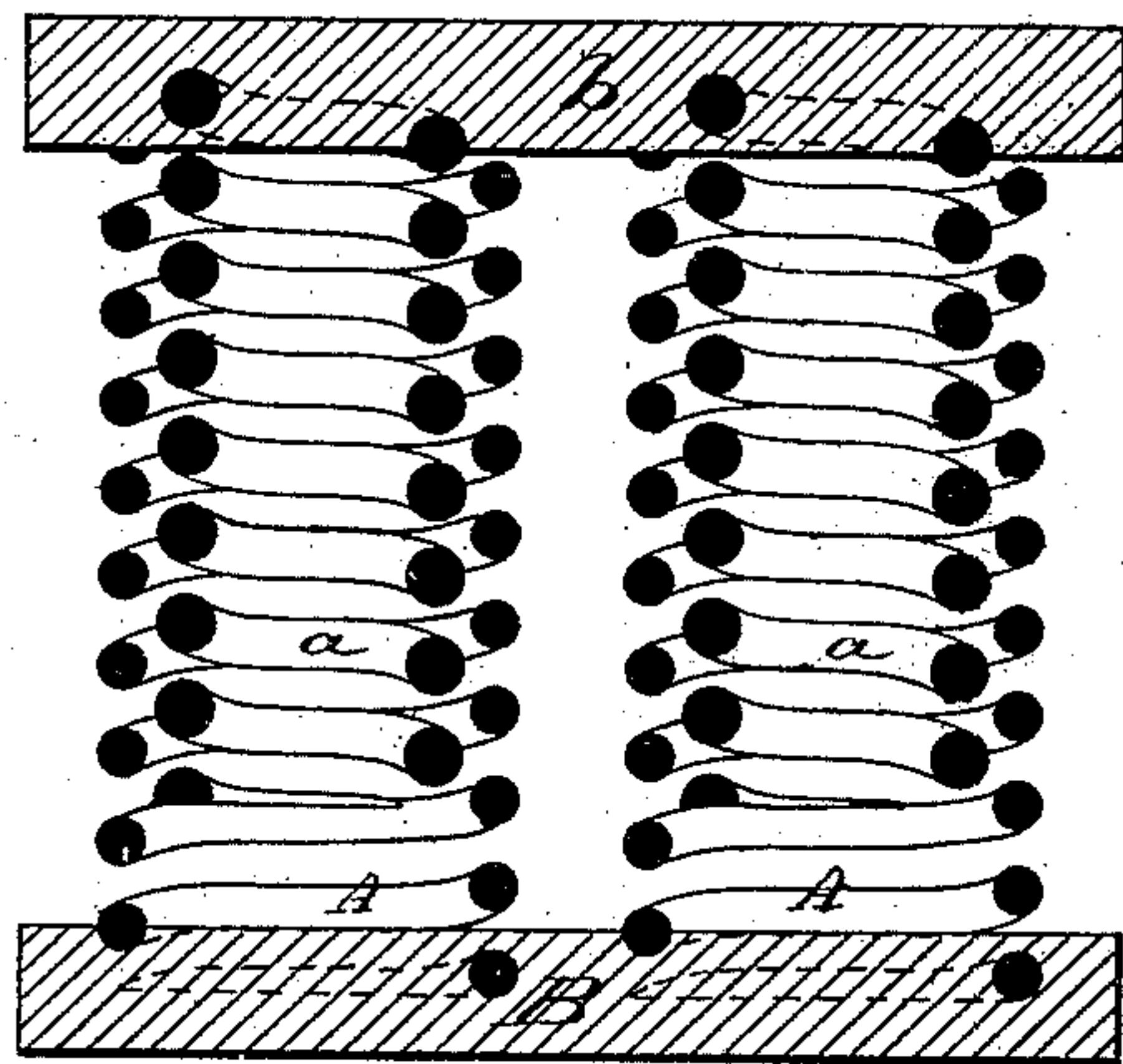
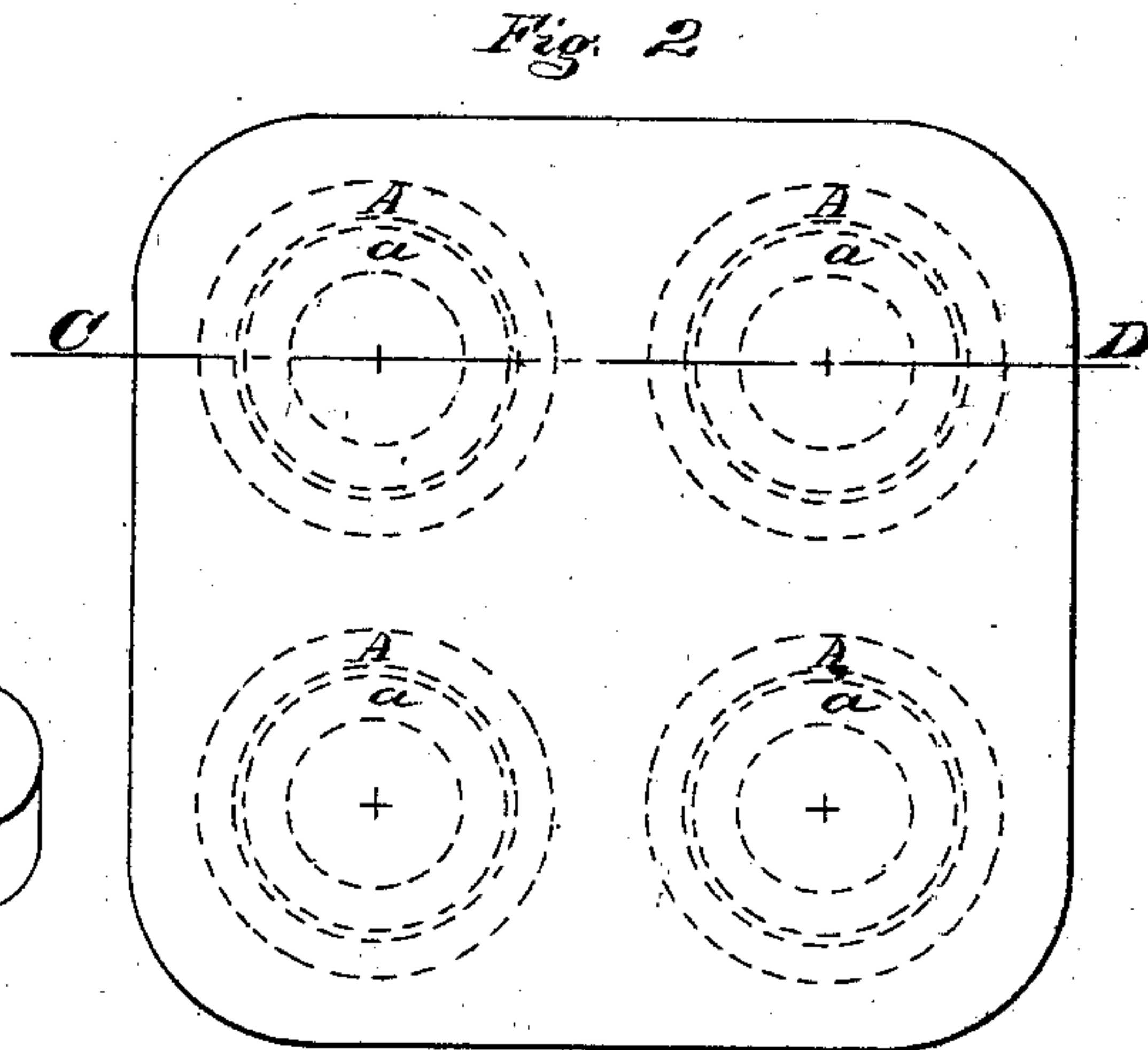
