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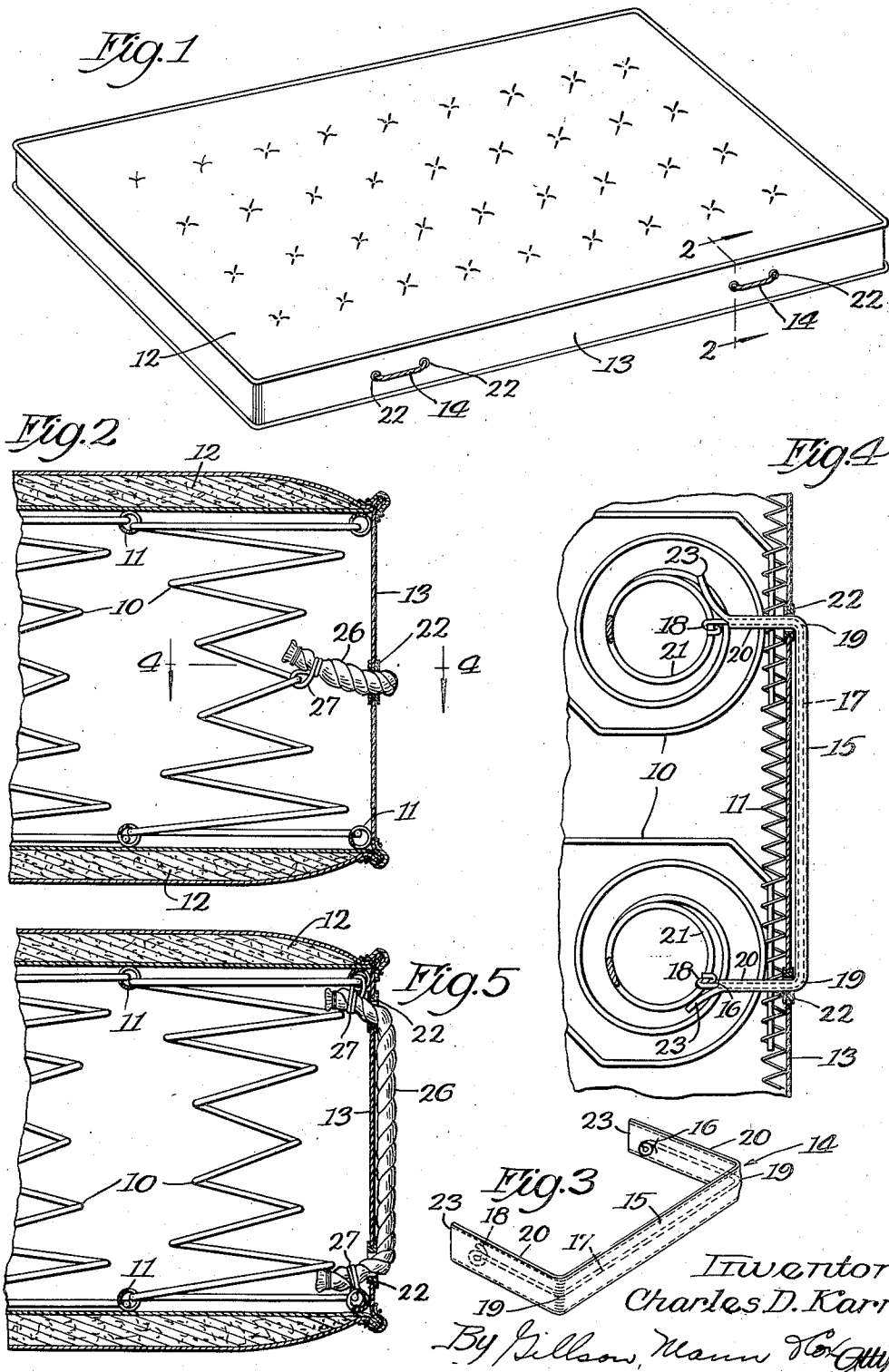
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MATTRESS AND HANDLE THEREFOR

