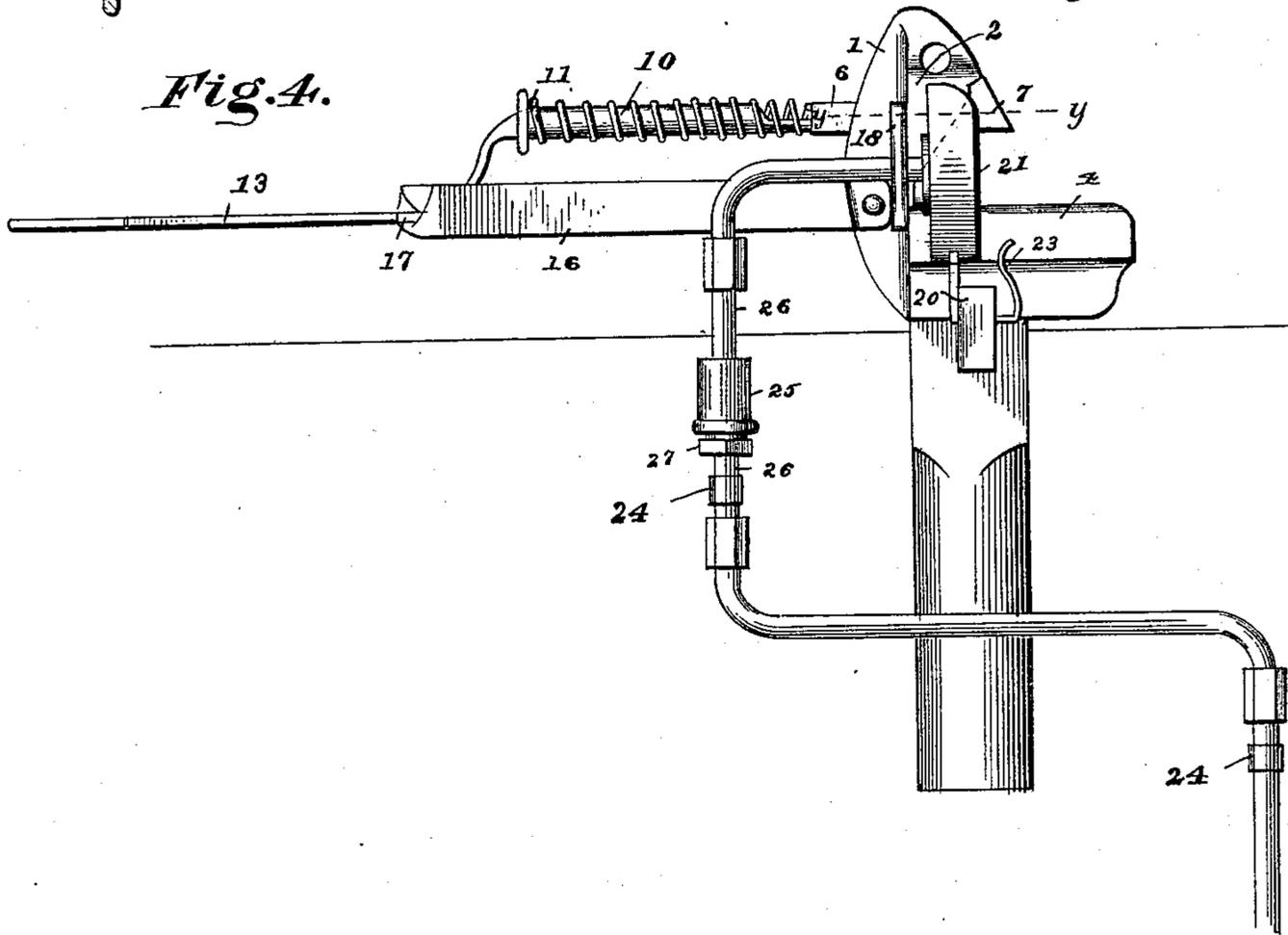
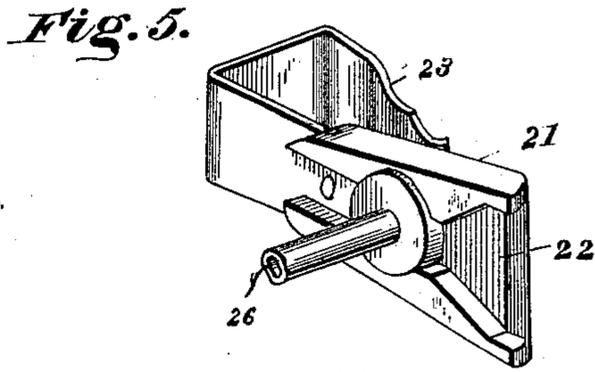
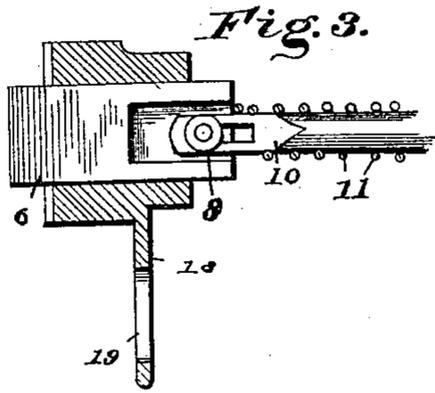


