

(No Model.)

L. F. CASE, Jr.

VEHICLE SPRING.

No. 328,287.

Patented Oct. 13, 1885.

Fig. 1.

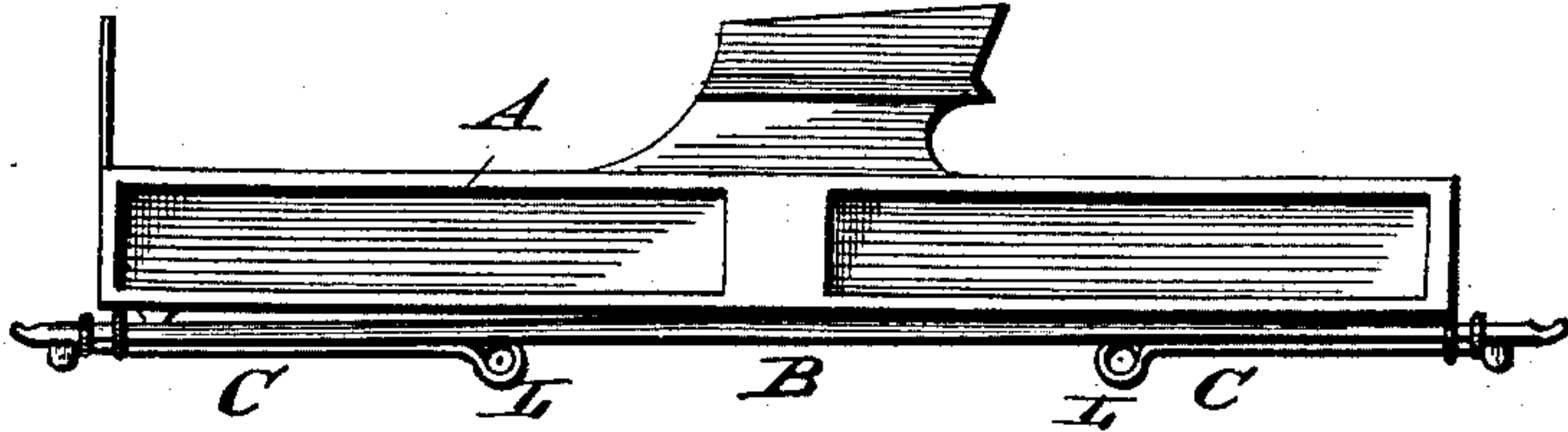


Fig. 6.

