

(No Model.)

D. M. & T. H. PARRY.
VEHICLE ATTACHMENT.

No. 406,851.

Patented July 9, 1889.

Fig. 1.

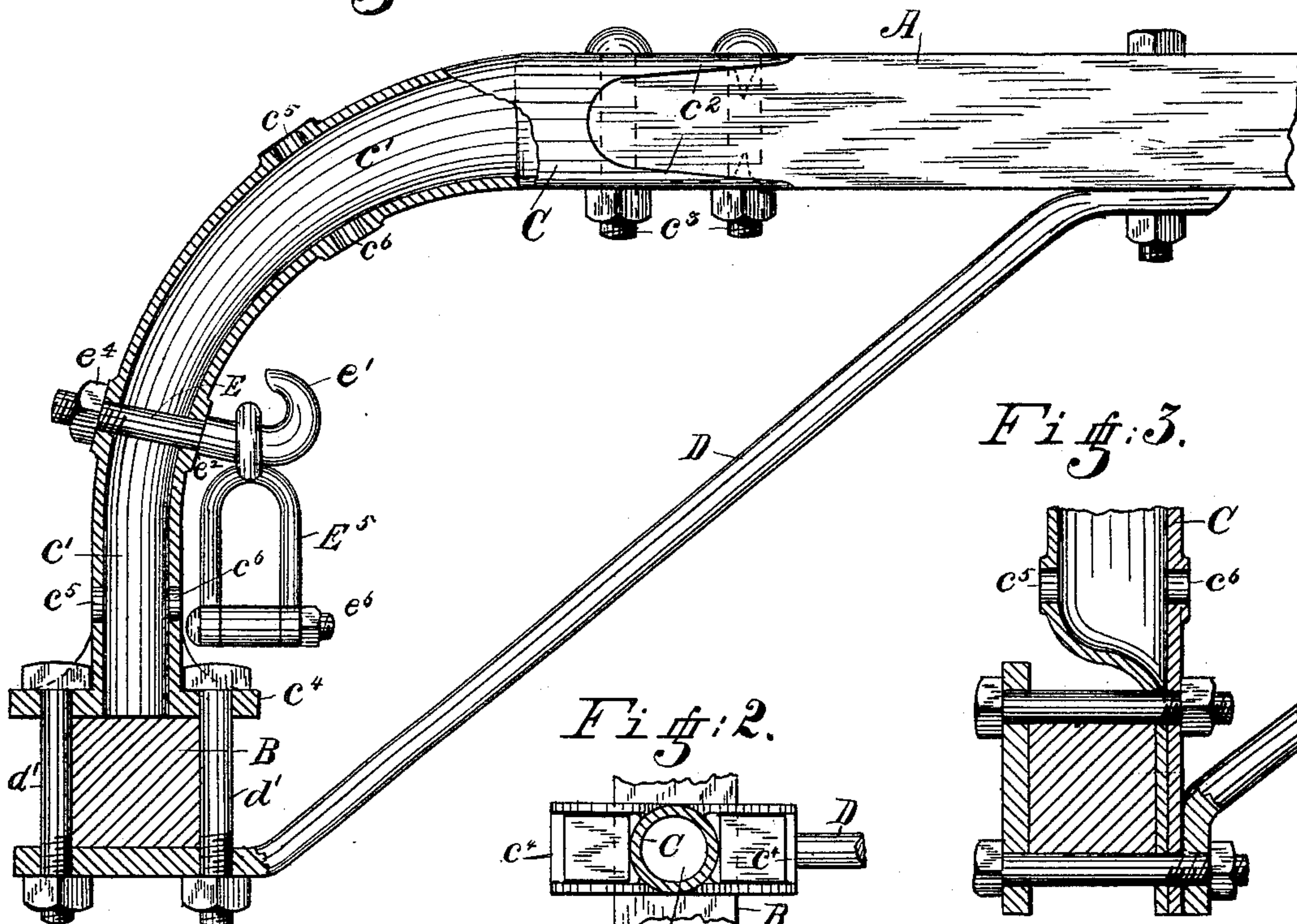


Fig. 3.

