

L. PULLIAM.
Vehicle-Spring.

No. 226,929.

Patented April 27, 1880.

Fig. 1.

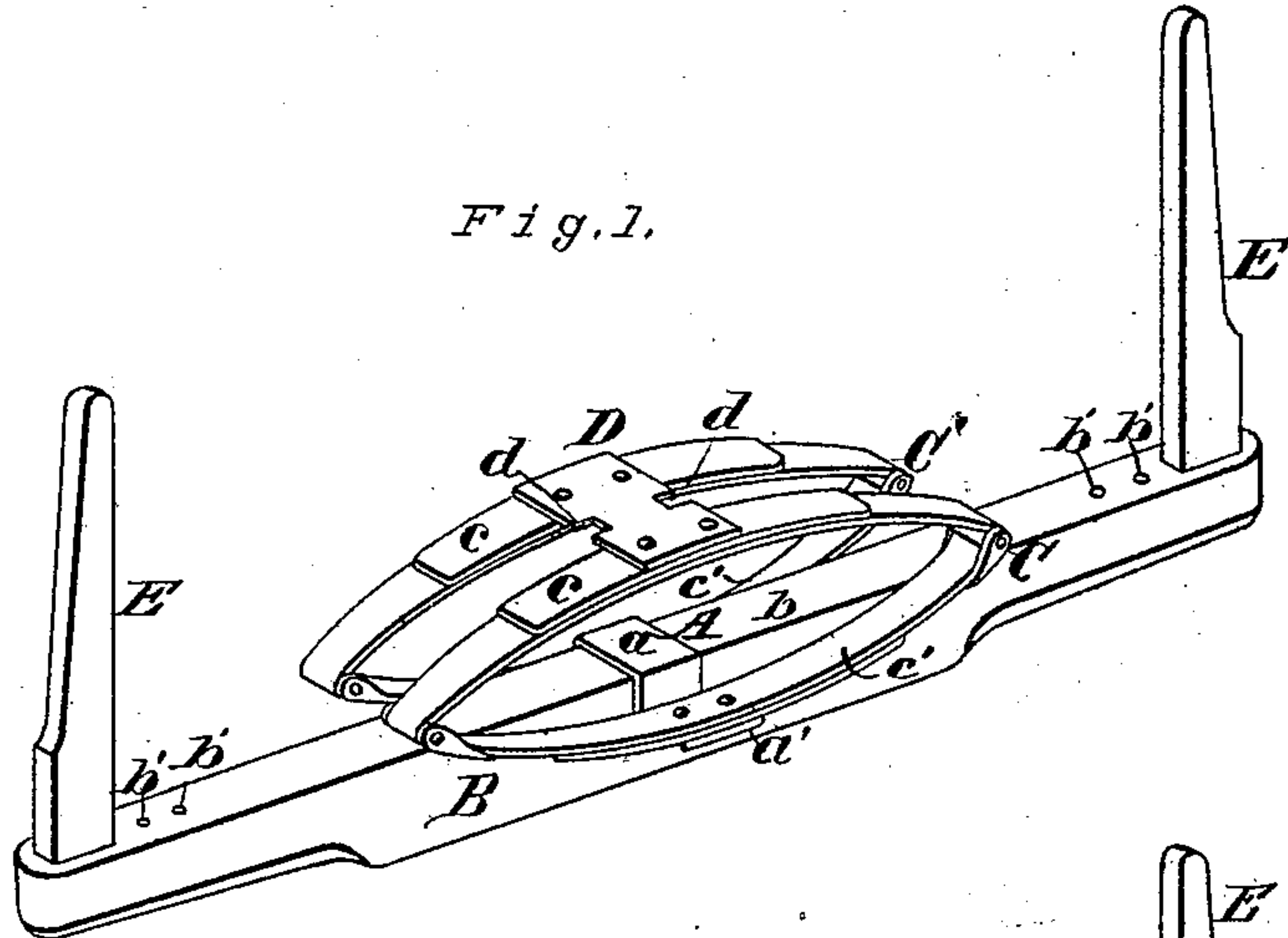


Fig. 2.