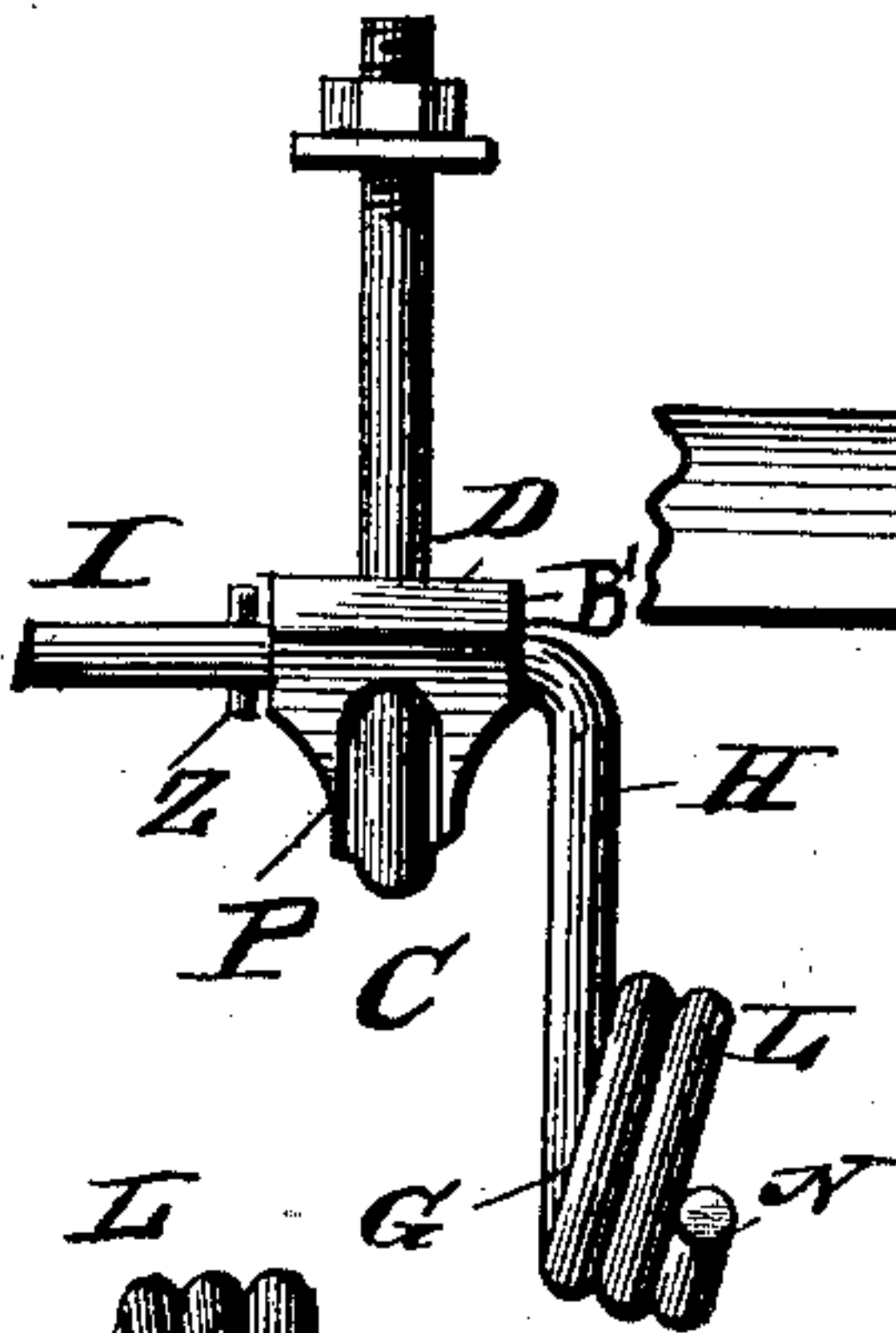


Fig. 2.

