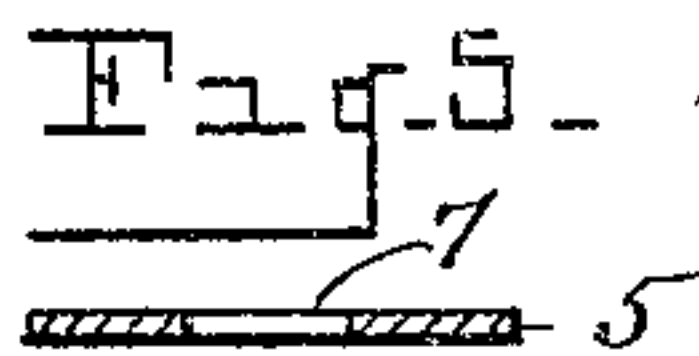
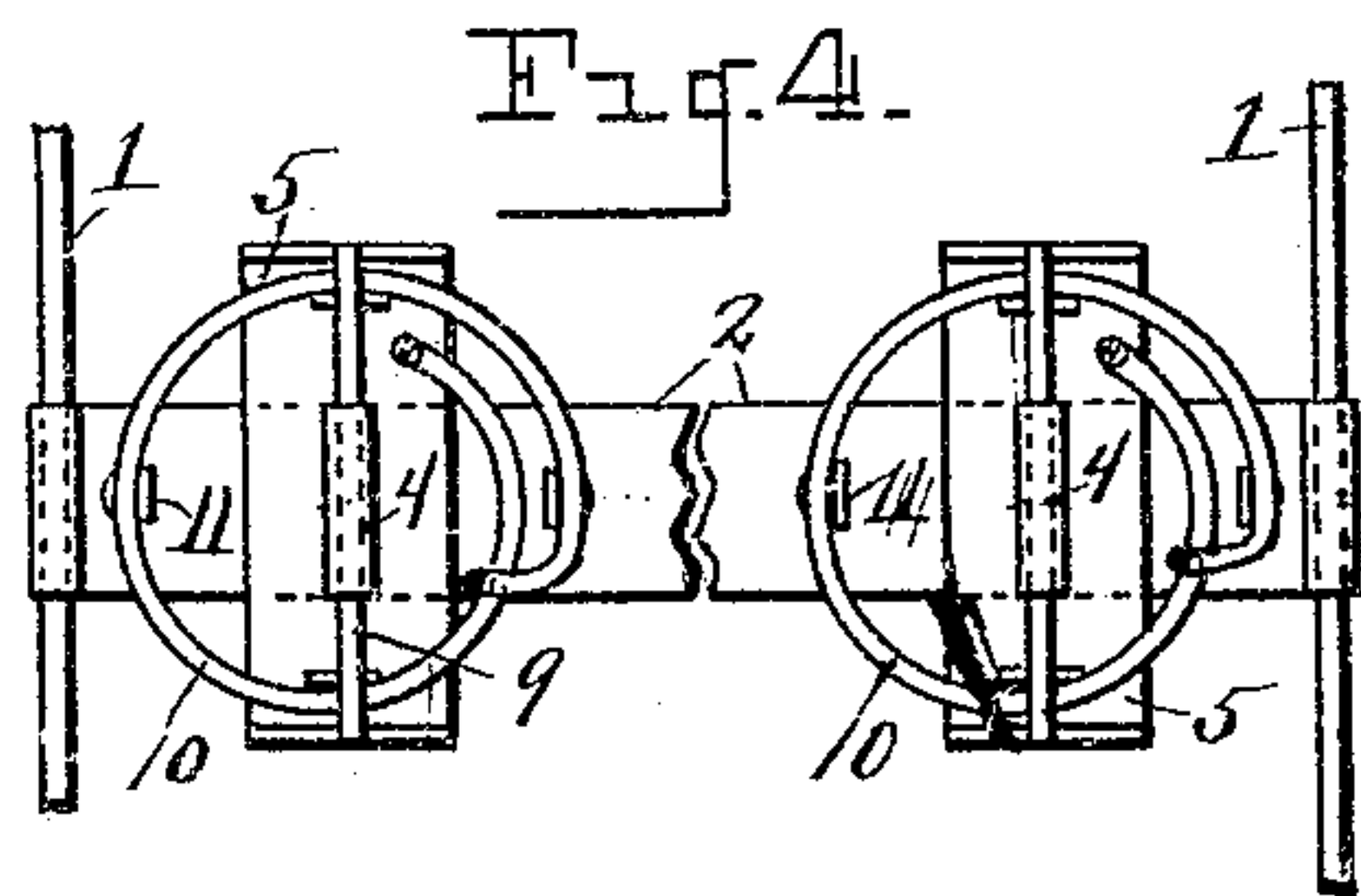
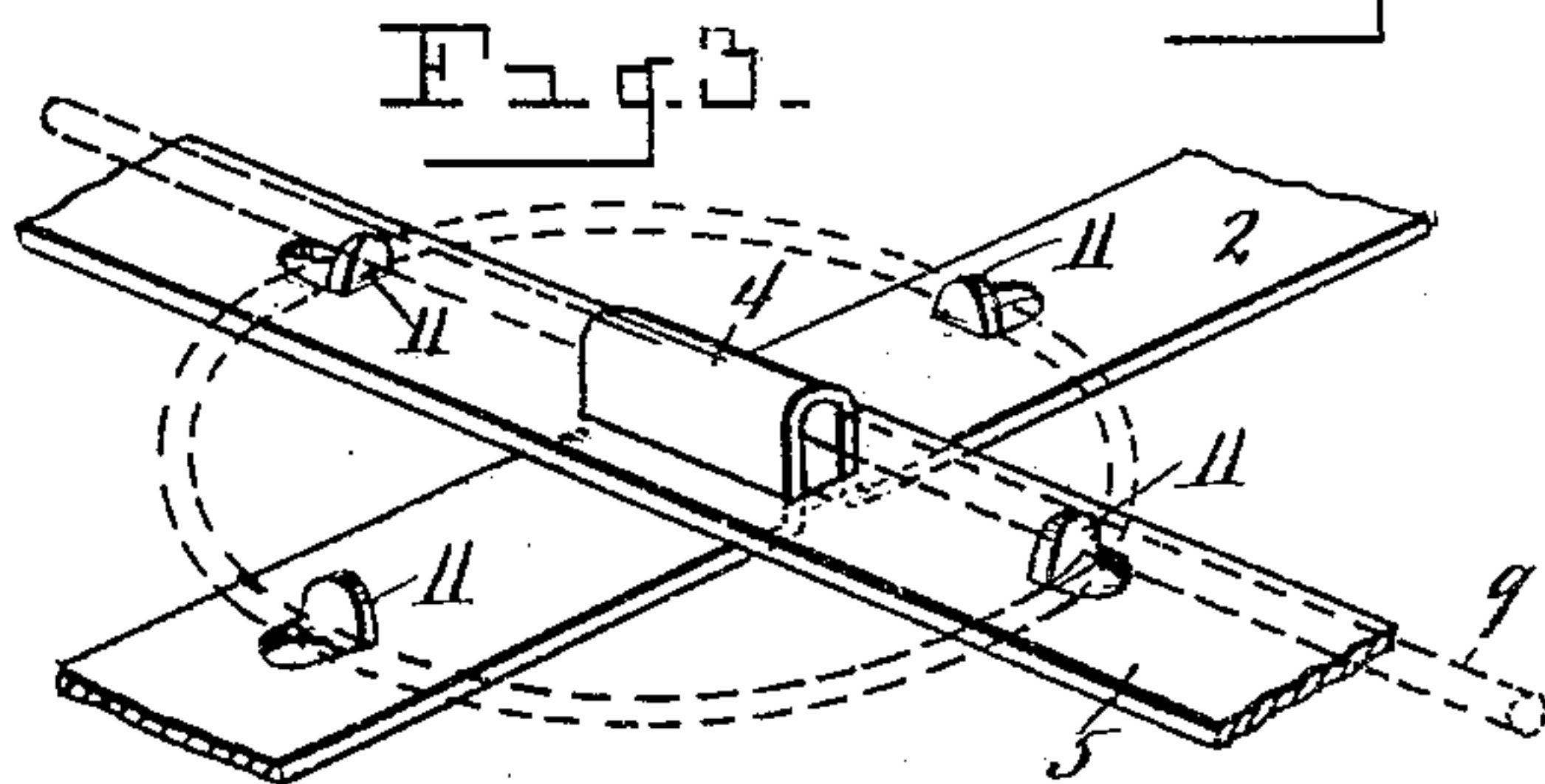
