

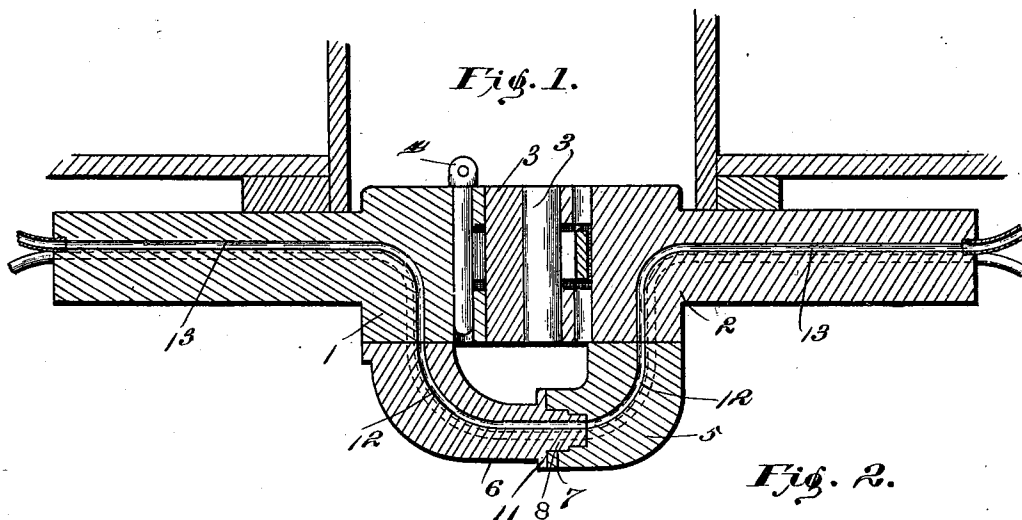
No. 630,655.

Patented Aug. 8, 1899.

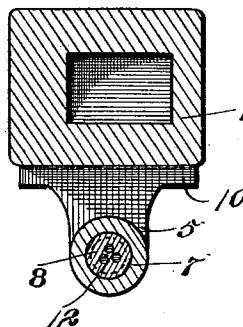
J. J. CATON.  
CAR COUPLING.

(Application filed Feb. 27, 1899.)

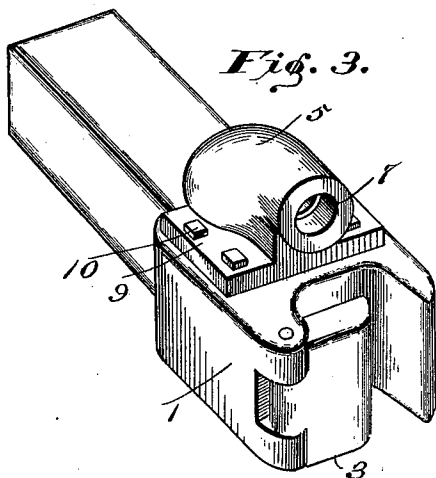
(No Model.)



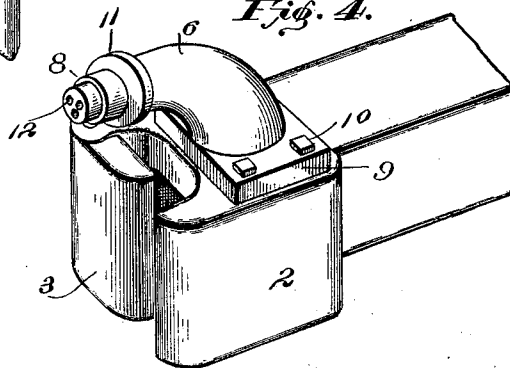
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses

Harner Walker.

J. J. Caton.

John J. Caton. Inventor

By his Attorneys.

Caton & Co.

# UNITED STATES PATENT OFFICE.

JOHN J. CATON, OF PHILLIPSBURG, NEW JERSEY.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 630,655, dated August 8, 1899.

