

W. J. CHAPLIN.
Car-Couplings.

No. 135,775.

Patented Feb. 11, 1873.

Fig. 1

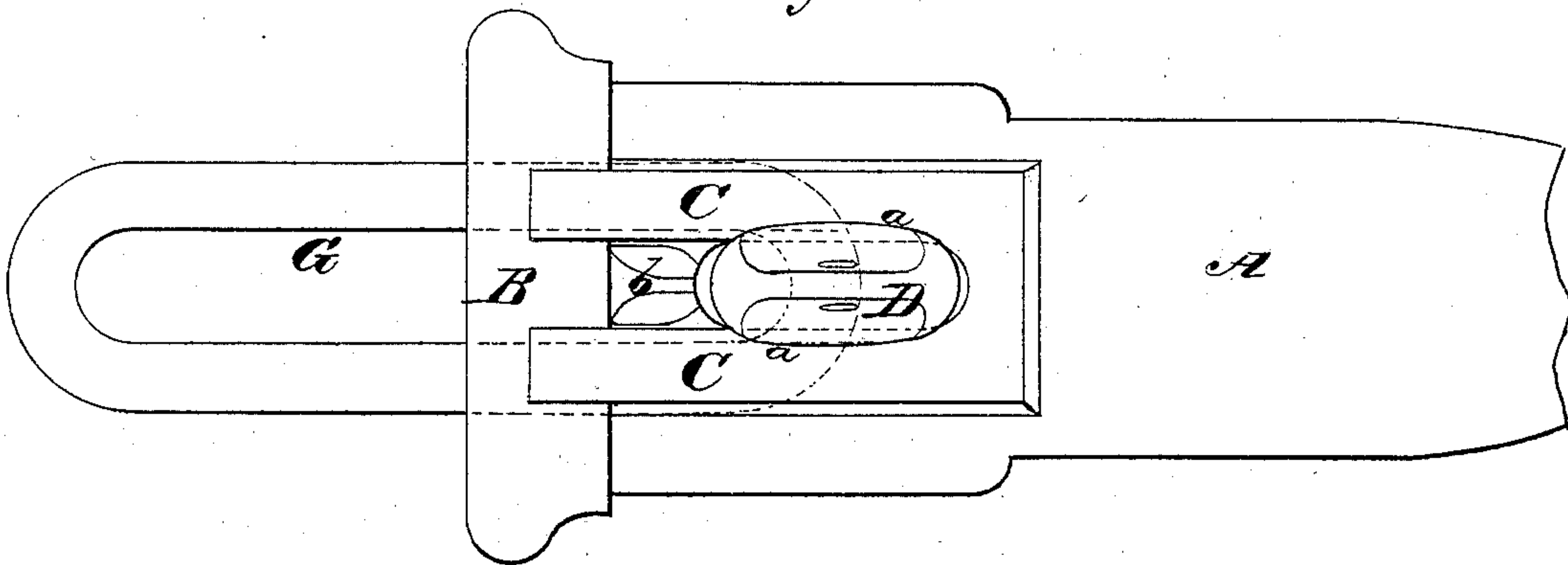
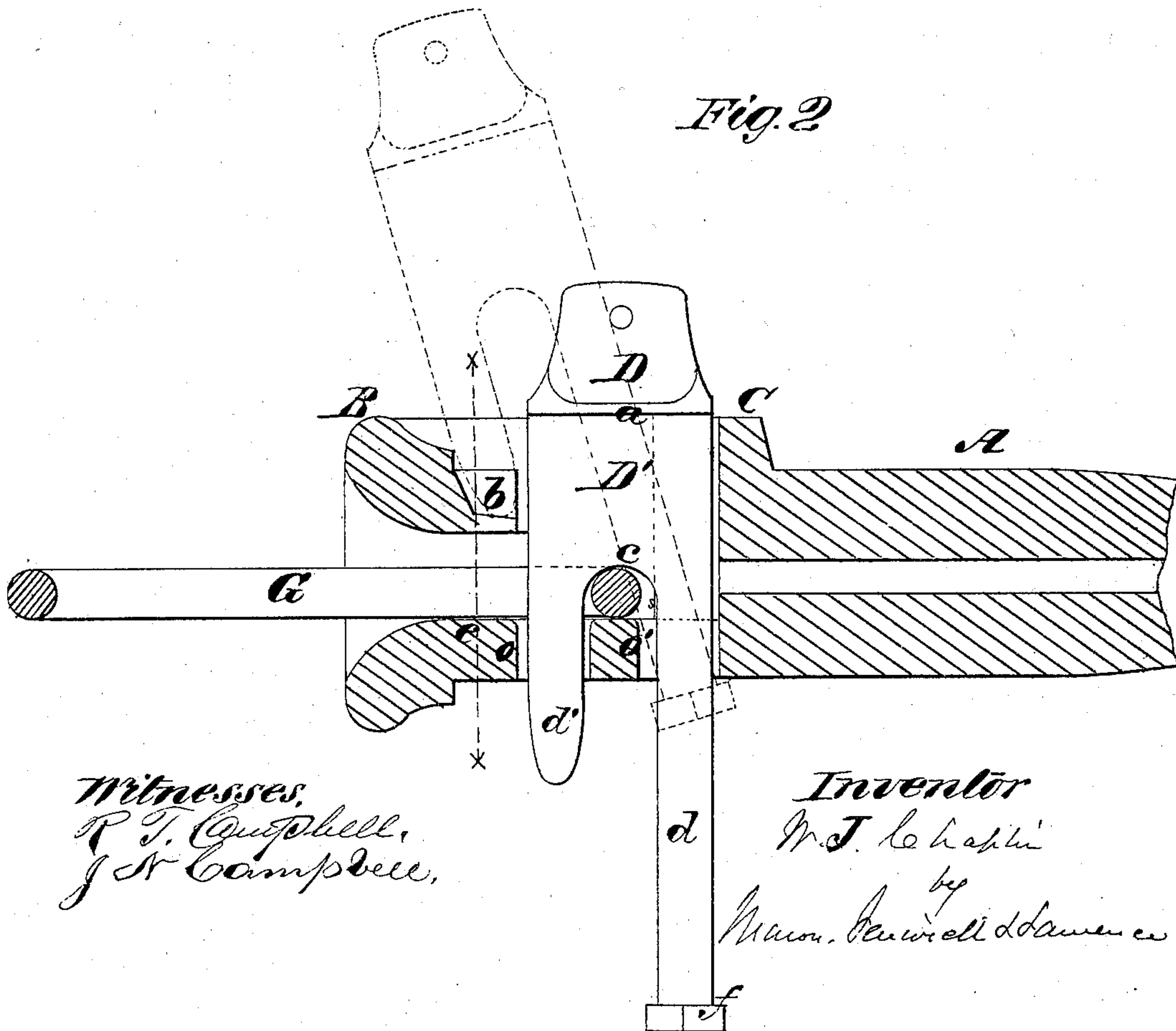


