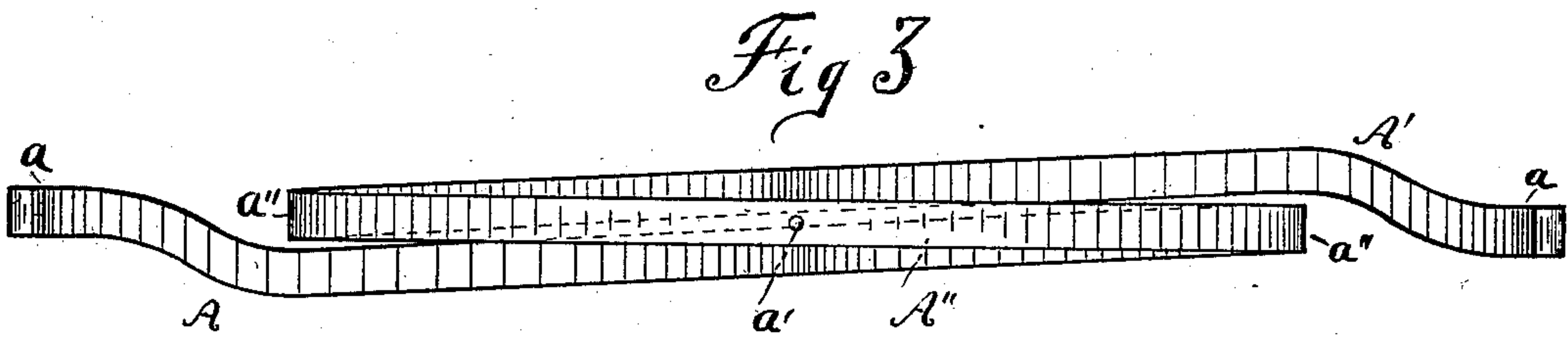
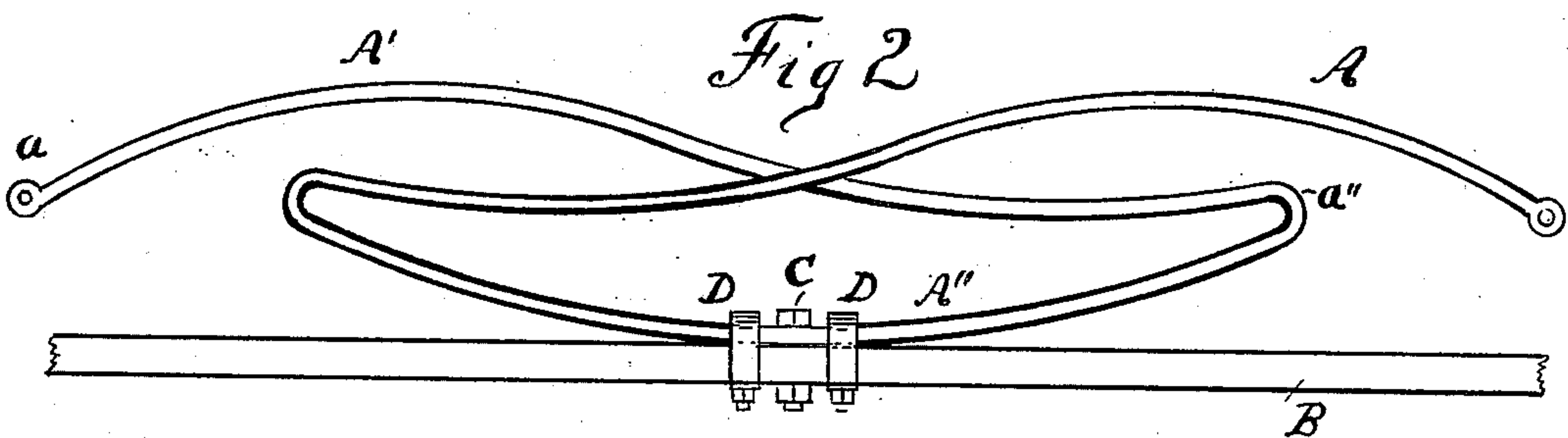
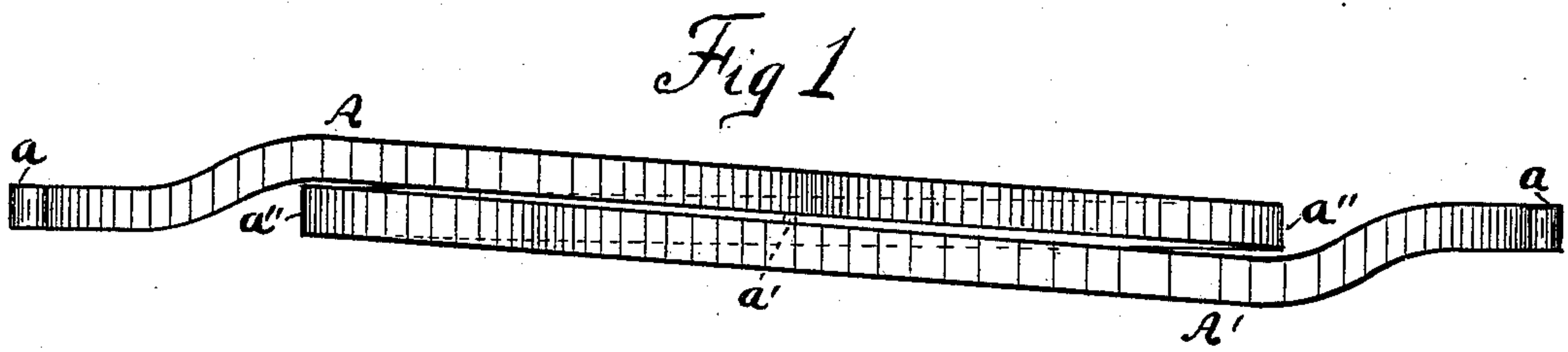


