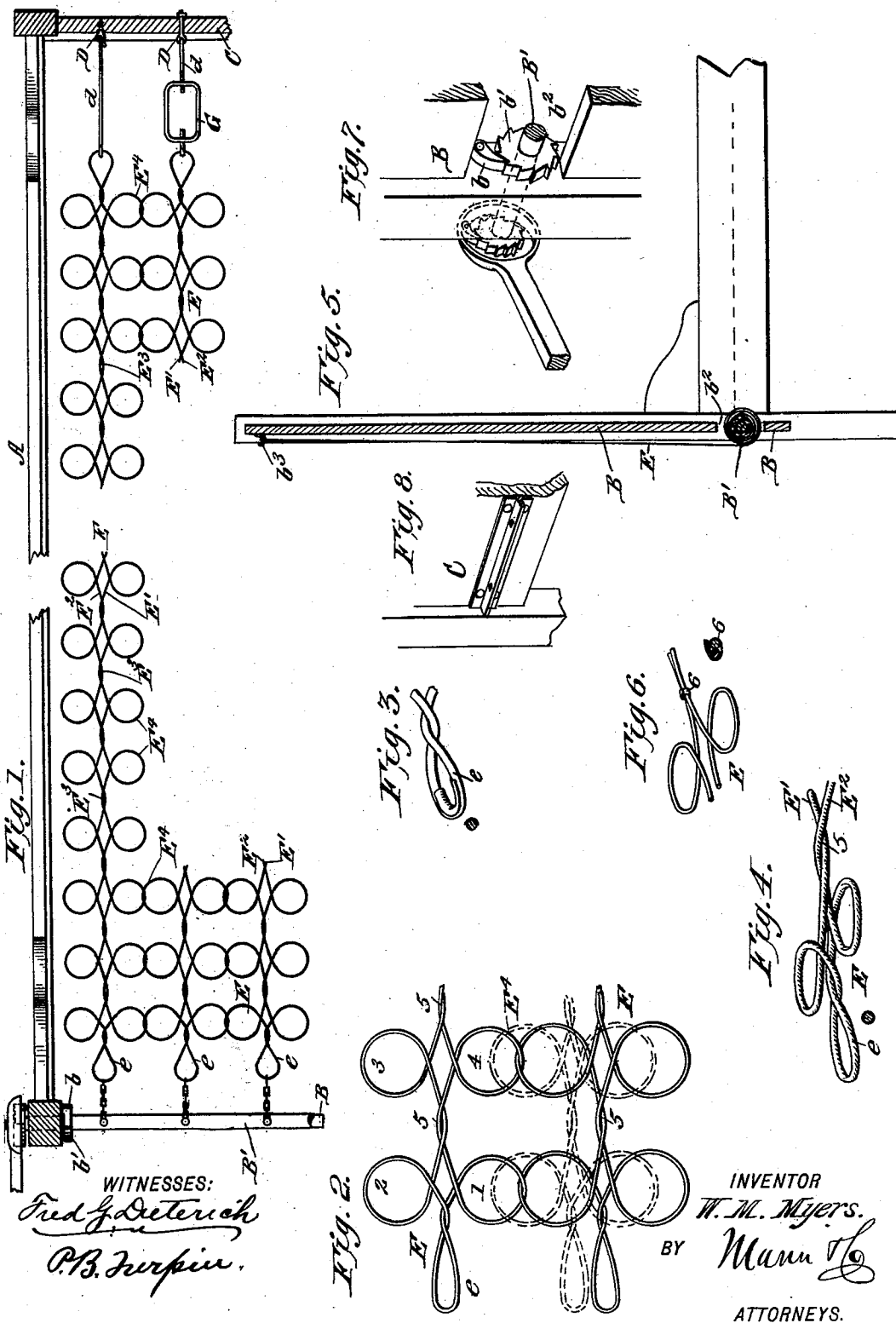


(No Model.)

