

S. H. CAMPBELL.
 COMBINED ANGLE COCK AND TRAIN PIPE CLAMP.
 APPLICATION FILED DEC. 3, 1914.

1,156,463.

Patented Oct. 12, 1915.

2 SHEETS—SHEET 1.

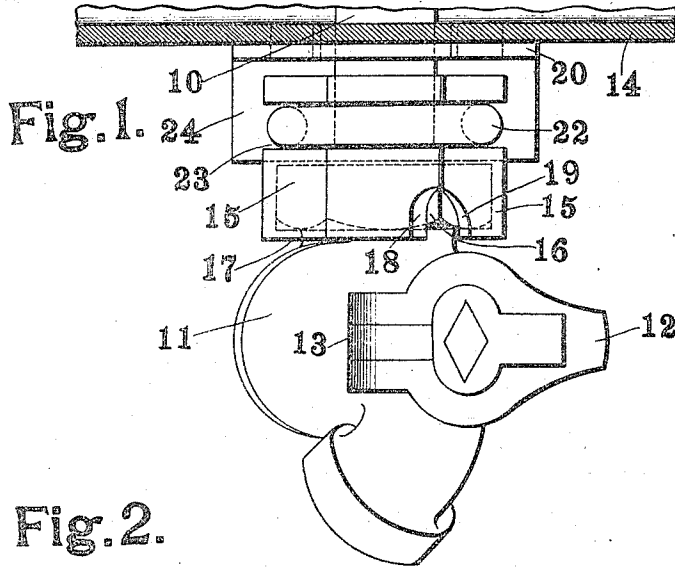
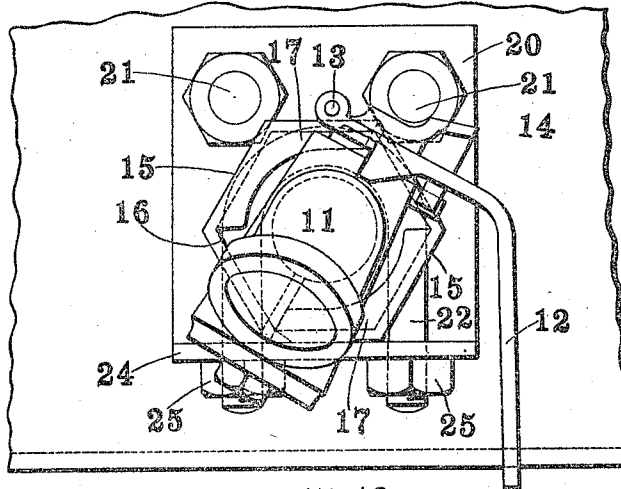
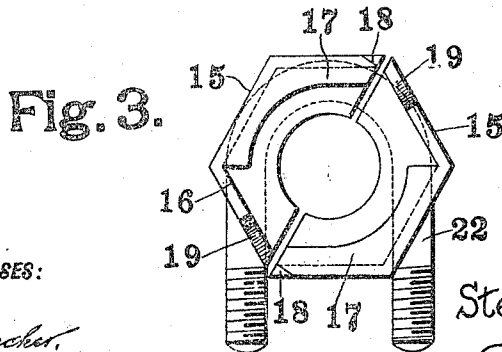


Fig. 2.



WITNESSES:

Charles A. Becker,
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INVENTOR

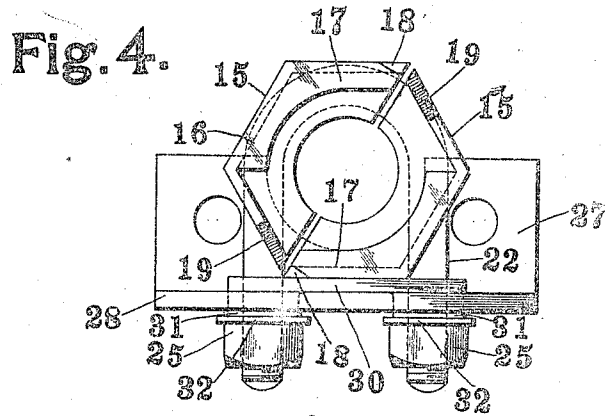
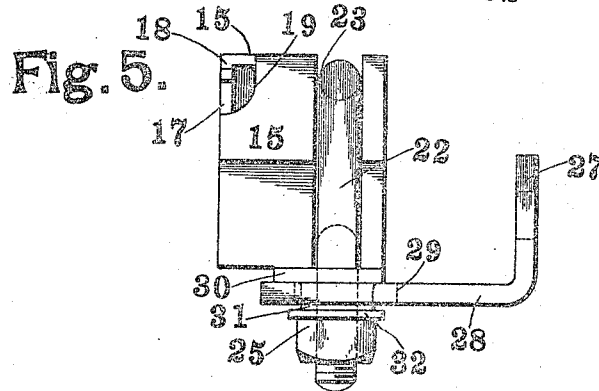
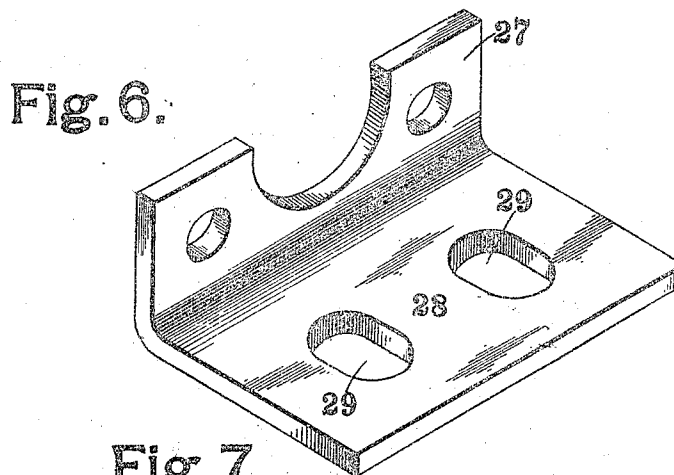
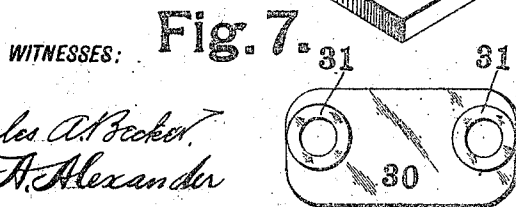
Sterling H. Campbell,

