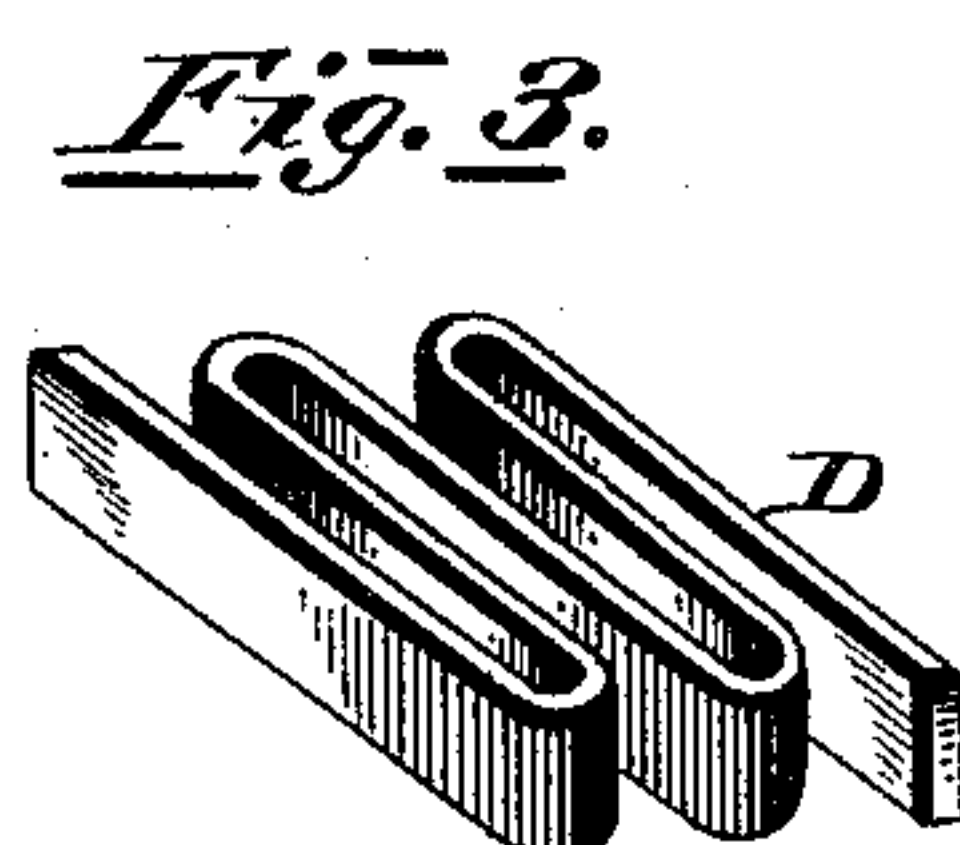
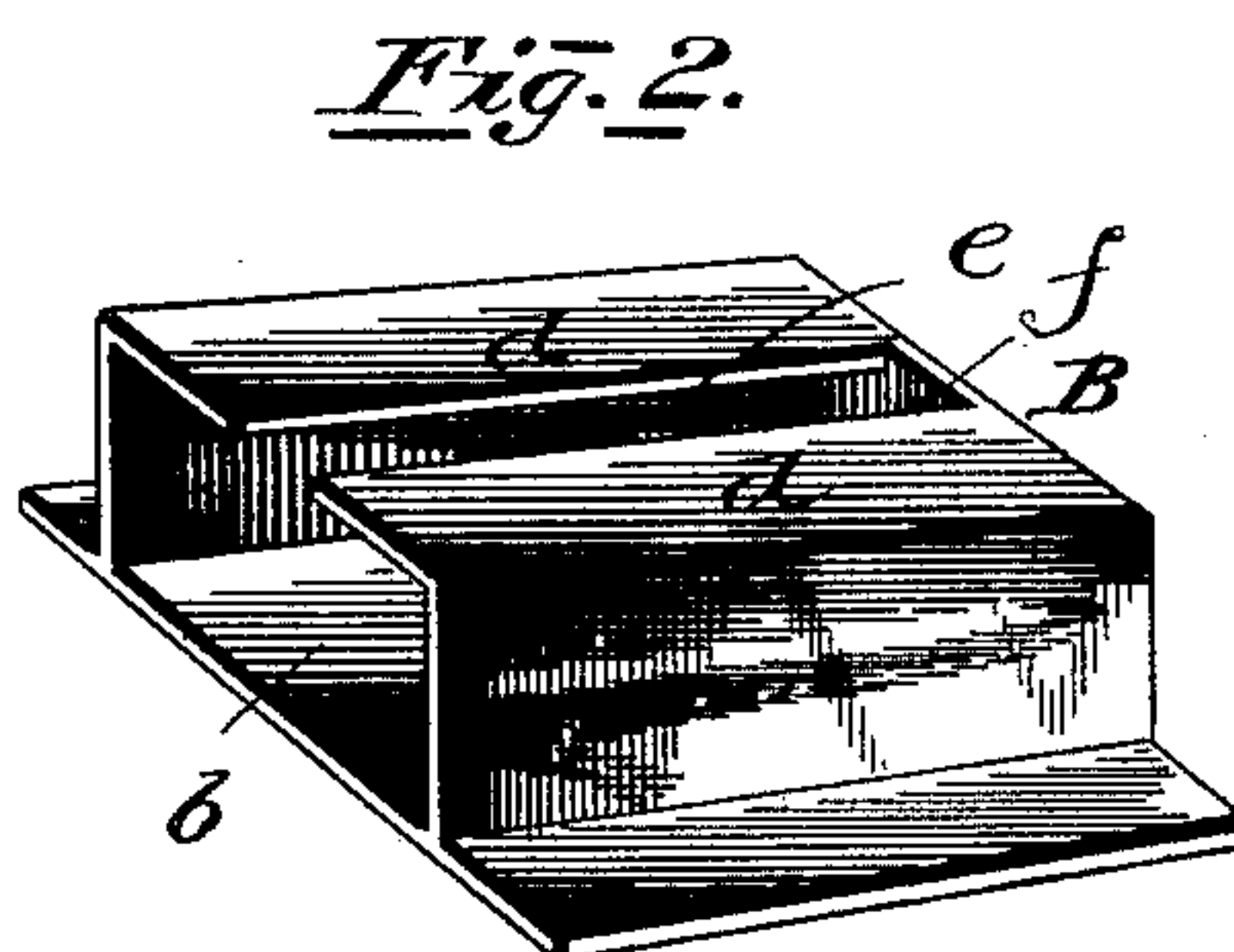
