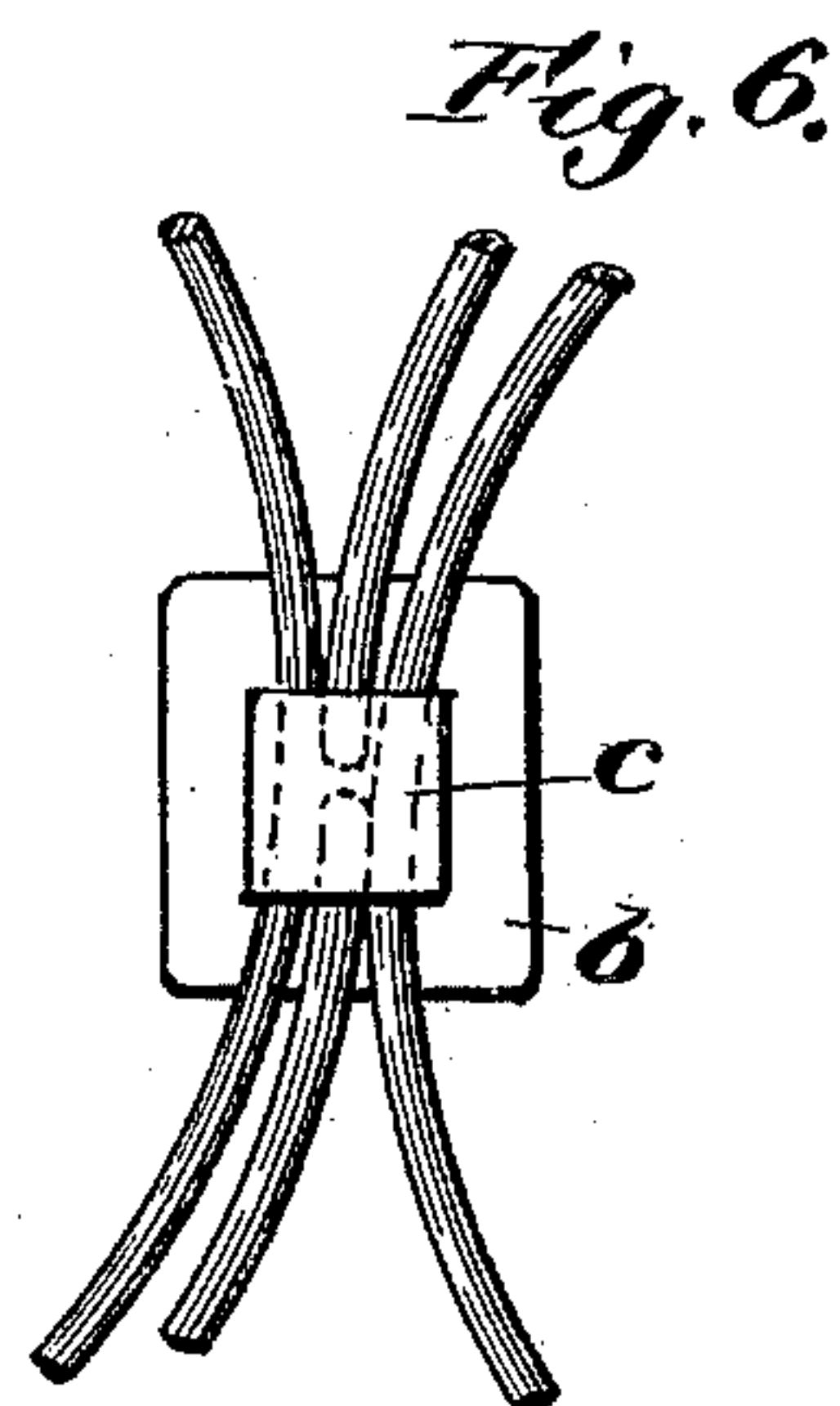