E. E. Luffman
 BY
 HIS ATTORNEY

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 HIS ATTORNEY.

UNITED STATES PATENT OFFICE.

STERLING H. CAMPBELL, OF ST. LOUIS, MISSOURI, ASSIGNOR TO RAILWAY DEVICES COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

COMBINED ANGLE-COCK AND TRAIN-PIPE CLAMP.

1,156,463.

Specification of Letters Patent.

Patented Oct. 12, 1915.

Application filed December 3, 1914. Serial No. 875,307.

To all whom it may concern:

Be it known that I, STERLING H. CAMPBELL, a citizen of the United States of America, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Combined Angle-Cock and Train-Pipe Clamp, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The object of my invention is to provide a combined angle cock and train pipe clamp which will be simple in construction and effective in operation, and which may be applied to a car in a number of different positions so as to avoid any obstacles which may occur owing to the peculiar construction of the car.

Another object of my invention is to provide means for allowing relative movement between the clamping member and the car in the direction of the length of the train pipe.

In the accompanying drawings, which illustrate two forms of clamping device made in accordance with my invention, Figure 1 is a top view showing the angle cock and train pipe in position; Fig. 2 is a front view of the part shown in Fig. 1; Fig. 3 is a view showing the clamping member proper and the U-bolt separate from the base plate; Fig. 4 is a front view of a modified form, the angle cock and train pipe being omitted; Fig. 5 is a side elevation of the parts shown in Fig. 4; Fig. 6 is an isometric projection of the base plate shown in Figs. 4 and 5; and Fig. 7 is a detail view of the sliding plate shown in Figs. 4 and 5.

Like marks of reference refer to similar parts in the several views of the drawings.

10 is a train pipe to which is secured an angle cock 11. The angle cock 11 is provided with an operating handle 12 which is pivoted at 13, the angle cock being of the type known as self-locking. 14 represents the end sill of the car through which the train pipe 10 extends.

The clamping member consists of two pieces 15 which are exactly alike in form and are turned in reverse position so as to together form a clamp for both the head of the angle cock 11 and the train pipe 10. The exterior of this clamping member formed of

the parts 15 is hexagonal, corresponding with the hexagonal head 16 of the angle cock. Each of the members 15 is provided with a flange 17 adapted to project forward of the head of the angle cock and thus prevent the angle cock from being drawn forward. Each of the members 15 is provided with a cut-away portion 18 at one edge and with a cut-away portion 19 at the other edge. When the parts are turned in reverse position, the parts 18 and 19 cooperate to form a pair of passages for the pivoted end 13 of the angle cock handle, these two passages being located at diametrically opposite points of the clamping member.

20 is a base plate which is secured to the end sill 14 by any suitable means, such, for instance, as the bolts 21 shown in Fig. 2.

22 is a U-bolt which passes around the two members 15, being situated in a groove 23 formed in the said members. The ends of the U-bolt 22 project through openings in a flange 24 formed on the base plate 20 and are engaged by nuts 25. The U-bolt 22 serves to hold the two parts of the clamping member firmly in position around the head of the angle cock and the end of the train pipe so as to clamp both parts firmly and, at the same time, to hold the clamping device rigidly against the flange 24 of the base plate 20.

It will be evident that my device, while exceedingly simple in construction, firmly holds both the angle cock and the train pipe. It will be noted that the clamping member proper being angular in its exterior outline, may have the flange 24 placed against it in a number of different positions and, consequently, the position of the base plate may be varied so as to avoid any obstacles which may occur owing to the peculiar construction of the car to which the device is applied.

