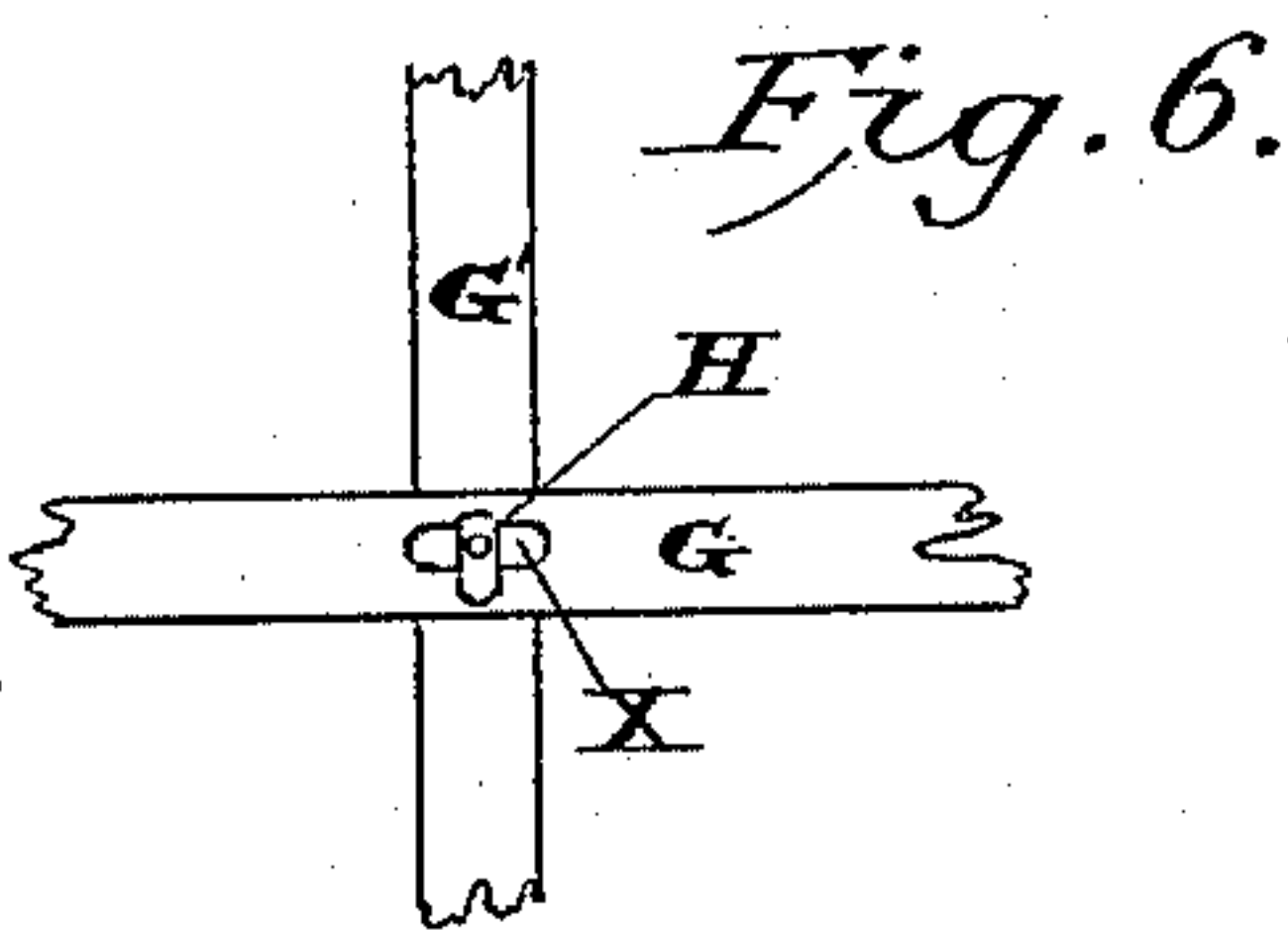
