

F. Colton,

Bed Spring,

N^o 18,630.

Patented Nov. 17, 1857.

Fig. 3.

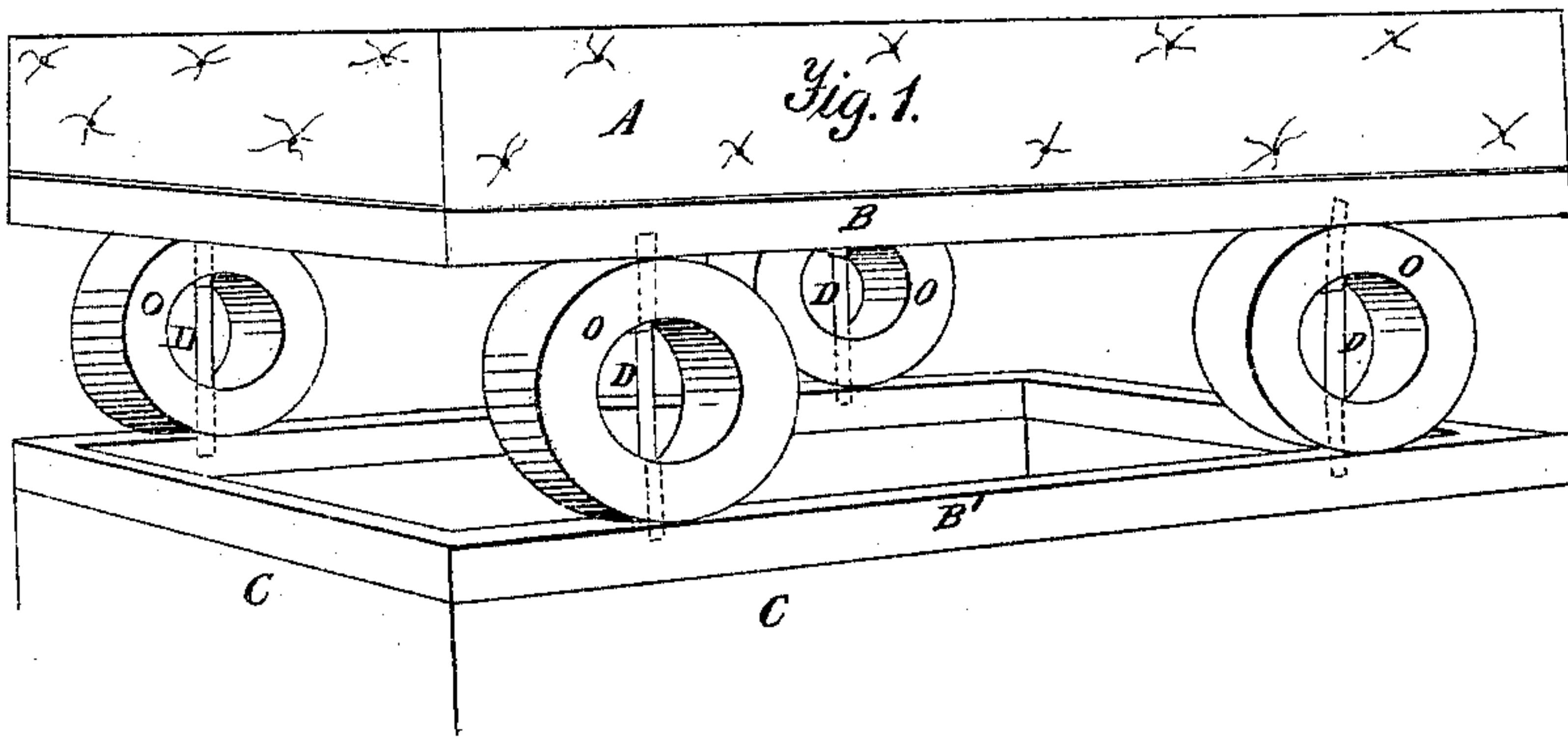
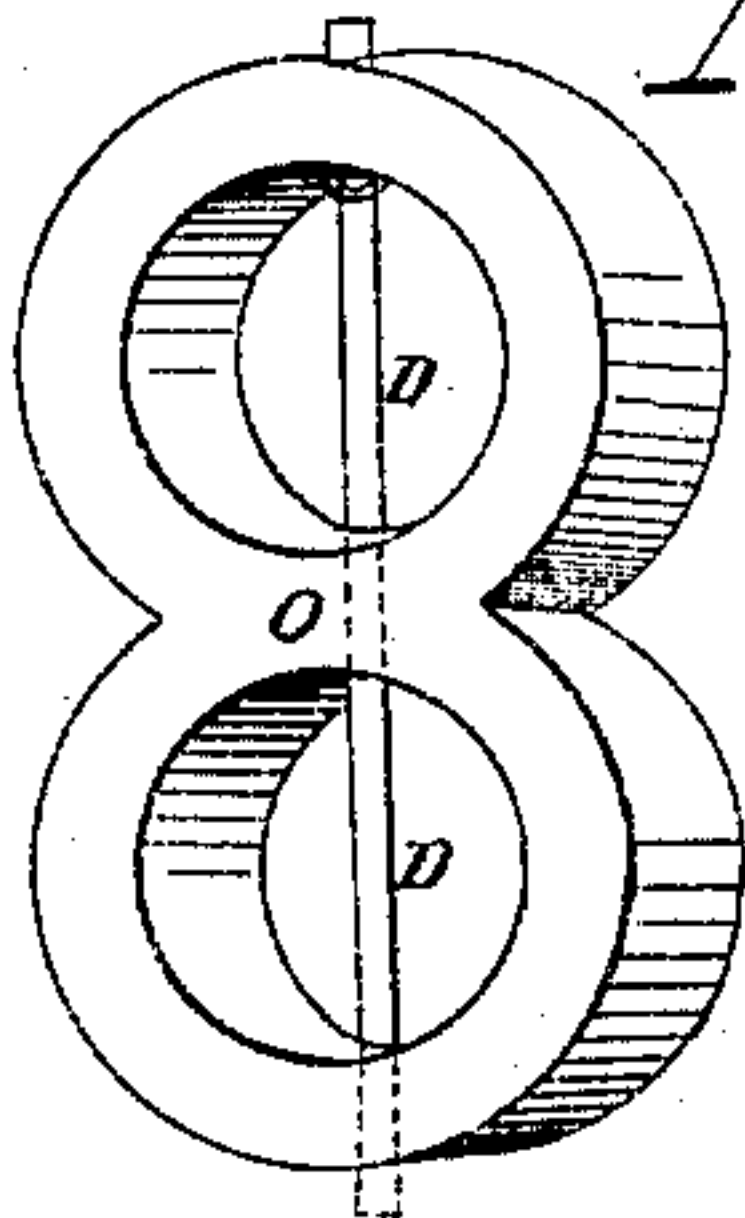