In Figs. 4 to 7 inclusive, I have shown a modified form of the device in which relative movement between the car and the clamping device is permitted. In this form, the parts 15, as well as the U-bolt 22 and the nuts 25, are the same as in the form above described. The base plate 27, however, is somewhat different from the base plate 20 hereinbefore described. The base plate 27 is provided with a flange 28 similar to the flange 24, but provided with elongated openings 29, as best shown in Fig. 6 of the drawings.

30 is a sliding plate which bears upon the flange 28 of the base plate 27. This sliding plate 30 is provided with a pair of bosses 31 which project through the elongated openings 29 and are somewhat greater in length than the thickness of the flange 28 so as to project somewhat below the same, as best shown in Figs. 4 and 5.

Surrounding the ends of the U-bolts 22, below the flanges 31, are washers 32 which are held in position by the nuts 25 and prevent the sliding plate 30 from being detached from the base plate. It will be evident that, owing to the elongated form of the openings 29, a limited amount of movement is allowed between the clamping device and the car to which it is attached. This movement serves to accommodate any slight variation in length of the train pipe and, at the same time, to compensate for any bending or yielding of the end sill to which the clamping device is attached. Such bending of the part is sometimes caused by the violence of the contact of one car and another in coupling.

The clamping action of the device, shown in Figs. 4 to 7, is identical with that of the device shown in Figs. 1 to 3 and, like the device there shown, the base plate may be applied to the car in a number of different positions so as to avoid any projecting portions of the car without changing the position of the clamping member.

It will be evident that in both forms of my device, a very strong and effective clamping device is secured with the employment of a minimum number of parts.

Various modifications of the device may be made without departing from the spirit of my invention.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. The combination with a supporting member, of a pair of co-acting parts adapted to receive a train pipe and the head of an angle cock, and a bolt for securing the said parts to said member and around the train pipe and angle cock.

2. The combination with a supporting member, of a pair of co-acting parts adapted to receive a train pipe and the head of an angle cock, and a U-bolt for passing around said parts for securing the same to said member.

3. The combination with a supporting member, of a pair of like parts arranged in reverse position and co-acting to form a housing adapted to receive a train pipe and the head of an angle cock, and a bolt for securing said parts to said member.

4. The combination with a supporting member, of a pair of like parts arranged in reverse position and co-acting to form a housing adapted to receive a train pipe and

the head of an angle cock, and a U-bolt surrounding said parts and attaching the same to said member.

5. The combination with a supporting member, of a pair of like parts arranged in reverse position and co-acting to form a housing adapted to receive a train pipe and the head of an angle cock, said housing being provided at the juncture of its parts with recesses for the passage of the handle of the angle cock, and a loop for securing said parts to said member.

6. The combination with a supporting member, of a pair of co-acting parts forming a housing adapted to receive the head of an angle cock and prevent its rotation, said housing having an angular exterior, and means for securing said housing to said member with any one of a plurality of its faces in contact therewith.

7. The combination with a supporting member, of a pair of co-acting parts forming a housing adapted to receive the head of an angle cock and prevent its rotation, said housing having an angular exterior, and a U-bolt surrounding said housing and adapted to secure it to said member with any one of a plurality of its faces in contact therewith.

8. The combination with a supporting member, of a pair of like parts arranged in reverse position and co-acting to form a housing adapted to receive a train pipe and the head of an angle cock, said housing having an angular exterior, and a U-bolt surrounding said housing and adapted to secure it to said member with any one of a plurality of its faces in contact therewith.

9. The combination with a supporting member, of a clamping member for engaging the air brake connections, said clamping member being mounted to slide longitudinally on said supporting member.

10. The combination with a member adapted to engage and clamp the angle cock and train pipe of a car, of means for permitting relative longitudinal movement between said clamping member and the car to which it is attached.

11. The combination with a supporting member, of a pair of co-acting parts forming a clamping member adapted to receive the head of an angle cock, and means for securing said parts together, said clamping member being mounted to slide longitudinally on said supporting member.

12. The combination with a supporting member, of a plate slidably mounted on said supporting member, a pair of co-acting parts forming a clamping member adapted to receive the head of an angle cock, and a U-bolt adapted to hold said parts together and secure them to said plate.

13. The combination with a supporting member provided with a pair of elongated

openings, of a plate having bosses adapted to project through said openings, a clamping member for the angle cock, and a U-bolt passing through said bosses and securing said clamping member to said plate.

14. The combination with a supporting member, provided with a pair of elongated openings, of a plate provided with a pair of bosses adapted to project through said openings, a two-part clamping member for the angle cock, a U-bolt securing the parts of said clamping member together and passing through said bosses, and nuts for holding said U-bolt in position.

15. The combination with a supporting member provided with a pair of elongated openings, of a plate having a pair of bosses

adapted to project through said openings, a two-part clamping member adapted to be engaged with the angle cock, a U-bolt passing around said parts to hold them together and secure them to said plate, washers surrounding the ends of said U-bolt to prevent disengagement of said plate from the supporting member, and nuts holding said washers in position.

In testimony whereof, I have hereunto set my hand and seal in the presence of the two subscribing witnesses.

STERLING H. CAMPBELL. [L. S.]

Witnesses:

G. M. SHORE,

W. A. ALEXANDER.