

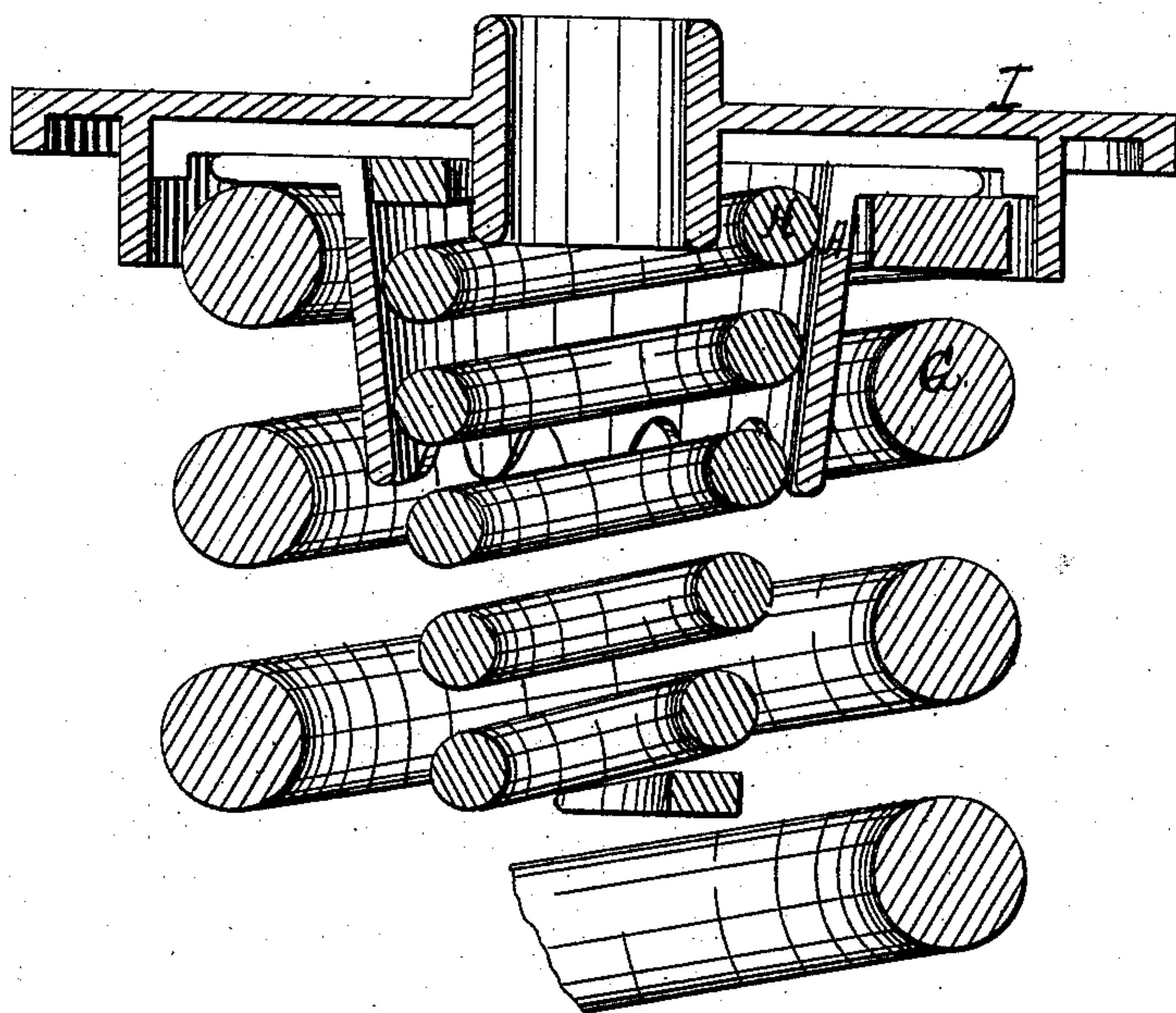
(No Model.)