J. B. THOMAS.
COMBINED CAR AND AIR BRAKE COUPLING.

No. 481,984.

Patented Sept. 6, 1892.



Witnesses

J. M. Ke, Jr.
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By his Attorneys,

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Inventor

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UNITED STATES PATENT OFFICE.

JAMES BRYANT THOMAS, OF SULPHUR SPRINGS, TEXAS, ASSIGNOR TO THE THOMAS CAR COUPLING COMPANY, OF SAME PLACE.

COMBINED CAR AND AIR-BRAKE COUPLING.

SPECIFICATION forming part of Letters Patent No. 481,984, dated September 6, 1892.

Application filed April 11, 1892. Serial No. 428,700. (No model.)

To all whom it may concern:

Be it known that I, JAMES BRYANT THOMAS, a citizen of the United States, residing at Sulphur Springs, in the county of Hopkins and State of Texas, have invented a new and useful Combined Car and Air - Brake Coupling, of which the following is a specification.

This invention relates to certain new and useful improvements on Patent No. 418,089, granted to me December 24, 1889; and it consists in the construction and arrangement of the parts thereof, as will be more fully hereinafter described and claimed.

The object of this invention is to provide a single structure in which the air-brake pipes will be simultaneously coupled with the coupling of a car.

In the drawings, Figure 1 is a perspective view of two draw-heads and air-brake pipe shown in coupled position and embodying the invention. Fig. 2 is a horizontal section on the line *xx* of Fig. 1. Fig. 3 is a transverse vertical section on the line *yy* of Fig. 4. Fig. 4 is a bottom plan view of one of the coupling-heads and its attachment, together with a portion of the air-brake pipe. Fig. 5 is a detail perspective view of the gasket-head removed.

Similar numerals of reference indicate corresponding parts in the several views.

Referring to the drawings, the numeral 1 designates a draw-head which is secured on the bottom of the car at the end of the same and has a tapered tongue 2 at the forward extremity thereof, which is provided with a transverse horizontal opening 3, adapted to receive a clevis to permit the device to be used in connection with the ordinary pin-and-link coupling, if found necessary. The draw-head is further provided with an offset 4, which is substantially rectangular in form and hollow, thereby providing a chamber 5, which is adapted to receive the pivoted tongue of the opposite draw-head. It will be readily understood that the tapered tongue and the hollow offset are arranged on opposite sides of a medium longitudinal line of the draw-head, so that in the operation of coupling the tongue of each draw-head enters the chamber in the offset of the opposite draw-head,

and the two draw-heads are thus guided toward each other to insure a perfect coupling.