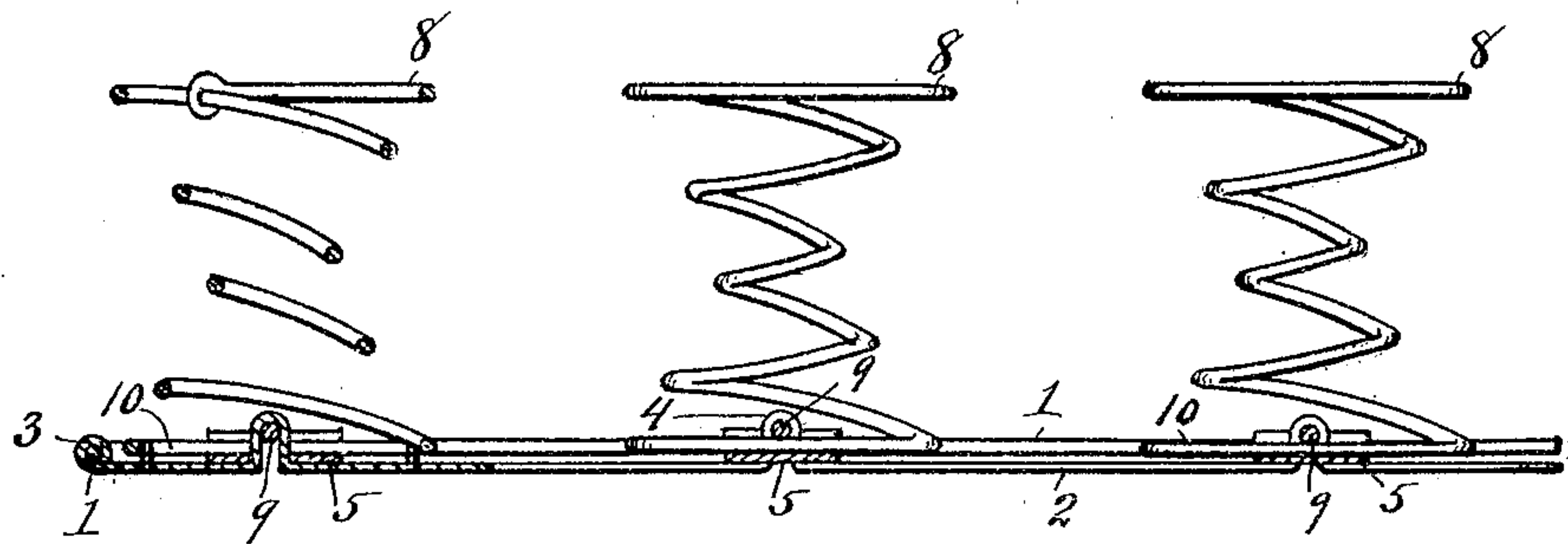