(No Model.)

J. PERCY.
VEHICLE SPRING.

No. 299,575.

Patented June 3, 1884.



Witnesses
D. C. Hanson
G. W. Balloch

James Percy
Inventor.
by W. T. Fitzgerald,
Attorney.

UNITED STATES PATENT OFFICE.

JAMES PERCY, OF CHICAGO, ILLINOIS.

VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 299,575, dated June 3, 1884.

Application filed January 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES PERCY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have
5 invented certain new and useful Improvements in Buggy-Springs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to
10 make and use the same.

The object of this improvement is to produce a safe, durable, and very active spring suitable for side-bar and side-reach buggies. This result is attained by the mechanism illustrated in the drawings herewith filed as part
15 hereof; in which the same letters of reference denote the same parts in all the views.

Figure 1 is a top view. Fig. 2 is a side elevation showing mode of securing the spring
20 in position for use. Fig. 3 is a view of the spring inverted.

A A' A'' represent the body of the spring, having short curves *a''*, from which points the extensions or reaches A and A' are inclined
25 to opposite sides, in order to clear each other when in motion. The ends of the reaches A A' are curved inwardly, to bring the eyes *a*, by means of which the buggy-bed is hung thereto, in true line with each other. The
30 spring is made entirely of one piece, and its

base A'', which is made to stand in line with the spring-bar B, is provided with a central perforation, *a'*, for the insertion of bolt C, which, with the usual clips, D D, secures the spring to the bar B. By reason of each curve 35 of the spring having a counterpart or duplicate in the body thereof, and by reason of the long reaches obtained by the construction of the same, all the parts will move simultaneously and harmoniously with each other, 40 and none of them will be liable to injury from undue or uneven strains when in use.

Having explained the construction and operation of my improvement, what I claim as new, and desire to secure by Letters Patent, 45 is—

In a buggy-spring, the variably-curved reaches A A', having opposite parallel lateral inclinations curved inwardly at their ends *a*, and continued integrally through short reverse 50 curves *a''* into a bow-shaped curve, A'', to be centrally connected to the side bars, and thereby arranged for operation throughout its entire body, substantially as specified.

In testimony whereof I affix my signature in 55 presence of two witnesses.

JAMES PERCY.

Witnesses:

GEORGE M. JENNINGS,
WM. H. GRIFFIN.