A. S. MEADOFF.
BED AND COUCH SPRING.
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1,261,258. Patented Apr. 2, 1918.

FIG. 1.

FIG. 2.

FIG. 3.

FIG. 4.

FIG. 5.

FIG. 6.

WITNESSES:

Abraham S. Meadoff
By his Attorney

Z.K. Schmd.
To all whom it may concern:

Be it known that I, ABRAHAM S. MEADOFF, of New York, N. Y., have invented certain new and useful Improvements in Bed and Couch Springs, of which the following is a specification.

This invention has reference to improvements in bed and couch springs. It pertains particularly to springs of the kind which are provided with finished side edges to protect persons, especially children, against injury and prevent the tearing of mattresses and bed clothes. The side edges of such springs are usually composed of flat metal strips with uneven edges or, in certain springs, the ends of wires form part of the edge. Children, for instance, are liable to scratch their skin whereby even blood poisoning may result.

The present invention further has for its purpose to strengthen or reinforce the entire spring so that sagging is limited but the desirable cushion effect retained. The invention is especially applicable to the so-called “National fabrics” springs. Most of the edges of the national fabrics springs, when some one rests thereon, directly fall right to the edge of the angle line of the bed as there is no support or finished edge to the spring; in other words, there is no finish to the side edges of the same.

In order to render the invention entirely clear, reference is had to the accompanying drawing in which:

Figure 1 represents in perspective view a bed or couch spring showing one form of an inner portion of a national fabrics spring and embodying in desirable form the present improvements of the finished edges.

Fig. 2 is a plan view of one corner of such finished side edge.

Fig. 3 is a cross-section of a side edge.

Fig. 4 illustrates one style of connection of a finished edge to the cross part of the frame.

Fig. 5 is a cross-section of the edge showing a modified form of the same.

Fig. 6 illustrates in cross-section another modified form of the finished edge.

Similar characters of reference denote like parts in all the figures.

In Fig. 1 of the drawing, a, a' represent the short cross parts of the spring frame and b, b' are the supporting metal rods connected to the cross frame parts by means of angular braces c, c'. The national fabrics spring d is shown, in this figure, to be connected to the short cross frame parts by means of helical springs e, while the side ends of the wires of the spring are hooked into the finished and strengthening edges forming the subject matter of the present invention.

As shown in the drawing, the finishing and strengthening side devices are preferably made of metal sheeting and comprise each a tubular portion f which when applied forms the outer smooth edge portion of the protective device. The remaining portion of the metal sheeting is pressed together forming a double flat portion f which extends toward the center of the spring, and, therefore, its edge can not come in contact with persons or bed clothes. The inner flat portion f is provided with openings f' which are adapted to receive the curved wire ends of the spring. This construction is shown in Figs. 1, 2 and 3. The inner end portions of the protective device are crimped over, as shown at f' in Figs. 1 and 2. This is so arranged that the crimped portions are located on the bottom of the flat section of the device.

In Fig. 6 of the drawing a protective device is shown in cross-section in which the upper portion of the sheeting forming the flat portion f' is longer and crimped over onto the lower portion, as shown at f'. This adds an additional protective feature to the device.

For the purpose of increasing the strengthening feature of the device, a heavy metal wire g passes through the tubular portion f. This wire forms a hook at each end and connects with a helical spring e which is hooked into the cross frame part a, as shown in Fig. 1. For certain constructions of springs it may be advisable to dispense with the helical spring e and connect the wire g directly with the cross frame part a, as shown at h in Fig. 3.

Another modification of the protective and strengthening device is shown in Fig. 4 in
which two helical springs $e^1$, $e^2$ are connected to the cross frame part $a$. The spring $e^2$ is connected to the wire $g$ which passes through the tubular portion $f'$ of the device and the spring $e^1$ is connected to the flat inner portion of the same. This imparts additional strength to the device and assures uniform movement of both the tubular and flat portions of the device when someone rests on the spring.

In order to further increase the strengthening effect of the device the cramped over portion $f^1$ of the flat section $f^2$ is so shaped as to leave a small channel throughout its entire length. A second wire $i$ is run through this small channel, as shown in Fig. 5. This wire is also connected to the cross frame part $a$ in suitable manner. This also tends to produce a uniform motion of the device as far as its cushion effect permits and no sagging or bending down of the flat portion $f^1$, farther than the tubular portion $f'$, is possible.

I claim as my invention:

1. A bed and couch spring comprising a frame, a wire spring connected thereto, protective and reinforcing side edges on said spring consisting each of an outer tubular portion and an inner flat portion integral therewith having openings adapted to receive the wire spring ends, and a rod passing through the tubular portion of the side edge, means for connecting said rod and separate means for connecting the flat portion of the device both to the short cross parts of the frame.

3. A bed and couch spring comprising a frame, a wire spring connected thereto, protective and reinforcing side edges on the spring made of metal sheeting consisting each of an outer tubular portion and a flat inner portion integral therewith formed of the sheeting and having openings adapted to directly receive the spring wire ends, a rod extending through the said tubular portion and having a loop at each end, and means connecting said looped ends of the rod to the short cross parts of the frame.

4. A bed and couch spring comprising a frame, a wire spring connected thereto, protective and reinforcing side edges on the spring made of metal sheeting consisting each of an outer tubular portion, a flat inner portion formed of the end portions of the sheeting and having openings adapted to receive the spring wire ends, said flat portion having a downwardly cramped over inner end edge forming a small channel, a metal rod passing through the said tubular portion and having a loop at each end, a metal rod passing through the smaller channel of the said flat end portion and having two end loops, said rods at their looped ends being connected with the short cross parts of said frame.

Signed at New York, N. Y., this 17th day of February, 1914.

ABRAHAM S. MEADOFF.

Witnesses:

SIGMUND RUBIN,

MARIE R. LEAHY.