

(No Model.)

A. CONNER.  
VEHICLE SPRING.

No. 245,451.

Patented Aug. 9, 1881.

Fig. 1.

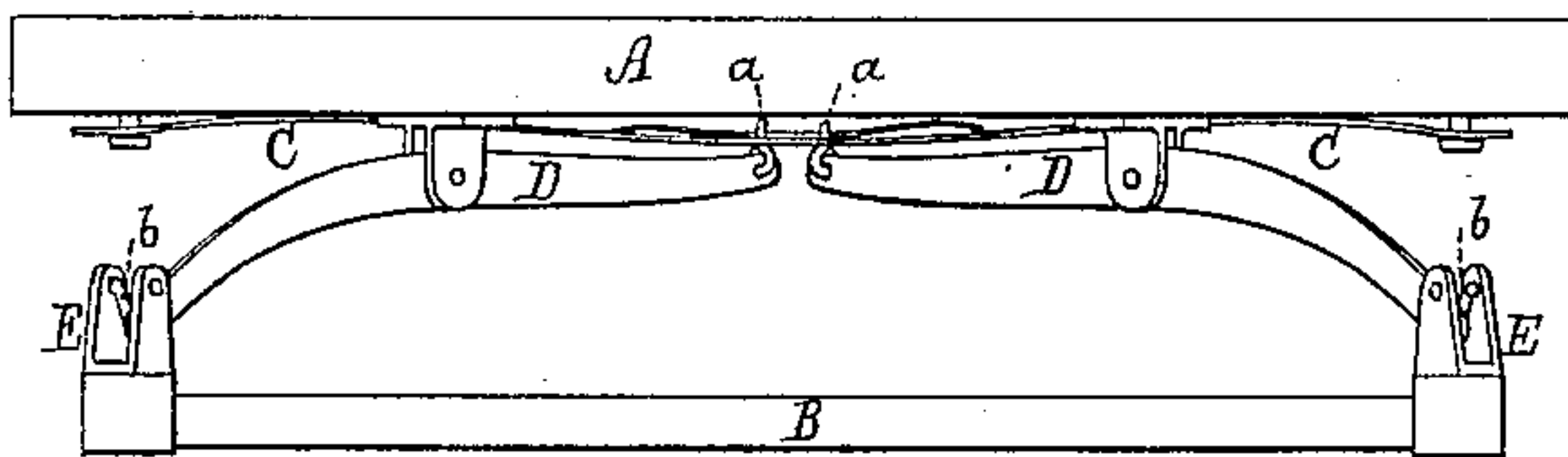


Fig. 2.