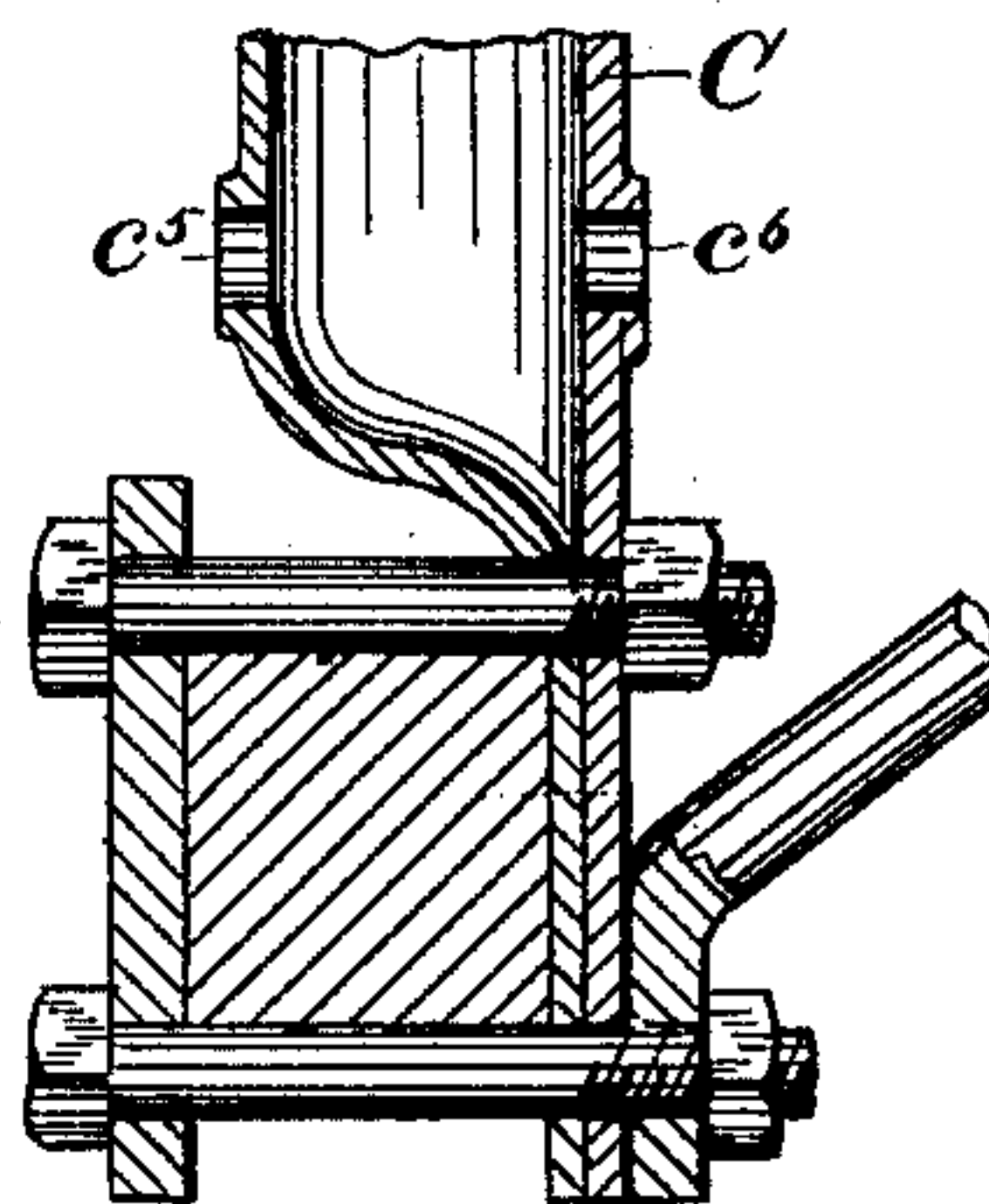


Fig. 2.

