

C. D. Flint,

Spring Cushion.

No. 93815.

Patented Aug 17. 1869

Fig. 1.

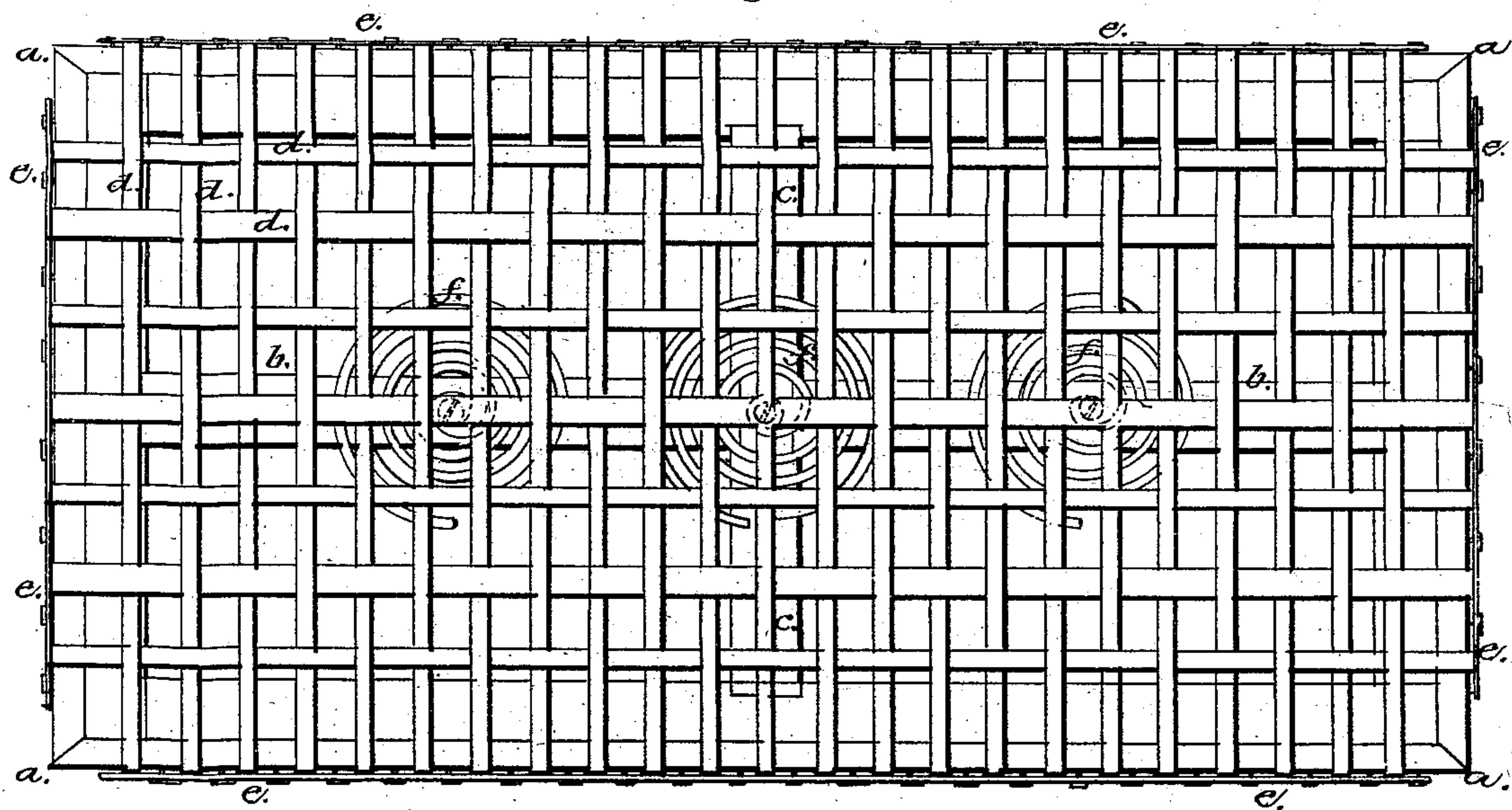


Fig. 2.

