June 19, 1928.

1,673,980

C. M. HANNAFORD

RETAINING VALVE BRACKET

Filed March 5, 1927

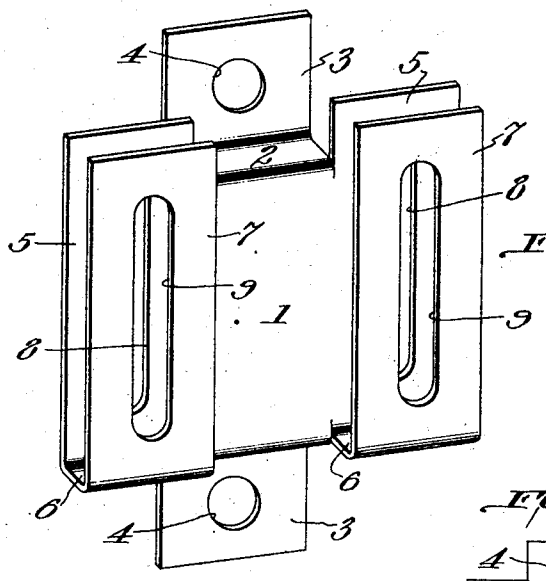

Fig. 1.

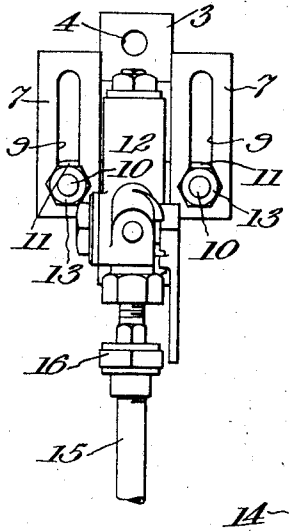

Fig. 3.

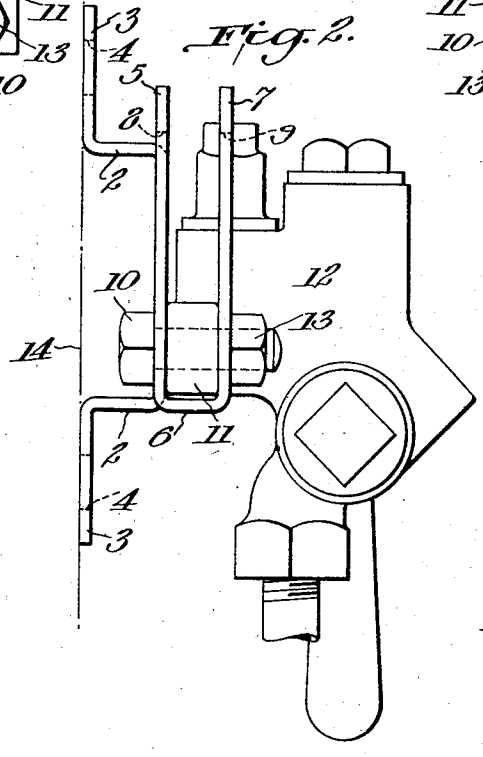

Fig. 2.

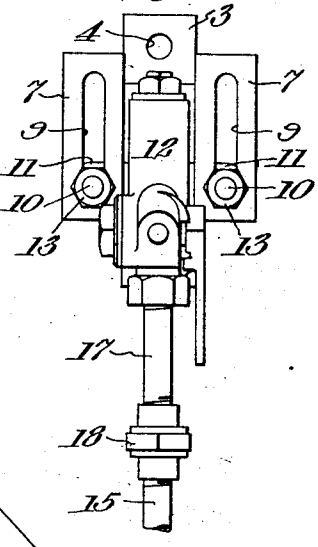

Fig. 5.

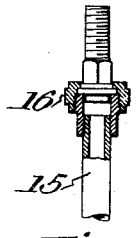

Fig. 4.

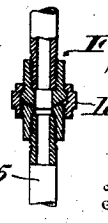

Fig. 6.

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UNITED STATES PATENT OFFICE.

CLEON M. HANNAFORD, OF RICHMOND, VIRGINIA.

RETAINING-VALVE BRACKET.

Application filed March 5, 1927. Serial No. 173,071.