W. M. MYERS.
SPRING BED.

No. 507,029.

Patented Oct. 17, 1893.



UNITED STATES PATENT OFFICE.

WILLIAM M. MYERS, OF HANNIBAL, MISSOURI.

SPRING-BED.

SPECIFICATION forming part of Letters Patent No. 507,029, dated October 17, 1893.

Application filed February 2, 1893. Serial No. 460,692. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. MYERS, of Hannibal, in the county of Marion and State of Missouri, have invented a new and useful Improvement in Spring-Beds, of which the following is a specification.

My invention is an improvement in spring beds and seeks among other objects to provide a bed in which the spring is so supported in connection with the head board that it may be shipped and stored in connection with the head board and the same devices for holding the spring to the head board may serve to give tension to the said spring.

The invention has for further objects the provision of a spring which may be adjusted in reasonable limits to suit beds of different widths and will be comfortable and easy at any width.

The invention has for further objects other improvements and consists in the novel constructions and combinations of parts as will be hereinafter described and pointed out in the claims.

In the drawings—Figure 1 is a plan view part in section and partly broken away of a bed embodying my improvements. Fig. 2 is a detail view showing two of the spring sections and illustrating how the spring may be adjusted to different widths. Fig. 3 illustrates the bushing in the connecting eyes or rings. Fig. 4 illustrates the insulating of the wires. Fig. 5 is a detail back view of the head board showing the spring adjusted for shipping or storing. Fig. 6 is a detail view of the clamp construction for uniting the adjacent lengths of the spring sections, and Figs. 7 and 8 are detail views.

The bedstead A may be generally of the ordinary construction. The head board B is provided between its posts or uprights with the shaft or drum B' suitably journaled to the head board so it may be turned. This drum B' has ratchets b' engaged by pawls b on the head board so the drum may be held in any suitable adjustment. To this drum I connect the upper end of the spring proper which is secured, in use, at its other end to the foot board in the manner presently described. For shipping or storing, the spring being detached at its lower end is drawn for-

ward through the opening b^2 in the head board and is carried up back of the head board and caught on hooks b^3 near the top thereof when the drum may be turned to tighten the spring so it will lie close to and against the back of the head board as will be seen in Fig. 5. This is a simple convenient manner of storing and securing the spring when not in use and when in use provides for straining the spring to the desired tension.

The foot board or rail C is provided on its inner side with the eyes D. These eyes D of which I use a row as shown may be screw eyes having their shanks screwed into the foot rail or they may be eye bolts secured by nuts upon the outer side of the foot rail, both such constructions being shown in Fig. 1.

Each spring section E has at its lower end a hook d to engage the corresponding eye D and is connected at its upper or head end with the drum or shaft B. The rings or eyes e at the head of the spring sections where they connect with the drum may be bushed with rubbers to deaden noise and this may also be done in the hooks and eyes at the foot for the same reason. Also where desired the wires may be wrapped with cloth as shown in Fig. 4 to prevent the noises which result from the contact of metal with metal.

When desired the spring sections may be provided near their lower ends with turn buckles G by which to secure an independent adjustment of the several sections. The shaft or drum secures a common adjustment of all the sections while the turn buckles G provide for an independent adjustment of the sections so that if one sags more than another at any one point the said section or sections may be independently tightened as desired.

The several spring sections are alike so that the description of one and of its connection with the next section will answer for all.

The sections E are formed with two lengths of wire $E^1 E^2$. These may be parts of the same wire bent upon itself or they may be separate wires. The lengths $E^1 E^2$ are secured together at intervals at E^3 and are provided between the several such intervals with lateral spring bows or loops E^4 projecting to the opposite sides of the line of the connected lengths. These spring loops E^4 serve as

unions or connections between those parts of the wire lengths which are secured together and form elastic or spring connections therebetween and they also yield both laterally and vertically under pressure so that they render the spring sections elastic longitudinally and at the same time furnish a vertical resiliency independent of such longitudinal elasticity said independent vertical resiliency resulting from the independent action of each loop or loops subjected to the pressure.

