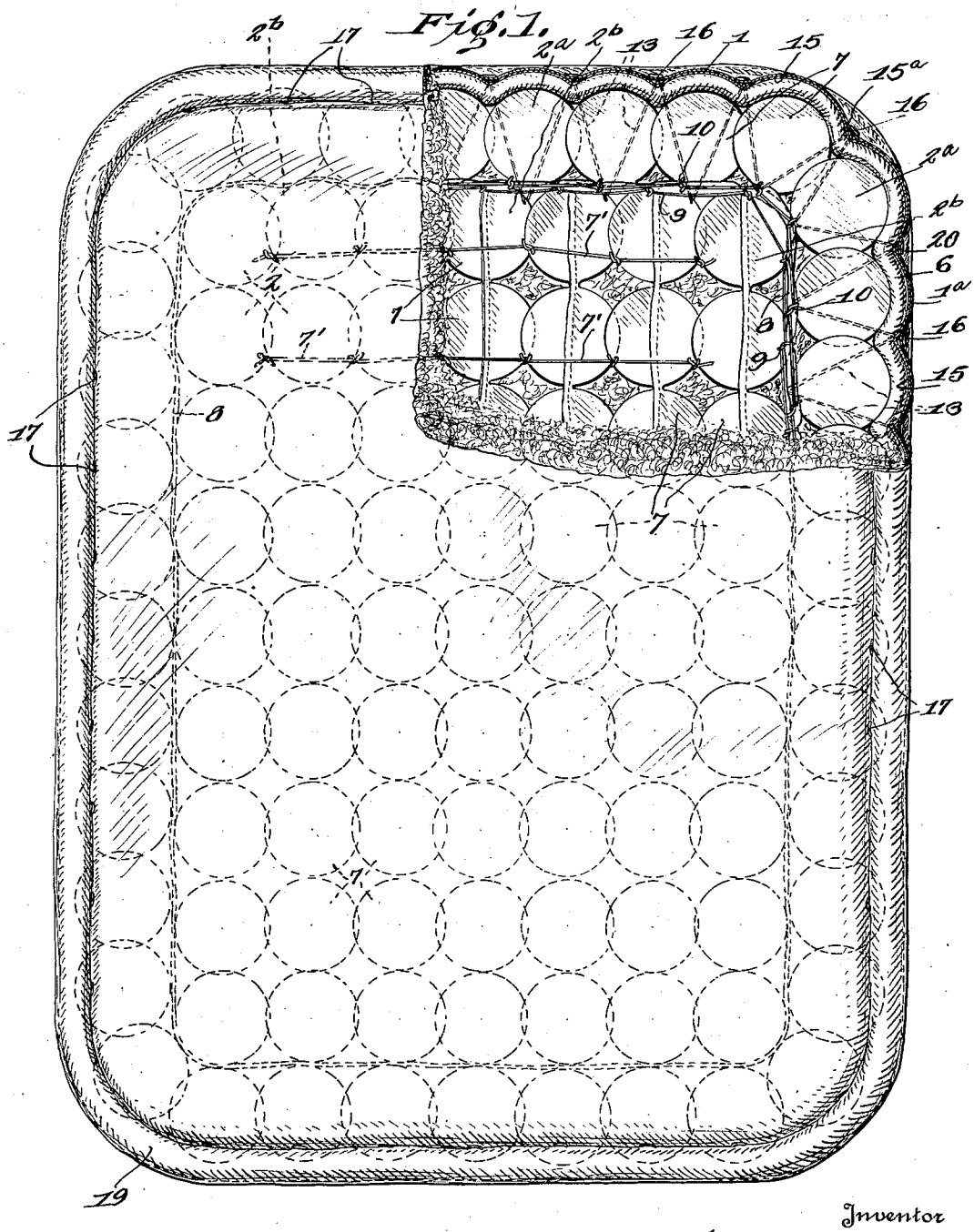
Feb. 4, 1930. E. E. EDWARDS 1,745,986

MATTRESS

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Fig. 1.



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Fig. 2.