Fig. 2



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Fig. 4

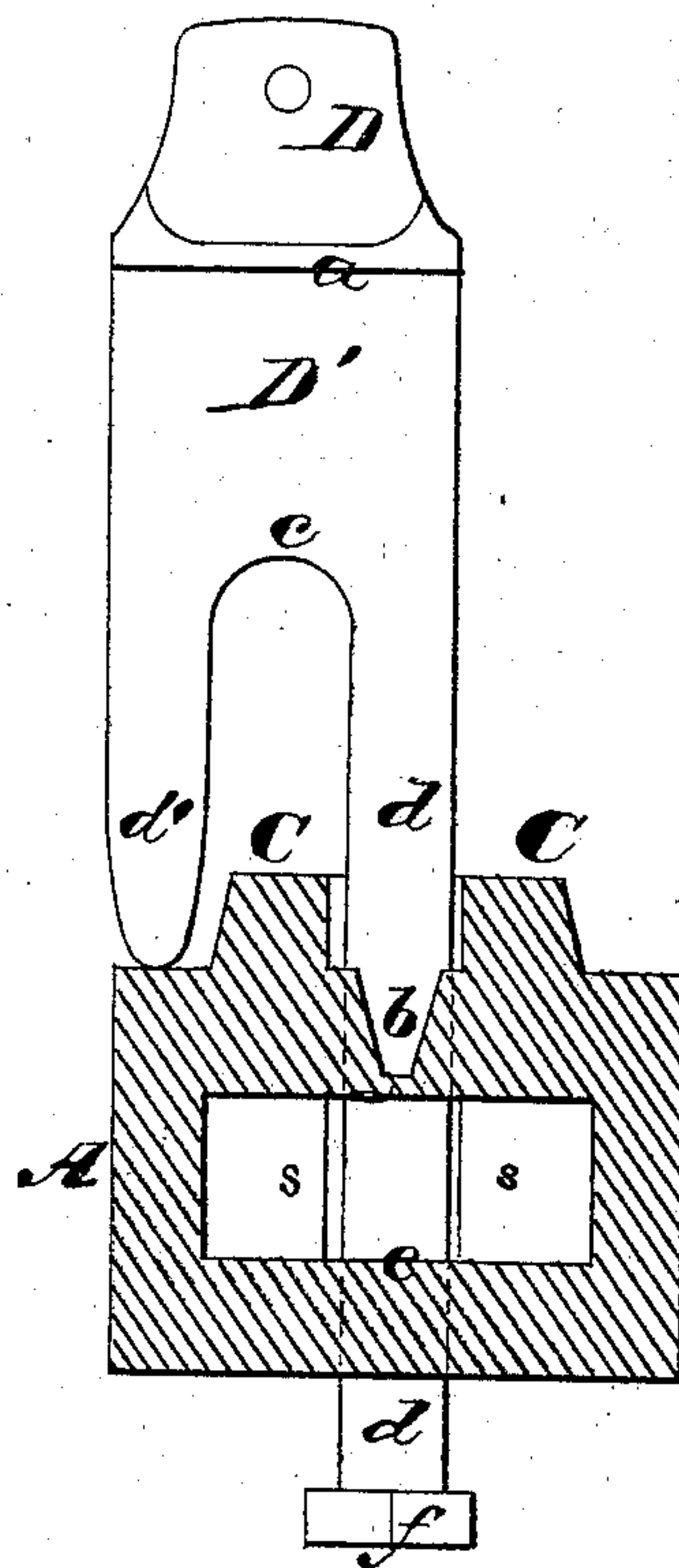
