

D. P. DOW.
Car-Couplings.

No. 148,813.

Patented March 24, 1874.

Fig. 1

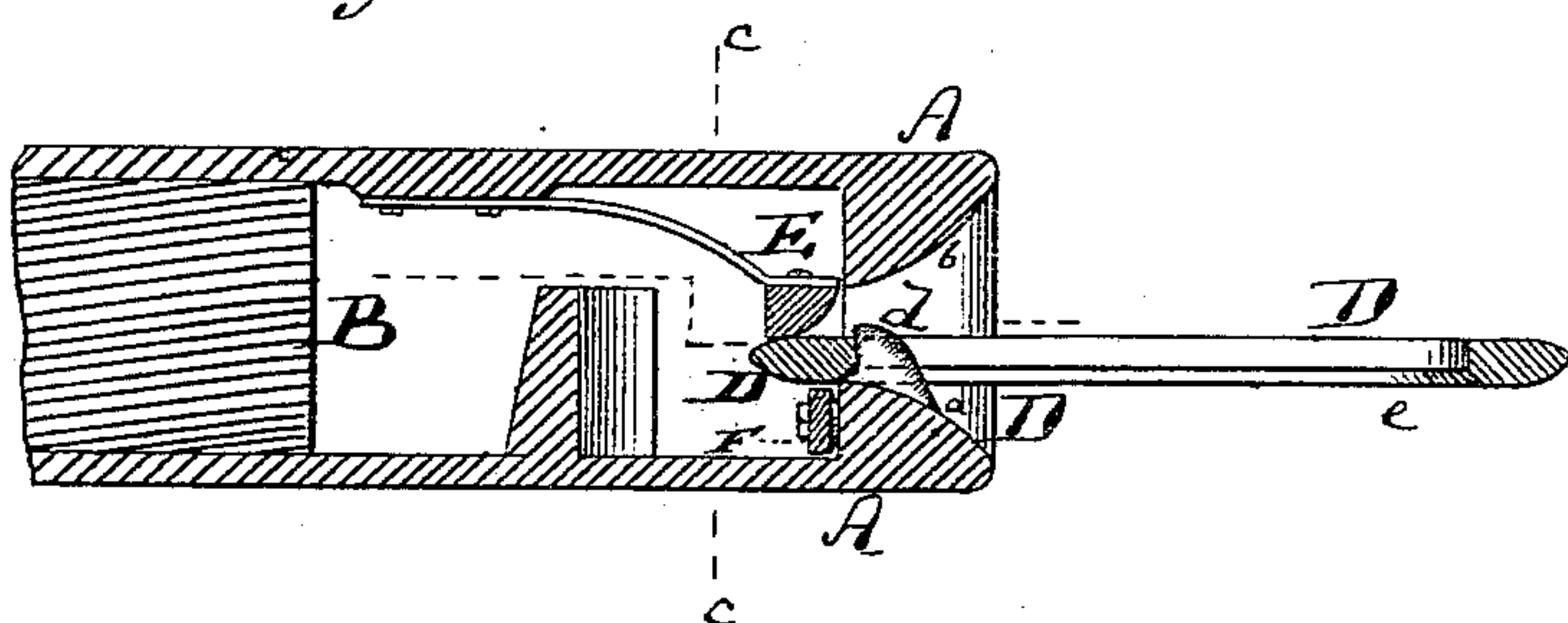


Fig. 2

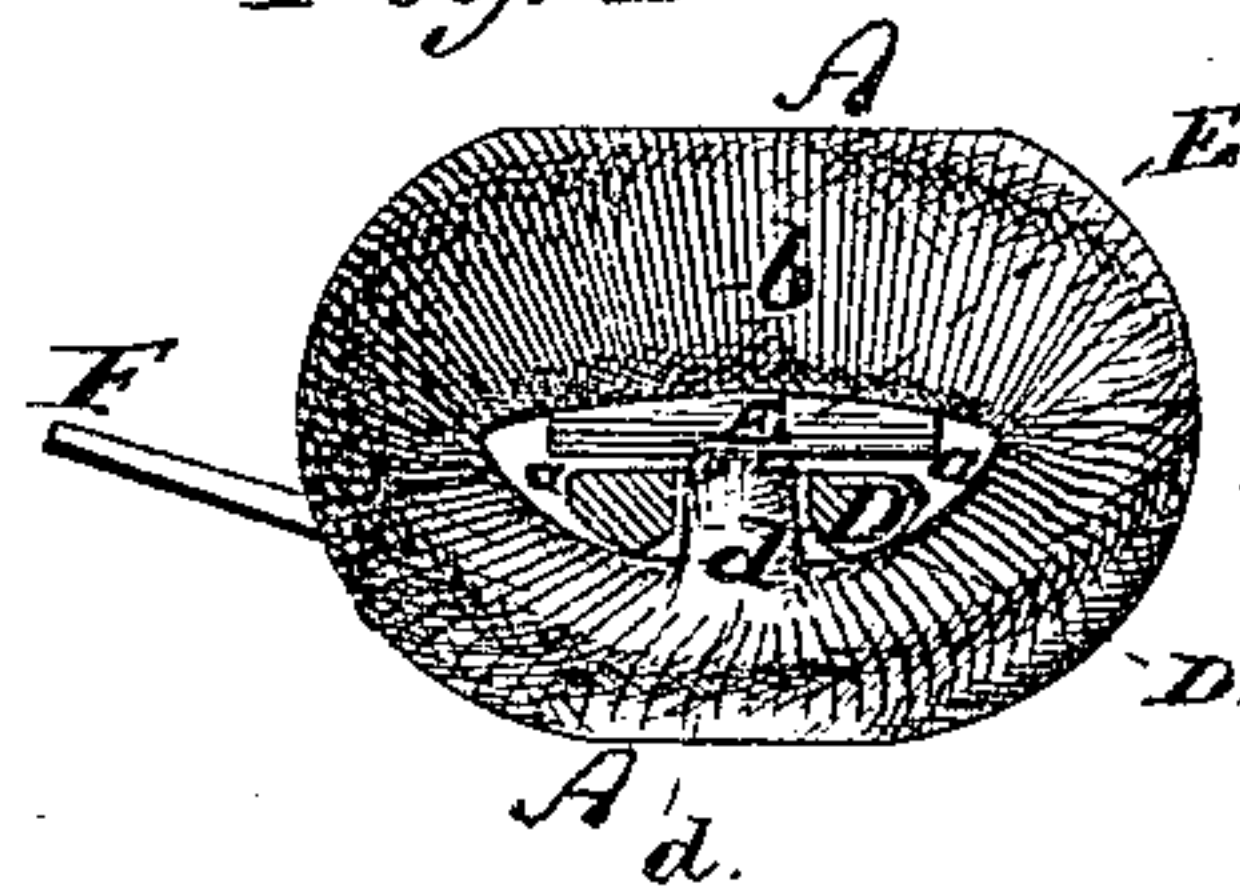


Fig. 3