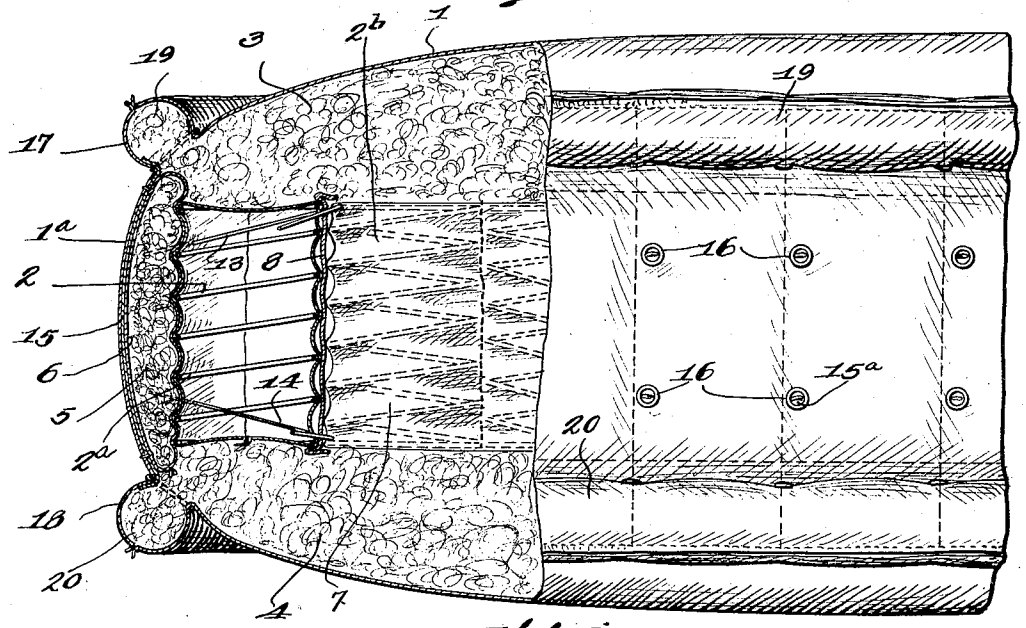
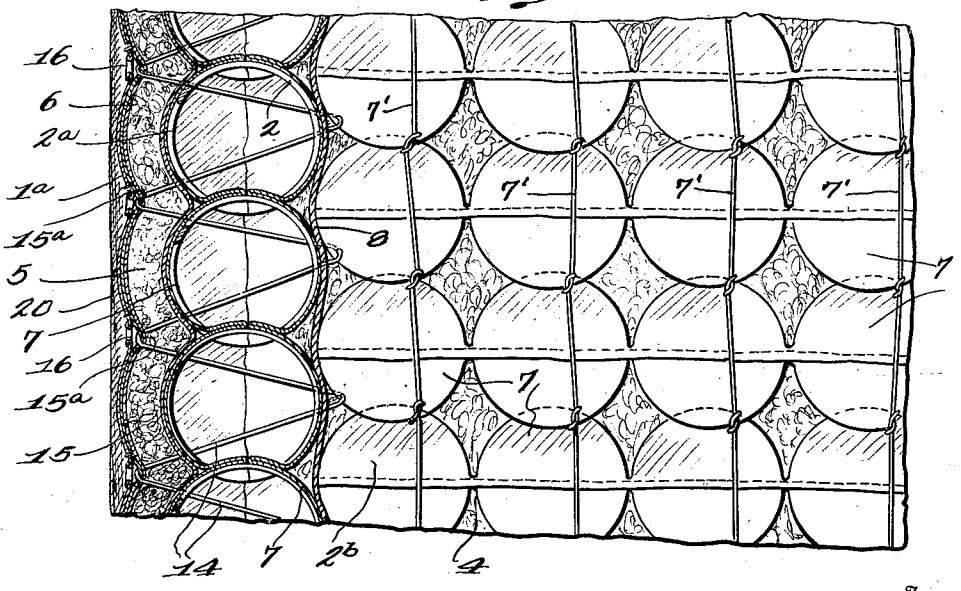


Fig. 3.



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Fig. 4.

