No. 634,313. Patented Oct. 3, 1899.

I. TEETER & B. E. SLY.

SPRING FOR CARRIAGE CUSHIONS, BEDS, &c.

(Application filed Oct. 31, 1898.)

(No Model.)

FIG. 2.

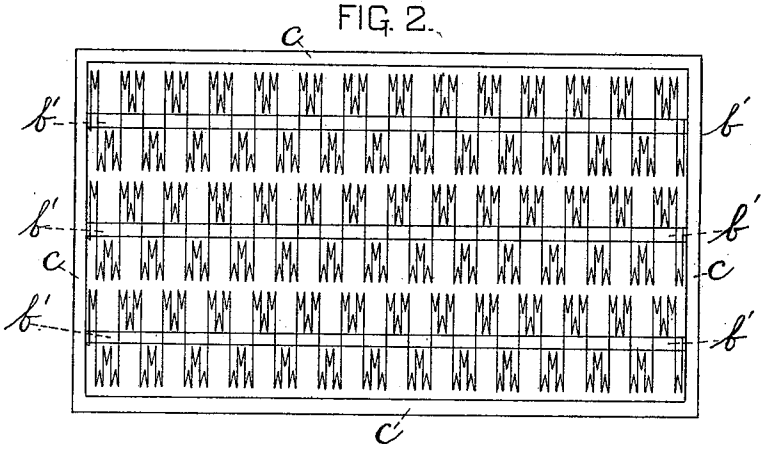


FIG. 1.

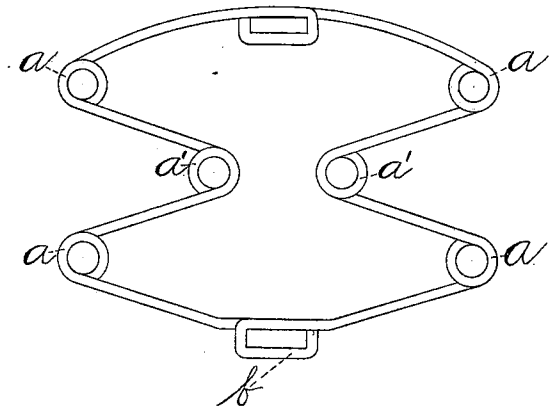
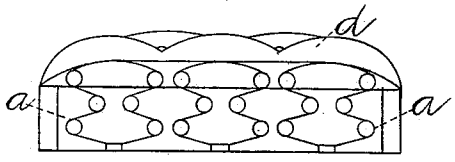


FIG. 3.



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IRA TEETER AND BYRON E. SLY, OF WATERTOWN, NEW YORK.

SPRING FOR CARRIAGE-CUSHIONS, BEDS, &c.

SPECIFICATION forming part of Letters Patent No. 634,313, dated October 3, 1899.

Application filed October 31, 1898. Serial No. 695,104. (No model.)

To all whom it may concern:

Be it known that we, IRA TEETER and BYRON E. SLY, citizens of the United States, residing in Watertown, in the county of Jefferson and State of New York, have invented new and useful Improvements in Springs for Carriage-Cushions, Beds, Mattresses, &c., of which the following is a specification.

Our invention relates to springs adapted to be used in cushions, beds, mattresses, &c.

Our object is to produce an improved spring for cushions, beds, mattresses, &c., consisting of a series of top cross-bars and a series of bottom cross-bars connected by helices in parallel, vertical, and horizontal planes, each cross-bar having a central eye and all constructed from a single piece of wire, whereby said cross-bars and helices are continuously connected, the upper cross-bars being supported yieldingly by the helices and lower cross-bars, and the upper and lower cross-bars are connected and supported by transverse bars inserted through the eyes aforesaid. It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of an upper and a lower cross-bar, the intermediate helices, and the eyes in said cross-bars. Fig. 2 is a top plan of a cushion, bed, or mattress having three longitudinal series of springs, transverse connecting-bars, and a box or inclosing frame. Fig. 3 is an end elevation of a cushion with upholstery upon said upper cross-bars.

A wire of suitable shape in cross-section is bent by any suitable means or devices, so as to create the helices a and a', the upper cross-bar connecting two of the helices a, the lower cross-bar connecting two of the lower helices a', each of said cross-bars being also bent intermediately to form an eye b. The helices a are in pairs in parallel, vertical, and horizontal planes, and the helices a' are in a horizontal plane intermediate to the planes of the helices a. The helices a' are at the apices of the reëntrant angles, as shown; and the eyes b are in parallel horizontal planes and in the same vertical plane. Bars b' are inserted through the eyes b transverse to said upper and lower cross-bars, respectively.

In Fig. 2 the helices are shown as in trios, staggered or arranged alternately on opposite sides of the transverse bars by the alternate winding of the helices at the opposite ends of said cross-bars. It will be seen that a spring having these helices and these cross-bars connecting them can be made of any length desired from a single piece of wire, said springs being shown in Fig. 1 as each extending the entire length of the frame or box c, and that the eyes in the cross-bars can be omitted and slats can be secured thereto by bolts or staples or by any other ordinary means. It will be also seen that this spring is substantially elliptic in cross-section, having a reëntering angle at each end and three helices at the apices of the respective angles, and that in top plan these sets of three helices are in vertical parallel planes, one set diagonal to the set or sets to which it is connected.

What we claim as our invention, and desire to secure by Letters Patent, is—

A spring for cushions, &c., consisting of a wire bent to form upper and lower cross-bars with central eyes, helices at the extremities of said bars, a reëntering angle between said helices and other helices at the apices of said angles, said eyes being in parallel, vertical and horizontal planes, and said helices being arranged in sets of three alternately on opposite sides of said eyes, and being in parallel vertical and horizontal planes, and parallel bars through said eyes.

IRA TEETER.
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Witnesses:
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