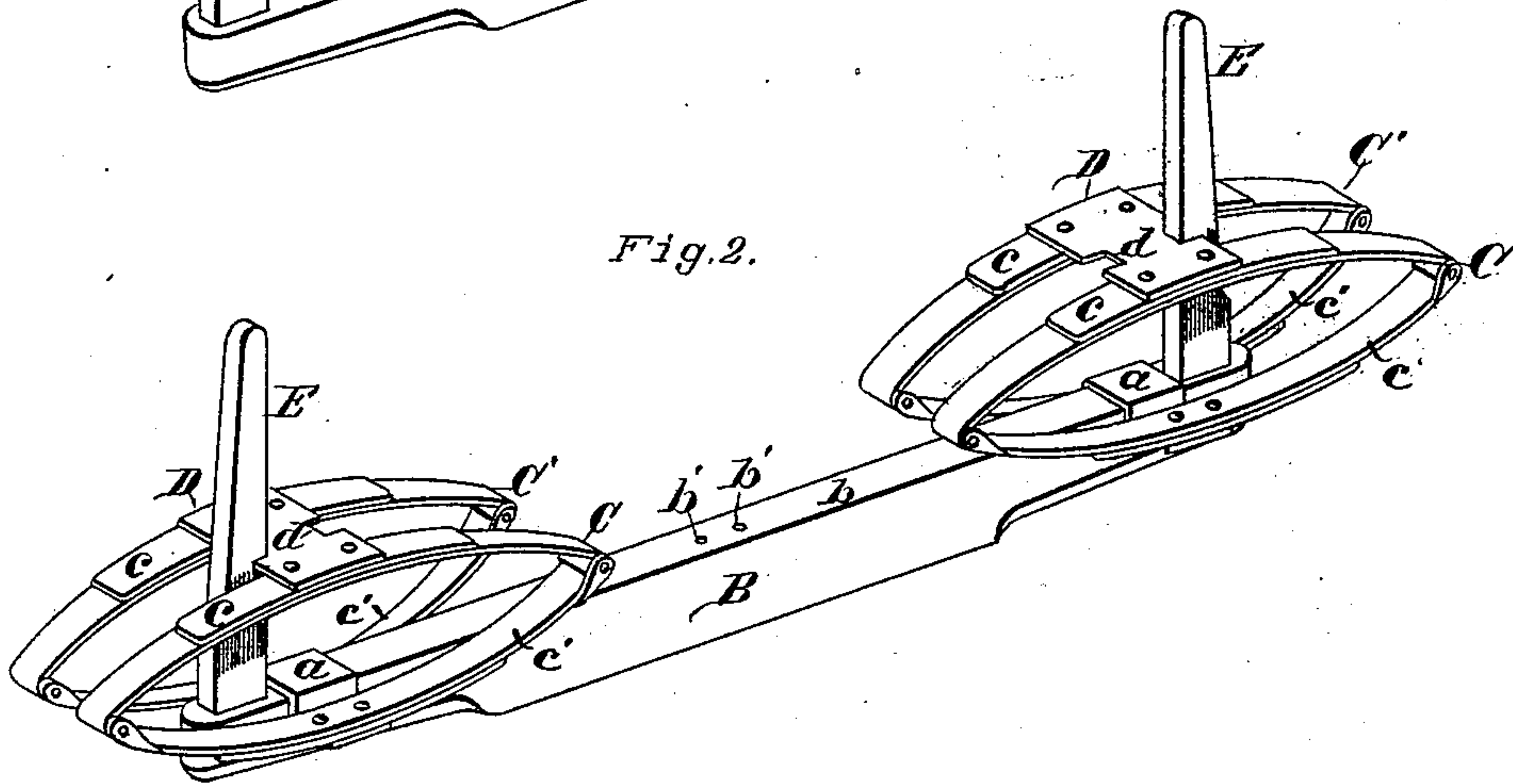


Fig. 3.