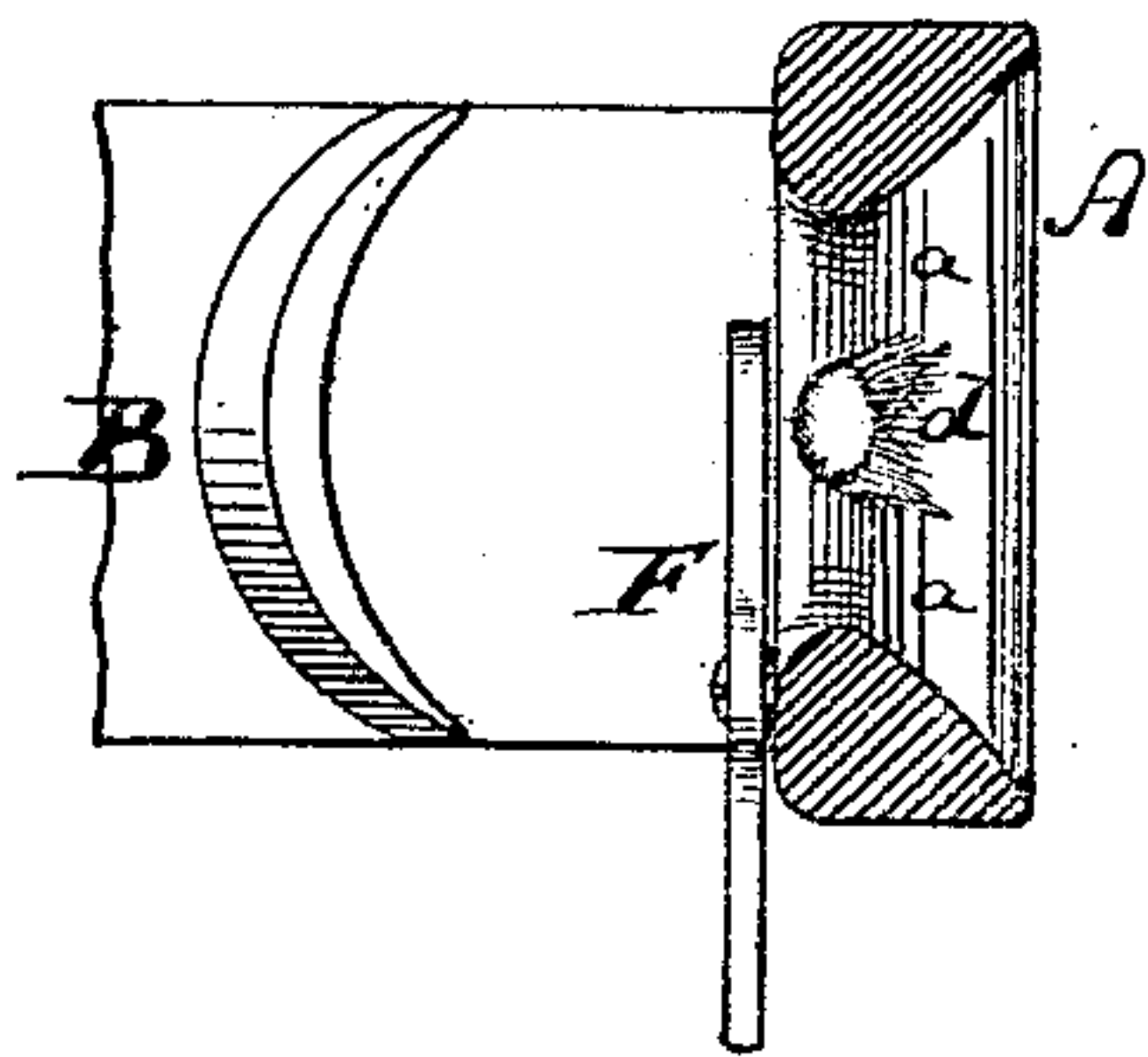
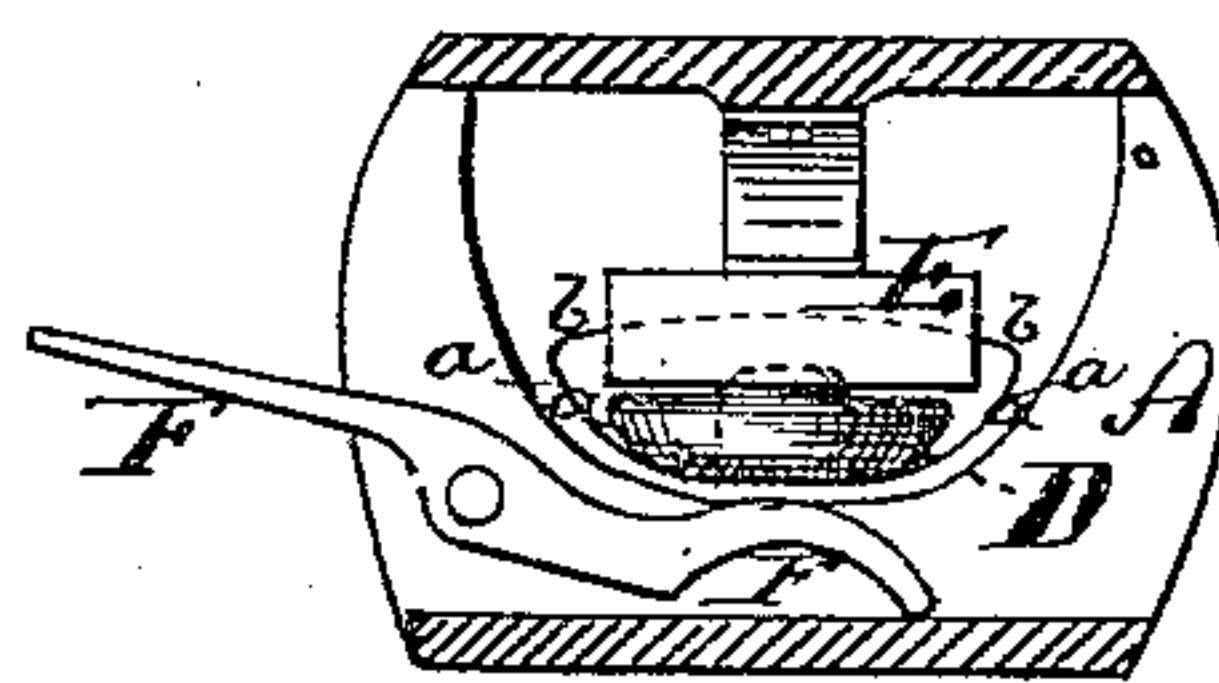