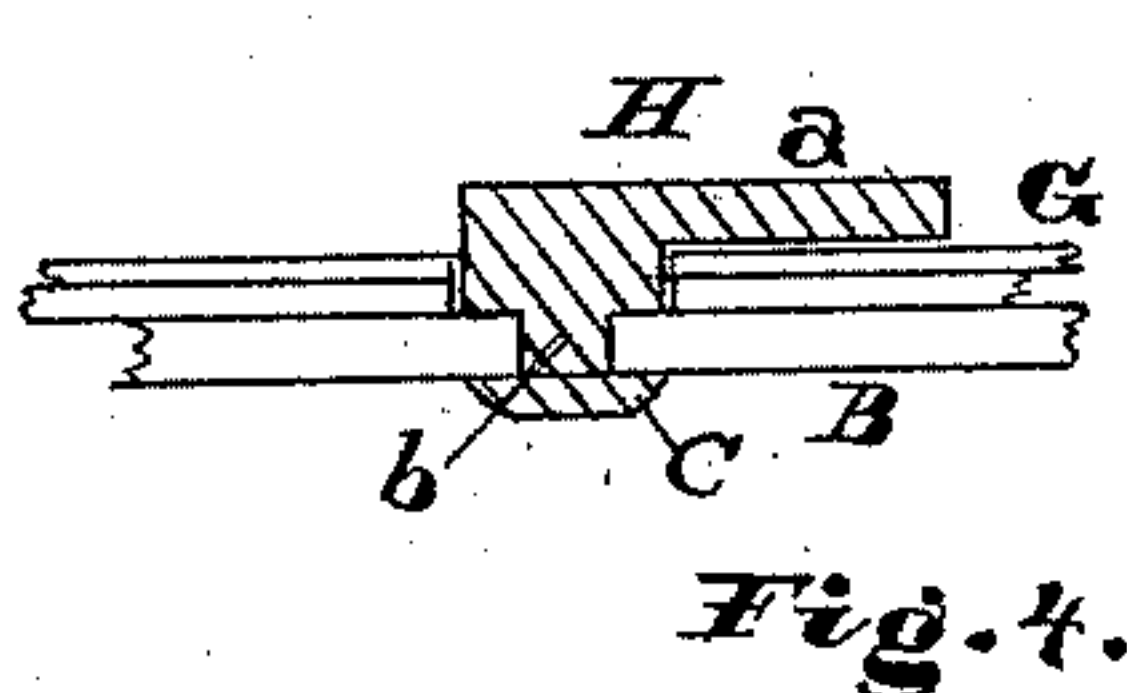