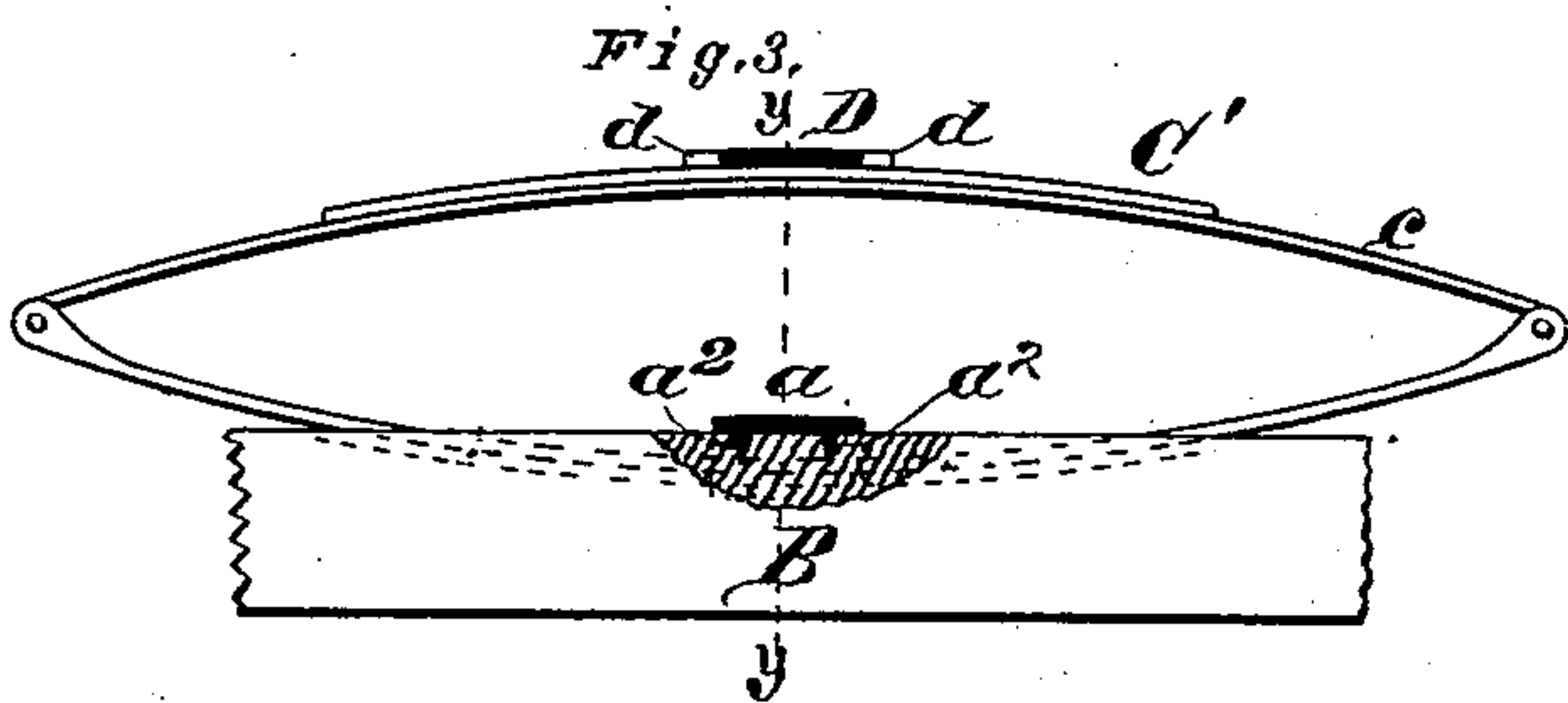
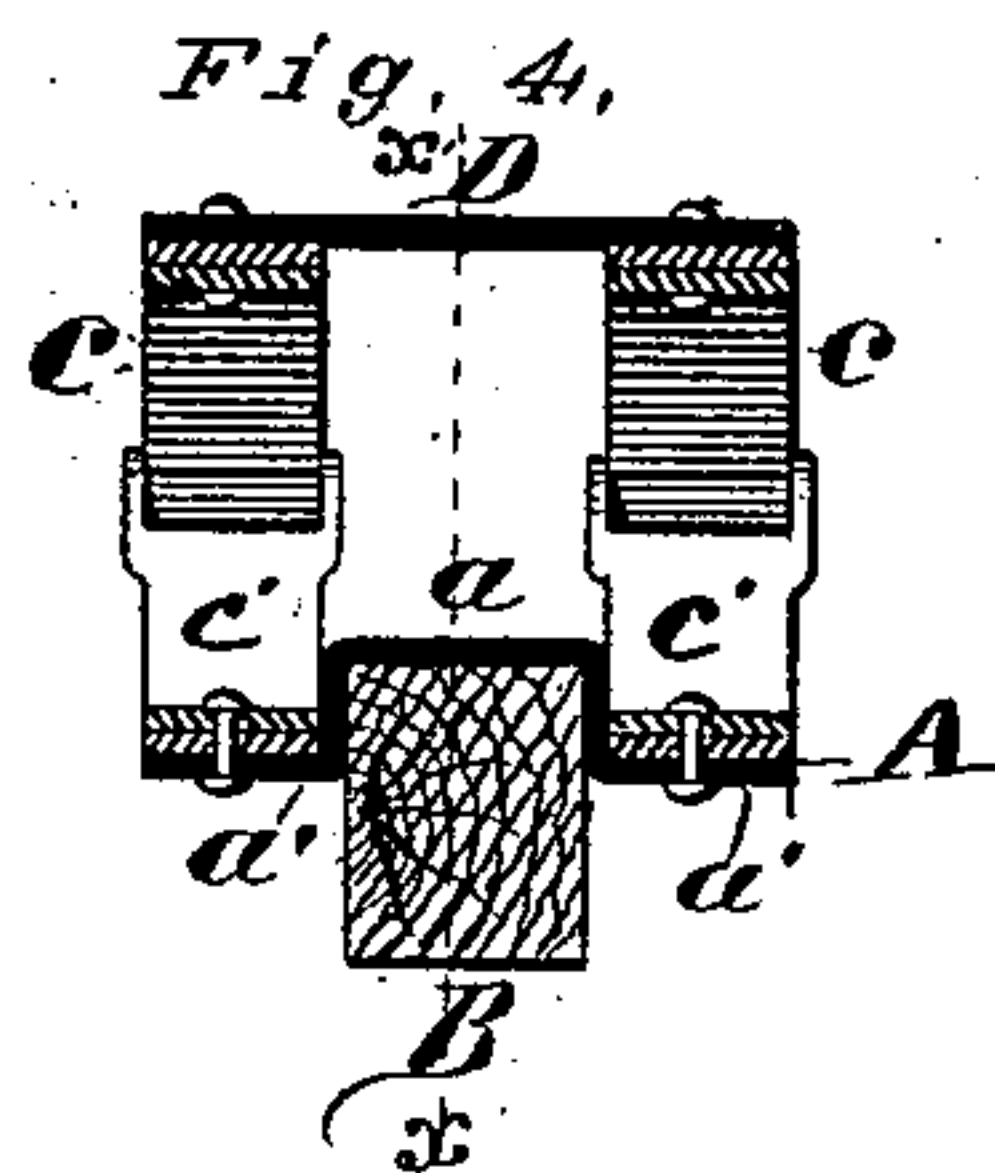