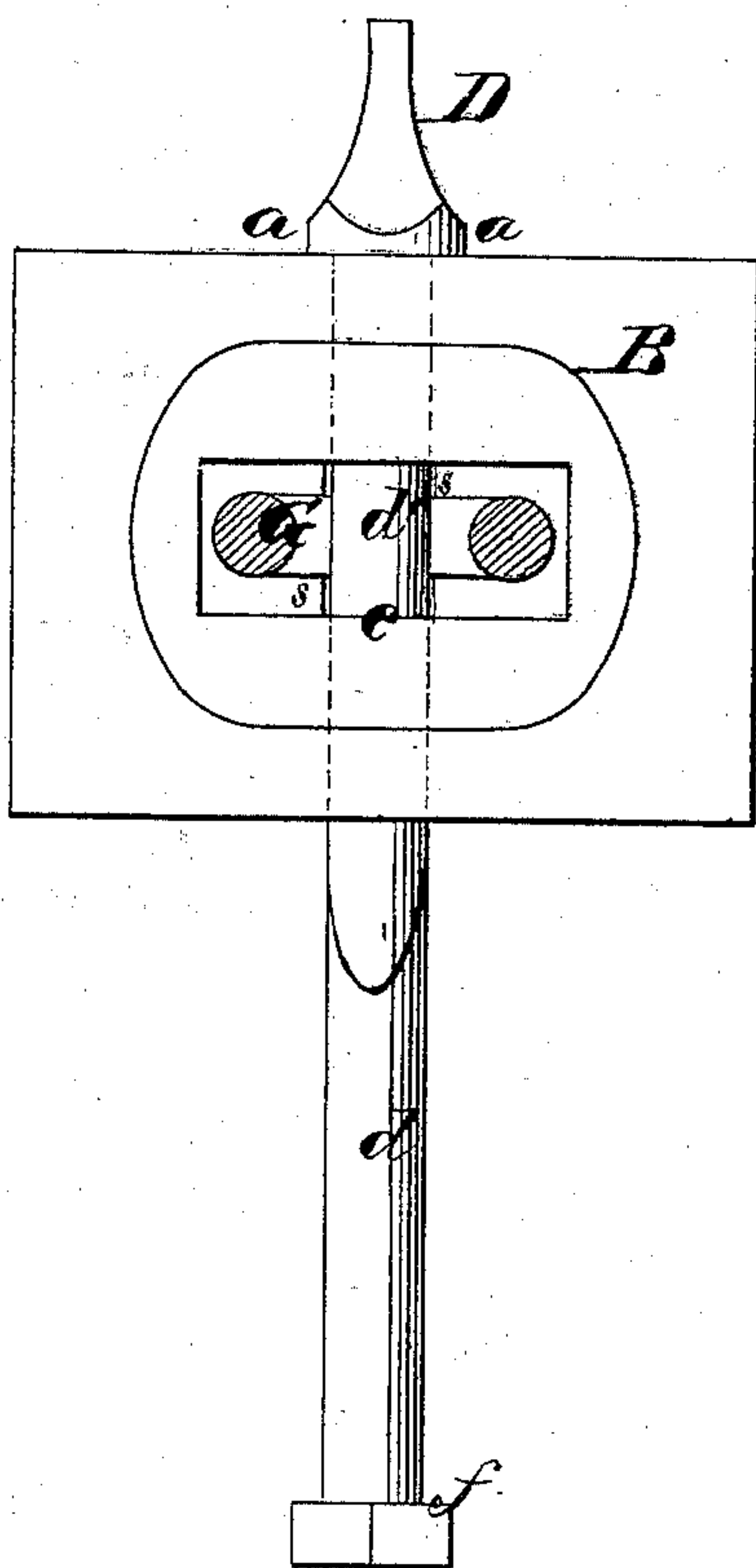


Fig. 3



Inventor

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UNITED STATES PATENT OFFICE.