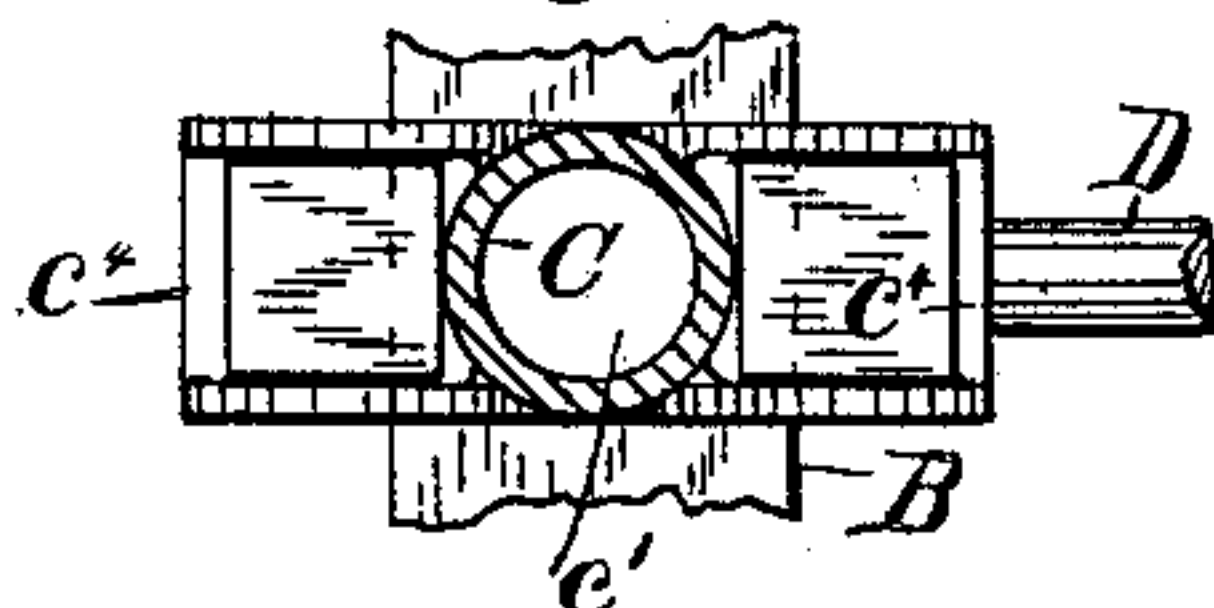


Fig. 4.