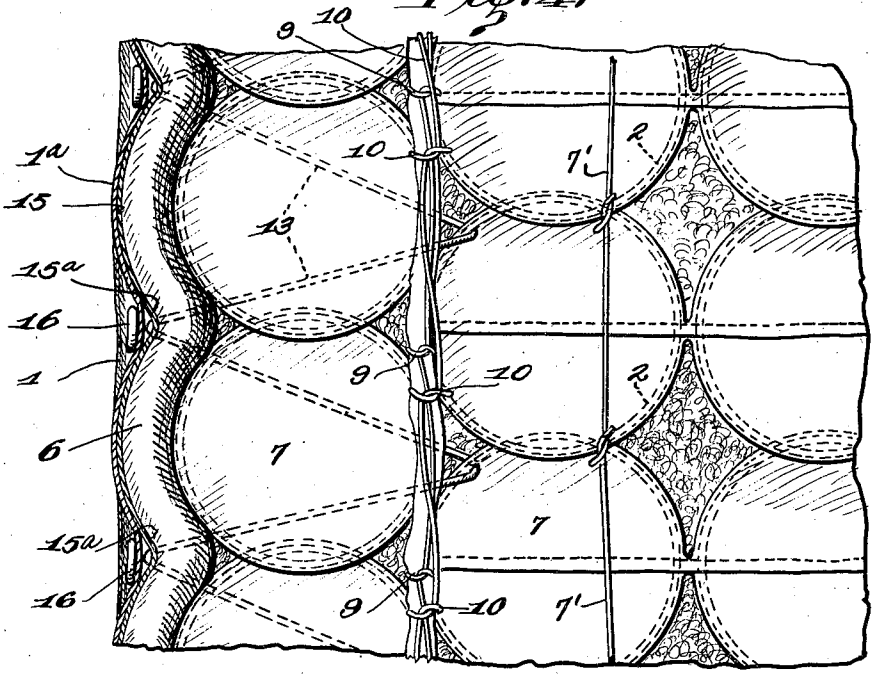
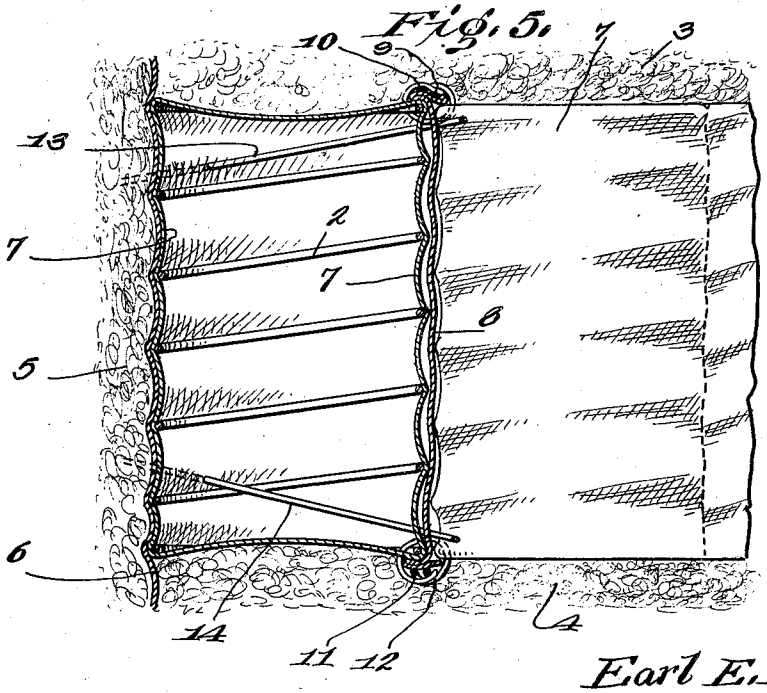


Fig. 5.



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Patented Feb. 4, 1930 1,745,986

UNITED STATES PATENT OFFICE

EARL E. EDWARDS, OF HOUSTON, TEXAS, ASSIGNOR TO THE SEALY CORPORATION, OF HOUSTON, TEXAS, A CORPORATION OF ILLINOIS

MATTRESS

Application filed June 1, 1928. Serial No. 282,129.

This invention relates to improvements in mattresses and the like and more particularly has to do with mattresses of the type comprising a series of coiled springs.

An object of the invention is to provide an improved mattress of the class referred to that while possessing the desired degree of resiliency will not bulge outwardly at the side edges when subjected to pressure at its edges, that will maintain its box or straight edge formation over an extended period of use, and which will be of simple, practical construction, inexpensive to manufacture.

A particularly important novel characteristic of the invention resides in the special means provided for fastening the side edge filling within the outer covering or tick and to the outer covering and the springs, and for connecting the springs together to maintain the said filling and springs in position.

The invention, with other objects and advantages thereof, and the particular construction, combinations, and arrangements of parts comprising the same, will be understood from the herein contained detailed description when considered in connection with the accompanying drawings, forming part hereof, and illustrating one embodiment of the invention.