Fig. 2.

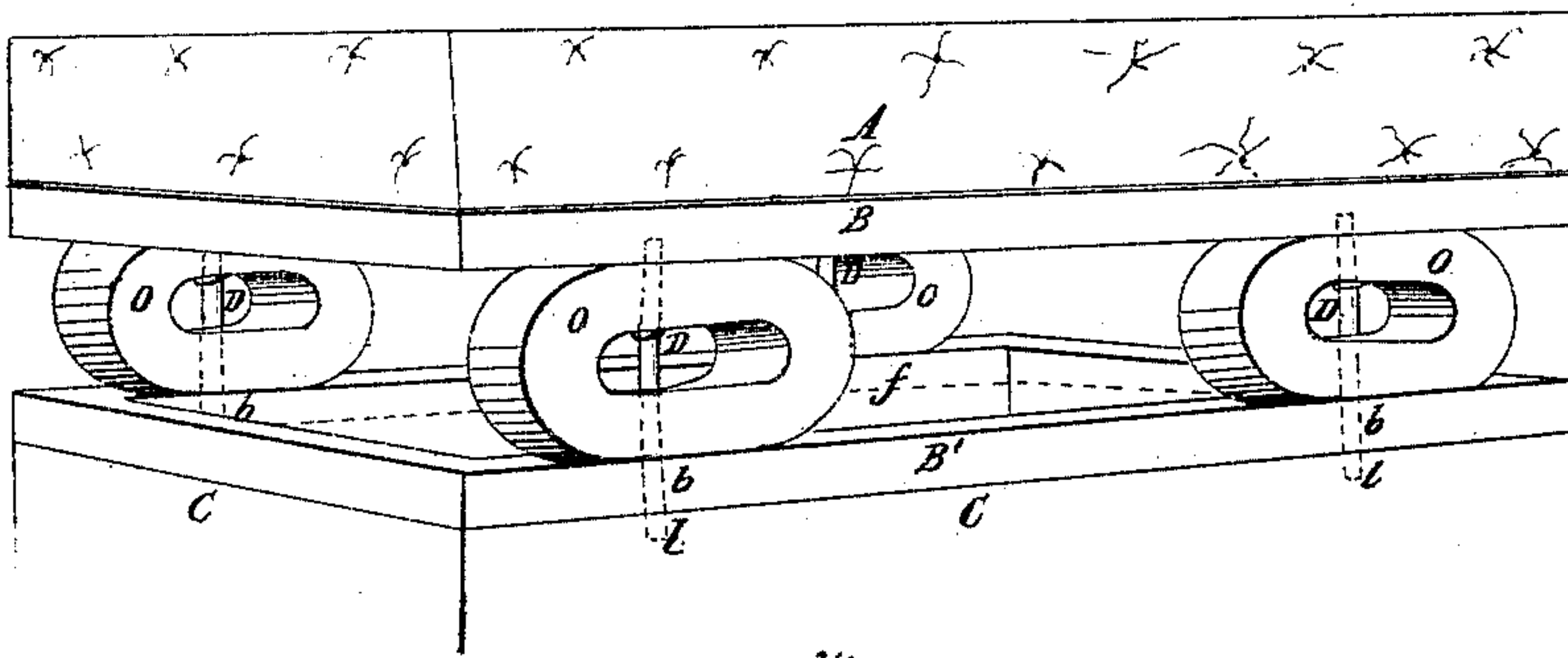