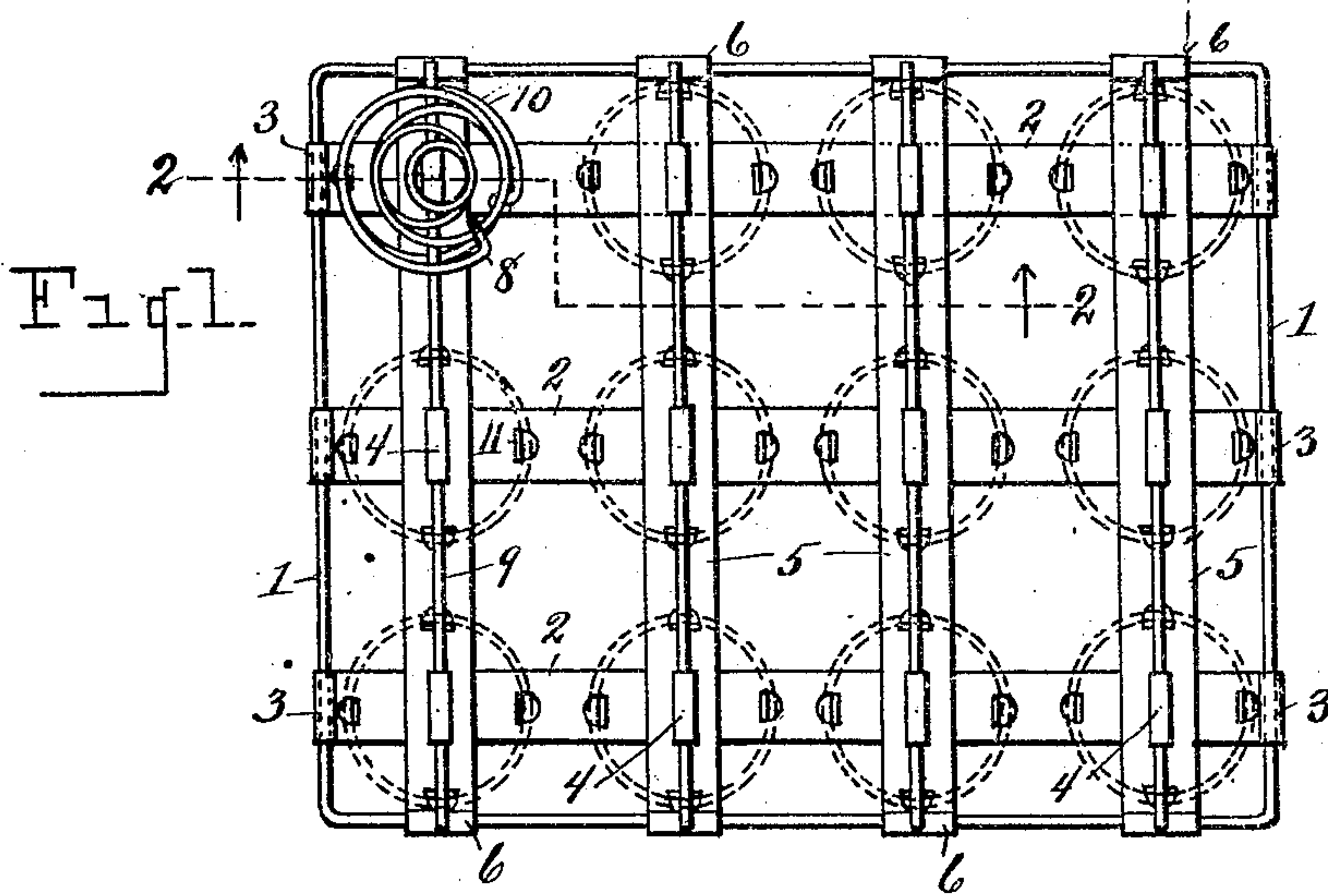