In the drawings:

Figure 1 is a plan view, with an upper portion in the outer covering and filling removed, of a mattress constructed in accordance with the present invention.

Fig. 2 is a fragmentary view, on an enlarged scale, partly in vertical section and end elevation.

Fig. 3 is a fragmentary plan view, with the upper portion of the outer covering and the upper filling removed, and with portions shown in horizontal section.

Fig. 4 is a plan view, on an enlarged scale, of a portion of the mattress with the upper part of the outer covering removed.

Fig. 5 is a detailed view, on an enlarged scale, partly in vertical section and elevation of one of the broader springs and an adjacent inner spring, with parts of the structure associated directly therewith.

While a specific embodiment of the invention is illustrated in the drawings, it will of course be understood that changes and variations may be made in the particular construction shown and the invention embodied in other forms as will appeal to those skilled in the art and falling within the scope of the appended claims without departing from the spirit of the invention.

Referring to a detailed description of the particular embodiment of the invention illustrated in the drawings, the particular construction shown comprises an outer covering or tick 1 of any suitable material, a series of coiled springs 2, and an interposed filling of cotton or other suitable pliable material, said filling including upper and lower layers 3, 4, and a side edge layer 5, the latter being shown enclosed in a casing 6, of any suitable flexible material. The coiled springs 2, which are shown of cylindrical form and arranged in relatively close formation, may be and preferably are provided with individual casings 7 of fabric. The casings 7 for the springs may be conveniently provided, as shown, by fabric tubes of a length to enclose a number of the springs disposed transversely thereof, and separating the fabric tubes into individual chambers or pockets by securing the side walls of the fabric tubes together at intervals by stitching.

The inner springs 2 or those which are disposed inwardly of the border or outer row of springs 2^a are connected together by upper and lower sets of flexible stays 7′ of cord or the like, said stays, as shown, extending transversely of the series of springs, being looped around the end coils of some of the springs and tied at their ends to the end coils of other of the springs.

Disposed between the border or outer row of springs 2^a and the second or adjacent row of springs 2^b is an inner strip 8 of cloth or equivalent material, said cloth strip extending completely around the mattress between said rows of springs. 9, 10 and 11, 12 designate respectively upper and lower pairs of flexible tie members of cord, string, thread or the like, extending around the mattress and passing at intervals back and forth through marginal side edge portions of the strips 8 and

around end coils of the rows of springs 2^a, 2^b and tied thereto, said flexible tie members serving to fasten the inner strip 8 at its upper and lower marginal portions to the end coils of the border or outer row of springs 2^a and to the second or next row of springs 2^b, and also as connecting means for said rows of springs, the pairs of tie members 9, 10 and 11, 12 and the inner strip 8 functioning together to maintain the springs in proper position. 13 and 14 are upper and lower lines of lateral stitching extending completely around the mattress, and connecting the springs 2 and strip 8 to the outer covering or tick 1, and fastening the side filling 5 thereto. The outer covering or tick 1 has an inner lining 15 of relatively stout fabric or other suitable material along its side edge portions 1^a secured thereto by stitching. Each of the lines of stitching 13, 14 are formed of string, twine, thread, or the like, passed laterally from the side edge of the outer covering inwardly through the inner lining 15 of the outer covering or tick 1, through the filling 5 and its covering 6, through a marginal portion of the inner strip 8, and around the end coil of one of the second rows of springs 2^b, and thence back through a marginal portion of the inner strip 8, through the side filling 5 and its cover 6, through the inner lining 15 to the exterior of the outer covering or tick 1, and thence back through the inner lining 15, the lateral filling 5 and its cover 6, and so on completely around the mattress, the stitches of the two lines of stitching 13, 14 converging outwardly toward the central line of the side edge portion 1^a of the outer covering or tick 1. The portions 15^a of the lining 15 through which the stitching passes are substantially equidistant between the centers of the coils of adjacent springs of the border or the outer row of springs 2^a, said lining and the outer covering or tick 1 with the side edge layer 5 of filling being drawn in by the stitching, as shown, to snugly embrace and conform to the curvature of the springs. The outer covering or tick 1 is provided with rows of eyelets 16 disposed opposite the portions 15^a through which the lines of stitching 13, 14 pass through the inner lining 15, the needle and the string or thread being passed outwardlly through each eyelet 16 and then back inwardly through the same in the formation of the lines of stitching. As will be understood the stitches of the lines of stitching 13, 14, engage only the inner lining 15 of the outer tick or covering 1, this construction providing for easily and efficiently forming the stitching and connecting the outer covering or tick 1 to the springs 2 and filling 5 by the stitching while avoiding puncturing or making holes by the needle in the main part of the outer covering or tick 1, which may be of lighter, finer material than the lining 1, the lines of stitching that engage the inner lining 15 being concealed thereby.