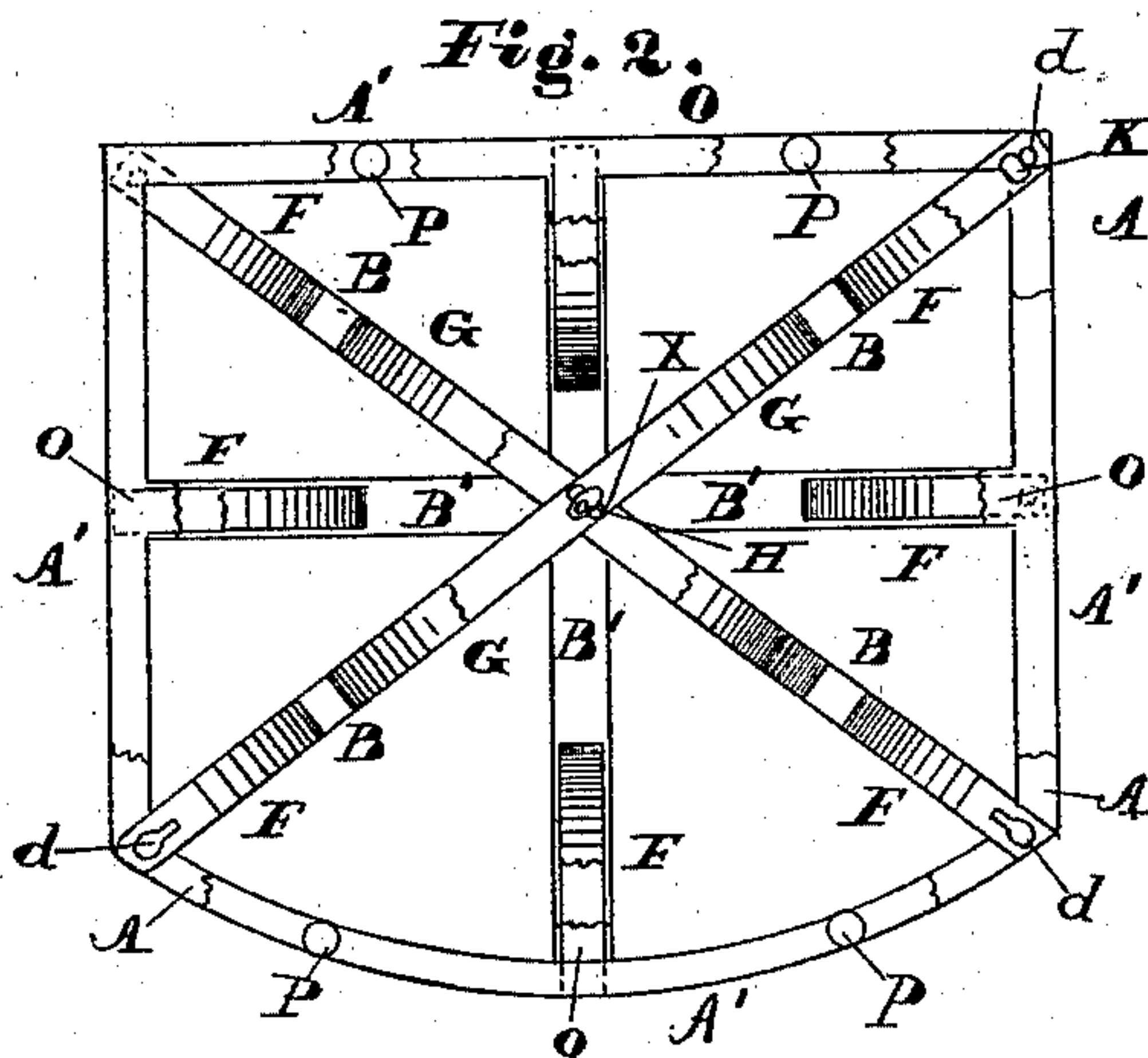
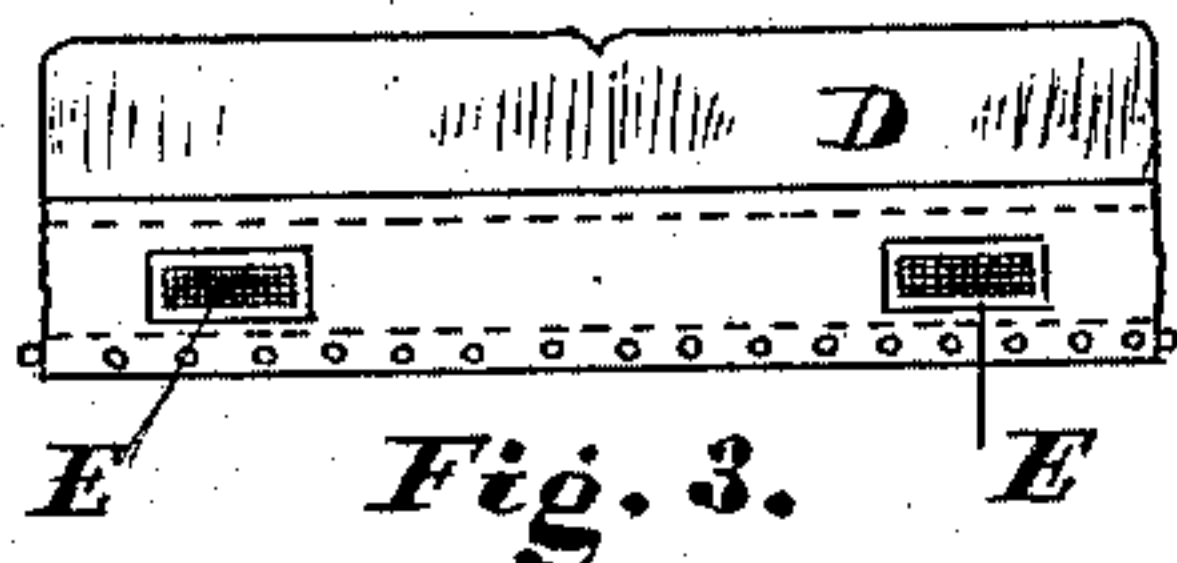