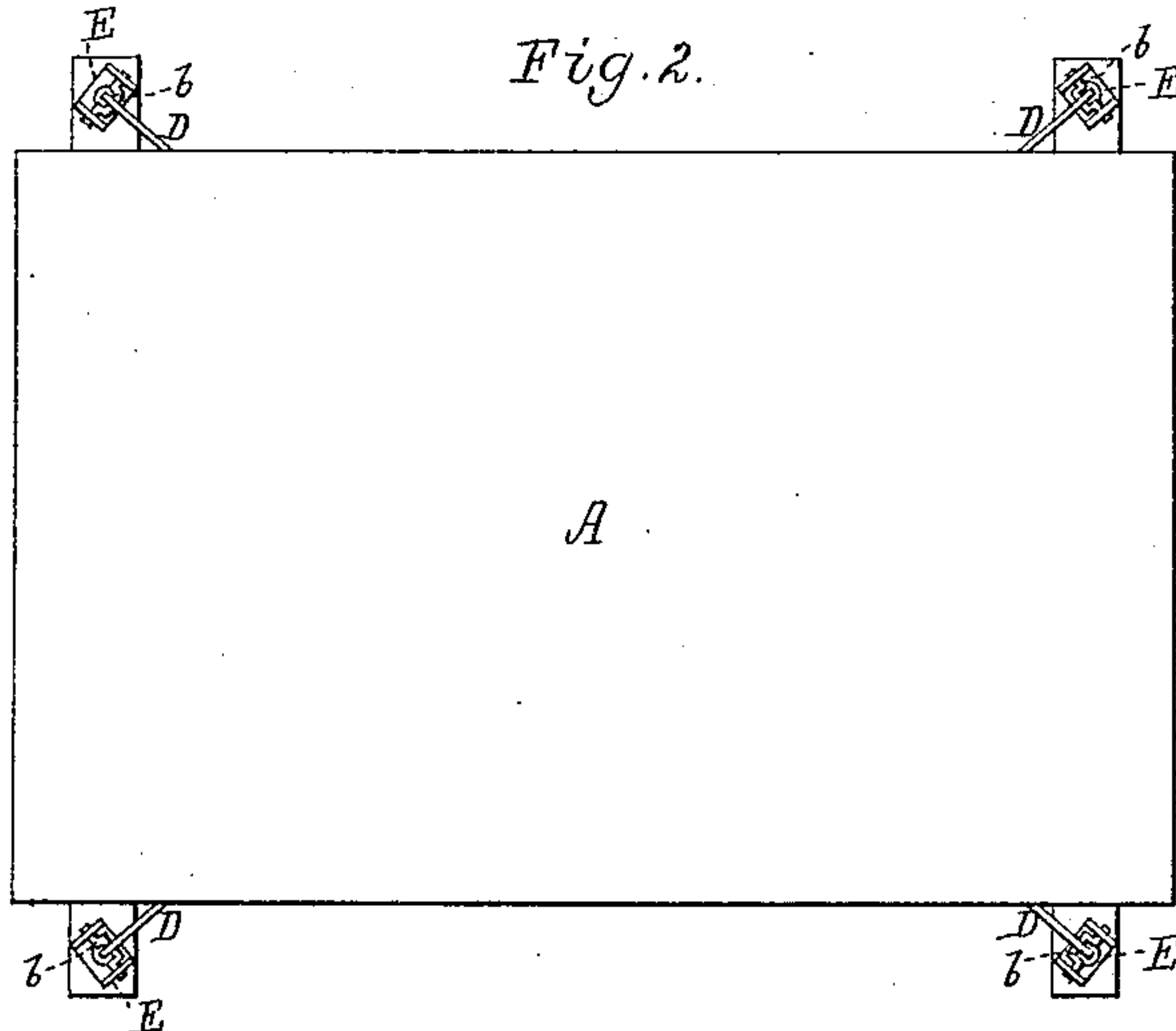


Fig. 3.

