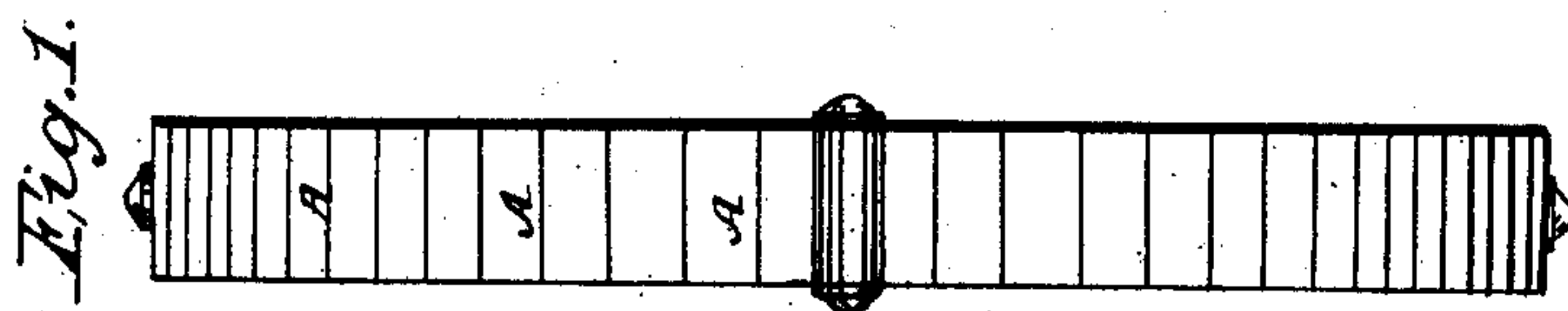
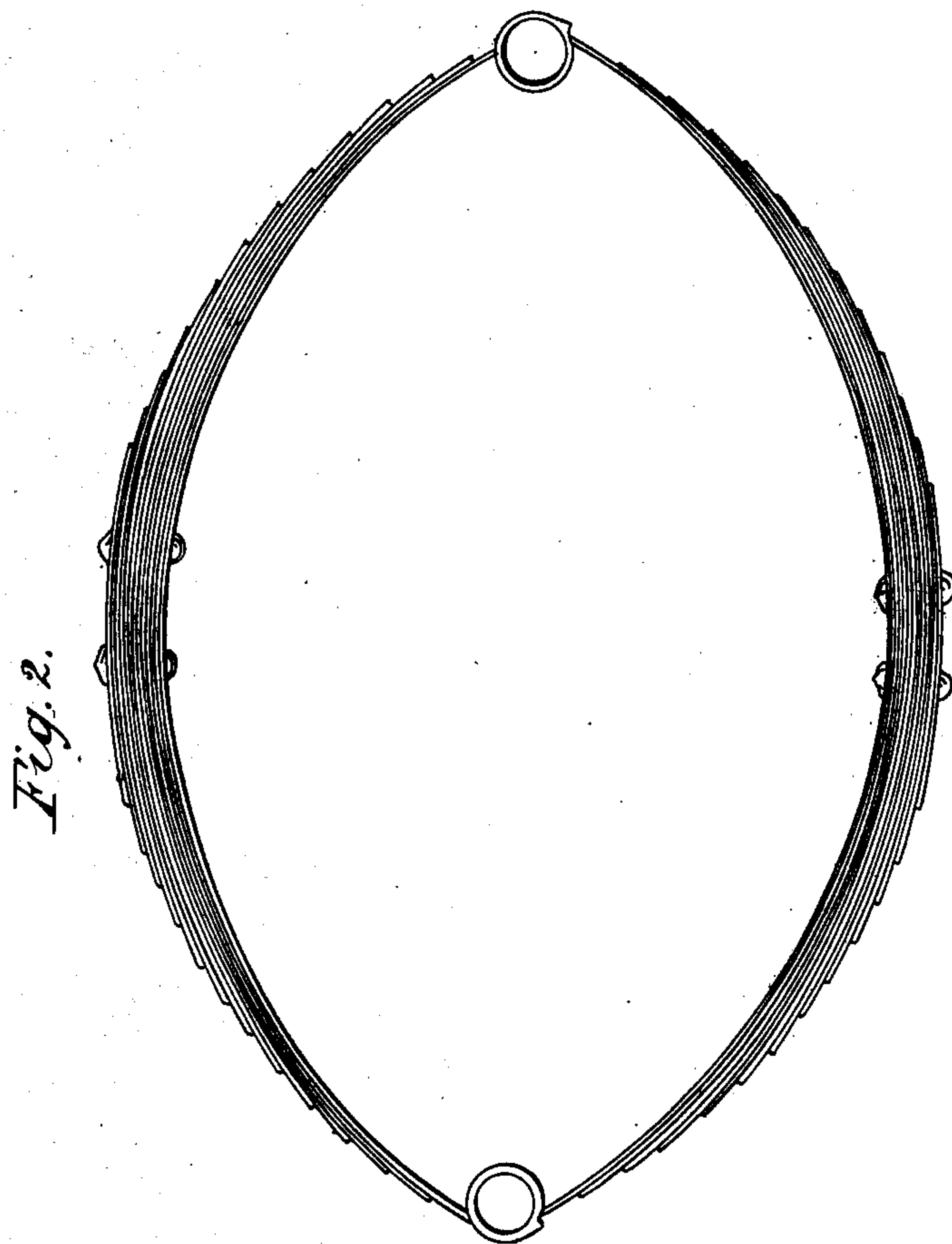


