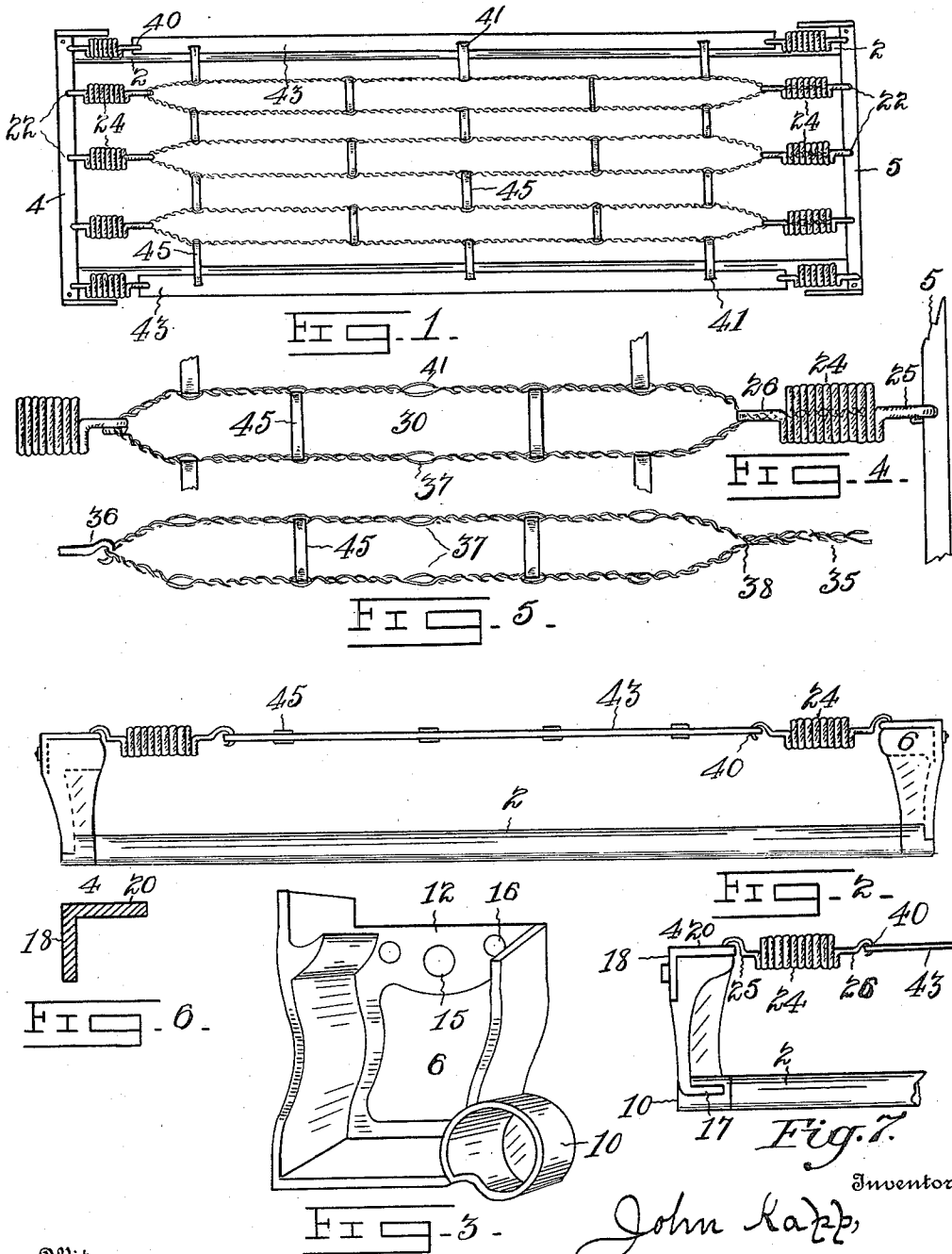


J. KAPP.
METALLIC SPRING MATTRESS.
APPLICATION FILED NOV. 11, 1912.

1,063,451.

Patented June 3, 1913.



Witnesses
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JOHN KAPP, OF DUBUQUE, IOWA.

METALLIC SPRING-MATTRESS.

1,063,451.

Specification of Letters Patent.

Patented June 3, 1913.

