(No Model.)

E. CLIFF.

SIDE BEARING FOR CAR TRUCKS.

No. 582,343. Patented May 11, 1897.

Fig. 1.

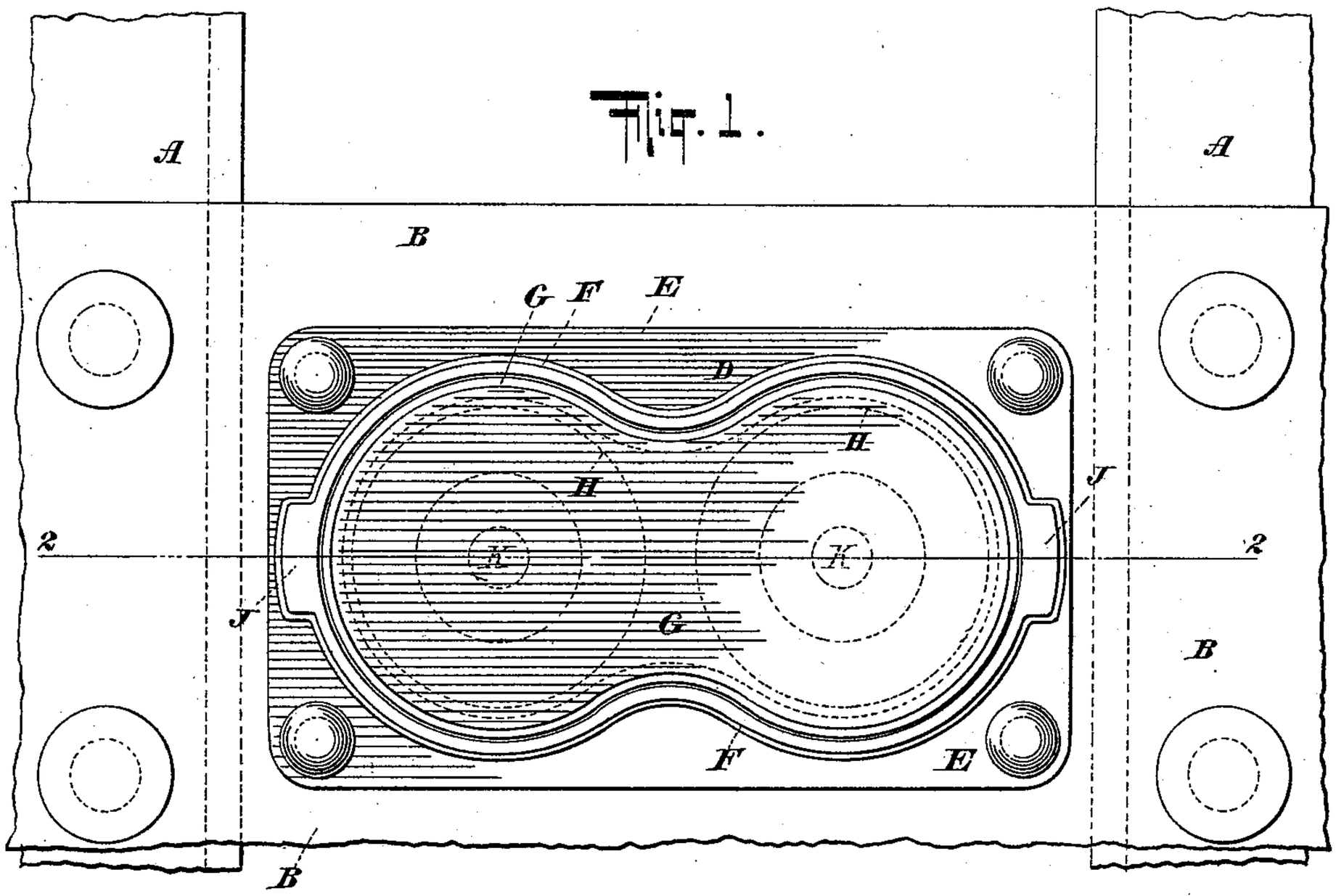
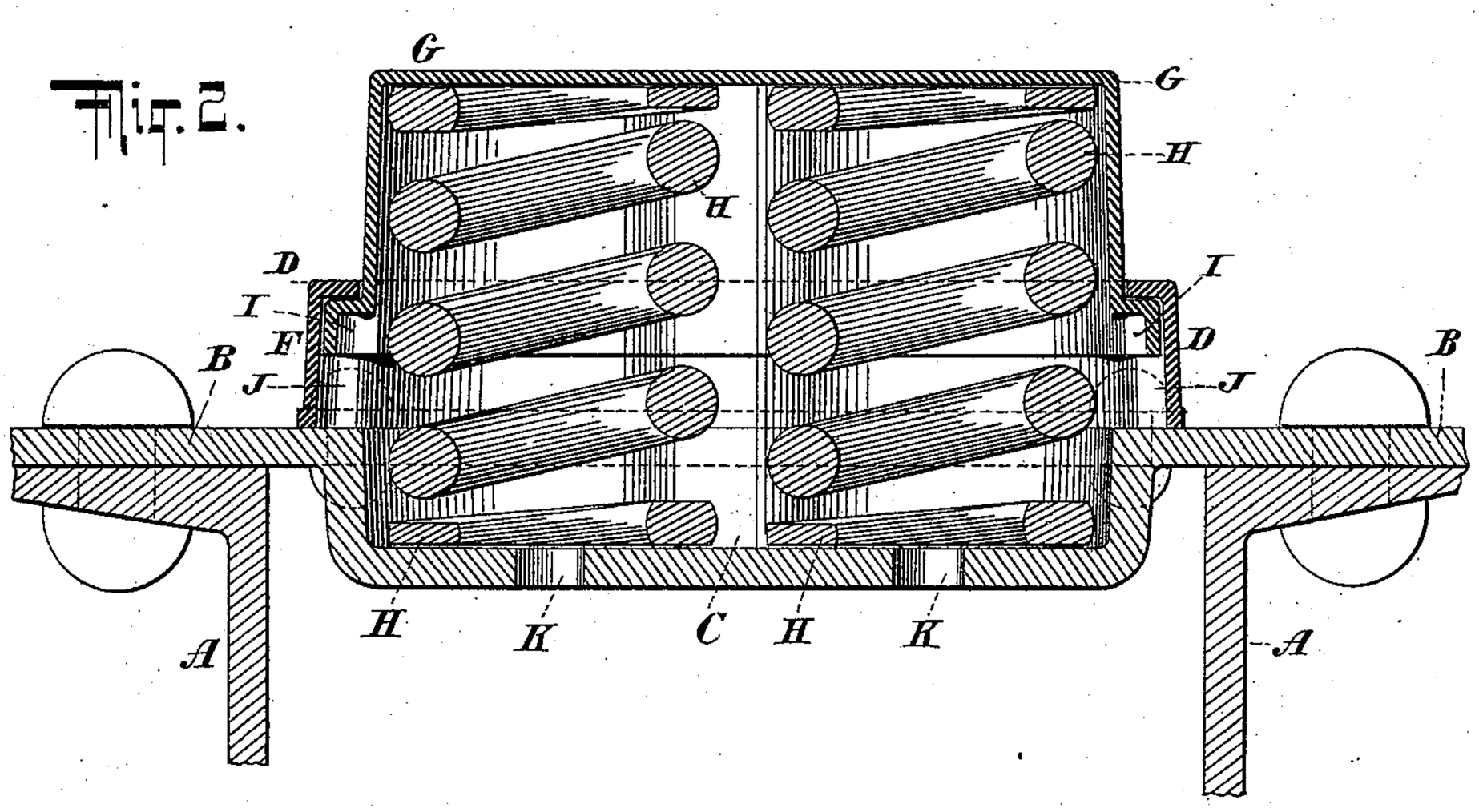