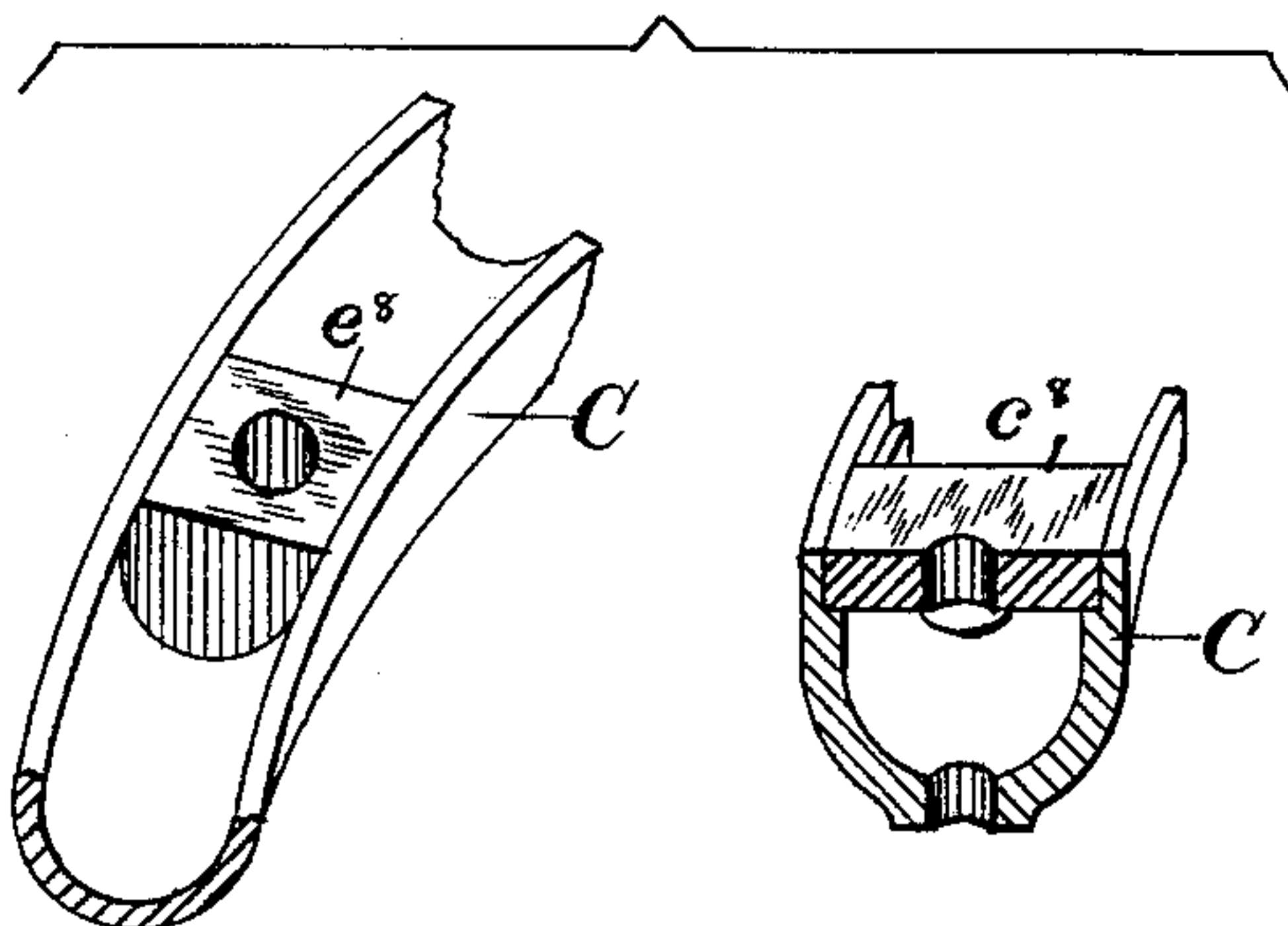
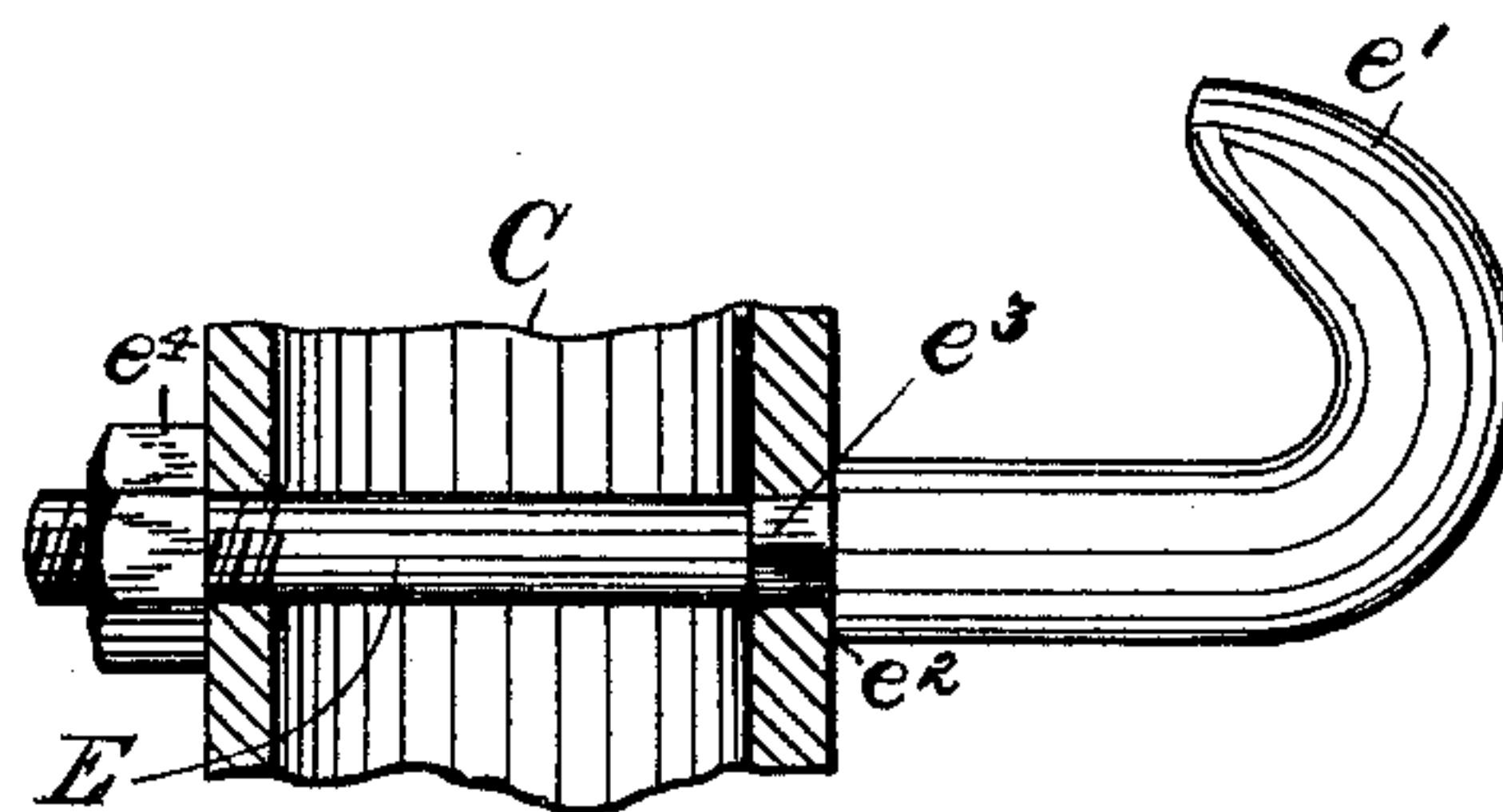