17 and 18 designate other upper and lower lines of stitching passing back and forth at an inclination through side edge portions of the outer covering or tick 1, through the upper and lower layers of filling 3, 4, and through top and bottom portions of the outer covering or tick 1, said lines of stitching fastening the upper and lower filling layers 3, 4, within and to the outer covering or tick 1 forming marginal beads 19, 20, disposed in line with and above and below the edge portions of the filling 5, said lines of stitching 17, 18, and the resulting upper and lower marginal beads 19, 20, cooperating with the lines of stitching 13, 14, to secure the filling in position to and within the outer covering or tick 1 to provide and maintain a box or straight edge formation.

It will be noted that the special construction and arrangement of parts hereinbefore described, provides means of a simple efficient nature for connecting the series of springs together and for fastening the filling within the outer covering or tick 1 thereto and to the series of springs, to hold the filling and springs in proper position to prevent bulging at the side edges, the resulting structure being such as to afford the desired degree of resiliency, and being of a durable nature, easily assembled and inexpensive to manufacture.

What I claim is:

1. A mattress including coiled wire springs arranged in series, an outer covering of flexible material provided with a row of eyelets in a side edge portion thereof and having an inner lining of flexible material along said side edge portion secured thereto by stitching, a filling of pliable material between the series of springs and said outer covering, an inner strip of flexible material secured between the outer row and the second row of the series of springs, and a line of stitching extending back and forth laterally through said inner lining only of the outer covering at the said eyelets, and through the filling and said inner strip.

2. A mattress including coiled wire springs arranged in series, an outer covering of flexible material provided with rows of eyelets in the side and end edge portions thereof, and having an inner lining of flexible material along said side and end edge portions secured thereto by stitching, a filling of pliable material between the series of springs and said outer covering, an inner strip of cloth secured between the outer row and the second row of the series of springs, and extending entirely around the mattress, and a line of stitching extending completely around the mattress back and forth through the inner lining only of the outer covering at the said

eyelets, and through the filling and said inner strip.

3. A mattress including coiled wire springs arranged in series a flexible outer covering, a filling of pliable material between the series of springs and the outer covering, an inner strip of flexible material secured between the outer row and the second row of the series of springs, and a line of stitching extending back and forth through side edge portions of the outer covering, through the filling and through said inner strip.

4. A mattress including coiled wire springs arranged in series, a flexible outer covering, a filling of pliable material between the series of springs and the outer covering, an inner strip of flexible material secured between the outer row and the second row of the series of springs, a line of stitching extending back and forth through side edge portions of the outer covering, through the filling and through said inner strip, and cords or the like connecting the inner springs of the series of springs to each other.

5. A mattress including coiled wire springs arranged in series, a flexible outer covering, a filling of pliable material between the series of springs and the outer covering, an inner strip of flexible material disposed between two rows of the series of springs, means securing the said strip to some of the springs, and a line of stitching extending back and forth through side edge portions of the outer covering, through the filling and through said inner strip.

6. A mattress including coiled wire springs arranged in series, a flexible outer covering, a filling of pliable material between the series of springs and the outer covering, an inner strip of flexible material extending between the outer row and the second row of the series of springs, said strip being secured along its upper and lower marginal portions to the upper and lower coils of some of the springs of said rows of springs, and a line of stitching extending laterally back and forth through side edge portions of the outer covering, through the filling, and through said inner strip.

7. A mattress including a series of coiled wire springs arranged in series, a flexible outer covering, a filling of pliable material between the series of springs and the outer covering, an inner strip of flexible material secured between the outer row and the second of the series of springs, and a line of stitching, the stitches of which extend back and forth through side edge portions of the outer covering, through the filling and the said inner strip, and around coils of the springs of the second row of springs.