It is preferred to connect the opposite loops of the adjacent spring sections by looping them one within the other as shown so that the loops of each section will brace those of the next one or ones but it is obvious that I do not desire to be limited in the broad features of my invention thereto as the sections may be used disconnected if desired.

It is to be noted that the adjacent loops of the same spring section are formed with a certain relation to each other. Take for illustration the upper portion including two pairs of loops 1, 2 and 3, 4 of the spring section at the left in Fig. 2. It will be seen that the upper curved portion of loop 1 crosses over the lower curved portion of said loop, also that the lower loop 3 has its upper curved portion crossing its lower one. This brings the adjacent curved portions, to wit the lower one of the bow 1 and the upper one of the bow or loop 3 one above and the other below the other part of its loop so that the part crossing above will brace that which crosses below and so produce an even yielding action throughout the springs. A corresponding relation it will be seen exists between the curved parts of loops 2 and 4 the lower curved parts of loops 2 and 4 crossing above the upper parts.

While it is preferred to twist the wires at 5 between the pairs of loops it is obvious that if desired they may be fastened together at such points by clamps 6 which may be of the construction shown in Fig. 6 or of other suitable construction desired or the wire lengths may be soldered together.

It will be seen that I employ no separate main frame for supporting the springs but utilize the bed frame for such purpose, the spring being connected with the head board both when in use and when not in use. The spring sections being thus connected with the head and foot rails operate to bind such parts firmly together.

It is obvious that a spring of a given definite number of spring sections may be fitted to beds of different widths as the loops of the adjacent spring sections may slide in each other so that the sections may be set nearer together or farther apart as may be desired to properly fit the springs to any width of bed.

To turn the shaft B' I provide a bar or lever having a handle at one end and provided at its other end with a concave head to fit the ratchet wheel with a hook or pawl at its top

to engage the ratchet wheel as will be understood from Fig. 7.

As shown in Fig. 8 a T-shaped bar may be fixed to the foot board and have perforations for the connection of the spring sections instead of the screw eyes.

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

1. In a spring bed a head board having its side posts permanently connected provided upon its rear side near its top with a hook or hooks and having below said hooks and in about the plane of the side rails, an opening for the passage of the spring, a drum or shaft journaled to said head board and the spring secured at one end to the shaft or drum and movable at its other end through the opening in the head board and adapted to be carried up along the rear side of the head board and secured by the hook or hooks near the top thereof all substantially as and for the purposes set forth.

2. An improved spring bed comprising the spring composed of a number of longitudinal wire sections connected at their sides each with the adjacent sections and movable laterally and longitudinally independent of each other, the shaft or drum to which said sections are connected at one end whereby they may be jointly adjusted and independent adjusting devices connected with the opposite ends of the sections substantially as set forth.

3. A bed spring comprising a series of connected spring sections formed of wire having at intervals lateral rings looped into the similar rings of the adjacent section and adapted to slide laterally upon each other whereby the spring may be adjusted to fit beds of different widths substantially as set forth.

4. A bed spring composed of a series of longitudinal spring sections each formed of wires twisted together and bent at intervals forming laterally projected rings, the rings of each section being looped into connection with those of the adjacent section and independent adjusting devices at the ends of said sections whereby the spring may be fitted to beds of different widths and be tightened longitudinally each independent of the others substantially as set forth.

5. In a bed spring a spring section composed of lengths of wire secured together at intervals and also bent at intervals forming loops on opposite sides of the line of said lengths, the loops on the same side of the section being formed with their adjacent portions crossing one above and the other below its mate substantially as described and for the purposes set forth.

WILLIAM M. MYERS.

Witnesses:

CHAS. H. SUMMERS,
W. H. BAKER.