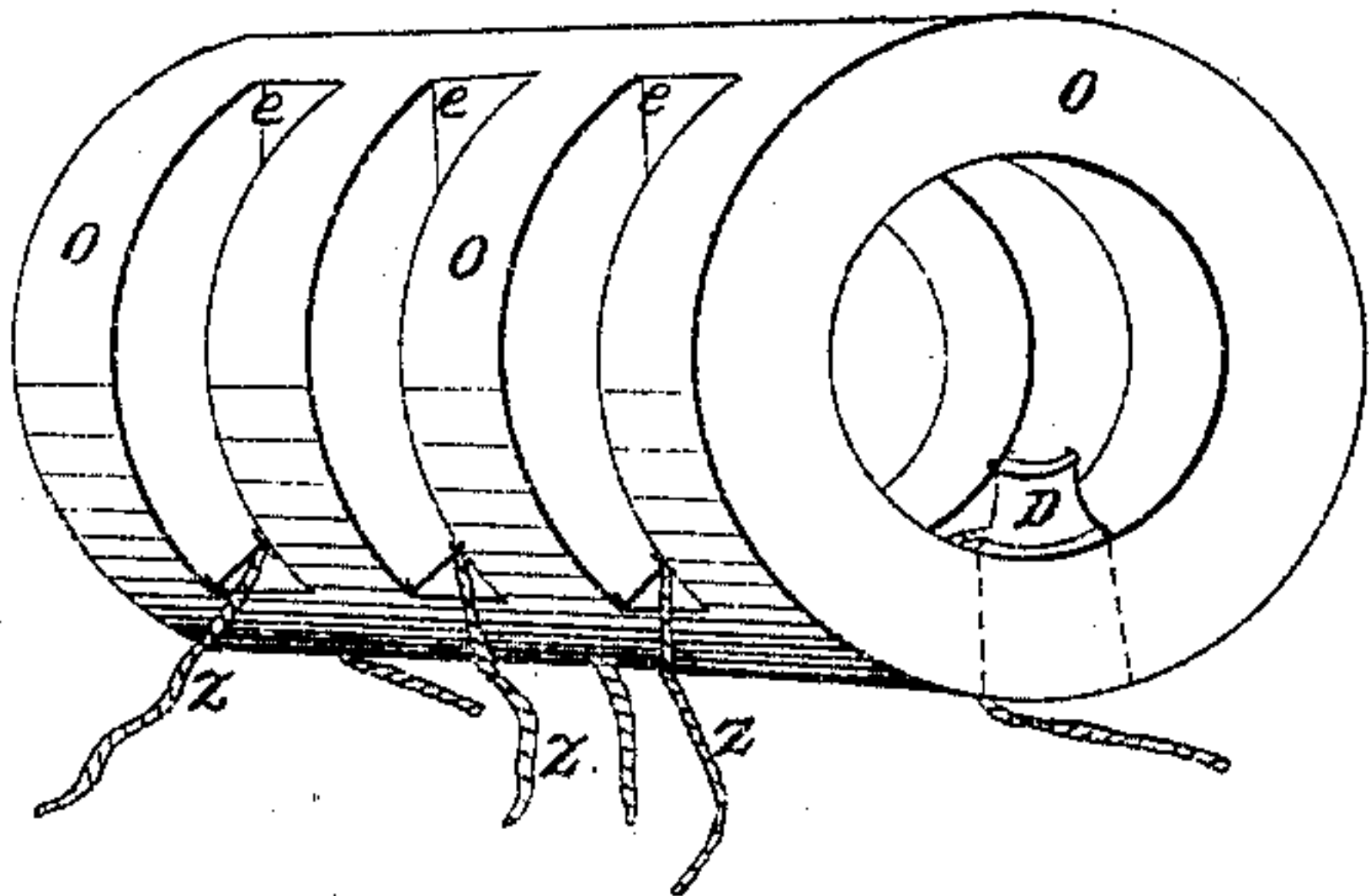