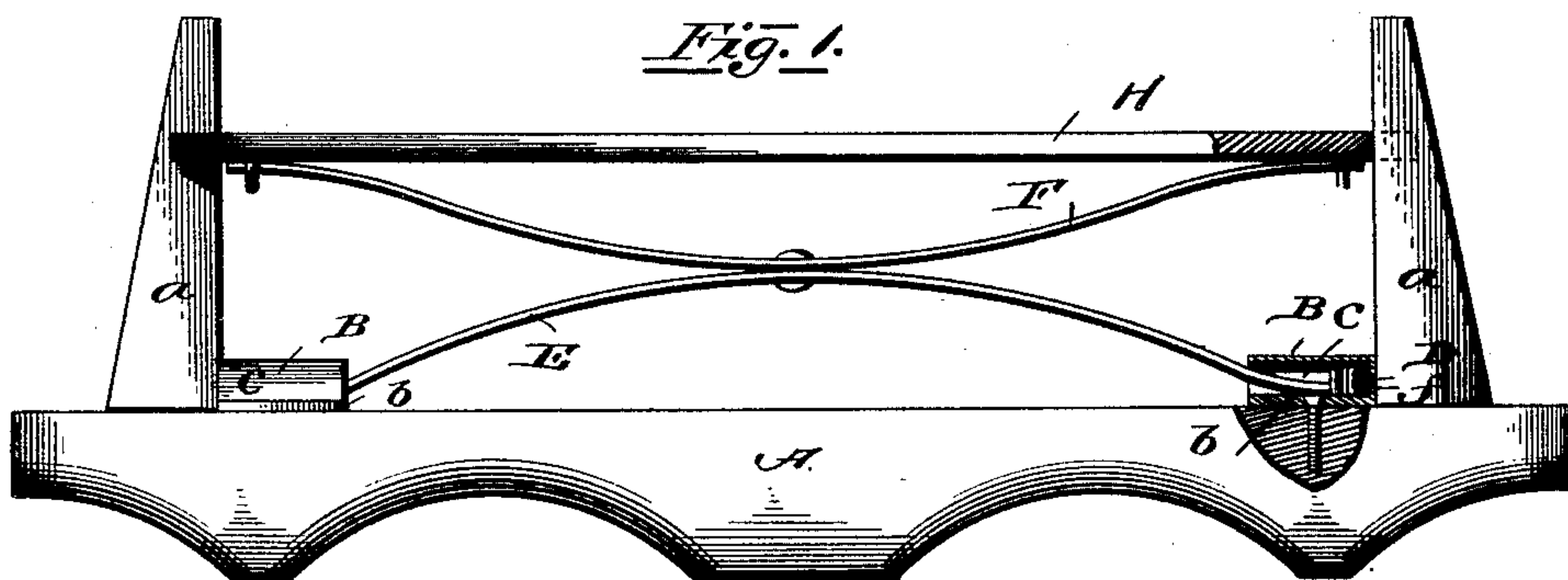