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

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VEHICLE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 406,851, dated July 9, 1889.

Application filed April 15, 1889. Serial No. 307,324. (No model.)

To all whom it may concern:

Be it known that we, DAVID M. PARRY and THOMAS H. PARRY, citizens of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Vehicle Attachments; and we do hereby declare the following to be 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 relates to improvements in shafts and shaft-clips for vehicles, the object of the invention being, primarily, to combine with a straight shaft a curved clip or heel-iron of such construction as to be cheap, light, and substantial, provide the same with an adjustable spring-support, and provide means for adjusting said spring-support to different positions upon the clip, all of which will be hereinafter fully explained.

The invention consists in the combination, with a vehicle-shaft, of a tubular or partially tubular clip flanged at its lower end to receive bolts that attach the axle thereto, substantially as hereinafter described, and set forth in the claims.

It also consists in the combination, with a horizontally straight shaft, of a curved tubular or partially tubular clip embracing the shaft at its end and having a filling of wood or metal, substantially as and for the purpose hereinafter set forth.

It also consists in the combination of a horizontally straight shaft, a curved one-piece metal clip constructed from malleable iron, drawn or swaged steel, or other suitable metal, having a tubular or partially tubular body, flanged at its lower end, an axle, and a brace bolted to the flange at the sides of the axle at its lower end and to the shaft at its upper end in advance of the clip, substantially as hereinafter described.

It also consists in the combination, with a shaft, of a tubular or partially tubular metal clip having a series of transverse holes there-through, and a bolt having a re-enforced forward end with a curved or elongated head, and a shoulder to abut against the clip, and a link loosely mounted upon said bolt to support the vehicle-spring, substantially as hereinafter described.

It also consists in certain details of construction of the said clip and attachments, substantially as hereinafter described and claimed.

Figure 1 represents in central longitudinal section, partially in side elevation, a shaft, shaft-clip, and attachments constructed in accordance with this invention; Fig. 2, a horizontal cross-section on dotted line 2 2, Fig. 1; Fig. 3, a sectional detail of a modified form of clip; Fig. 4, enlarged details of the clip, showing two different kinds of filling-pieces; and Fig. 5 an enlarged detail of the spring hanger-bolt.

In the drawings, A represents the shaft, which will be of usual material and of usual shape, with the exception that its rear end is straight instead of curved, as usual.

B represents the axle, which will be of usual construction.

C represents the clip that secures the shaft and axle together, and D the brace-rod.