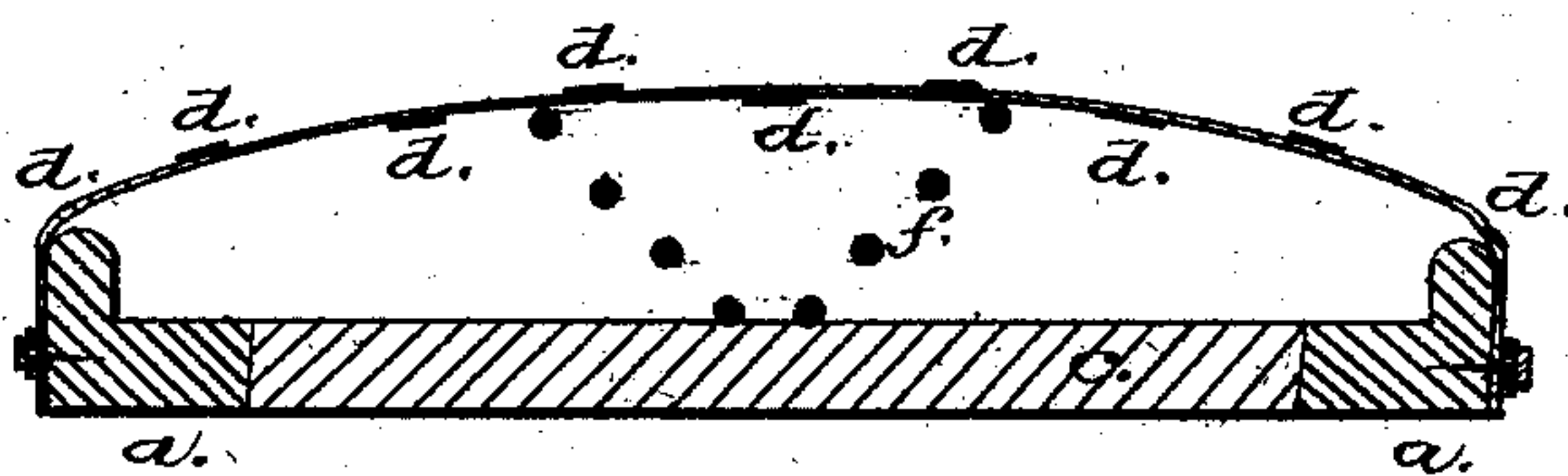
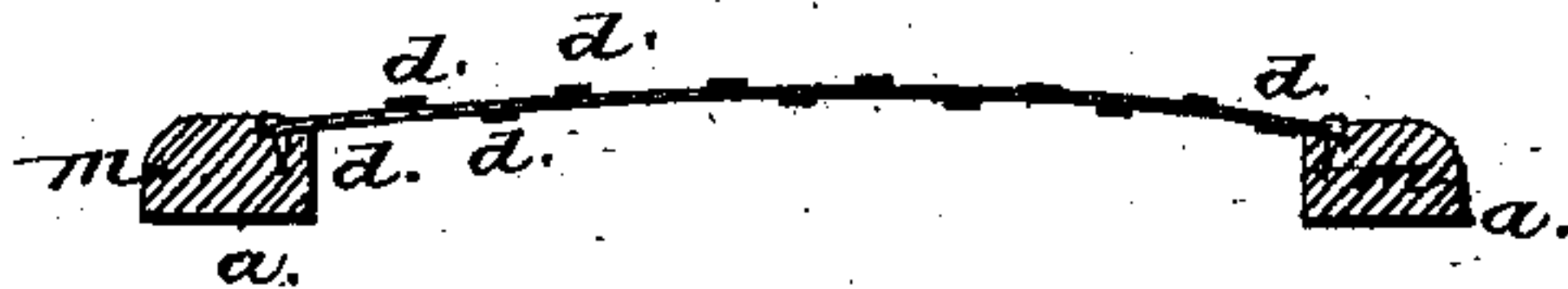


Fig. 3.