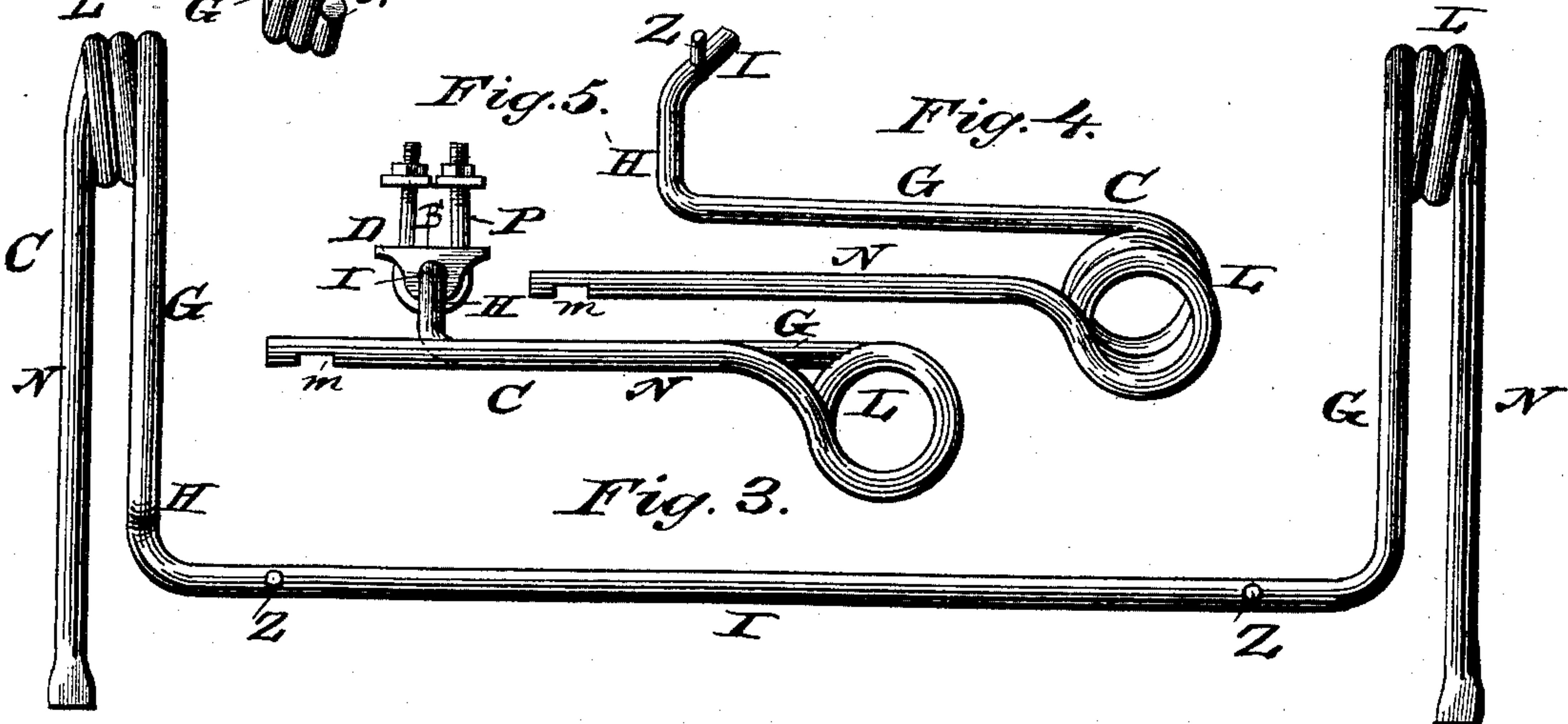
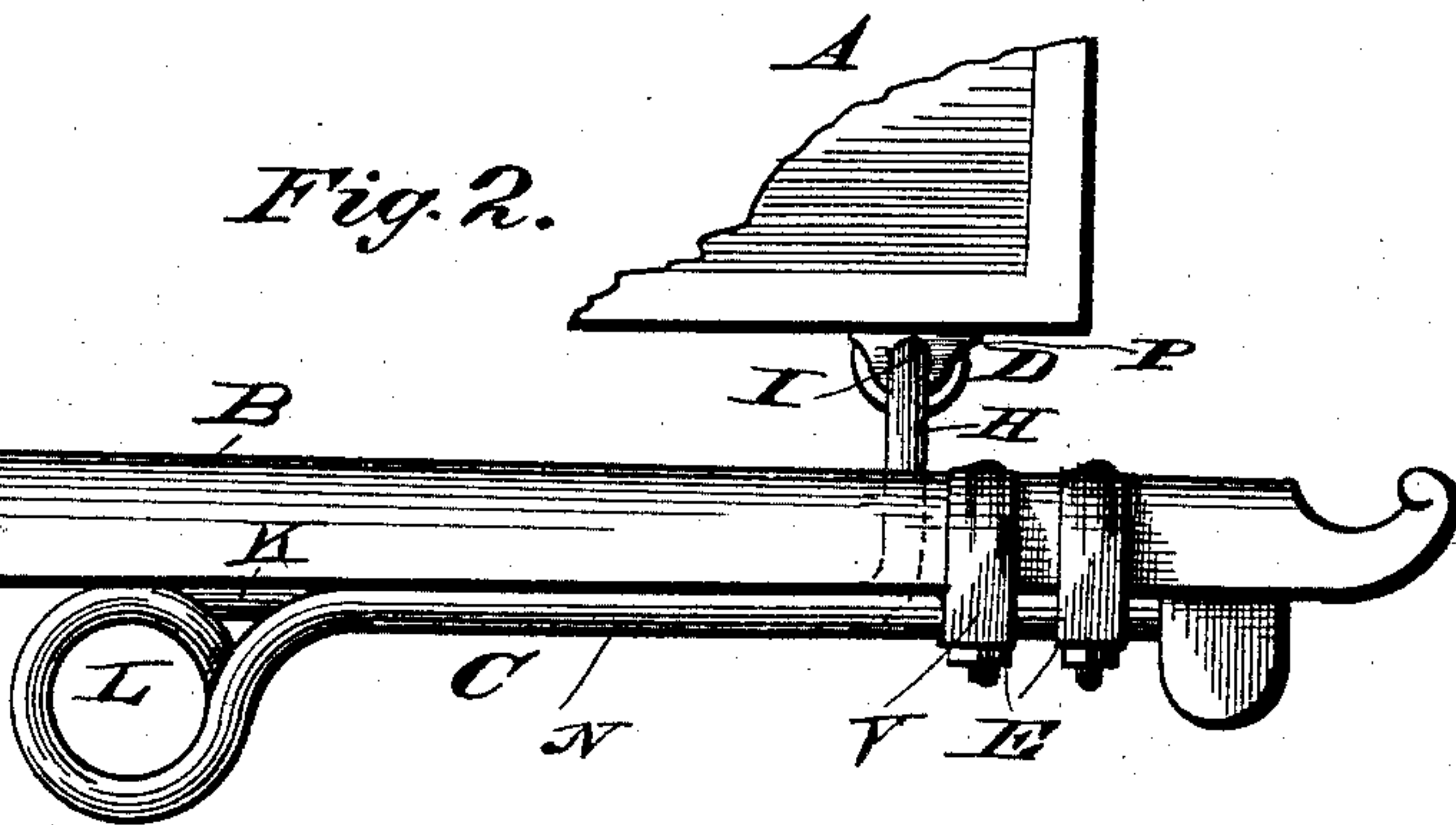