Application filed February 27, 1899. Serial No. 707,013. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN J. CATON, a citizen of the United States, residing at Phillipsburg, in the county of Warren and State of New Jersey, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

The object of the present invention is to improve the construction of car-couplings and to provide one which will be adapted to form a conduit for compressed air and other fluids, to dispense with the hose pipe and couplings usually employed for making connections between the pipes of the air-brake, the signal in the cab of a locomotive, and the steam-heating system, and to enable the sections of such pipes to be simultaneously and automatically coupled with the cars.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a longitudinal sectional view of two draw-heads coupled. Fig. 2 is a transverse sectional view. Figs. 3 and 4 are detail perspective views of the draw-heads, the same being inverted to show the tubular elbows.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 and 2 designate draw-heads of the Janney type provided with pivoted knuckles 3, adapted to interlock with each other in the usual manner and held in their closed position by locking-pins 4. The draw-heads, which may be mounted on the cars in any suitable manner, are each provided with a single rigid elbow 5 and 6, respectively, depending from the under side of them and extending outward, as clearly shown in the drawings, and adapted to couple automatically with the draw-heads. One of the elbows forms a female member and is provided at its outer end with a socket 7 to receive the extremity 8 of the male member 6, and the end 8 and the socket 7 are preferably provided with inner and outer reductions, as shown, to form a tight joint. The elbows, which depend from the draw-

heads, are preferably constructed separate from the same and are provided at their upper or inner ends with flanges forming an attachment-plate 9, which is perforated for the reception of screws 10 or other suitable fastening devices, which engage suitable sockets of the bottom of the draw-head. The male member is provided near its outer end with an annular flange 11, which abuts against the outer edge of the female section 5, and a washer of rubber or leather may be interposed between these parts, if desired.

The elbows, which are tubular, are provided with three distinct bores or passages 12, which register with corresponding bores or passages 13 of the draw-heads and which are designed to form conduits for the compressed air employed for manipulating the air-brakes and for sounding a signal on the locomotive, and the third passage is designed to serve as a conduit for steam for heating the cars. The devices shown in the accompanying drawings are designed for use on passenger-coaches, and when applied to freight-cars only one passage or bore will be necessary and will be employed to couple the sections of the train-pipe of an air-brake.

The passages or bores 13 of the draw-head are substantially L-shaped and are composed of substantially vertical branches extending upward from the lower faces of the draw-heads and horizontal branches disposed longitudinally of the draw bars or shanks. The outer ends of the horizontal branches of the bores may be coupled to pipes 14 or any other suitable form of conduits. The draw-heads when interlocked will not have sufficient lateral play on each other to effect the joint or coupling of the elbows, and they will have enough bodily play on the cars to allow for rounding curves.

The invention has the following advantages: The car-coupling which is provided with the elbows forms a conduit for compressed air and steam, and it is adapted to dispense with the hose pipes and couplings usually employed on cars for this purpose. The coupling of the elbows is automatic and simultaneous with the cars, and an effective joint is provided, so that there is no danger of leakage.

Changes in the form, proportion, size, and

the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

5 What is claimed is—

1. The combination of two draw-heads provided with bores or passages extending longitudinally of them, the two rigid male and female elbows, one of which is mounted on  
10 each draw-head said elbows being provided with bores or passages communicating with those of the draw-heads, and being arranged to couple automatically and simultaneously with the draw-heads, substantially as de-  
15 scribed.

2. The combination of two ordinary draw-heads provided with longitudinal bores or passages, and the single rigid elbow mounted on the under side of each draw-head and pro-  
20 vided with bores or passages communicating with those of the said respective draw-heads, one of the elbows being provided at its outer

end with a socket and the other elbow being reduced and fitting in the socket, substantially as described.

25 3. The combination of two draw-heads provided with longitudinal bores or passages, and two rigid elbows provided with corresponding bores or passages and having attachment plates or flanges at their inner ends, 30 one being adapted to be secured to the under side of each draw-head, said elbows being provided with interlocking outer ends and arranged to couple automatically when the draw-heads come together, substantially as 35 described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN J. CATON.

Witnesses:

JOHN BRUNNER,  
CHAS. B. BRUNNER.