8. A mattress including coiled wire springs arranged in series, a flexible outer covering, a filling of pliable material between the series of springs and the outer covering, an inner strip of flexible material disposed between the outer row and the second row of the series of springs, means securing the upper and lower marginal portions of said strip to said springs, said means comprising cords or the like passing through upper and lower marginal portions of the strip and tied at intervals about the end coils of some of said rows of springs, and a line of stitching extending back and forth through side portions of the outer covering, through the filling and through said inner strip.

9. A mattress including coiled wire springs arranged in series, a flexible outer covering, a filling of pliable material between the series of springs and the outer covering, an inner strip of flexible material disposed between the outer row and the second row of the series of springs, means securing the upper and lower marginal portions of said strip to said springs, said means comprising cords passing through the marginal portions of said strip and tied at intervals about the end coils of some of said springs, and an upper and a lower line of stitching, each of said lines of stitching extending laterally back and forth through side edge portions of the outer covering, through the filling and through a marginal side edge portion of said inner strip.

10. A mattress including coiled wire springs arranged in series, a flexible outer covering, a filling of pliable material between the series of springs and the outer covering, and an upper and a lower line of stitching, each of said lines of stitching extending laterally back and forth through side edge portions of the outer covering, through the filling, and around end coils of the second row of the series of springs.

11. A mattress including coiled wire springs arranged in series, a flexible outer covering, a filling of pliable material between the series of springs and the outer covering, an inner strip of flexible material extending completely around between the outer row and the second row of the series of springs, means securing said strip to some of said springs, and a line of stitching extending completely around the mattress back and forth through side edge portions of the outer covering, through the filling, and through said inner strip.

12. A mattress including coiled wire springs arranged in series, a flexible outer covering, a filling of pliable material between the series of springs and the outer covering, an inner strip of flexible material extending completely around between the outer row and the second row of the series of springs, means securing said strip to some of said springs, and an upper and a lower line of stitching, each of said lines of stitching extending completely around the mattress back and forth through side edge portions of the outer covering, through the filling and

through a marginal side edge portion of said inner strip.

13. A mattress including coiled wire springs arranged in series, a flexible outer covering, a filling of pliable material between the series of springs and the outer covering, an inner strip of flexible material extending completely around between the outer row and the second row of the series of springs, means securing said strip at its upper and lower marginal portions to end coils of some of said springs, and an upper and a lower line of stitching, each of said lines of stitching extending completely around the mattress back and forth through side edge portions of the outer covering, through the filling and through a marginal side edge portion of said inner strip, the stitches of the upper and lower lines of stitching converging toward the side and end edge portions of the outer covering.

14. A mattress including coiled wire springs of substantially cylindrical form arranged in series, a flexible outer covering, a layer of filling between the series of springs and side edge portions of the outer covering, an inner strip of flexible material disposed between two rows of the series of springs, means securing said strip to some of said springs, and a line of stitching extending back and forth through side edge portions of the outer covering at points substantially equidistant between the centers of the coils of adjacent springs of the outer row of springs, through the filling, and through said strip, said stitching serving to hold the outer covering with the layer of filling drawn inwardly at intervals between adjacent springs of the outer row of springs to snugly embrace and conform to the curvature thereof.

15. A mattress including coiled wire springs arranged in series, a flexible outer covering, a layer of filling between the series of springs and side edge portions of the outer covering, an inner strip of flexible material disposed between two rows of the series of springs, means securing said strip along its upper and lower marginal portions to upper and lower coils of some of the springs of said rows of springs, and an upper and a lower line of stitching each of said lines of stitching extending back and forth through side edge portions of the outer covering at points substantially equi-distant between the centers of the coils of adjacent springs of the outer row of springs, through the filling and through said strip, said stitching serving to hold the outer covering with the layer of filling drawn inwardly at intervals between adjacent springs of the outer row of springs to snugly embrace and conform to the curvature thereof.

16. A mattress including a series of coiled wire springs of substantially cylindrical form arranged in series, a flexible outer covering, a layer of filling between the series of springs and side edge portions of the outer covering, and an upper and a lower line of stitching, each of said lines of stitching extending back and forth through side edge portions of the outer covering at points substantially equidistant between the centers of the coils of adjacent springs of the outer row of springs, through the filling, and around coils of an inner row of the springs, said stitching serving to hold the outer covering with the layer of filling drawn inwardly at intervals between adjacent springs of the outer row of springs to snugly embrace and conform to the curvature thereof.

In testimony whereof I hereunto affix my signature.

EARL E. EDWARDS.