J. G. REIFF.
Carriage-Spring.

2 Sheets—Sheet 1.

No. 69,588.

Patented Oct. 8, 1867.



Witnesses:
H. E. Roberts
B. Miskler

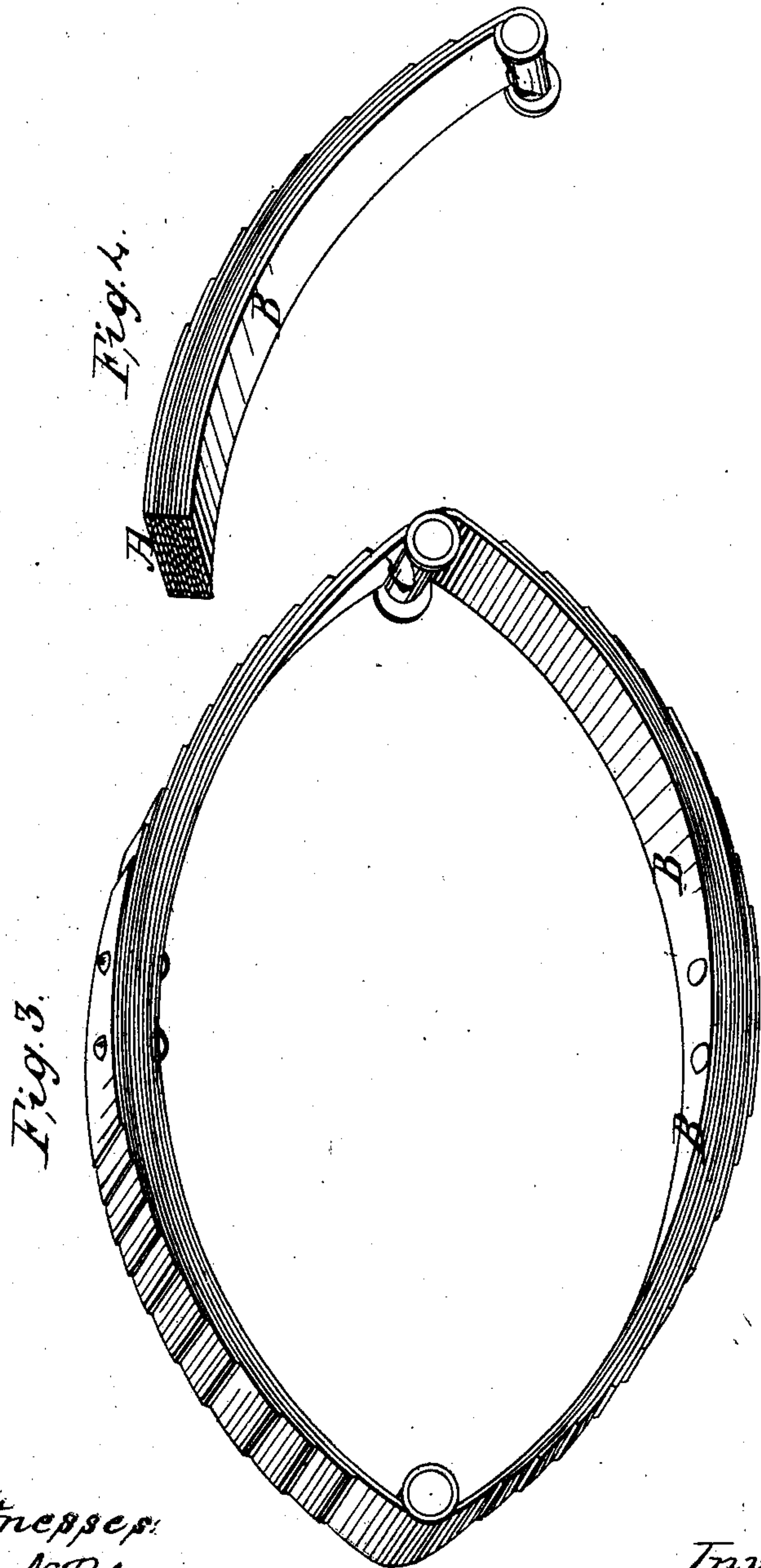
Inventor:
Jacob G. Reiff

J. G. REIFF.
Carriage-Spring.

2 Sheets—Sheet 2.

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Inventor:
Jacob G. Reiff

United States Patent Office.

JACOB G. REIFF, OF FARMERSVILLE, PENNSYLVANIA.

Letters Patent No. 69,588, dated October 8, 1867.

IMPROVEMENT IN CARRIAGE-SPRINGS.

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, JACOB G. REIFF, of Farmersville, in the county of Lancaster, and State of Pennsylvania, have discovered a new and improved Method for Constructing Car, Carriage, or other Springs; and I do hereby declare that the following is a true and accurate description of the same, reference being had to the accompanying drawings, letters, and numbers marked on drawings.

The nature of my invention consists in multiplying or increasing the leaves or plates of the spring from those usually made, and at the same time decreasing their thickness, thereby gaining and maintaining an elasticity not obtained or possessed by any spring now in use for the purpose specified; the leaves or plates of a spring being multiplied, and their thickness diminished by my discovery, in proportion to or according to the height or length of spring required, as also to the weight it may have to bear or carry. By my method of construction, the leaves or plates being of uniform thickness throughout, or made gently tapering from the centre, and multiplied to the thickness and resisting power required, all the parts are acted upon equally, which is not the case in other springs. Nor can one-fourth the elasticity be gained in any other spring of equal length and bow, though twice the weight be brought to bear upon it.

In order to enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my springs of wood, iron, steel, or any other metal or springy material, in a circular or elliptic form, by fastening the leaves or plates A, Figure 1, in the same manner as plates or leaves are usually fastened in springs. The main plate or leaf B, Figure 3, is regulated as to its thickness by the size and strength required in joint C, fig. 3, and a uniform thickness is maintained throughout its entire length. The remaining plates or leaves A, fig. 1, are multiplied or increased in proportion to the thickness of the spring and elasticity desired. The leaves being of uniform thickness throughout, or tapering gently or gradually from the centre, the greater number of leaves that the spring may be composed of, the greater amount of elasticity will be gained.

What I claim as my discovery or invention, and desire to secure by Letters Patent, is—

The arrangement and construction of circular or elliptic springs, by decreasing the thickness of the leaves or plates, multiplying and increasing their number, and making the plates tapering gradually, substantially as and for the purpose set forth, the spring to be made of wood, iron, steel, or any other material, and for the purpose set forth in the specification.

JACOB G. REIFF.

Witnesses:

C. E. HAYES,

WM. B. WILEY.