R. VOSE.  
CAR SPRING.

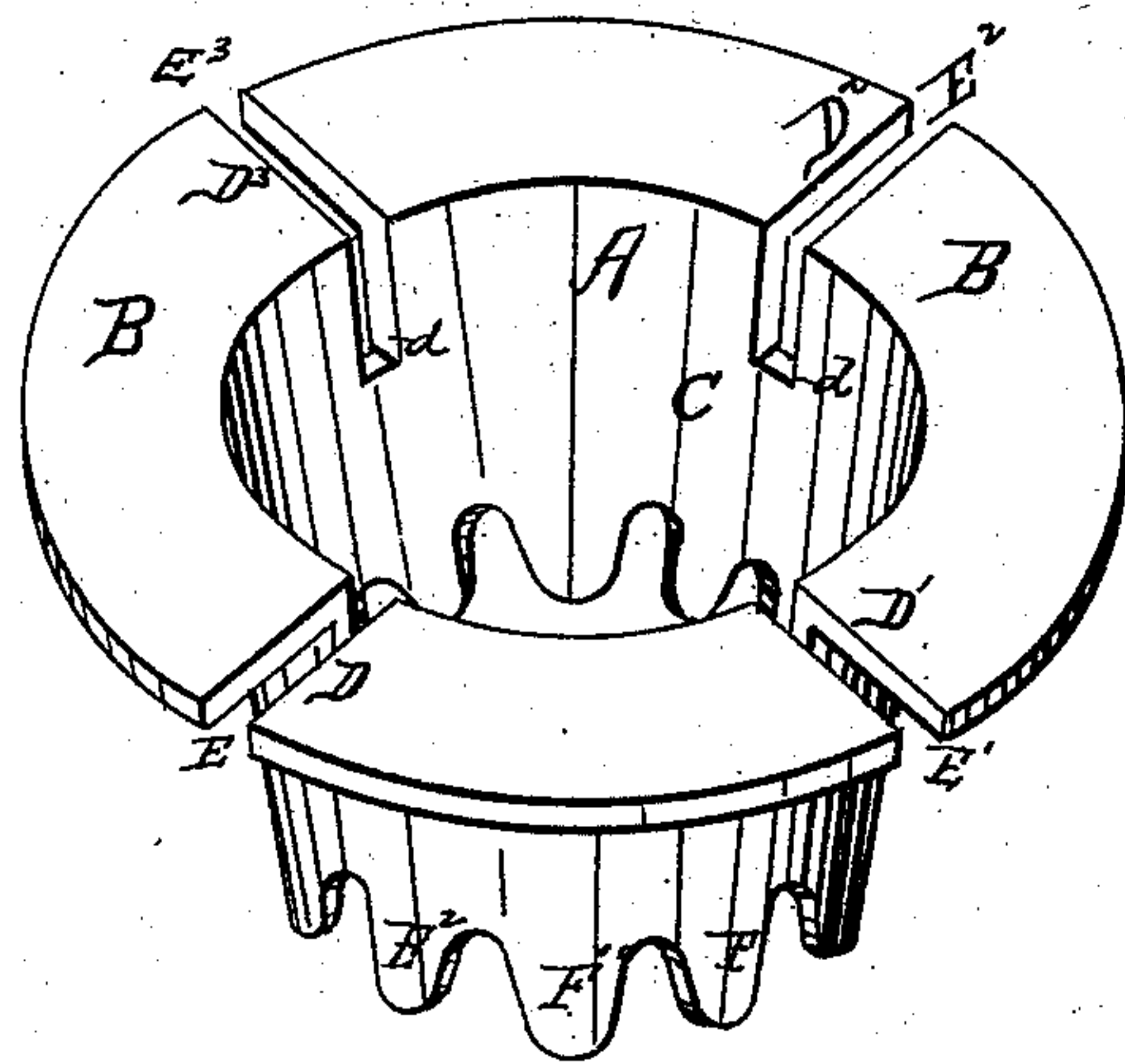
No. 292,774.

Patented Jan. 29, 1884.

*Fig. 1*



*Fig. 2.*



WITNESSES:

*John H. Corwin*  
*Anton S. Harris*

INVENTOR

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BY

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# UNITED STATES PATENT OFFICE.