WILLIAM J. CHAPLIN, OF KALAMAZOO, MICHIGAN.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 135,775, dated February 11, 1873.

To all whom it may concern:

Be it known that I, WILLIAM J. CHAPLIN, of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented a new and Improved Railroad-Car Coupling; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1, Plate 1, is a view of the top of my improved coupling, part of the draw-bar being broken off. Fig. 2, Plate 1, is a section taken vertically and longitudinally through the center of the same. Fig. 3, Plate 2, is a view of the front end of the coupling, the links being in section. Fig. 4, Plate 2, is a section taken transversely and vertically through the buffer in a plane indicated by dotted line *x x* in Fig. 2, showing the coupling-pin raised and its shortest leg adjusted outside of the raised portions on the buffer.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a novel improvement on railroad-car couplings of the self-coupling kind, wherein is employed a bifurcated coupling-pin in combination with the well-known coupling-links, and also with a buffer-head which has a seat for receiving one of the prongs of said pin and supporting the same in an elevated position, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawing, A represents the draw-bar, on one end of which the buffer-head B is formed. This head B has a flaring mouth, which terminates in a quadrilateral throat, presenting in front and below a bearing, *e*, for the coupling-pin, as shown in Fig. 2; and behind the abutments *s s* an oblong slot is made through the upper wall of the draw-bar of sufficient length to receive freely the wide shank of the coupling-pin; and around this opening on top of the buffer are elevations C C, and in front of this opening is a depressed seat, *b*, which is grooved, as shown in Figs. 2 and 4, and open behind for the escape of water, &c. Below the slot just described two oblong holes, *o o'*, are made through the lower wall of the buffer for re-

ceiving the two prongs of the coupling-pin. The coupling-pin consists of a laterally-shouldered head, D, shouldered at *a a*, and a bifurcated shank, D'. One of the legs, *d'*, of this coupling-pin is shorter than the other, *d*, and this shortest leg is the portion which passes through the coupling-links G, as shown in Fig. 2, when a coupling between cars is effected. This short leg *d'* is also that portion of the pin which is received into the open grooved seat *b* when the pin is held up, as indicated in dotted lines, Fig. 2, or which is adjusted outside of the elevations C when the pin is held up, as shown in Fig. 4. The longest arm *d* of the coupling-pin is made of proper length to allow of the above-named adjustments, and on the lower end of this long arm *d* a nut, *f*, is applied, which prevents the coupling-pin from being accidentally detached from the buffer.

Another feature about the coupling is this, that the distance from its crotch *c* to its head is such that when the pin is in the position shown in Fig. 2 its weight will be supported on the inner end of the link G, and thus hold this link in a proper position for entering a buffer-head of another car. The shoulders *s s* at the rear end of the throat of the buffer are on each side of a vertical groove, into which the long leg *d* of the coupling-pin is fully received when a coupling is being effected. These shoulders *s s* therefore receive the shock and prevent the said leg from being bent or broken by the link G.

It will be seen from the above description, first, that the seat *b* for supporting the coupling-pin in an elevated position to self-couple is grooved and open behind (there may be an opening vertically through it) for the purpose of preventing the accumulation of ice, snow, or anything which would not allow the end of leg *d'* to be well supported and held in said seat; second, that in the arrangement of cars in a yard, where they are backed on different side tracks, and where it is not desired to couple, provision is made by means of the raised portions C C for holding the coupling-pin positively in an elevated position, as shown in Fig. 4; third, that the coupling-pin is prevented from dropping through the buffer by its shouldered head D, and its long leg is also prevented from being casually drawn up out

of its slots by the enlargement *f* on the lower end thereof, and while this is the case the long leg *d* allows the pin to be turned around when fully raised, so that the short leg can be adjusted outside of the raised portion C.

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

The shoulders *s s* on each side of a vertical recess of a draw-bar for receiving the leg *d*, in combination with the bifurcated coupling-pin, substantially as described.

WILLIAM J. CHAPLIN.

Witnesses:

REINHOLD IHLING,
JOHN BEECHNER.