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANCIS COLTON, OF NEW YORK, N. Y.

INDIA-RUBBER SPRING FOR UPHOLSTERING PURPOSES.

Specification of Letters Patent No. 18,630, dated November 17, 1857.

To all whom it may concern:

Be it known that I, FRANCIS COLTON, of the city, county, and State of New York, have invented a new and useful India-Rubber Spring for Upholstery Purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a perspective view of my spring as I apply it in the upholstering of a bed or lounge, unacted upon by pressure. Fig. 2, is a perspective view of the same, acted upon by pressure. Fig. 3, is a modification of my spring (drawn in perspective) and is the form to be employed in those parts of the upholstery of furniture which require a great depth of spring. Fig. 4, is also a modification of my invention showing in perspective the form in which I apply it to those parts of upholstery, where a great pressure is to be sustained in a small space. Fig. 5, represents what I term a steadying-post, which controls the perpendicular action of the spring, and also preserves its shape and secures it in its place.

Similar letters of reference when they occur in the several figures denote like parts.

To enable others skilled in the art to make and use the invention, I will proceed to describe the same in its several applications, and construction, with reference to the drawings.

The elastic portion of my spring is represented by the letter O, and consists of a ring or cylinder of vulcanized india rubber, which is made to vary in its weight and dimensions to accord with the space which it is to occupy, and to the amount of springing power desired.

D is a cylindrical wooden or metallic guide or steadying-post which is passed completely through the india rubber ring O, at points immediately opposite each other in perforations, which are made large enough to permit the said post to work easily back and forth.

α is a shoulder or bearing upon that part of the steadying post which comes in contact with the under surface of the top part of the india rubber cylinder, and prevents the

top of the cylinder from sagging down. The length of the post is the whole width of the diameter of the cylinder of india rubber and of the top and bottom frame-pieces B, B'. The upper part of the post above the bearing α is, after passing through the india rubber ring immovably fixed in the top-frame piece B, while the lower part below the bearing is permitted to play freely down through the bottom perforation in the ring and into and through the bottom frame piece B'. The whole of the parts B, B' and the set of springs are enveloped with ticking and when complete presents the same appearance as does the mattress A.

When there is no pressure upon the mattress the springs retain their cylindrical shape, and when pressed down upon, they assume an oblong shape, as is indicated in Fig. 2.

In applying my invention to a sofa, or chair, I employ the form as shown in Fig. 4; which, as will be apparent, is simply a joining together of several of the single springs as shown in Figs. 1, and 2, by the joining pieces $e-e-e$. It is secured to the webbing or cross-pieces which support it by cords z, z, z .

The number of these springs to be employed in a bed may be four or more. A single spring like that shown in Fig. 4, is always sufficient for a chair-bottom, and in the upholstery of a sofa, I place them at distances varying from, eight inches to one foot apart and with their length at right angles with the length of the sofa.

Having thus fully described my invention, I would state that I do not claim the discovery of the elastic property of a ring or cylinder of india rubber when placed upon its circumference, but

What I claim herein, as being new, and desire to secure by Letters Patent is—

The form and combination of a vulcanized india rubber ring with the steadying-post together with the application of the same in the manner and for the purposes herein specified.

FRANCIS COLTON.

Witnesses:

CLINTON RICE,
S. V. R. COOPER.