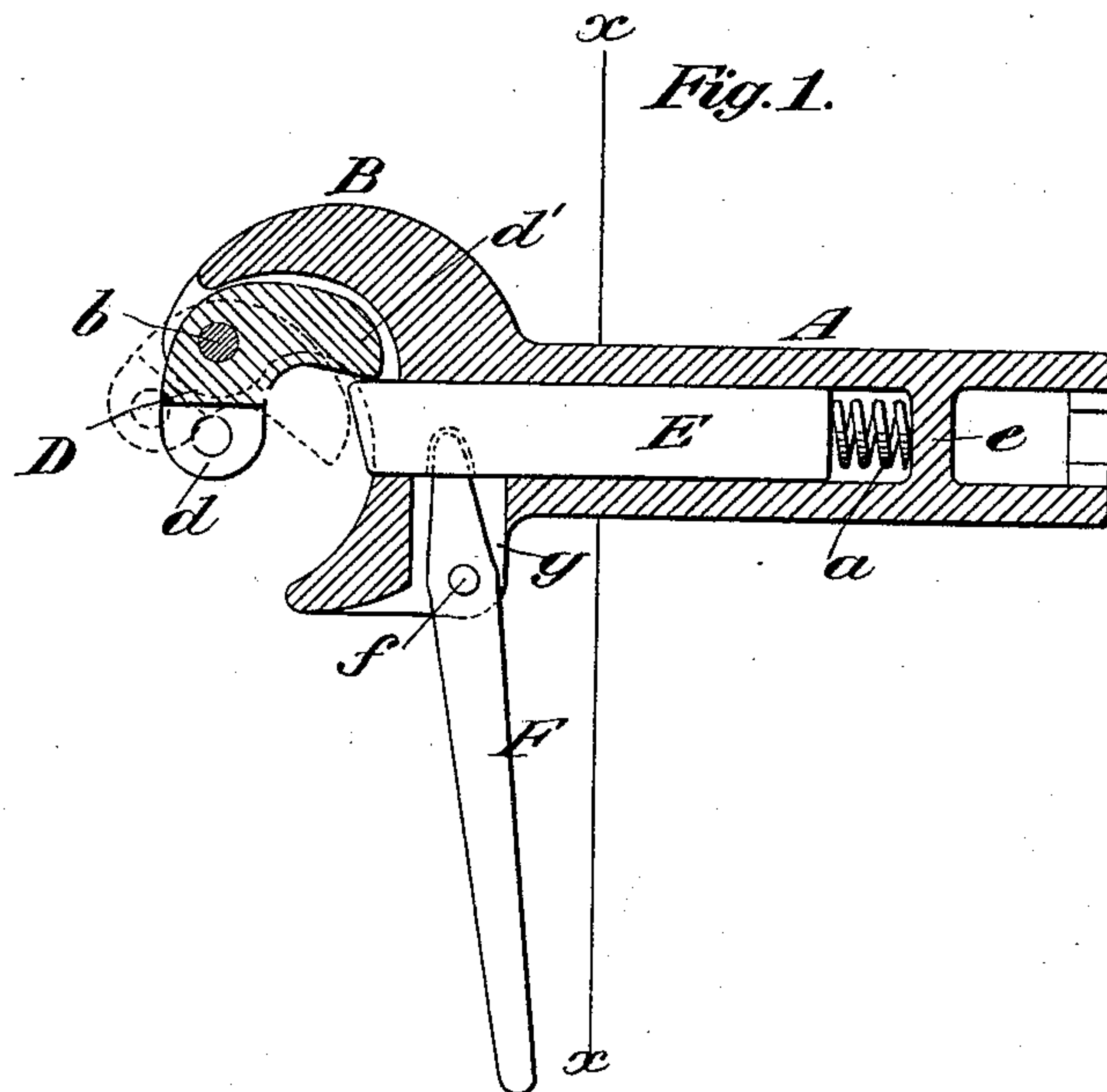


(No Model.)

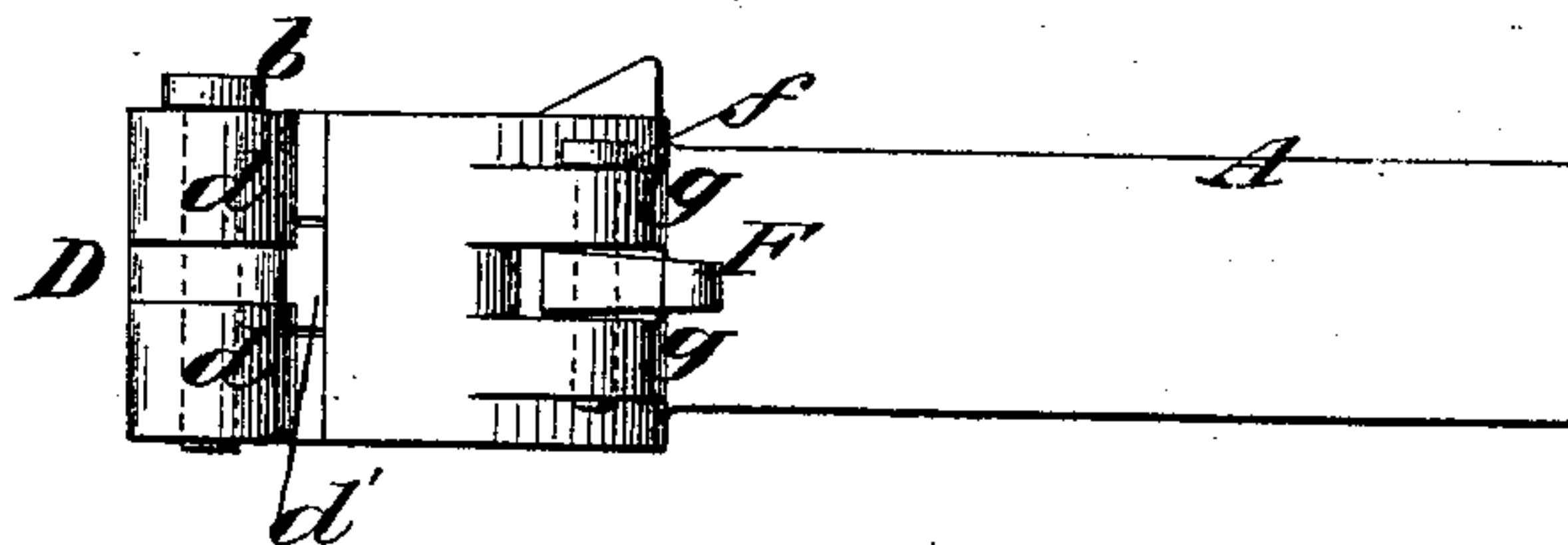
W. C. WATSON.  
CAR COUPLING.