RICHARD VOSE, OF NEW YORK, N. Y.

## CAR-SPRING.

SPECIFICATION forming part of Letters Patent No. 292,774, dated January 29, 1884.

Application filed September 14, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD VOSE, of the city of New York, county and State of New York, am the inventor of certain Improvements in Spring Holders or Cups for Holding Interior Springs in Position, of which the following is a specification, reference being had to the drawings forming part thereof, in which—

10 Figure 1 is a sectional view of my improvement in position, showing the interior and exterior springs. Fig. 2 is a plan or perspective plan view of my improvement.

15 Hitherto cups for holding interior springs have been made by being cast in a solid body, so that if the interior spring should be of a less dimension than the diameter of the cup the spring would drop through and be broken when the load was applied. If the spiral were  
20 of a greater diameter than that of the cup at the top, when the load was placed on the top, the coil would be forced down into the cup, thus causing a fracture of the rim of the cup, and thus breaking the cup, and the spiral  
25 would drop through and break the outer spring by getting into its coils. If not dropping through, the spring had to be removed, thus causing waste of time and of material. By means of my improvement I obviate this fracture by allowing an expansion of my cup at  
30 the very point where fracture generally occurs.

35 In the drawings, A is the cup, which is made of a greater diameter at the top than at the bottom, having in some cases, when desired, a conical shape, such as has been heretofore used by me; but this cup need not be a cone-shaped cup, but contracted at the bottom sufficient to keep the inner spring from  
40 dropping through and holding said spring ready for action.

B is the rim running around the top, at about right angles to the side C, and is divided, with said side C, into sections D D' D<sup>2</sup> D<sup>3</sup> by means of cutting away the metal at  
45 points E E' E<sup>2</sup> E<sup>3</sup>. These cut-aways E, &c., extend through the whole of rim B and down into the side or surface of part C to point d. When desired, the lower end or the bottom

of part C may be scalloped or otherwise recessed, as shown in Fig. 2 at F F' F<sup>3</sup>, &c.

H is an interior coiled spring, and G is the exterior spring, and I is the cap over all, and on which the load is placed.

It will now be seen that if the inner coil, 55 H, is placed in the cup A, and the cup placed in position in coil G, and the cup and spring H are held suspended therein by means of rim B, the top of the inner coil should project above the plane of the rim B, and a heavy 60 load placed on top of plate I should force the coil H down into the cup A, either the rim B would be broken, or the cup would be cracked, or the coil would be broken, and, falling down through into the bottom, would 65 probably cause a fracture of the inner coil by the pieces getting in among its spirals. Now, if such is the fact in my case, that the inner coil is of greater dimensions than the diameter of the cup, and the load is placed on the 70 coil projecting above the rim of the cup, the parts or sections D D', &c., are further separated, the diameter of the cup at that end is made greater, so that the spring sinks down into the cup, out of the way of the load, obviating any great strain or pressure on the 75 coil and on the cup, and thus saving both from fracture. The inner coil is held tight, however, in the cup, as this expansion only extends to part of the way of the side C. 80

By my improvement I also save metal; but if the inner coil is found to incline to one side more than it should, by driving the scallop or edge F in against the coil, lateral motion is prevented and the coil is held in its proper 85 bearing position. The bottom of the cup, by means of these scallops or projections, may be lessened or widened by means of pounding them in or widening or pulling them apart, as will be readily seen. 90

When a double interior coil is desired to be used, a cup at each end, each holding one spring, may be used.

What I claim, and desire to secure by Letters Patent, is— 95

1. A cup for holding inner spiral springs, constructed with a rim divided into sections by means of cutting away part of the

metal in the rim and sides of said cup, substantially as shown, and for the purpose specified.

2. A cup for holding springs, having the  
5 rim B divided into sections F, cut-aways E E',  
and scallops F F, or serrated lower edge on  
end of side C, substantially as described, and  
for the purpose specified.

Witness my hand this 30th day of August,  
1883.

RICHD. VOSE.

Witnesses:

B. S. CLARK,  
C. R. CLARKE.