Fig. 2.



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SIDE BEARING FOR CAR-TRUCKS.

SPECIFICATION forming part of Letters Patent No. 582,343, dated May 11, 1897.

Application filed March 6, 1897. Serial No. 626,282. (No model.)

To all whom it may concern:

Be it known that I, EDWARD CLIFF, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Side Bearings for Car-Trucks; 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 the letters of reference marked thereon, which form a part of this specification.

The invention relates to side bearings for car-trucks; and it consists in the novel features hereinafter described and claimed and by which important advantages are secured.

The side bearing embodying my present invention comprises a base-plate containing a depression to receive the spring or springs, an exposed casing secured to said base-plate and encompassing said depression, and an upper exposed yielding shell or casing covering the spring or springs and adapted to receive the impact of the car-body, all as hereinafter more fully described, and illustrated in the accompanying drawings, in which—

Figure 1 is a top view of a portion of a car-truck provided with a side bearing constructed in accordance with and embodying the invention; and Fig. 2 is a central vertical section, through the side bearing and through a portion of the car-truck, on the dotted line 2 2 of Fig. 1.

In the drawings, A A designate a portion of the transom-beams of a car-truck, and B the usual top plate connecting said beams and being either in a separate piece or integral with the usual side frame. (Not shown.) The top plate B has heretofore received side bearings, but has not heretofore been utilized to form a section of the side-bearing casing, and in the present instance the top plate B forms the base-plate for the side bearing and contains the depression C, which, as shown in Fig. 2, extends below the horizontal upper surface of the top plate and of the transom-beams.

The depression C is confined to that portion of the top plate directly in vertical alinement with the remaining parts of the side bearing and the depressed portion C in outline is conformed to the outline of the upper parts of the side bearing and to the springs.

Upon the top plate B, directly in alinement with the depression C therein, is securely riveted or bolted the casing D, which comprises the horizontal flange E, contacting with the upper surface of the said top plate, and the vertical inwardly-inclined flange F, within which is arranged the yielding casing G, which incloses the upper portion of the springs H and is adapted to have a vertical movement within the rim or casing D under the pressure of the car-body.

The sides of the casing G are slightly inclined, so as to pass freely downward within the casing D, and at its opposite ends the casing G is provided with the projecting ends or hollow lugs I, which are within the end recesses or guides J, formed in the casing D. The lugs I and recesses J coöperate with one another to guide the casing G in its movement and to prevent the casing G from escaping from position within the casing D. The springs H have their lower ends resting upon the upper surface of the depression C, and their upper ends receive and support the yielding casing G. In the present instance the ends of the casings D and G are in general contour circular, and at their opposite sides the casings D G are curved inward, as shown in Fig. 1, thus conforming as largely as practicable to the circular outlines of the springs when viewed in horizontal section.

The depression C in its end and side outlines corresponds with the form of the casing G, and, as illustrated more clearly in Fig. 2, the length and width of the depression C are less than the length and width of the casing D, but substantially correspond with the length and width of the casing G, which more closely encompasses the springs H than does the casing D. Thus the depression C and casing G as closely as practicable confine the springs H at their lower and upper ends, respectively, and thereby the said springs are perfectly controlled as to their position.

A further advantage of the depression C is that by means thereof and by causing the same to form a lower section to the side-bear-

ing casing I am enabled to use sufficiently long springs H to properly relieve the car-body during its lurching and jarring.

The side bearing embodied in the present application comprises the top plate having the depression C, constituting the lower section of the side-bearing casing, the stationary casing D, secured upon said top plate, and the yielding casing G, confining the springs and being in alinement with the said depression C. If the top plate B is of wrought metal, the depression C may be pressed therein, and if the top plate is of cast metal the depression C may be cast therein. The invention is not, however, limited to any special means or method of producing the depression C in the top plate B; nor is the invention limited in every instance to the employment of the two springs H H with the special outline of casings D G illustrated in the drawings, although in its narrower form said invention is limited to the employment of the several springs H H and to the special outline of casing shown in connection with the special outline of depression C illustrated. The depression C will usually be provided with openings K for the purpose of permitting the escape of dust from within the casing of the side bearing.

The side bearing constructed as above described is entirely durable and efficient and fully capable of resisting in a proper manner the car-body during its lurching and other movements when in actual service.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The side bearing comprising the base having the depression to receive the lower end of the spring or springs, the casing secured to said base and having the upwardly-extending rim encompassing said depression, and the yielding casing guided within said rim and inclosing the upper portion of the said spring or springs; substantially as set forth.

2. The side bearing comprising the base having the depression to receive the lower end of the spring or springs, the casing secured to said base and having the upwardly-extending rim encompassing said depression, and the yielding casing guided within said rim and inclosing the upper portion of the said spring or springs, said rim being greater in diameter than said depression and said yielding casing being of substantially the same diameter as said depression; substantially as set forth.

3. The side bearing comprising the base B having the depression C to receive the spring or springs, the casing D having the horizontal flange E secured to said base and the upwardly-extending rim F, and the yielding casing G guided within said rim and resting on said spring or springs; substantially as set forth.

4. The side bearing comprising the base B having the depression C to receive the spring or springs, the casing D having the horizontal flange E secured to said base and the upwardly-extending rim F provided with the end recesses J, and the yielding casing G guided within the said rim and having the end lugs I within said recesses J; substantially as set forth.

5. The side bearing comprising the base B having the depression C, the plurality of springs having their lower ends within said depression, the casing D having the horizontal flange E secured to said base and the upwardly-extending rim F, the yielding casing G guided within said rim and resting on said springs, said depression and said yielding casing conforming along their sides to the outlines of said springs and maintaining them in proper position; substantially as set forth.

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

EDWARD CLIFF.

Witnesses:
CHAS. C. GILL,
E. JOS. BELKNAP.