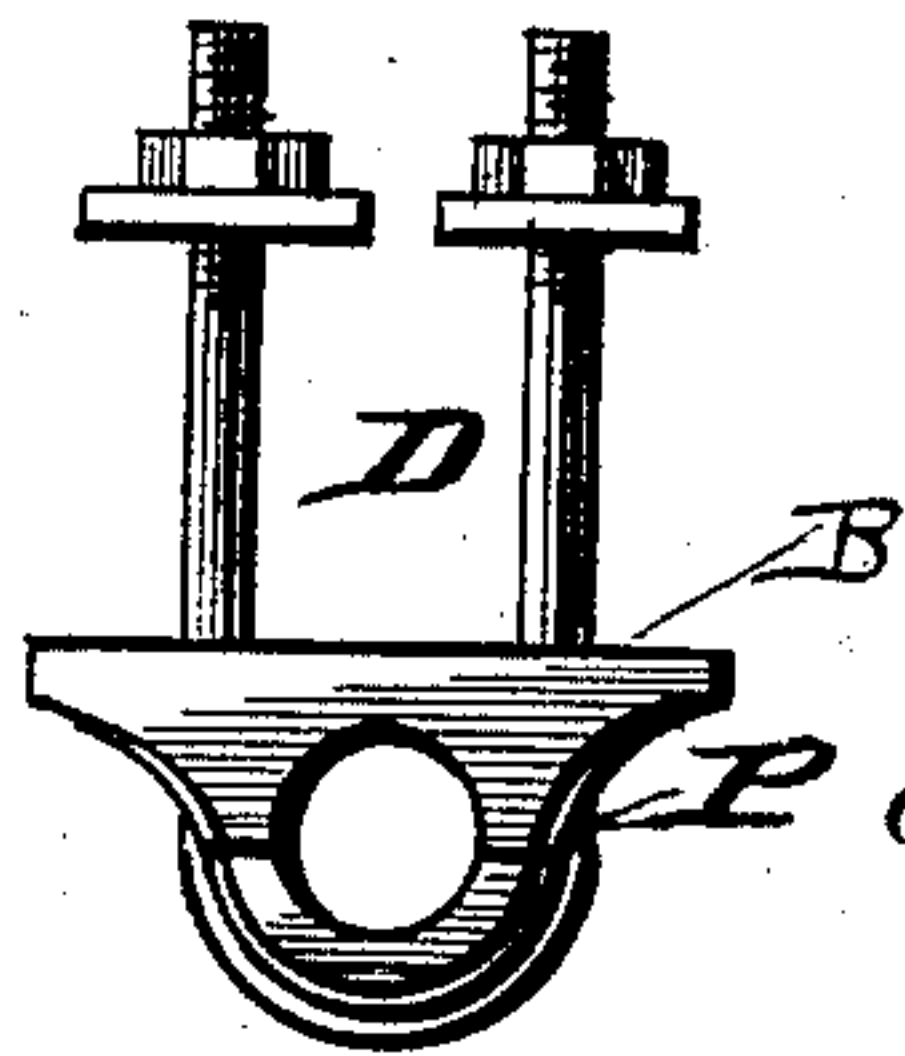


