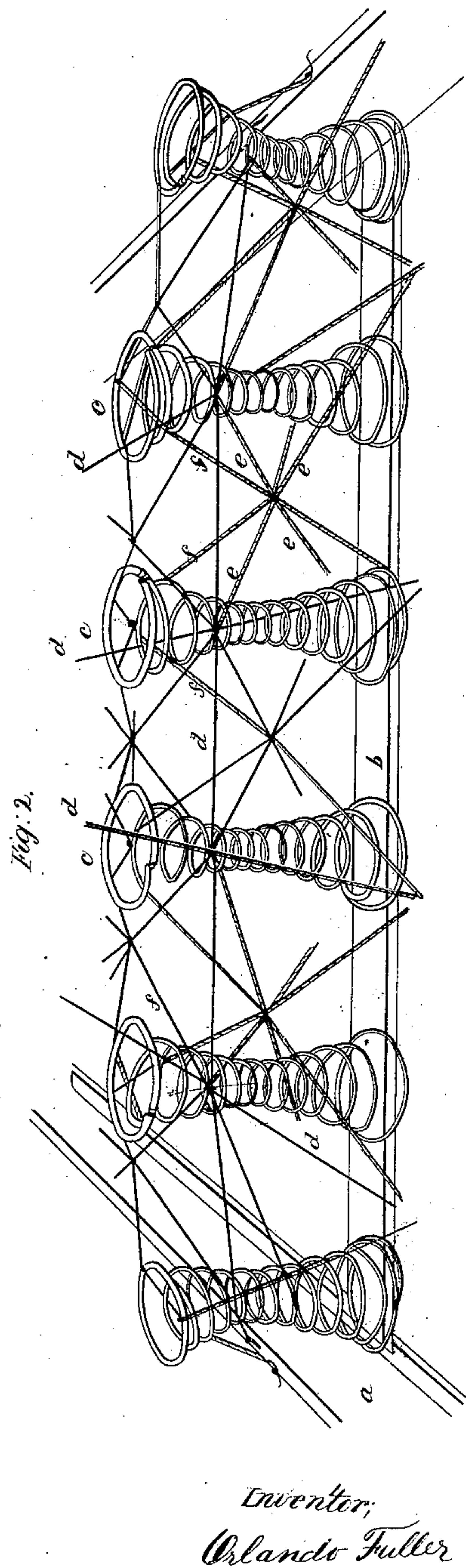
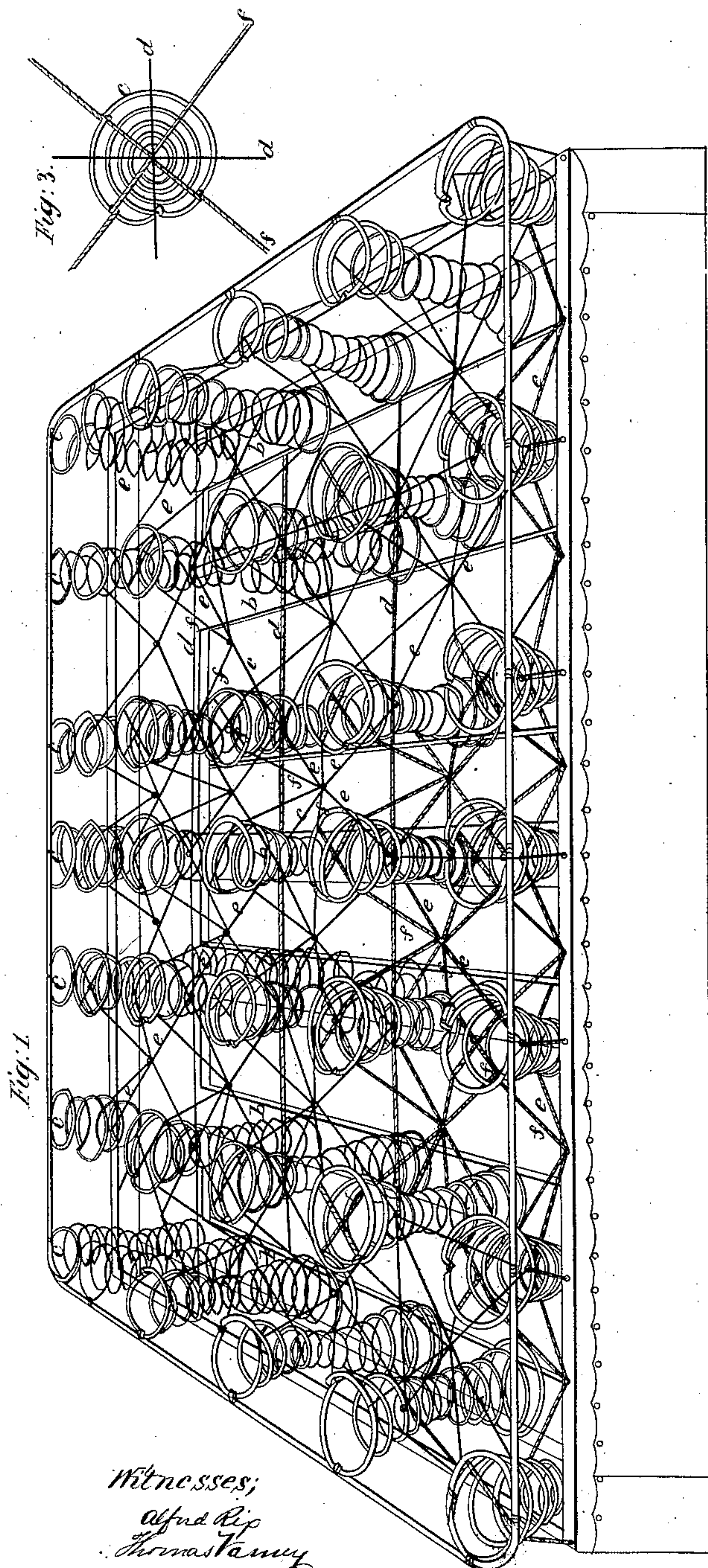