WITNESSES:

George E. Buckley
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INVENTOR:

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CHESTER D. FLYNT, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 93,815, dated August 17, 1869.

IMPROVEMENT IN SPRING CUSHIONS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, CHESTER D. FLYNT, of the city of Philadelphia, and State of Pennsylvania, have invented a new and useful Spring-Cushion Seat, or support; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists of an interwoven fabric of cushion form, made of steel strips, combined with a supporting-frame, to which the ends of the strips are secured.

The invention is adapted to carriages, railway-cars, chairs, &c., forming seats of great elasticity and strength, with a comparatively small amount of material to what is usually required in other modes of forming such seats.

It is also applicable in the construction of bottoms or supports, for beds and like articles.

The construction of the improved seat or support will be understood by the following description.

In the accompanying drawings, which make a part of this specification—

Figure 1 is a plan of the improved cushion, as adapted to railway-car seats.

Figure 2 is a transverse section through the middle of the same.

Figure 3 is a like section of a chair-seat, showing a variation in the mode of attaching the ends of the strips *d*, to the supporting-frame *a*.

The frame *a*, to which the woven fabric is secured, I prefer making in the flanged form, to secure strength with lightness.

The upper edges of the frame are rounded, as shown, to prevent their cutting or breaking the steel fabric, hereinafter described.

There are cross-pieces, *b c*, for the support of other parts.

The cushion part is formed of steel strips *d*, which are secured at each end to the vertical outside edges of the frame *a*, by means of nails through holes of the strips, and at about one inch and a half from the upper edges of the frame, or as near the bottom thereof as may be practicable, in preserving the proper degree of strength to that part of the frame.

The object in attaching the strips so low down on the edges of the frame, is to secure as much elasticity as possible, and, also, to make the fastening more complete in overcoming the tendency of the strips to spring

off from the frame, when the cushion or woven fabric is borne down upon the rounded edges of the same.

The strips *d* are of such length, that when they are interwoven, as represented, to form a net-work, and their end secured to the frame *a*, the proper convexity will be given to the fabric, as will secure great elasticity and strength.

To give greater security to the fastening of the strips *d*, I fasten steel or other metallic strips, *e*, upon them, at or near their point of attachment to the frame *a*, by means of nails, which are driven through holes in the same and into the frame *a*.

The interwoven steel fabric, as described, has great elasticity and strength, but I impart additional elasticity and strength to it by interposing between it and the cross-pieces *b c*, a series of conical or spiral springs, *f*. There being a space between the woven steel fabric and the rounded edges of the frame *a*, as shown in the drawings, greater elasticity is secured than if the strips were drawn tight upon the same, when fastened to the frame, and there is less strain upon the strips when the cushion is pressed down.

The steel fabric may be covered with canvas, and that with a thin layer of cotton, hair, wool, or other fibrous material, in the usual manner, and then the outside covering be secured, as in other seating.

In the construction of seats for chairs, it may be desirable sometimes to give the supporting-frame *a* the form represented in fig. 3, the upper inner edge of the frame having an inclined rabbet or groove, *m*, and rounded, as shown.

The strips *d*, when interwoven, are drawn tight, and their ends secured by nails in the grooves *m*. In this case, the auxiliary springs *f* are not used. The bottom of the groove *m* should be of such inclination as to give the proper convexity to the seat.

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

A spring seat or support, of cushion form, composed of interwoven steel strips *d*, which are passed over the rounded rim, and fastened to the lower edge of the frame *a*, so as to leave a space between them and the upper rounded edge, with or without the auxiliary springs *f*, the whole being constructed and arranged as described.

CHESTER D. FLYNT.

Witnesses:

GEORGE E. BUCKLEY,
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