No. 509,108.

Patented Nov. 21, 1893.



*Fig. 2.*



Witnesses:  
George Barry.  
Fred Haynes

*Inventor:*  
*William C. Watson*  
*by attorneys*  
*Frederic Howard*

# UNITED STATES PATENT OFFICE.

WILLIAM C. WATSON, OF PATERSON, NEW JERSEY.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 509,108, dated November 21, 1893.

Application filed August 5, 1893. Serial No. 482,423. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. WATSON, of Paterson, in the county of Passaic and State of New Jersey, have invented a new and useful  
5 Improvement in Car-Couplings, of which the following is a specification.

This invention relates to what are known as rotary or knuckle couplings. Its object is, while providing for the more secure locking  
10 of such a coupling, to afford facility for locking and unlocking it from the side of the car.

Figure 1 represents a horizontal section of one member of a coupling embodying my invention. Fig. 2 is a side view of the same.

15 Similar letters of reference designate corresponding parts in both the figures.

The draw-bar of each member of a coupling embodying my invention consists of a shank A and a forked head B, one of the sides  
20 of the said head being prolonged beyond the other for the attachment of the knuckle D by the pin b. This knuckle is of the elbow form common to couplings of this class, consisting of a hooked portion d which engages  
25 with the corresponding portion of a coupling member on another car and an angularly-extending tongue d' which is acted upon to throw the coupling into engagement and to lock it when engaged. The head B and shank  
30 A are hollow and the head open in front to receive a straight latch bolt E which is fitted to slide longitudinally within the head and the purpose of which is to engage with the tongue d' of the knuckle to lock the knuckle  
35 in the coupling position shown in full outline in Fig. 1. In the back part of the shank A there is a transverse abutment e which serves as a bearing for a short spiral spring a which is inserted loosely into the back of  
40 the cavity in the shank between the rear end of the bolt E and the said abutment or bearing e, the said spring tending to force the bolt E outward to the position shown in full outline in Fig. 1, in which position it serves  
45 as a stop to lock the tongue d' of the knuckle and to hold the hook d thereof in the position for coupling. The end of the said bolt E is beveled in order that it may be easily forced back by the action of the tongue d' of  
50 its respective knuckle D, as illustrated by dotted outline in Fig. 1, when the said tongue

is pushed against it by the pressure against its respective hook d of the corresponding hook d of the knuckle D of the coupling member of another car. This pushing back of the  
55 bolt continues till the point of the tongue d' of its respective knuckle passes the point of the bolt when the latter is pushed out by the spring to the locked position.

For the purpose of drawing back the bolt  
60 E to liberate the knuckle for uncoupling the cars, I provide a small lever F the fulcrum of which is a pin f which is inserted through lugs g provided upon the head B on the opposite side to that on which the knuckle D is  
65 pivoted, the said lever working through a slot in the head and its inner end entering a notch or mortise in the side of the bolt, and its outer end projecting laterally from the head to a point where it may be reached by a man at  
70 the side of the car. The arrangement of the fulcrum f of the lever F directly in or on the head B of the draw-bar instead of at some point on the car outside of the draw-bar or at a point on the draw-bar back of the head  
75 brings the lever within the space between the end timbers of the floor of two freight cars where it is completely out of the way of everything at the sides of the cars and is within  
80 easy reach of a man standing at the sides of the cars, so obviating the necessity of going between or reaching under the cars as the draw-heads always project beyond the said end timbers. This may be understood by  
85 reference to Fig. 1 in which the line x indicates the outer edge of the end timber of the car to which the draw-bar represented is attached.

What I claim as my invention is—

The combination in a car coupling of a  
90 hollow draw-head having a hollow shank, a coupling piece of knuckle or elbow form pivoted to said head, a locking bolt fitted to slide within said head and shank for locking said coupling piece, and a lever pivoted in said  
95 head forward of the shank for the purpose of disengaging said locking bolt, substantially as herein described.

WILLIAM C. WATSON.

Witnesses:

FREDK. HAYNES,  
B. B. SEWARD.