Fig. 4.



Attest:

Charles Pickles
Jurat. S. Boyd

Inventor;

Luther Pulliam
by Chas. D. Moody.
atty.

UNITED STATES PATENT OFFICE.

LUTHER PULLIAM, OF MIAMI, MISSOURI, ASSIGNOR OF ONE-HALF OF HIS
RIGHT TO GEORGE G. DUGGINS, OF SAME PLACE.

VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 226,929, dated April 27, 1880.

Application filed February 3, 1880.

To all whom it may concern:

Be it known that I, LUTHER PULLIAM, of Miami, Missouri, have made a new and useful Improvement in Bolster-Springs, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a view, in perspective, of the improved spring in position upon the bolster; Fig. 2, a perspective, showing the arrangement when two of the springs are used upon the same bolster; Fig. 3, a vertical longitudinal section taken on the line $x x$ of Fig. 4, and Fig. 4 a vertical transverse section taken on the line $y y$ of Fig. 3.

The same letters denote the same parts.

The present invention is an improvement in bolster-springs, and is especially adapted to farm-wagons.

It consists, mainly, in a pair of elliptic springs, arranged side by side, and united to a saddle that rests upon the bolster. The springs, when in position, are parallel to the bolster and partly below the top of the bolster, and in use they do not bear upon or against the bolster.

More particularly described, A represents the saddle or yoke, consisting of the part a , which rests upon the bolster B, and projections $a' a'$, which stand out from the portion a near or at the lower end thereof.

C C' represent two elliptic springs attached rigidly to the projections $a' a'$. This brings the springs partly below the top b of the bolster.

The wagon-bed (not shown) rests upon the springs. As the latter are made detachable both from the bolster and wagon-bed, the two parts C C' of the improved spring are united at the top by a plate, D, the whole construc-

tion forming what may be termed a "double elliptic spring."

As the spring is pressed down in use the upper and lower parts, $c c$ and $c' c'$, can never be brought together, as the wagon-bed or plate D rests upon the bolster top a before the two parts of the spring meet. The spring is thus kept from wearing. No abrasion either of the upper and lower portions of the spring upon each other, or of either portion upon the bolster, can occur, and the liability of the spring to break is materially lessened.

As shown in Fig. 1, a single construction is used and arranged at the center of the bolster. Two, however, of the improved springs can be used upon the same bolster, and they can be arranged as in Fig. 2, and when thus arranged the plate D may be notched at $d d$ to receive the standards E E.

To keep the spring in place upon the bolster, the saddle, upon its under side, is furnished with projections $a^2 a^2$, which engage in corresponding sockets $b' b'$ in the bolster.

I claim—

1. As a new manufacture, the herein-described double elliptic spring, consisting of the elliptic springs C C', saddle A, and plate D, said spring being rigidly attached to said saddle and plate, substantially as set forth.

2. The combination of the springs C C', saddle A, plate D, having the notches $d d$, bolster B, and standards E E, substantially as described.

3. The combination of the springs C C', saddle A, provided with the projections $a^2 a^2$, and the bolster B, having the sockets $b' b'$, substantially as described.

L. PULLIAM.

Witnesses:

C. D. MOODY,
CHARLES PICKLES,