Fig. 7.



WITNESSES

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UNITED STATES PATENT OFFICE.

LEWIS F. CASE, JR., OF GOSHEN, INDIANA.

VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 328,287, dated October 13, 1885.

Application filed May 13, 1885. Serial No. 165,405. (No model.)

To all whom it may concern:

Be it known that I, LEWIS F. CASE, Jr., a citizen of the United States, residing at Goshen, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Vehicle-Springs; and I do 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 make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a side view. Fig. 2 is a portion of an enlarged side view. Fig. 3 is a plan view. Fig. 4 is a perspective view. Figs. 5, 6, and 7 are detail views.

This invention has relation to springs for side-bar vehicles; and it consists in the construction and novel arrangement of devices, all as hereinafter set forth, and pointed out in the appended claims.

In the accompanying drawings, the letter A designates the body or box of a vehicle, and B a side bar.

C is the spring, connected to the body by boxing, which may be of any suitable character, as at D. The arms of the spring are connected to the side bars by boxes, as at E. The springs C are arranged transversely under the front and rear portions of the body. Each spring consists of a raised transverse portion, I, and the longitudinal side portions, G, extending at right angles to the transverse portion and below the level thereof, being connected thereto by the short upright bends H. Each side portion consists of an inner branch, G, which extends from the upright bend in the direction of the length of the body to the spirally-coiled portion L, from which the outer branch, N, extends in the reverse direction and in the plane of the inner branch, the end of said outer branch being notched, as at m.

The side bar, B, rests on the outer branch, N, of the lateral portion and tangentially upon the spiral portion L. The branch N is secured to the side bar by a fastening-clip, V, and by a box-clip, E.

D represents the boxing, which is preferred in connecting the transverse portion of the

spring to the body of the vehicle. This consists of a staple, P, having its ends threaded for the reception of nuts, whereby the same may be secured to the body of a vehicle, and a box, B, having vertical apertures for the passage of the staple branches. Pins or stops Z are provided on the transverse portion of the spring to hold the boxes in position thereon and keep them from sliding.

It is designed to provide by this invention a very serviceable and strong spring for vehicles, allowing little or no side motion to the body, as the side bars are in contact, or nearly so, with the short bends H of the spring.

I am aware that it is not new to form a spring from a single piece of metal bent around itself in the middle to form a coil, with the end of one branch secured to the axle and the opposite branch clipped to the body. Two of these springs are employed on a vehicle, and are connected to the front and rear axles, respectively, the coiled portions being carried in opposite directions beneath the body and connected together by means of a spring-reach, and I therefore do not claim such devices broadly.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The vehicle-spring consisting of the raised transverse portion and the longitudinal side portions, G and N, having spiral coils, and the portions G connected to said transverse portion by upright bends extending from the inner branches thereof, substantially as specified.

2. The combination, with the body and side bars, of the spring having a raised portion under the body and connected thereto by boxes, longitudinal side portions, G and N, having spiral coils, and the portions N fastened to the side bars, and the upright bends connecting the side portions to the raised portion and serving to obviate side motion of the body, substantially as specified.

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

LEWIS F. CASE, JR.

Witnesses:

E. LOUIS KUHNS,
MYRON E. MEADER.