A. W. MOSES.

Car-Springs.

No. 143,175. Patented September 23, 1873.

FIG. 1

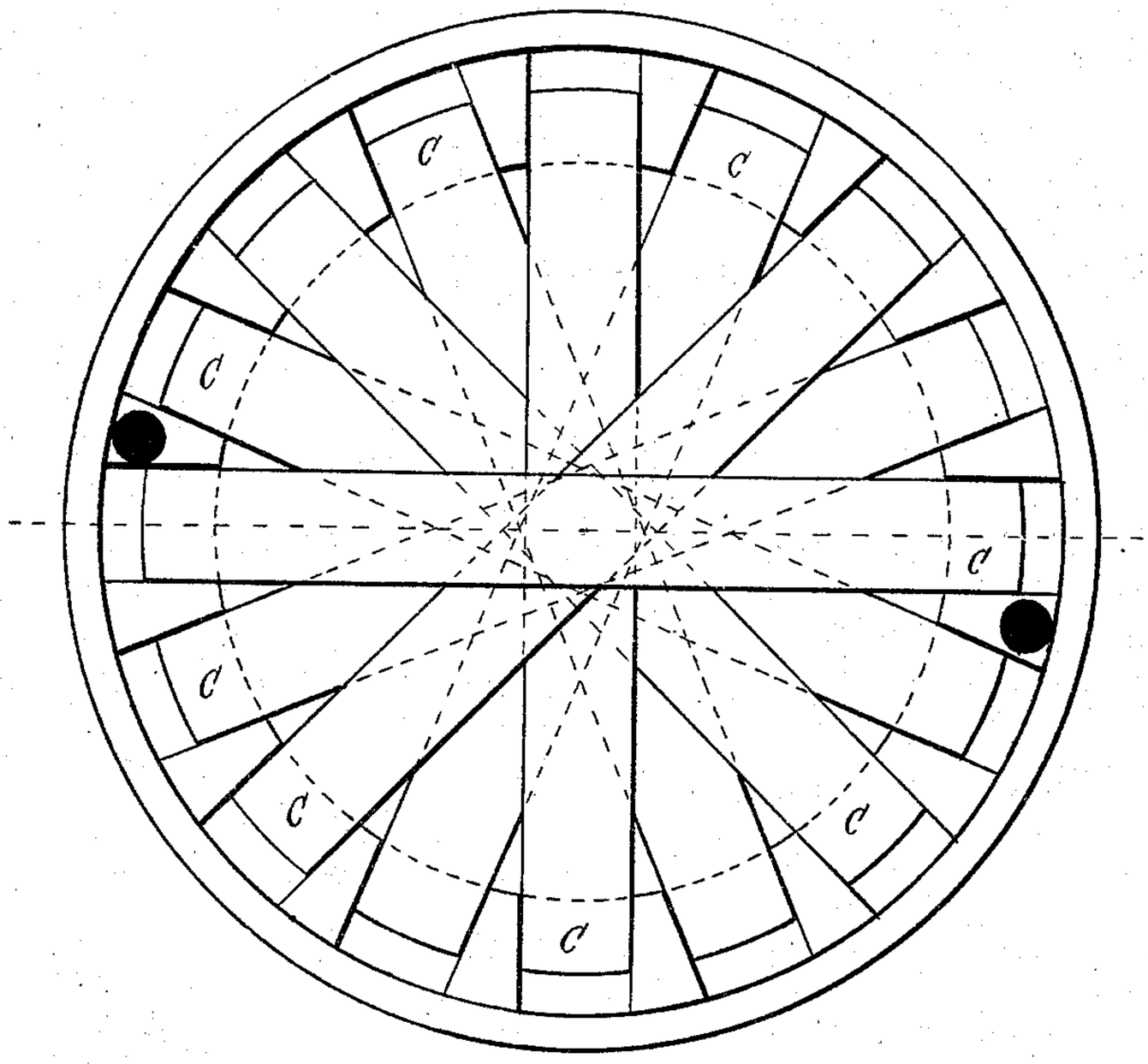
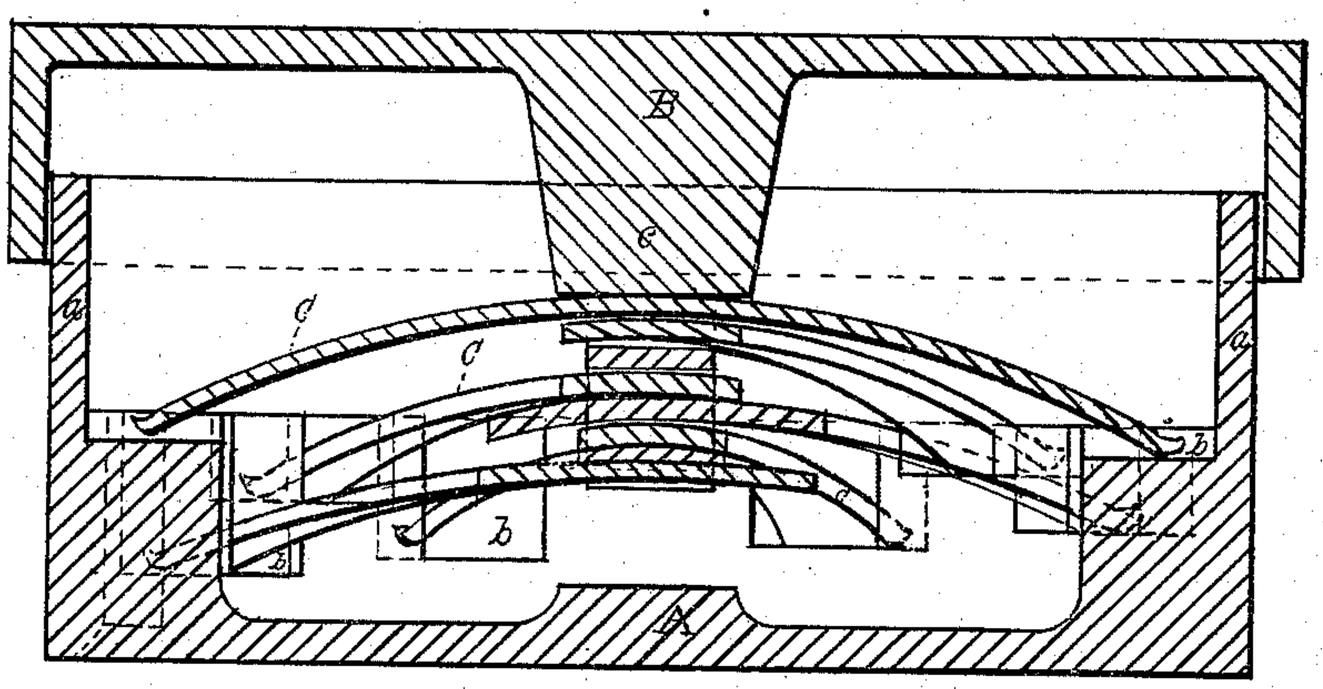