Filed Aug. 6, 1934

2 Sheets-Sheet 1



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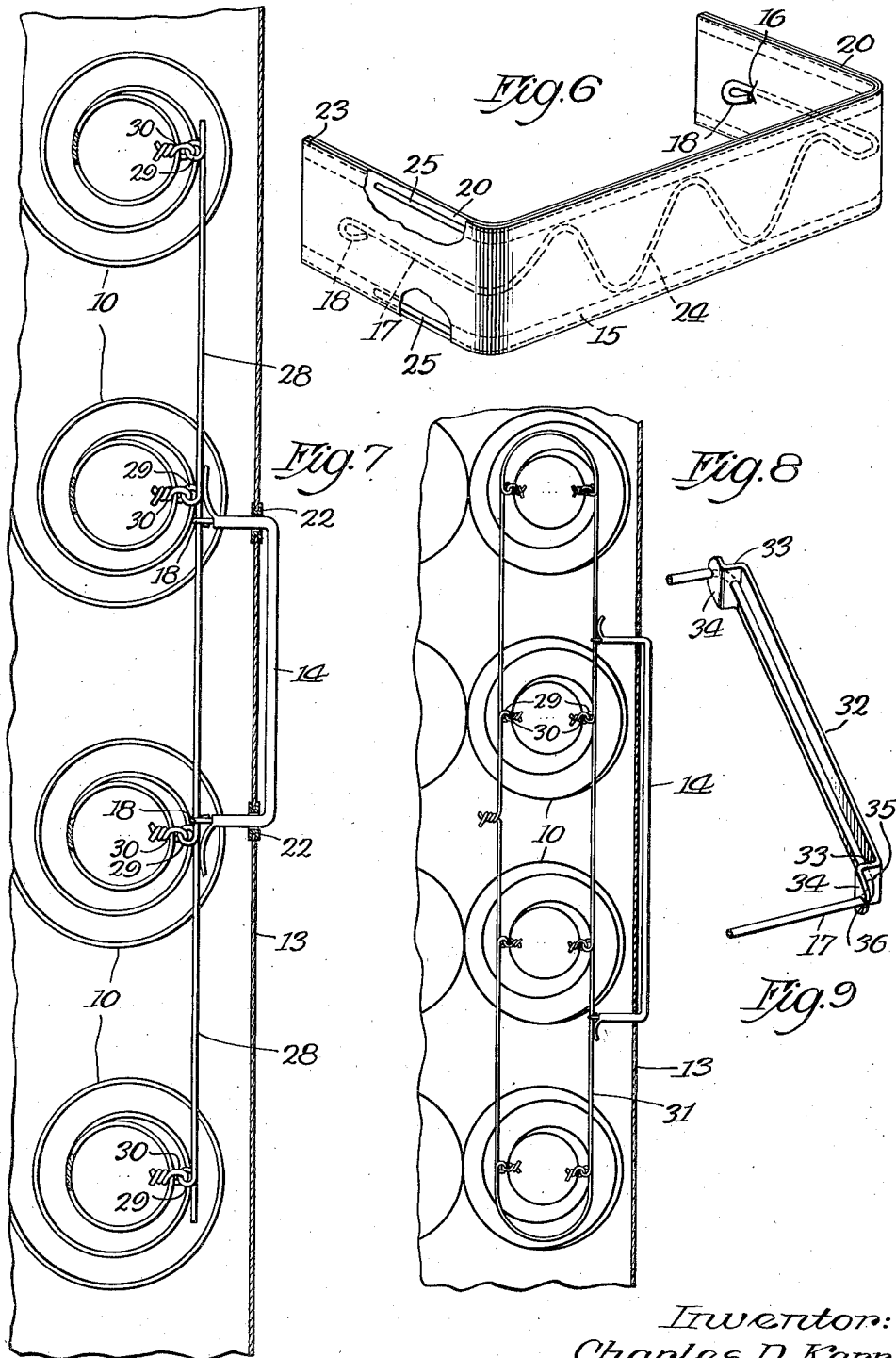
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UNITED STATES PATENT OFFICE

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MATTRESS AND HANDLE THEREFOR

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4 Claims. (Cl. 5—345)

The invention relates to mattresses of the inner spring type and which consist of a spring assembly, enclosed in a fabric housing. Such mattresses are usually adapted for use either face up and consequently are turned from time to time.