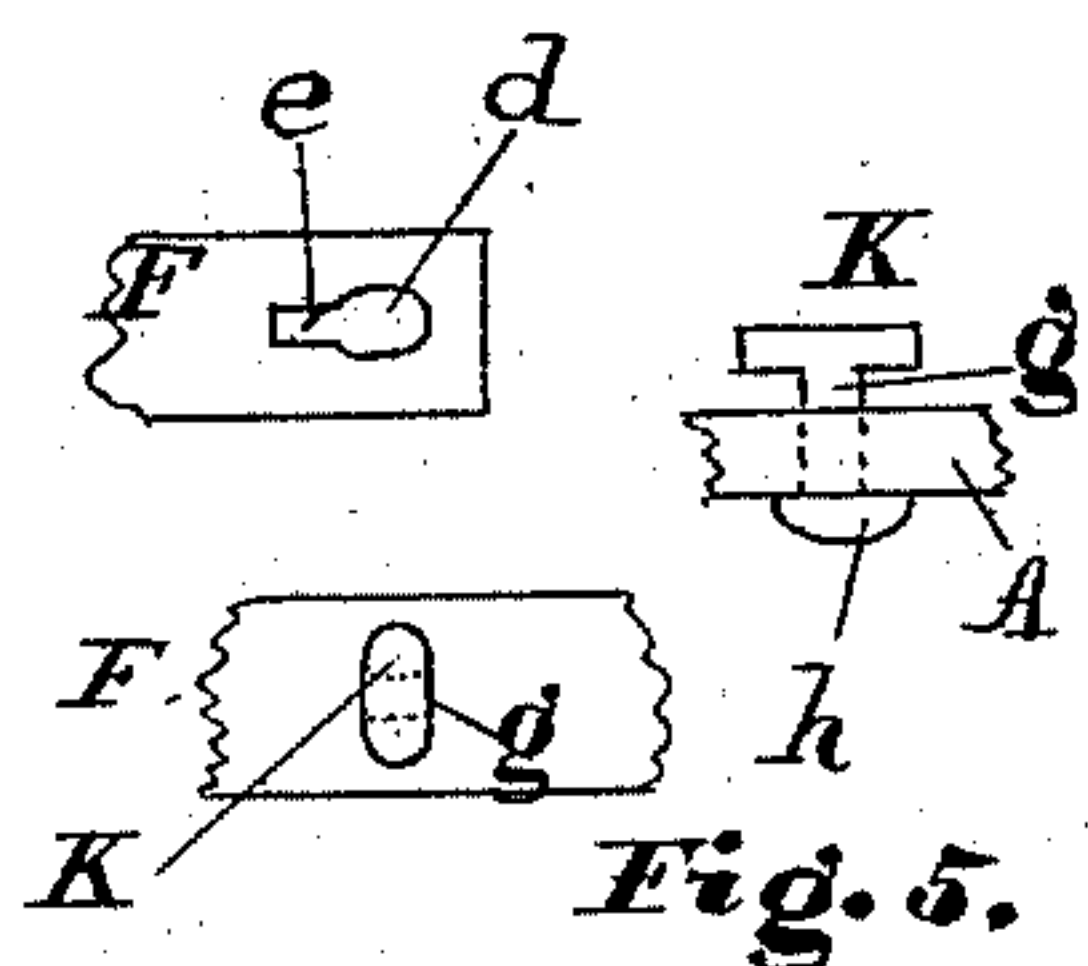