No. 876,527.

PATENTED JAN. 14, 1908.

J. H. COOK.
 SPRING SEAT STRUCTURE.
 APPLICATION FILED APR. 30, 1906.



=Witnesses=
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UNITED STATES PATENT OFFICE.

JAMES H. COOK, OF DETROIT, MICHIGAN, ASSIGNOR TO DETROIT WIRE SPRING CO., OF
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SPRING-SEAT STRUCTURE.

No. 876,527.

Specification of Letters Patent.

Patented Jan. 14, 1908.

Application filed April 30, 1906. Serial No. 314,375.

To all whom it may concern:

Be it known that I, JAMES H. COOK, a citizen of the United States, residing at Detroit, in the county of Wayne, State of Michigan, have invented certain new and useful Improvements in Spring-Seat Structures; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to a spring seat or spring cushion construction, and consists in the peculiar arrangement and association of parts hereinafter fully set forth and pointed out particularly in the claims.

The object of the invention is to provide a structure wherein provision is made for quickly and securely mounting the springs of an upholstered seat or cushion so as to firmly retain them upon the supporting frame, and wherein the arrangement is such as to enable the springs to be quickly mounted and readily removed, and at the same time produce a smooth and compact structure.

The above object is attained by the arrangement illustrated in the accompanying drawings, in which:—

Figure 1 is a plan view of a seat or cushion frame made in accordance with my invention. Fig. 2 is a transverse section, as on line 2—2 of Fig. 1. Fig. 3 is a fragmentary view in perspective of two of the crossed straps of the frame. Fig. 4 is a fragmentary view in plan, showing a modification of the structure. Fig. 5 is a transverse section through one of the metal straps having the openings there-through. Fig. 6 is a fragmentary view in longitudinal section through the other of the crossed straps, showing one of the loops adapted to enter and lie in the openings of the first mentioned strap.

Referring to the characters of reference, 1 designates a rectangular frame formed preferably of strong wire of suitable gage, across which extend in one direction the metal straps 2 whose terminals are formed into eyes 3 which embrace the wire 1 of the frame. Struck up from the body portion of each of the straps 2 are a number of loops 4. Crossing the straps 2 transversely are the metal straps 5 whose terminals are provided with

embracing eyes 6 which engage the wire of the frame, the body portion of the straps 5 being provided with apertures 7 which register with and receive the loops 4 of the straps 2, said loops passing through said apertures and extending above the plane of the straps 5. By this arrangement the crossed straps of the fabric are securely united at their points of juncture and are firmly held against lateral displacement. Mounted upon said straps at the points where they cross at right angles are the spiral springs 8 which rest upon said crossed straps and are confined in place by means of the locking rods 9 which lie upon and cross the lower coils 10 of said springs and pass through the loops 4 of the straps 2, said locking rods in the forms shown in Figs. 1, 2 and 3 passing through all of the loops 4 in a single row, thereby tying the crossed straps firmly together, and at the same time securely fastening the springs to said straps so as to maintain them firmly in a vertical position.

To prevent lateral displacement of the springs, there may be struck up from the cross straps 2 and 5, the lugs 11 which engage the lower coils 10 of the springs, as shown, and prevent said springs shifting.

By the arrangement herein shown and described, a firm support is provided for the base of the spring which maintains it in a vertical position, and at the same time provision is made for uniting the crossed straps which support said spring by means of the locking rod 9 which crosses the lower coils of said springs and passes through the upwardly projecting loops of the straps 2. It will be observed that where the bar or strand 9 is made continuous, as shown in Figs. 1, 2, and 3, it serves as a truss to brace the straps 5 and add to the carrying strength thereof, enabling the use of comparatively light material in said straps. It will further be observed that the frame formed of the rectangular marginal strands 1 and the crossed straps 2 and 5 is comparatively smooth upon the bottom side, thereby greatly facilitating the work of upholstering.

In some instances it may be desirable to form the structure in narrow straps or sections, as shown in Fig. 4, in which case the straps 5 will be short, as shown in said Fig. 4 as well as the locking rods 9 which will correspond in length to said short straps.

Having thus fully set forth my invention, 110

what I claim as new and desire to secure by Letters Patent is:—

1. In a spring seat structure, the combination of the crossed metal straps, one of said
5 straps having a locking member which passes through the other strap, a spring seated on said straps at their point of crossing and a locking bar engaging the lower coil of said spring and said locking member.
- 10 2. In a spring seat structure, the combination of a plurality of metal straps crossing at right angles, a number of said straps being provided with apertures and the remaining portion of said straps being provided with
15 loops which pass through said apertures to tie the straps together, springs seated upon said straps at the juncture thereof, and a locking bar passing over the lower coils of said springs and through said loops to tie the
20 parts together.
3. The combination in a spring seat structure, of the longitudinally extending strap adapted to support a spring having a loop formed therein, a transverse strap having an
25 aperture to receive said loop, a spring mount-

ed upon said crossed straps, and a locking rod passing over the lower coil of said spring, and through said loop.

4. In a spring seat structure, the combination of the crossed straps, one of which is
30 provided with an aperture and the other with a loop passing through said aperture, a coiled spring seated upon said crossed straps, and means engaging in said loop and bearing upon the spring to lock said spring in posi-
35 tion.

5. In a spring seat structure, the combination of the crossed straps forming a support for the spring, one strap having an aperture
40 therethrough, and the other having a projecting member which engages in said aperture, means for locking the straps together and the spring thereto, and means for preventing lateral movement of the spring.

In testimony whereof, I sign this specification in the presence of two witnesses.

JAMES H. COOK.

Witnesses:

E. S. WHEELER,
I. G. HOWLETT.