(No Model.)

W. COLE & V. C. DILLMANN.
WAGON BOLSTER SPRING.

No. 406,879.

Patented July 16, 1889.



Witnesses

"A. Dashiell"
J. O. Murphy.

Inventors

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By their Attorneys.

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UNITED STATES PATENT OFFICE.

WESLEY COLE AND VICTOR C. DILLMANN, OF KANSAS CITY, MISSOURI.

WAGON BOLSTER-SPRING.

SPECIFICATION forming part of Letters Patent No. 406,879, dated July 16, 1889.

Application filed April 10, 1889. Serial No. 306,683. (No model.)

To all whom it may concern:

Be it known that we, WESLEY COLE and VICTOR C. DILLMANN, citizens of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Wagon Bolster-Springs; and we 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.

This invention has relation to improvements in vehicle-springs of the class known as "bolster-springs," and the novelty will be fully understood from the following description and claim, when taken in connection with the annexed drawings, in which—

Figure 1 is a side elevation of a wagon-bolster, showing our improvements applied and showing one of our improved sockets in section. Fig. 2 is a perspective view of one of the sockets removed from the bolster, and Fig. 3 is a perspective view of one of the cushion-springs which we employ in the sockets.

Referring by letter to the said drawings, A indicates a wagon-bolster, which may be of any ordinary or approved construction, having the usual standards or pins *a*.

B indicates a socket, there being one employed on the upper side of the bolster and at the base of each standard, being secured in position by a screw or other suitable fastening device. These sockets, which are formed from metal or other suitable material, have a base *b* and vertical walls *c*, provided at the upper ends of the latter with horizontal flanges *d*, there being an interspace or slot *e* formed longitudinally in the said flanges *d*.

D indicates a spring, which is of a serpentine form, as better shown in Fig. 3 of the drawings. This spring, which serves as a cushion for the main springs, which will be presently described, is designed to be placed within the socket B, between the vertical and horizontal walls thereof and against the rear vertical wall *f*, the slot *e* in the roof of the socket facilitating the insertion and seating of the said spring D.

While we have shown and described the spring D as being of serpentine form, yet in

some cases a rubber may be used as a cushion instead of the spring.

E indicates an ellipsoidal spring, and F indicates a similar spring arranged in an inverted position with respect thereto. The spring E has its opposite ends arranged in the sockets B and abutting against the springs D therein. The spring F, which may be secured about midway of its length at a similar point on the spring E by a rivet band or otherwise, has its opposite ends, which are directed upwardly and outwardly, passing into sockets or staples G on the under side of a cross-bar H. This cross-bar, which is placed above the springs on the bolster, has its opposite ends notched to receive the inner sides of the standards and be guided thereby.

In practice the springs D are designed to keep the ends of the ellipsoidal spring E sufficiently far in the sockets, and to retain them at such points under ordinary weight; but when great pressure or weight has been brought upon a cross-bar H and such weight as might ordinarily impair the springs, the cushion-springs D will give in a contracted form, so that the curved or ellipsoidal springs may be brought flat, or nearly so, so as to prevent any injury of the latter.

Having described our invention, what we claim is—

The combination, with a wagon-bolster, of the sockets secured thereon, the cushion-springs arranged in the sockets, the cross-bar, the ellipsoidal spring having its opposite ends working in sockets or staples on its under side, and the lower ellipsoidal spring connected with the upper one, and having its opposite ends bearing in the sockets on the standards and against the cushion-springs therein, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

WESLEY ^{his} × COLE.

VICTOR C. DILLMANN. ^{mark}

Witnesses:

ORWELL T. KNOX,

CHARLES L. BLANCHARD.