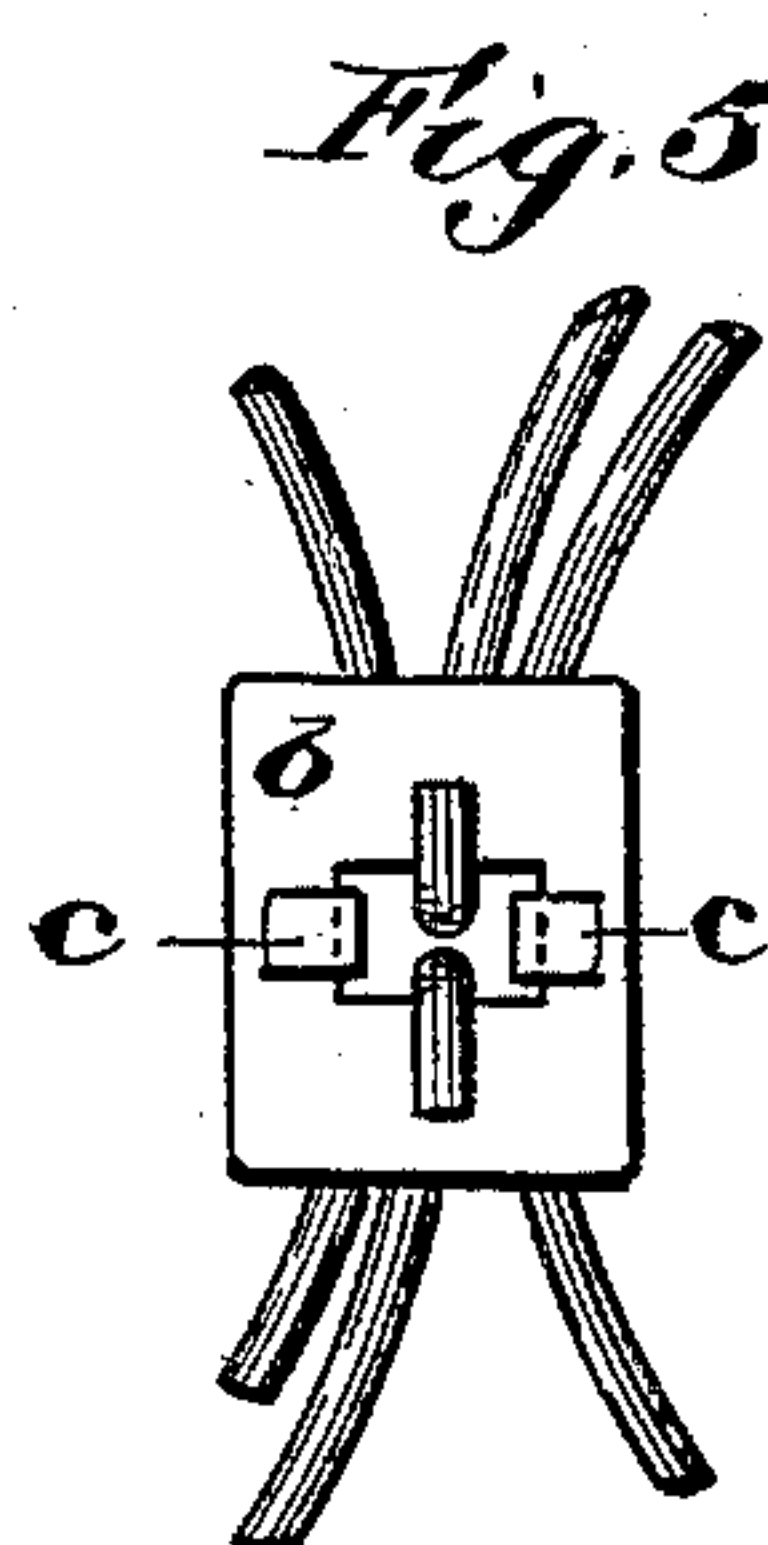