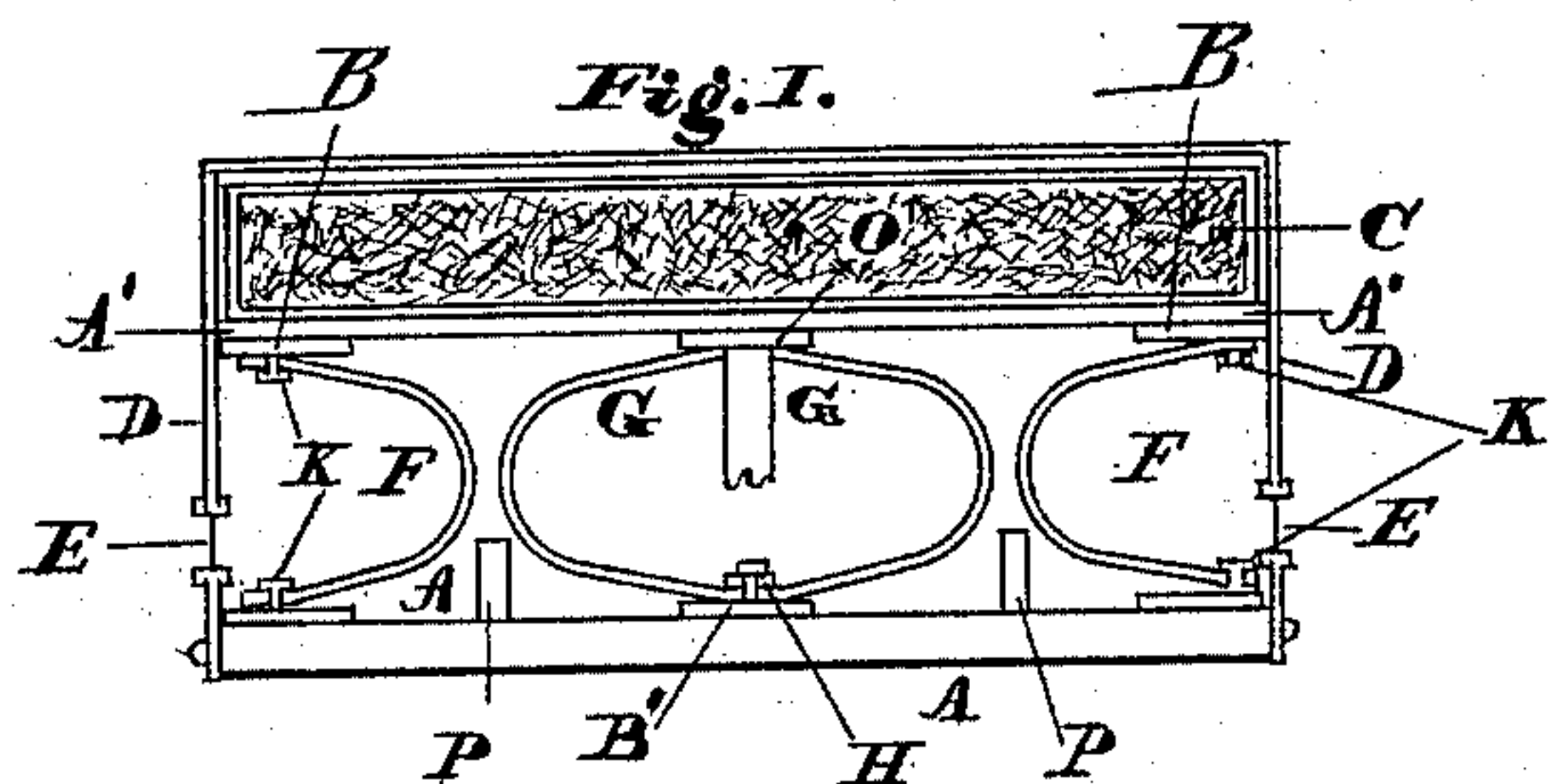