The object of this invention is to provide a bracket, to be attached to the end of a railway car, for supporting a retaining valve of the air brake system.

The invention consists of a bracket, preferably made in one piece of sheet metal, cut and bent to shape to afford points of attachment to the car and outwardly projecting sockets or holders for the valve which, may be bolted therein.

In the accompanying drawings illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is a perspective view of the bracket alone. Fig. 2 is a side elevation of the bracket with a form of retaining valve mounted and secured therein. Fig. 3 is a front elevation of the parts shown in Fig. 2 with one arrangement of renewable piping. Fig. 4 is a longitudinal section of the union shown in Fig. 3. Fig. 5 is a valve similar to Fig. 3 illustrating another arrangement of renewable piping. Fig. 6 is a longitudinal section of the union shown in Fig. 5.

The bracket when made of sheet or plate metal has a body portion 1, into which slits are made and the portions thus slitted at top and bottom are turned back, as at 2, and then turned at right angles to portions 2, as at 3, to form rearwardly offset portions parallel with the body portion. These portions 3 are provided with holes 4 to receive bolts or rivets for attaching the bracket to a car end. At each side of the body, there is an upright portion 5, the lower end of which is bent forwardly, as at 6, and then bent upwardly, as at 7, in planes parallel with the portions 5, so that the portions 5, 6 and 7 form sockets or holders for the retaining valve. The portions 5 and 7 are provided with the longitudinal slots 8 and 9 arranged in parallelism and adapted to receive the bolts 10 which pass through the lugs 11 on the retaining valve 12 from the rear, and these bolts are secured by nuts 13. However, the bolts may be applied in the reverse way if desired. The space between the body portion 1 and the car end represented in Fig. 2 by the line 14, is large enough to permit the insertion and removal of the bolts when desired.

It will be understood, of course, that the valve has a lug 11 on opposite sides, and while it is preferred that these lugs should rest on the portions 6, it is possible to adjust the valve upwardly and use the bolts 10 as clamping means to clamp the lugs and consequently the valve in the sockets between the portions 5 and 7 at any elevation within the range of the slots 8 and 9.

As already stated, the bracket preferably is made of sheet or plate metal cut and bent to shape, but it is within my invention to make the bracket by casting.

The ordinary practice is to connect the retaining valve directly with the air line by a single pipe tapped in the bottom of the valve, but this makes it necessary to remove the whole pipe at considerable labor and then rethread it whenever there is leakage or other damage making this necessary. As a result the connecting pipe at times becomes too short for use and has to be replaced with a new piece of pipe, which, of course, is expensive. In order to avoid this labor and expense, I may interpose between the valve and the connecting pipe 15 a union 16, Figs. 3 and 4, having male and female ends. Whenever it is desired to remove the retaining valve, it is necessary only to loosen the union and then the valve may be released from the bracket and lifted out.

As shown in Figs. 5 and 6, the retaining valve is provided with a short nipple 17 and this nipple is connected with the pipe 15 by means of a plain union 18. By the use of the nipple 17 there is afforded additional adjustment of the retaining valve, and after several adjustments have been made and the nipple has become too short for further service, it is only necessary to remove the old nipple and replace it with a new nipple, instead of being compelled to use a complete piece of retaining valve pipe.

As shown in Figs. 4 and 6, the unions are of well-known construction, but of course any other suitable unions may be used that will give the same results in facilitating installation and renewal.

Variations in the details of construction are permissible within the principle of the invention and the claims following.

What I claim is:—

1. A retaining valve bracket, having a body portion provided with rearwardly offset attaching portions and laterally extending socket portions forwardly offset from the body portion.

2. A retaining valve bracket, having a body portion provided with rearwardly offset attaching portions provided with holes for receiving the attaching means and laterally extending socket portions forwardly off-

set from the body portion and slotted longitudinally and adapted to receive the lugs of a valve to be supported in the bracket.

3. A retaining valve bracket, having a body portion provided with rearwardly offset attaching portions, and laterally extending socket portions composed of parallel front and back portions spaced apart to receive the lugs of a valve, said portions provided with longitudinal slots adapted to register with holes in the lugs and to receive the valve attaching bolts.

In testimony whereof I have hereunto set my hand this 4th day of March, A. D. 1927.

CLEON M. HANNAFORD.