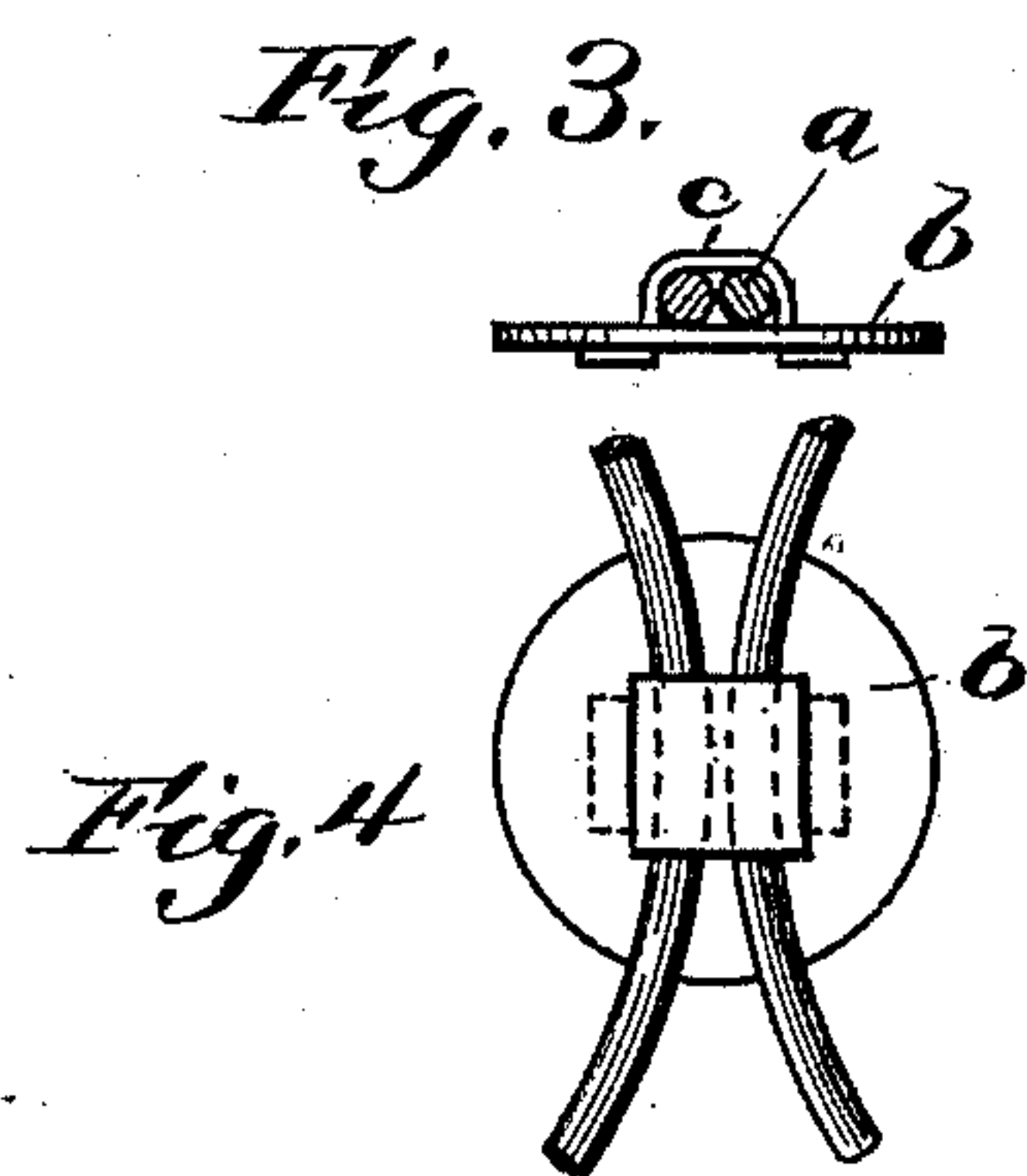