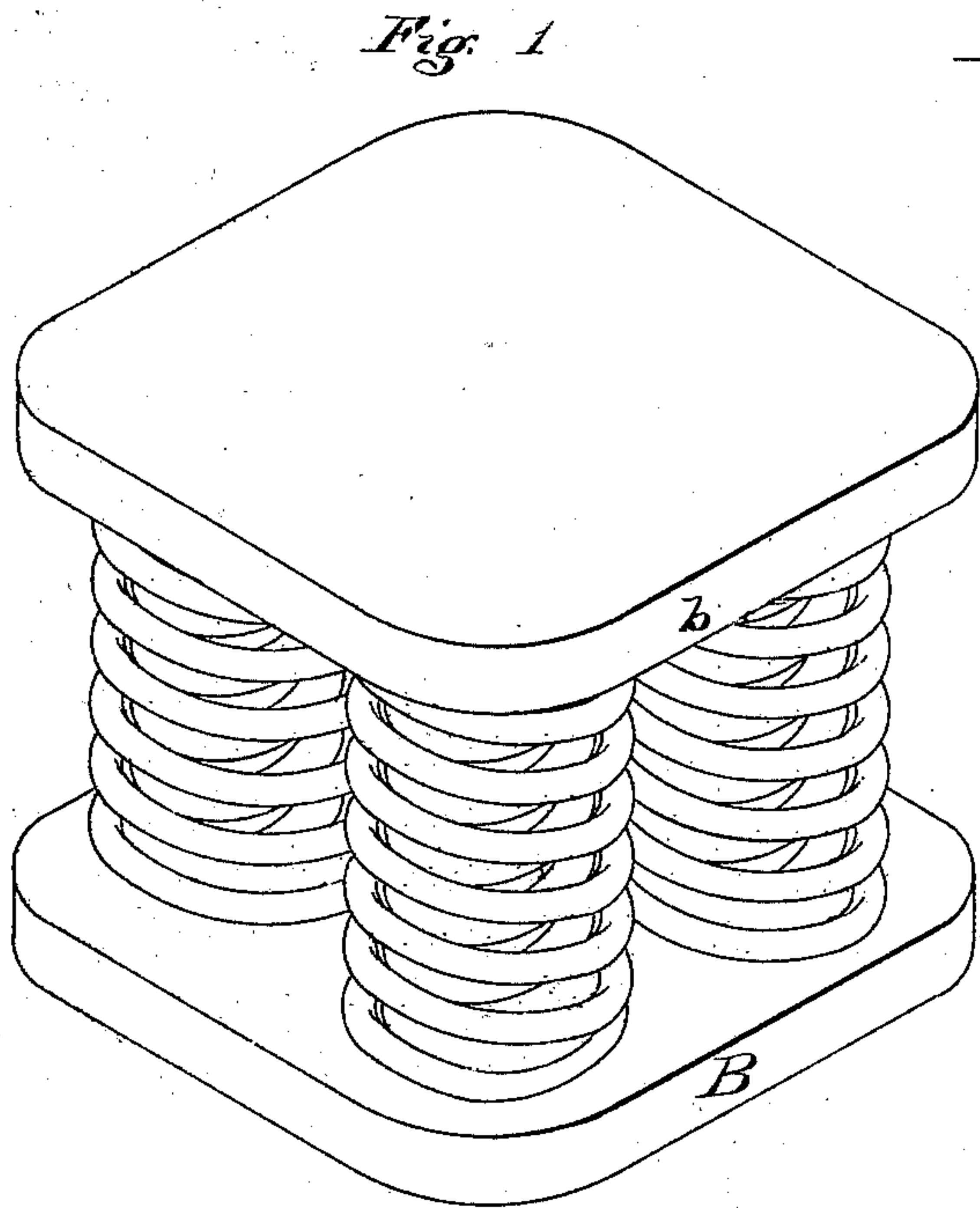