The clip C will preferably be made of malleable iron cast in one piece in tubular form, it being hollow from end to end, as shown at c' , Fig. 1. It is obvious, however, that said clip might be constructed of other metal, and instead of being substantially tubular in cross-section it might be swaged or shaped to the form illustrated in Fig. 3—that is, partially tubular or U-shaped. In practice it is preferable to have the forward end of the clip bifurcated or cut away at its sides, as shown at c^2 , Fig. 1, whereby two shaft-grasping arms are formed, which arms, being somewhat flexible, may be pressed to some extent into the upper and under faces of the wooden shaft, which will preclude a possibility of lateral or longitudinal displacement, the shaft being secured by bolts c^3 , extended through the arms c^2 and through the shaft vertically. As shown in the drawings, the shaft is driven into the clip between the arms, the bend or curvature of said clip preventing any backward movement of the same. The shaft is shown as held in place by two bolts, but if desired barbs or spurs might be formed upon the ends of the arms c^2 , to be pressed into the shaft and only one bolt be used, as shown in dotted lines, Fig. 1.

It is obvious that the forward end of the clip might be constructed to entirely incase

the end of the shaft, and therefore it is not desired to limit the invention to a bifurcated clip, as shown in Fig. 1. The lower end of the curved clip will be flanged at c^4 to form a bearing for the bolts that secure the clip to the axle.

The axle B, of usual construction, is secured between the clip C and a brace-rod D by the vertical bolts d' , that extend through the rear end of said rod and the flange c^4 of the clip at each side the axle, as shown, said brace-rod being secured at its forward end to the shaft A at a point in advance of the clip C, which rod relieves the clip from direct strain resulting from the movements of the axle.

Formed through the clip C, at suitable distances, are a series of holes c^5 c^6 , to receive the bolt or device which supports the spring of the vehicle, the object of the series of holes being to allow interchanging of the spring-supports, as when it is desired to hang the spring at a greater or lesser distance from the axle or the shaft, or when it is desired to employ a spring-support of different construction from that illustrated in the drawings.

A simple and effective spring-support is herein shown, which spring-support constitutes a part of this invention, it consisting of a bolt E, turned up at its forward end to form an elongated head or hook e' , and re-enforced at its forward end to form a shoulder e^2 , to abut against the clip, a portion just in the rear of said re-enforced portion being square, as at e^3 , and seated in a square hole c^6 in the clip C, the threaded reduced end extending through the opposite wall of the clip and being held by a nut e^4 , and a bifurcated link E^5 , having an elongated eye at its upper end to encircle the forward end of the bolt E, which link has a bolt or equivalent e^6 at its lower end to support the vehicle-spring.

If the U form of clip is used, (shown in Fig. 3,) a filling of wood or metal c^8 will be preferably employed to form a bearing for the bolts, which are extended through the clip.

By the construction herein described it will be seen that a straight shaft may be employed,

which obviates the necessity of bending, and that a light, strong, and durable clip is produced, which, if properly ornamented by nickel-plating or otherwise, will greatly add to the appearance of the vehicle, and also greatly lessen the cost of manufacture, as compared with the cost of making the usual bent shaft and usual clip.

In Fig. 4 two different forms of clip are shown, both of which are U-shaped, but one being shown as rabbeted or shouldered upon its inner edges to receive and prevent side movement of the filling-piece c^8 , which filling-piece will be of metal. It is obvious, however, that the filling-piece might be of wood and held in place, as shown in the left-hand detail of Fig. 4.

In Fig. 3 the clip C is shown as flattened at its lower end and the axle as secured to the rear side thereof by horizontal bolts. This construction is sometimes desirable. Therefore we do not desire to limit the application to the exact construction of clip shown in Fig. 1.

We claim—

1. The combination of a horizontally-straight shaft, a curved one-piece metal clip constructed from malleable iron or drawn or swaged steel, having a tubular or partially tubular body flanged at its lower end, an axle, and a brace bolted to the flange at the sides of and beneath the axle and to the shaft in advance of the clip, substantially as described.
2. The combination, with the shaft-clip, of the bolt E, having the elongated head e' and re-enforced portion at its forward end, and the reduced, screw-threaded, and square portions at its forward end, as shown, and the bifurcated spring-supporting link E^5 , supported thereby, substantially as described.

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

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Witnesses:

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