Extending transversely through the draw-head 1 in rear of the tapered tongue thereof is a coupling key or dog 6 with an inner beveled end 7 and a recess 8 in the front side thereof, which aligns with the transverse horizontal opening 3 in the tapered tongue 2 to form an additional space for the reception of the clevis when coupling of this nature is required. The key or dog 6 has a slot 9 in the rear side thereof, in which is fitted the end of a rod or bar 10, the said end being slotted and engaged by a pin or stud projecting from the said key or dog to allow the latter to move thereon. The said rod or bar 10 is encircled by a spring 11, which bears against the key or dog 6 and normally impels the same in locking position. The outer end of the rod or bar 7 is secured to the lower U-shaped end 12 of a lever 13, which has a slot 14 therein, engaged by a headed stud or pin 15, fixed to a bracket or supporting-frame 16, which may be secured in position in any manner found desirable. By this means a loose connection for the lever 13 is provided, and on the said bracket or support 16 is formed a shoulder or angular extension 17, against which the end of the lever may be drawn to lock the same against movement. The purpose of this lever is to uncouple connected cars, and by raising the same upward the dog or key 6 will be drawn outward and move in its seat in the draw-head 1.

From the under side of the draw-head 1 depends a bracket 18, having a slot 19 in the lower portion thereof, and from the under rear portion of the offset depends a slotted bracket or arm 20. The end of the air-brake pipe is passed through the slot in the bracket 18 and secured to the gasket-head 21, which is of elongated form, having its front end enlarged and provided with a triangular tapered slot 22, extending backward from the front end, and to the rear portion thereof is secured one end of a clamping-spring 23, which is substantially of the form shown and passes through the slotted bracket 20. Each car is provided with a construction similar to that just set forth, and when two draw-heads come

together the sliding keys or dogs 6 are forced outward until they pass each other and then slip automatically over and bear against the plain face of each, thereby securely coupling the cars at the same time the gasket-heads engage each other, and are so arranged that the clamping-springs thereof will take over portions of the same and securely lock two heads against accidental disengagement. The said springs effect guiding of the air connections into position and provide for a tight register of the joints.

All the parts of the air-brake connections are so arranged that they will adjust themselves to any position required and to compensate for the movement of the cars.

The advantages of this form of construction are readily apparent to those skilled in the art and need not be enlarged upon further herein.

Having thus described the invention, what is claimed as new is—

1. In a car-coupling, the combination of the draw-head having an offset with a chamber therein to receive an opposite portion of the coupling, a sliding key or dog mounted in said draw-head and operating transversely therethrough, and means for releasing said key or dog, substantially as described.

2. In a car-coupling, the combination of a draw-head having an offset with a chamber therein to receive an opposite portion of the coupling, a key or dog movably mounted therein and extending transversely therethrough and provided with an inner beveled end, a rod connected to said key or dog and having a coiled spring thereon bearing against the key or dog to normally impel the same inward, and a lever connected to said rod for uncoupling the said key or dog, substantially as described.

3. In a car-coupling, the combination of a draw-head having an offset with a chamber therein to receive an opposite portion of the coupling, a key or dog transversely mounted therein, a rod having the slotted end thereof connected with said key or dog, whereby the latter may move thereover, a spring surrounding said rod, and a lever connected to the outer end of said rod for the purpose of uncoupling the said key or dog, substantially as described.

4. In a car-coupling, the combination of the draw-head having an offset with a chamber therein to receive an opposite portion of the coupling, a key or dog movable transversely therethrough, a rod connected to said key or dog, and a lever having a U-shaped end attached to said rod, substantially as described.

5. The combination, with a car-coupling, of a loosely-mounted gasket-head of the form set forth, having a clamping-spring in connection with the rear thereof, and an air-brake pipe connected with said gasket-head, substantially as described.

6. The combination, with a car-coupling, of a gasket-head loosely supported in connection therewith, a bracket with a slot therein, a clamping-spring attached to the rear portion of said gasket-head, and an air-brake pipe connected to said gasket-head and loosely passed through said slotted bracket and entering the same upon the side, substantially as described.

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

JAMES BRYANT THOMAS.

Witnesses:

JOHN H. BOOGHER,
S. W. SUMMERS.