Fig. 4



Witnesses.
Michael Ryan
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UNITED STATES PATENT OFFICE.

DAVID P. DOW, OF NEW YORK, N. Y.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **148,813**, dated March 24, 1874; application filed June 16, 1873.

To all whom it may concern:

Be it known that I, DAVID P. DOW, of the city, county, and State of New York, have invented an Improved Car-Coupling, of which the following is a specification:

The object of this invention is to produce a car-coupling which will be self-engaging, but which, whenever one of the connected cars should run off the track, or fall down over a bridge or precipice of any kind, will become automatically disengaged, so as not to drag the remaining cars into similar danger. The invention consists in a novel construction of buffer and arrangement of parts therein, as hereinafter more fully described.

In the accompanying drawing, Figure 1 represents a longitudinal section of my improved coupling. Fig. 2 is a front view of the same, showing the link in section. Fig. 3 is a horizontal section of the buffer; Fig. 4, a vertical transverse section of the same on the line *c c*, Fig. 1.

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

The letter A represents a buffer secured to the draw-head B in suitable manner. The mouth of the forward opening of the buffer is shaped substantially as indicated in Fig. 2—that is to say, its lower contour, *a*, is concave, while the upper contour, *b*, may be straight or slightly concave, as indicated. Toward the front end the mouth enlarges in the customary manner, as indicated in Figs. 1 and 3. A hook, *d*, projects from the lower face of the buffer-mouth, as shown, and serves as a detent for the coupling-link D. A spring, E, bears on the inner end of the link and holds it on the hook when coupled. The link D is made of suitable size, but with the ends of its slot rounded, semicircular, and beveled along the inner edge of its slot, as shown at *e* in the drawing.

When the link is thrust into the buffer it first

strikes the beveled face of the spring-holder E, crowding the same upward until the slot of the link arrives over the hook *d*, whereupon the link is, by the spring E, forced down upon the lower part of the buffer, and the hook *d* is straddled by the link. When one of the connected cars leaves the track, and, consequently, turns the link D aside, such link, owing to the oblique position it then necessarily occupies, will also necessarily be lifted on the rounded lower part of the buffer-mouth, and by being so lifted is brought clear of the point of the hook *d*, so that it will readily become disengaged from said hook without further manipulation. The bevel *e* of the link materially aids in such automatic disengagement and hooks the coupling more rapidly.

When one of the connected cars is thrown over an embankment or precipice of any kind, the inclined link will, owing to the slight elevation of the hook *d*, only bear with its beveled end *e* against the point of the hook, and will, by slightly continued pulling applied to such link, become automatically disengaged.

For uncoupling the cars while stationary or while on the track, a lever, F, is pivoted to the buffer, so that its end will come beneath the inner end of the link, and so that, by depressing the outer end of the lever, it will raise the inner end of the link clear off the hook, and thereby uncouple the cars.

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

The buffer A, provided with the coupling-hook *d*, which projects upward from the rounded lower part of the buffer-mouth, in combination with the link D, all constructed to operate substantially as described, and for the purpose set forth.

D. P. DOW.

Witnesses:

FRED. HAYNES,
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