O. Fuller,
Bed Bottom,

N^o 44,793-

Patented Oct. 25, 1864.



UNITED STATES PATENT OFFICE.

ORLANDO FULLER, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN BRACING AND FASTENING SPIRAL SPRINGS FOR MATTRESSES.

Specification forming part of Letters Patent No. **44,793**, dated October 25, 1864.

To all whom it may concern:

Be it known that I, ORLANDO FULLER, of the city and county of San Francisco, and State of California, have discovered certain new and useful Improvements in the Mode of Bracing and Fastening Spiral Springs Used in Mattresses, Sofas, and Chairs, &c.; and I hereby declare that the following is a full, clear, and exact description of said improved method, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of a mattress (with the stuffed or upper portion removed) constructed according to my improved method. Fig. 2 is a perspective view of a single row of springs and the method of bracing and fastening them. Fig. 3 is a top view of a single spring with the cords attached to the upper coil of the spring.

Similar parts in the different figures are indicated by the same letters.

The frame-work for a mattress consists of a board box, *a*, with slats *b* across the bottom in the ordinary manner, and about one-half the height of the springs when finally adjusted and fastened. The springs *c* are placed at suitable distances apart upon the slats, to which they are fastened by nails, staples, or by any other proper means, a strip of cloth being run between the first and second coils above the slats and fastened to the slats, to prevent noise from contact of the slats and wire. The springs are placed in parallel rows both laterally and longitudinally. Through each of these rows of springs, and at a distance below the tops of the springs equal to about three-fourths of the distance from the top to the narrowest part of the springs, as springs are now made and used—to wit, at about the fourth coil from the top—a cord, *d*, of twine or wire, is drawn with a turn around each wire that it passes from one side to the other of the frame, to each side of which an end of the twine is secured. This twine should be drawn with a force of about one hundred and fifty pounds weight, so as to give the web it forms a considerable degree of firmness. This I call the “adjusting-web.” The springs are now adjusted vertically by sliding

the wires along the cords, the interior springs being placed erect, while the exterior ones are made to lean slightly outward. A cord, *e*, is now drawn through the center of each diagonal row of springs, on the plane of the adjusting-web, and fastened by a half-hitch to each wire and cord that it passes, the ends of the cord being attached to the frame. This I call the “diagonal web.” Finally, a third web of cords, which I call the “bracing-web,” is applied as follows: Directly over each cord of the diagonal web, and connecting the same points, a cord, *f*, is drawn from the frame upward to the upper coil of the spring, thence across it, and thence down to the junction of the cords belonging to the diagonal web situated equidistant from four springs, thence upward to the next spring, and so on to the frame on the side opposite to the starting-point. The cord is secured by a half-hitch to each wire and cord or knot crossed in its passage. An elastic rod of rattan, steel, iron, or any other proper material is placed about the upper coils of the springs and fastened thereto in the ordinary manner.

The same method may be used in all articles—such as sofas, chairs, stools, and cushions of all kinds—with slight modifications, such as will suggest themselves to any manufacturer.

In cheap articles the bracing-web of cords may be omitted by sewing the upper coils of the springs to the under cloth of the stuffed top.

The operation of my invention is as follows: The adjusting and diagonal webs being placed considerably below the tops of the springs and drawn and fastened firmly, and in such a manner as to allow the springs to aid each other and distribute their power, causing the strong to support the weak ones, forms a firm and at the same time an elastic groundwork for the still more elastic system above. The peculiar method of bracing the upper coils of the springs allows the upper portion of each spring to sink without drawing any adjoining spring out of its position, and at the same time keeps the upper part of each spring in its proper place, the whole constituting a delicately elastic, yet firm and lasting support to the cushion above.

Thus having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The employment or use of a supporting-web adjusted, by the means and in the manner set forth, at or near the centers of the springs, and the attachment thereto of the

upper coils of the springs, in the manner and for the purposes set forth.

Dated at San Francisco this 1st day of June, 1864.

Witnesses: ORLANDO FULLER.

ALFRED RIX,

G. R. HARRIS.