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To all whom it may concern:

Be it known that I, JOHN KAPP, a citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Metallic Spring-Mattresses, of which the following is a specification.

My invention relates to an improvement of the invention set out in Letters Patent to William Hewitt, for metallic spring mattresses, dated Feb. 9, 1886, and numbered 335,924, and the object is to so change the construction therein shown, that the mattress shall be greatly strengthened, the ease and effectiveness largely increased and the cost of manufacturing materially lessened.

In what my invention consists, its manner of construction, its mode of operation and wherein it is differentiated from the above mentioned patent, will fully appear in the following specification, when taken in connection with the drawings accompanying the same and forming a part hereof.

Figure 1 is a plan view of a small bed having a few sections. Fig. 2 is a side view. Fig. 3 is a perspective view of one of the corner brackets. Fig. 4 shows one of the sections of which the mattress is composed in position and attached to the rails. Fig. 5 is a section removed. Fig. 6 is a sectional view of the end rails. Fig. 7 is an end elevation of the bracket and a portion of a side rail and spiral spring.

Referring to the drawings, 2 represents the side bars, 4 the head rail and 5 the foot rail. These bars and rails constitute the frame of the mattress and are united together by corner brackets or members 6, one at each corner, as shown in Fig. 1. The brackets 6 consists of a rectangular plate cut out at the central portion for the purpose of decreasing its weight, and is provided at one end of its lower corners with a round socket 10, into which one end of a side bar 2 is inserted. Against the rear of the upper end 12 is fastened the rail 4 by a bolt inserted in the opening 15 and by screws in the openings 16. The head and foot rails consist of angle bars having the part 18 which rests upon and is bolted to the member 6 by the bolt, the other part 20 of the bar is provided with small openings 22 into which spiral springs hereinafter to be described engage. The spiral or coil spring

24 used with this mattress consists of a number of coils of spring wires terminating, one end in a hook 25 and the opposite end in a hook 26. One of these hooks 25 engages each one of the openings 22 in the rails 60 4 and 5 both at the head and foot of the mattress.

The mattress proper is formed in units 30 and each unit preferably composed of two wires of about twice the length of the 65 mattress twisted together and bent at their central portion with the ends 35 of the completed strands twisted together for a short distance forming a twist of four strands of wire. At regular intervals in this twisted 70 strand are formed openings 37 between the strands for the purposes hereinafter to appear. The unit thus formed is brought into engagement with the hook 26 in the bend 36 of the unit at the head of the mattress 75 and also into engagement with the hook 26 at the union 38 of the twisted ends of the unit, which ends extend nearly through the coil 24 or sufficiently twisted to prevent the ends from untwisting or giving when a 80 strain is placed thereon. Along both sides of the mattress over the side bars 2 is a steel plate 43 that is provided with openings 40 and 41. This plate is attached to the rails 4 by a coil spring at each end that engage 85 the openings 40 in the same manner as the springs 24 engage the units 30.

For the purpose of keeping the strands of each unit of uniform distance apart and the units at uniform distance apart and also for 90 the purpose of maintaining lateral flexibility, there are provided connecting rods or links 45 having flat upper surfaces formed into a hook at each end.

In assembling the mattress, sufficient units 95 to form a mattress of desired width are hooked into the coil springs at both ends and the side plates are also brought into engagement with the coil springs, as before described, then the hooks 45 are hooked into 100 the openings 41 in the plates 43 and into the openings 37 between the strands of the units also the units are linked together as well as the two strands forming the units.

It will be observed that by providing side 105 plates which are attached at their ends to coil springs and placing them directly over the side bars 2 and connecting said plates to the units, that the spring mattress can be set in a bed frame and will be resilient to 110

the full width of the bed and the bed clothes will hang perpendicular on both sides of the bed.

Having now described my invention what
5 I claim is:—

10 In a device of the character described, a frame, a mattress composed of loop units and each unit consisting of a plurality of wires twisted together, links for connecting the parts of the units together and for connecting the units together and for holding the parts of each unit from contact with

each other, helical springs connecting the units to the frame, and a plate yieldingly connected to the frame and located at the side of the mattress over the side of the frame. 15

In testimony whereof I affix my signature in presence of two witnesses.

JOHN KAPP.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."