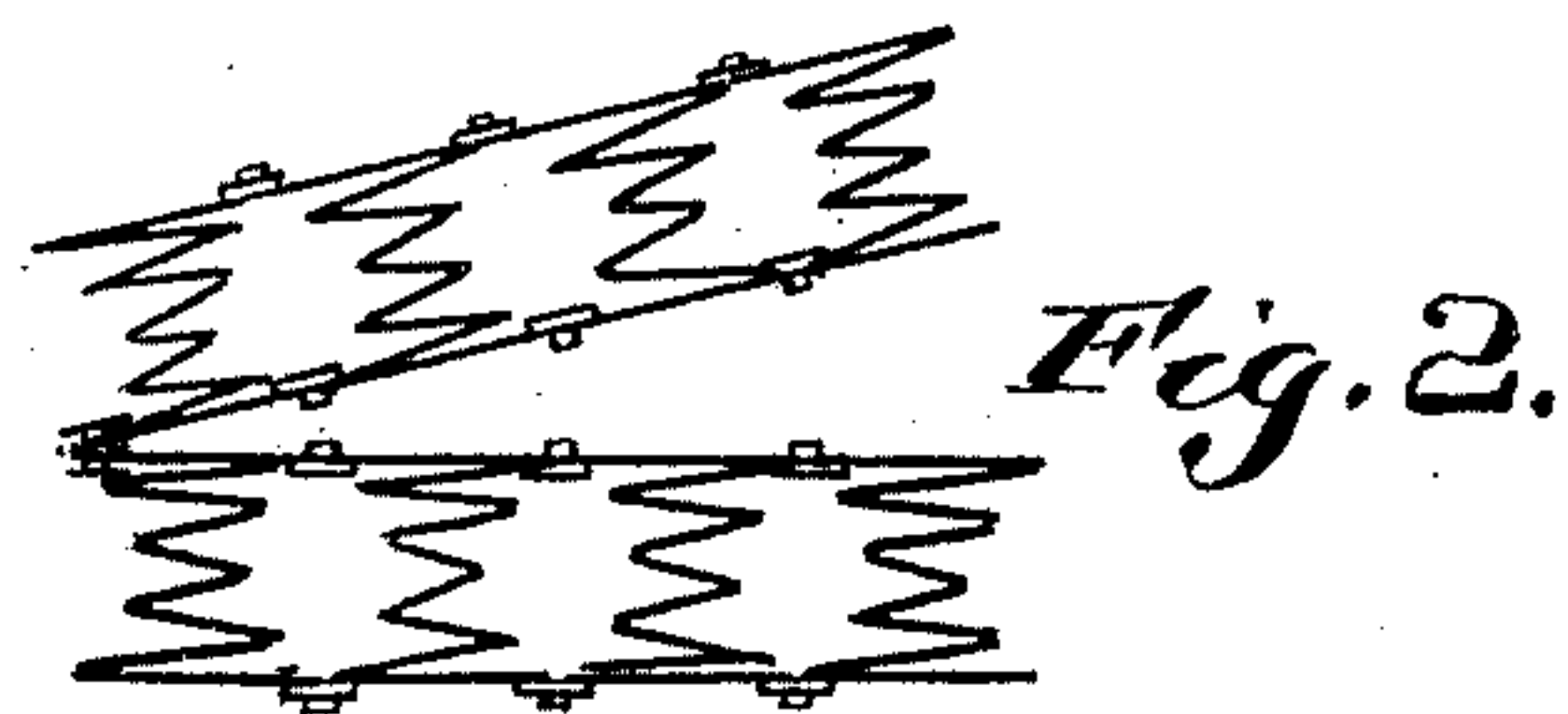