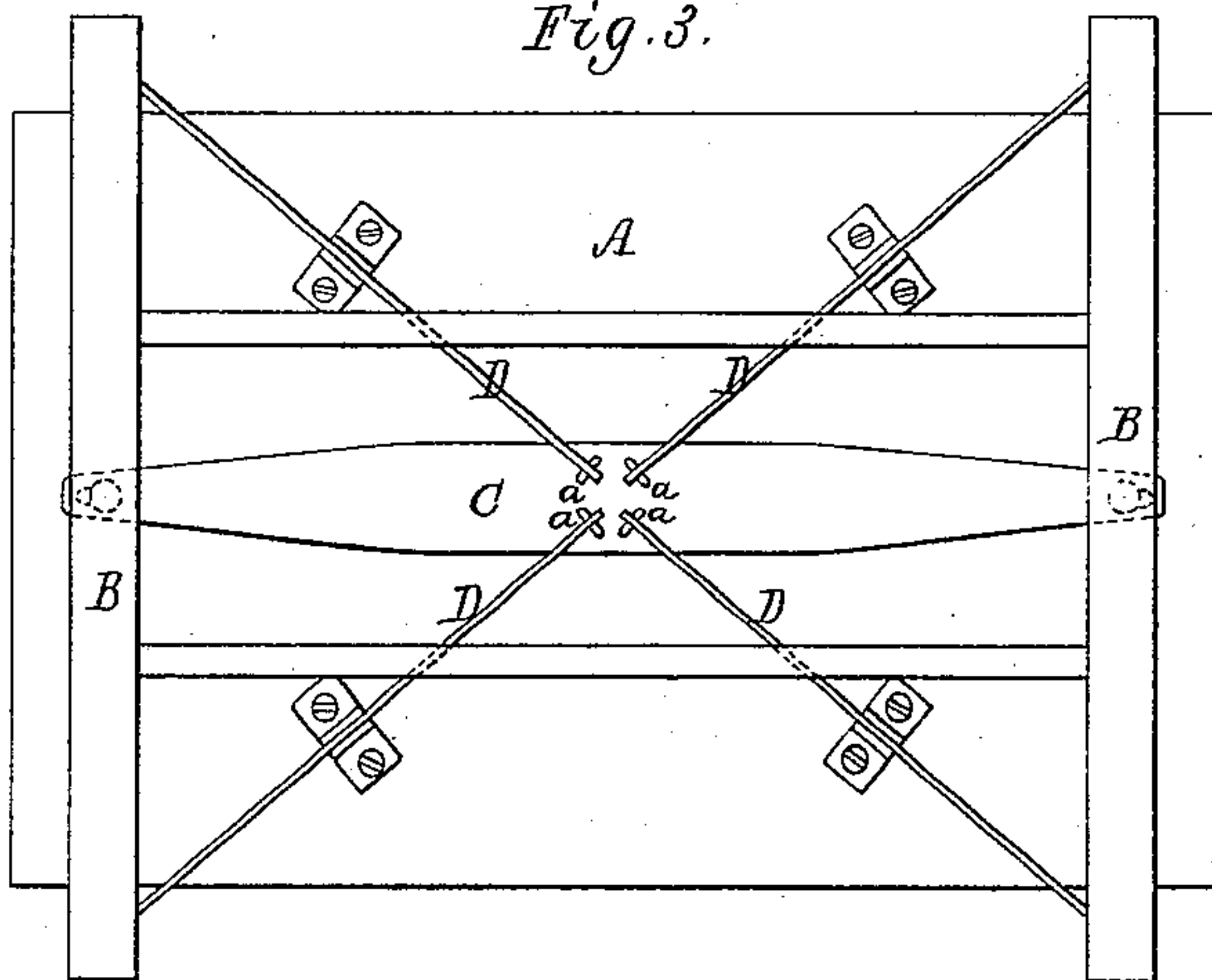


Fig. 4.