(No Model.)

E. F. J. BULLENE.  
VENTILATED CUSHION.

No. 442,099.

Patented Dec. 9, 1890.



Witnesses:

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by  
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# UNITED STATES PATENT OFFICE.

EMMA F. JAY BULLENE, OF CHICAGO, ILLINOIS.

## VENTILATED CUSHION.

SPECIFICATION forming part of Letters Patent No. 442,099, dated December 9, 1890.

Application filed October 14, 1889. Serial No. 327,036. (No model.)

*To all whom it may concern:*

Be it known that I, EMMA F. JAY BULLENE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Ventilated Cushions, of which the following is a specification.

My invention relates to "ventilated cushions," in which a stuffed or upholstered cushion is secured upon the top of a frame-work resting on a set of springs made of flat steel bent in a curve, the said cushion and spring being inclosed in a cover or envelope secured to the lower piece of the frame, and being perforated with a series of eyelets or ventilators.

The object of my invention is to provide a ventilated cushion that will be highly elastic and that will renovate itself by the ventilation provided in the use of the eyelets or ventilators. I attain this object by means of the device shown in the annexed drawings, in which—

Figure 1 is a section of the cushion made in the middle line. Fig. 2 is a plan view of the cushion with the cover removed. Fig. 3 is a view of the cushion, showing the ventilators. Fig. 4 is a sectional and plan view of the button H. Fig. 5 is a view of the button K and the end of a spring F. Fig. 6 is a detail view of the springs G G.

Similar letters refer to similar parts throughout the several views.

I make a frame A and A', composed of strips of suitable material for holding the springs G and F, the said strips being placed at right angles, as B', and diagonally, as B. On the strips B and B' at convenient points I secure a turn-button H, which has a flattened elongated head *a* and a shank *b*, which is riveted at *c* to the strip B, and may be turned in the socket in B to secure the springs G G, which said springs G G have each of them an elongated hole X cut in the center, through which passes the head *a* of the button H. On the cross-pieces B' and the diagonal pieces B, at the ends, I secure a fixed button K, a square shank *g* of which perforates the strip B' and B and the frame A and A' and is provided with a head *h* to secure it to the strips. The upper part of the button K is prolonged into a flattened head, set at right angles with the

long axis of the strips B' and B. I then make a series of steel springs F and G, and in the case of the springs G, I make them in the form of a hoop, and at convenient points of the sides of the hoop I make an elongated hole X to accommodate the head *a* of the button H. I then make a second series of steel springs and bend them in a curved manner, and in the ends of each I make an elongated hole *d* and a square prolongation of the same *e*. The elongated hole *d* is made to conform to the shape of the head of the button K and the prolongation *e* to fit the shank *g*. On the lower element of the frame A, at convenient points, I place stop-posts P, designed to prevent the springs G and F from collapsing too far.

On the top of the frame A' and A, I make a pad C, which may be of hair or any other suitable material to form a cushion, and over this pad C, I make a web D, which is a cover or envelope to the pad C and frame A and A', and, at convenient points in the cover or web D, I make a series of ventilators E, which are made in the form of an eyelet and riveted to the web D, the object of the ventilators being to allow of a current of air passing in and out of the body of the cushion by the compression and expansion of the springs.

Having thus described the parts of my invention, I now proceed to explain the method of using the same.

I put the frame A and A' together and adjust the springs G on the diagonal strips B', turning the button H to hold them in place. I then secure the springs F by compressing them and slipping the ends over the button K, then turning the springs in a line with the strip B or B', as the case may be, so that the elongated part *e* of the hole *d* will be in line with the shank *g* of the button and the spring be held from turning. I then place the stop-posts in position and secure the pad C, then place over the whole the cover or web D, and secure the lower edges by tacks.

I am aware that spring-cushions have been in use prior to my invention, and I do not therefore lay claim to the broad principle of spring-cushions; but

What I do claim, and desire to secure by Letters Patent, is—

1. In a ventilated cushion, a frame com-

posed of cross and diagonal strips, consisting of a lower set of strips, stop-posts, a series of buttons having a flattened head and square shank, and a central button having a round shank, the said button being movable, combined with a series of flat steel springs held in place by a series of buttons having square shanks, the said springs supporting the upper set of strips, all as and for the purpose substantially as set forth and described.

2. In a ventilated cushion, the combination of a lower and upper frame composed of strips, the said strips carrying a fixed button with an

elongated head and having a square shank, combined with a steel spring having a curved form and having the ends perforated with holes, having an elongated portion to correspond with the head of the said button, and a prolonged portion cut square to correspond with the square shank of the said button, all as and for the purpose set forth and described, or their equivalents.

EMMA F. JAY BULLENE.

In presence of—

H. HAUPT, Jr.,

FRANK P. BISHOP.