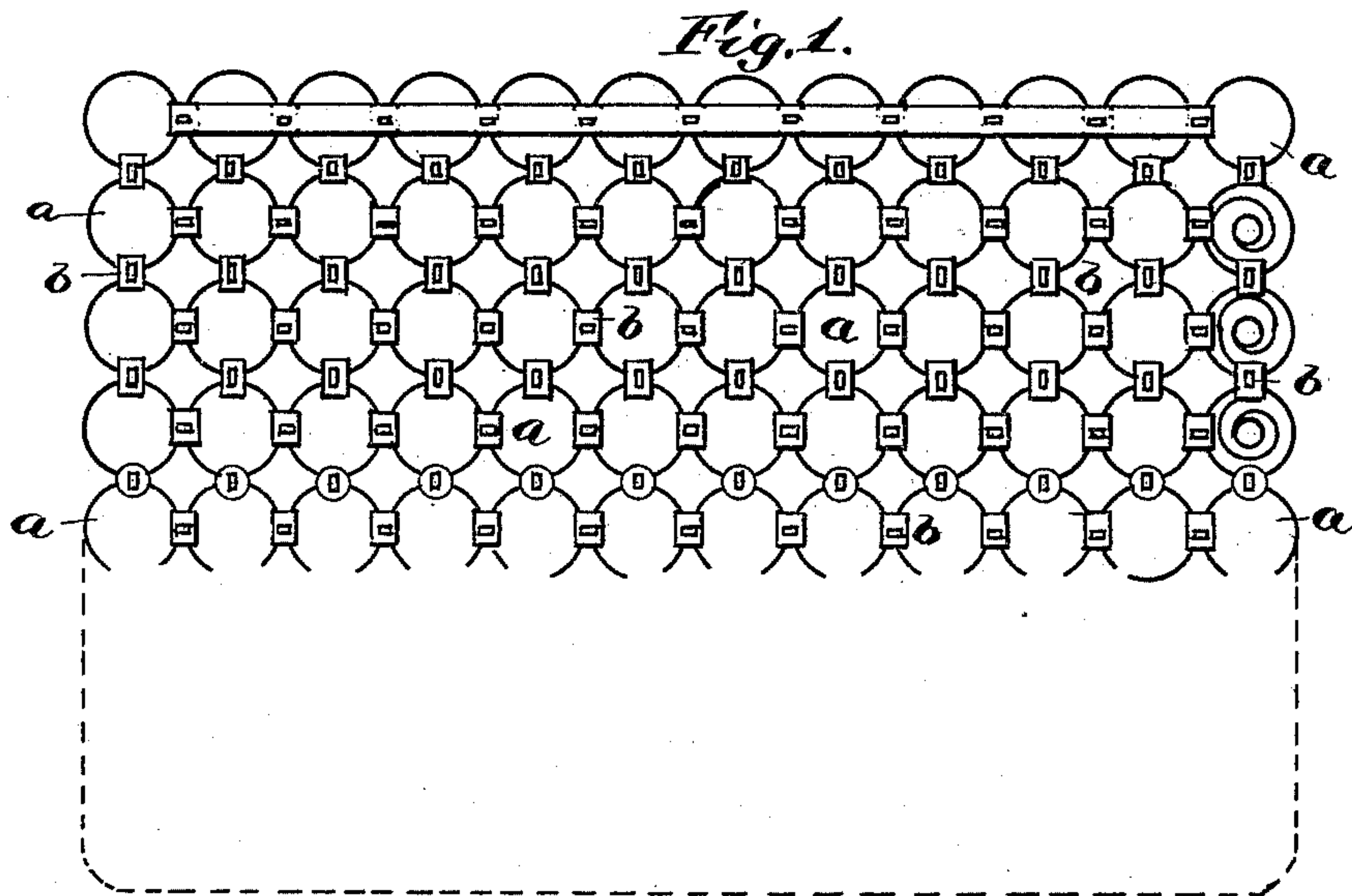