J. E. WOOTTEN.
Railroad Car-Spring.

No. 166,179.

Patented July 27, 1875.



WITNESSES

Jas. M. Landis
Edw. H. James

INVENTOR

John Eastman Wootten

UNITED STATES PATENT OFFICE.

JOHN E. WOOTTEN, OF READING, PENNSYLVANIA.

IMPROVEMENT IN RAILROAD-CAR SPRINGS.

Specification forming part of Letters Patent No. **166,179**, dated July 27, 1875; application filed January 29, 1874.

CASE B.

To all whom it may concern :

Be it known that I, JOHN EASTBURN WOOTTEN, of Reading, in the county of Berks and State of Pennsylvania, have invented certain Improvements in the Construction of Springs for Railroad-Cars, of which the following is a specification :

My invention relates to the construction of that class of springs which are formed by the grouping of a number of spiral springs.

Figure 1 is a perspective view of a spring embodying my invention. Fig. 2 is a plan of same. Fig. 3 is a sectional elevation on line C D.

A A A A *a a a a*, are spiral springs, which may be made of steel, iron, or other desirable metal.

B *b* are metallic plates to which one end of the spiral springs A A A A and *a a a a* respectively are firmly attached.

The springs A A A A are made sufficiently large in their interior diameter, to contain within their coils the spiral springs *a a a a*. They are also made of greater length for a purpose hereinafter stated.

The springs A A A A being attached to the plate B, at such relative distances apart as may be desirable, similar relative distances for attaching springs *a a a a* to the plate *b* are then fixed and the springs united thereto.

The grouped springs *a a a a* should respectively be passed into the interior of those of

the group A A A A until the plate *b* comes in contact with the ends of springs A A A A, when the construction of the entire dual spring is complete.

As hereinbefore stated, the springs A A A A are longer than *a a a a*, the object of which is to permit them to receive the weight of the empty car unassisted by the shorter springs *a a a a*, the latter being only brought into action when the car is loaded, thus permitting a greater degree of spring action, and consequently reduced wear and tear, while the car is running empty, or with a comparatively light load.

I make no claim to the use of a group of spiral springs attached to a plate or plates, for I am aware that such a construction is not new; nor do I claim broadly the employment of concentric springs irrespective of the manner herein described of combining them with the plates; but I do claim as my invention—

In a car-spring, the outer spiral spring A firmly attached to the plate B, and having inside of it the spring *a* firmly attached to the plate *b*, all substantially as and for the purpose set forth.

JOHN EASTBURN WOOTTEN.

Witnesses:

JAS. M. LANDIS,
EDW. W. JAMES.