The object of this invention is to provide neat, yet convenient, handles, by which the mattress may be grasped for such turning movement.

While the invention may be variously embodied, several forms of construction, both of the handle and means of attachment to the mattress, are hereinafter described and illustrated in the accompanying drawings, in which

Fig. 1 is a view in perspective of a completed mattress;

Fig. 2 is a detail section on the line 2—2 of Fig. 1;

Fig. 3 is a view in perspective of the preferred form of handle;

Fig. 4 is a detail section on line 4—4 of Fig. 2, but showing the form of handle shown in Fig. 3;

Fig. 5 is a view, similar to Fig. 2, showing the handle differently attached to the mattress;

Fig. 6 is a view in perspective of a modification of the handle of Fig. 3;

Figs. 7 and 8 are plan sections on the same plane as Fig. 4, showing modified forms of attachment of the handles to the spring assembly; and

Fig. 9 is a view in perspective of a modification of the metal part of the handle.

The mattress may be of any desired form as to the details of its construction. The invention is especially adapted for use in mattresses in which the spring assembly consists of a plurality of spiral coils, arranged side by side and held in proper relation by any preferred means; the assembly being enclosed in a casing or housing of fabric, its flat faces usually, but not always, being covered by pads and its margins being enclosed by a fabric boxing, which may or may not be padded.

Such a mattress is shown in the drawings in Fig. 1, some of its spiral coils shown in other figures being represented at 10, adjacent coils being tied together by helical wires 11, 11. Facing pads are shown at 12, 12, and the side boxing at 13. These several features of the mattress may be of any desired form or arrangement.

In Fig. 1 there is shown a pair of handles generally designated 14, 14, projecting through the boxing 13. A similar pair of handles will, of course, be applied to the opposite side of the mattress.

In its preferred form, as shown in Figs. 3 and 4, the handle 14 is formed of a strap 15 of fabric. This strap should be composed of at least two

plies of the material, preferably more than two being used, stitched together along their margins.

At a short distance from the ends of the strap, an opening is made at one side, as shown at 16 and a wire 17 is threaded into the strap through these apertures, its ends projecting a short distance and being given a loop or eye form, as indicated at 18. This wire is given two right-angle bends, as shown at 19, whereby the handle assumes loop form, comprising two leg portions 20, 20, and a body portion to which the numeral 15 is applied. The leg portions 20, 20 of the handle being inserted in suitable openings in the boxing 13, the eyes 18 are engaged with intermediate turns 21, 21, of adjacent coils 10. The openings formed in the boxing 13 to receive the handle are suitably bound. For this purpose I prefer to use metallic grommets 22, the openings in which, of course, correspond with the sectional form and size of the handle. The legs 20, 20 of the handle should be of such length that the body portion 15 will normally be substantially in contact with the boxing 13. When used, the body of the handle is grasped and as force is applied to raise the mattress, the legs 20 will be drawn outwardly through the grommets 22, this outward movement being limited by the loops 18, or by the contact with the boxing of the turn 21 of the coil or other element of the spring assembly to which the handle may be attached.

The end portions 23 of the strap 15 extend beyond the ends of the wire 17, as shown in Fig. 3, and consequently are not drawn through the grommets.