FIG. 2



Witnesses

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AUSTIN W. MOSES, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CAR-SPRINGS.

Specification forming part of Letters Patent No. **143,175**, dated September 23, 1873; application filed March 11, 1873.

To all whom it may concern:

Be it known that I, AUSTIN W. MOSES, of the city of Philadelphia and State of Pennsylvania, have invented certain Improvements in Car-Springs, of which the following is a specification:

My invention relates to the combination, in a spiral form, of a series of elliptical springs with a box or case of circular or other form. The resilient ends of the first spring rest upon the head-plate of the case, or on seats near the same, and the next spring laps over the first at or near the center of the case, its resilient ends resting upon seats the thickness of the spring farther from the plate than those of the first spring, and so on in succession throughout the whole series of springs. The middle portion of each spring laps on the preceding spring, and its ends rest upon seats farther removed from the plates. In like manner two series of springs may be used alternately with each other. I make the combined spring of any convenient number of strips of steel that may be necessary to insure great sensitiveness and strength.

Figure 1 is a plan view of the case A, the cap-piece B being removed. Fig. 2 is a section at the line *x x* of Fig. 1, the cap-piece B being in connection.

Like letters in both figures indicate the same parts.

A is a cast-iron box or case. B is the cap-piece; C C C, &c., a series of elliptical springs in combination therewith. The case A has within its rim *a* series of recesses, *b*, for holding the ends of the springs C. The recesses *b b* which contain the first spring are level, or nearly so, with the head-plate of the case A, as seen in Fig. 2; those which support the second spring are farther from the plate the thickness of the spring, and those which support the third spring are in like manner farther removed from the plate than the seats of the second spring, and so on in succession throughout the whole series.

In the drawings I have represented a circular case, but do not confine myself to this form, as the spiral arrangement of the springs, as represented, will apply to any desirable form of the case.

The center boss *c* of the cap-piece B rests upon the upper spring, as seen in Fig. 2.

I claim as my invention—

The combination of a series of elliptical springs spirally arranged with a box or case, so that the ends of the first spring rest on seats equidistant from the contiguous head-plate, the ends of the second spring on seats a short distance therefrom, and at opposite sides of the first seats, the seats being farther removed from the plate than the former, and so on in succession throughout the whole series of the springs, each spring overlapping the preceding one at or near the center of the case, substantially in the manner and for the purpose set forth.

AUSTIN W. MOSES.

Witnesses:

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