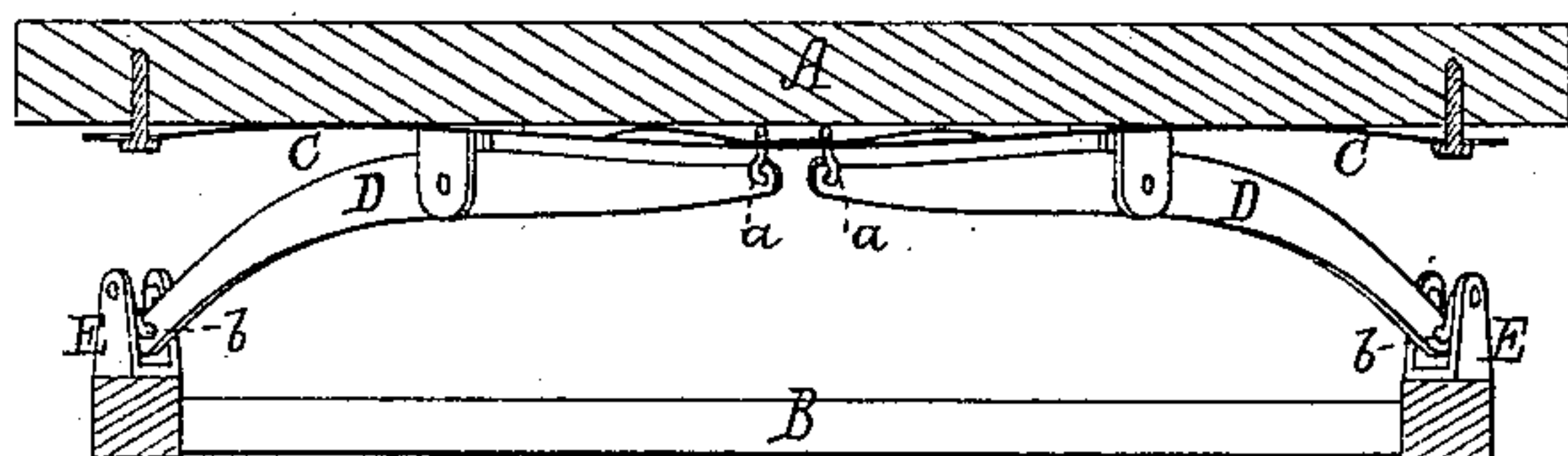


Fig. 5.



Witnesses.

*S. N. Piper*  
*E. B. Craft*

Inventor.

*Alfred Conner.*

by *R. H. Eddy* att'y.

# UNITED STATES PATENT OFFICE.

ALFRED CONNER, OF EXETER, NEW HAMPSHIRE.

## VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 245,451, dated August 9, 1881.

Application filed June 7, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED CONNER, of Exeter, in the county of Rockingham and State of New Hampshire, have invented a new and useful Improvement in Mechanism for Supporting the Body or Platform of a Wheel-Carriage; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a side view, Fig. 2 a top view, Fig. 3 a bottom view, and Fig. 4 a longitudinal section, of a carriage body or platform and the rear axle and the head block or bar and their connecting-bars provided with my invention. Fig. 5 is a front view of one of the standards and vibratory hanger for supporting each of the oblique levers, as will be explained.

The nature of my invention is duly set forth in the claim hereinafter presented.

In the drawings, A denotes a carriage body or platform, and B the carriage-frame, consisting of the rear axle and the head-block and their connecting-bars. Extending underneath the said body at its middle is a long bow-spring, C, which at its two ends is so connected with the body as to admit of the spring moving up or down at its middle. To the said spring, at its middle part, four oblique or radial levers, D, are connected at their inner ends by short links or hooks *a*, such levers being arranged as represented and fulcrumed at their middles to the body. At or near its outer end each of the said levers is connected by a vibratory hanger, *b*, to a standard, E, extending up from the carriage-frame B, and formed as represented. This hanger is to swing between the standard while the levers are being simultaneously depressed.

In the place of a single spring, two or more of like or other suitable kinds may be used to connect the carriage body or platform with the set of levers at their inner ends.

From the above it will be seen that when the body or platform is loaded it rests upon the spring and the levers, the spring affording to it, through the action of the levers, an elastic or yielding support.

By the use of the single or medial spring, connected at its ends to and arranged directly underneath the carriage body or platform, and also connected at its middle to the inner arms of four oblique levers fulcrumed to the said body or platform, and supported at their outer ends by hangers and standards arranged on the carriage-frame, as described, I am enabled to dispense with a bolster, two rocker-bars, a hooked bolt and nut, as shown in the United States Patent No. 213,477, in which a tapering spiral spring is represented.

Furthermore, I would remark that I am aware that two straight springs have been arranged underneath a carriage-body and combined with side springs, such being as shown in the United States Patent No. 178,798; but in this case there were no set of four levers used, as in my improvement, and two straight springs instead of one were required. Thus I effect by my invention a saving of one of such straight springs at least.

What I claim as my invention is—

The medial spring C and the four levers D, combined and arranged with each other and the carriage platform or body A and frame B, substantially in manner and to operate as set forth, such spring being connected at its ends to the body and at its middle, by links, to the inner arms of the four levers, and such levers being arranged with and applied to such body and frame, essentially as shown and described.

ALFRED CONNER.

Witnesses:

W. F. PUTNAM,  
C. E. BYINGTON.