In order to prevent the deformation of the handle in service, it is advisable to stiffen its body portion laterally. This may be accomplished by means of a transversely rigid core, and in Fig. 6 is shown one simple form of stiffener. The wire 17 is used as in Fig. 3, but its body section given a serpentine form as shown at 24. Marginal stiffeners may be used. In Fig. 6 is shown a strand of wire 25 in the margin of a leg of the handle where the load will be concentrated. By employing for this purpose a wire of high elasticity, the deformation of the handle will be prevented. Such border stiffeners need not be limited merely to the leg portions of the handle.

In the lifting operation, the coils 10 to which the handles are attached will, of course, be somewhat distorted, but will immediately return to their normal shape after use, drawing in the handles and stretching the boxing, thus restoring all

of the parts to the position as shown in the drawings.

If desired, the handles may take the form of a piece of cord, as shown at 26, to the end portions of which are secured wire loops 27 for engaging the coils 10.

While I regard the horizontal disposition of the handles, as indicated in Figs. 1 and 3, and their attachment to the intermediate turns of a pair of coils, as preferable, they may be vertically disposed, as shown in Fig. 5, their ends being secured to a single spiral 10, as shown, such attachment being to its end turns. As thus attached the handle will not be drawn outwardly when used. If, however, its ends are attached to intermediate turns of a spiral, it will be drawn outwardly through the boxing, and the recoil of the spring will restore it to normal position.

For convenience of manufacture and for the purpose of distributing the load in its application to the spring assembly, a strand of wire 28 may be attached to two or more spirals at the side margin of the assembly. The eyes 18 at the ends of the metallic core of the handle will engage this wire instead of being attached directly to the spirals. The wire 28 may be conveniently attached to the spirals by forming it into loops as 29, spaced correspondingly with the spirals, and simple securing tags 30 of wire being used to attach them to the spirals.

This arrangement permits the manufacture of the handles in standard lengths, as their attachment to the spring assembly may be between adjacent spirals (Fig. 7) or the handles may straddle one or more spirals (Fig. 8). A further advantage of this means of attachment of the handles to the spring assembly is that the load is distributed over a considerable portion of it and displacement or distortion of the assembly elements is guarded against. The latter advantage may be still better secured by using in place of the single strand of wire 28, a wire loop 31, including and attached to a plurality of spirals, as shown in Fig. 8.

In Fig. 9 is shown another form of metal part for the handle in which, in addition to the wire 17 as shown in Fig. 3, a metal strap 32 is provided for insertion within the body portion 15

of the handle and being of corresponding length. In order to connect the wire and metal strap the ends of the latter are folded inwardly and then laterally outward, as shown at 33, 34, and perforated centrally in each fold, as shown at 35, 36, for the insertion of the wire 17. This metal insert prevents the cross-member of the handle from crushing or turning in use. The ends of the wire 17 may be given any suitable form for convenient attachment to the spring assembly. While the strap 32 is shown as of the same length as the body portion of the handle, I do not desire to be limited as to this detail. When this form of stiffener is used the marginal wire 25 may also be employed if desired.

The handles may be made of selected material to match the boxing and will not detract from the neat appearance of the mattress.

I claim as my invention—

1. The combination with a mattress, comprising a plurality of spiral springs and a closed boxing, of a handle in loop form having ends projecting inwardly through the boxing and attached to intermediate turns of a pair of the spirals.

2. The combination with a mattress, comprising a plurality of spiral springs and a closed boxing, of a handle in loop form having ends projecting inwardly and loosely through the boxing and attached to intermediate turns of a pair of the spirals.

3. In a mattress, comprising an assembly of spiral springs and a boxing therefor, of a handle in loop form consisting of a flexible strap and a wire core embedded therein, the end portions of the handle projecting loosely through the boxing, and being attached to spring elements of the assembly.

4. In a mattress, comprising an assembly of spiral springs and a boxing therefor, of a handle in loop form consisting of a flexible strap and a wire core embedded therein, the end portions of the handle projecting loosely through the boxing, the ends of the wire projecting laterally from the strap and being attached to adjacent spiral springs of the assembly.

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