(No Model.)

G. W. FISHERING.
BED BOTTOM SPRING.

No. 440,628.

Patented Nov. 18, 1890.



Witnesses:

Walter Reed
Daniel Agnew

George W. Fishering
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per
John H. Honey
Att'y

UNITED STATES PATENT OFFICE.

GEORGE W. FISHERING, OF PITTSBURG, PENNSYLVANIA.

BED-BOTTOM SPRING.

SPECIFICATION forming part of Letters Patent No. 440,628, dated November 18, 1890.

Application filed January 27, 1890. Serial No. 338,285. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. FISHERING, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Bed-Bottom Springs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 indicates an inverted or bottom plan of my improved bed-bottom spring. Fig. 2 indicates an end view showing position of spring-bottom when partly folded. Figs. 3 and 4 indicate side elevation and plan, respectively, of hinged connection. Figs. 5 and 6 are bottom view and plan, respectively, of binder, which rigidly secures said springs.

My invention relates to bed-bottom springs; and it consists in the novel combination and construction of the binders and the springs connected therewith, whereby I am enabled to dispense with the frame used in ordinary spring-bottom beds and yet secure a uniformly upper surface for the support or reception of the mattress.

I will now more specifically describe my invention, reference being had to the accompanying drawings, in which like letters indicate like parts wherever they occur.

a a a are series of spiral springs of any desirable number, formed in two sections and connected longitudinally and transversely the bed, as hereinafter described, and adapted to rest upon the bed-slats.

b b b are series of spring binders or connectors, formed of metallic plates of sufficient strength, provided with an orifice, through which the ends of the staples *c c c*, formed of soft iron or steel, is passed, the free ends of said staples being clinched or bent against the under side of said plates for the purpose of holding firmly together the upper and lower coils, respectively, of adjacent springs, which are inclosed by said staples when said springs are placed side by side, as shown in Fig. 1. Said binders may also be constructed

of a number of metallic bands, one of which is shown in Fig. 1, said bands being preferably between and connecting two rows of springs, instead of as shown in said figure, said bands being provided with a suitable number of orifices for the reception of the staples for securing the springs, as heretofore described.

In the practice of my invention I preferably place the metallic plates or bands according as either form of binder is used beneath instead of on top of the upper coils, respectively, of said springs for the purpose of more rigidly securing said springs and to produce an even upper surface in said bed-bottom for the reception of the mattress. The springs are placed side by side. The free ends of the upper coils being brought contiguous to and opposite each other are bent downward through the orifices in the plates or bands and clinched against the under side thereof, as shown in Figs. 5 and 6. The staples are then passed over the bent ends of the upper coils and the part of the coils next below these springs, which cross the orifice in said plates or bands, and the free ends of said staples clinched against the lower side of the plates or bands, as shown in Fig. 5, the other sides of said springs being attached, as shown in Figs. 3 and 4. The lower coils of said springs are similarly connected, excepting at the center of said bed-bottom, at which point the lower coils are not fastened longitudinally the bed, the upper coils of said springs at said point being connected by the hinge-connection, whereby the said sections are adapted to be folded, as shown in Fig. 2.

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

1. The combination, with two adjacent springs, of a perforated plate, which is arranged across the end coils of two springs, and a fastening-staple fitted over the coils of said springs to force the same against one side of the plate and having the legs thereof passed through the perforation in the plate and clinched against the reverse side thereof, as and for the purpose described.

2. The combination of a flat plate having a

central aperture, two springs having the ends
of the coils thereof passed through the aper-
ture in said plate and clinched against one
side of the same, and a staple which incloses
5 the bent ends of the end coils and a portion
of the adjacent coils of said springs, said sta-
ple having its legs passed through the perfor-
ation in the plate and clinched against the
same side thereof that the bent ends of the

coils are clinched upon, as and for the purpose is
described.

In testimony that I claim the foregoing I
hereunto affix my signature this 18th day of
January, A. D. 1890.

G. W. FISHERING. [L. S.]

In presence of—

GEORGE E. SHAW,
SAMUEL M. CLAY.