L. G. MILLER.

ANGLE COCK HOLDER.

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1,381,577.

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Fig. 1.

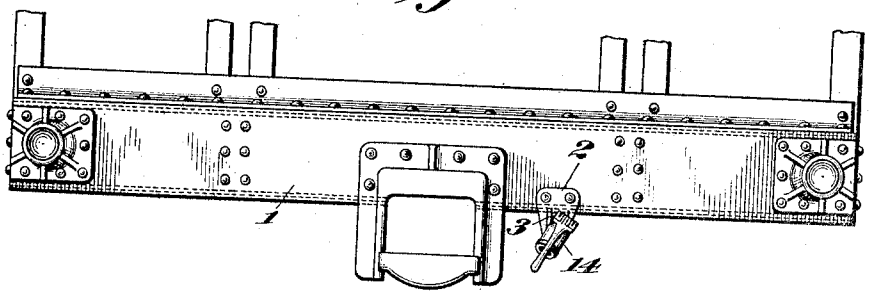


Fig. 2.

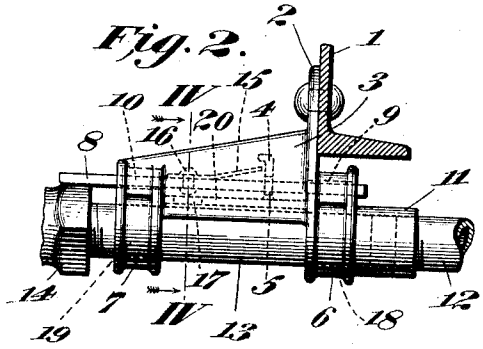


Fig. 3.

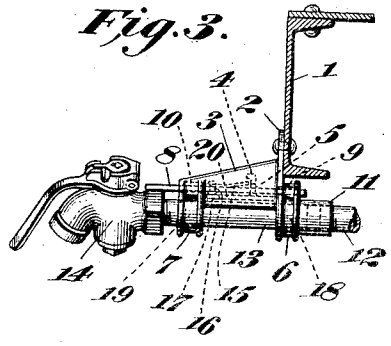


Fig. 4.

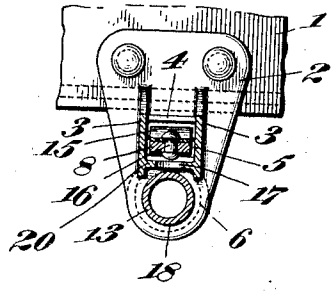
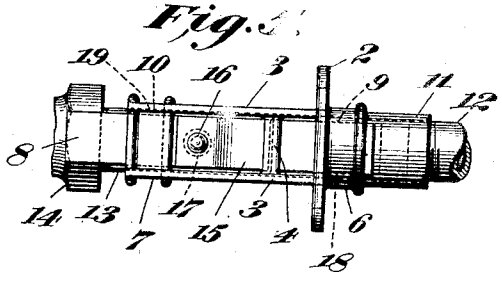


Fig. 5.



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ANGLE-COCK HOLDER.

1,381,577. Specification of Letters Patent. Patented June 14, 1921.

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To all whom it may concern:

Be it known that I, LOUIS G. MILLER, a citizen of the United States, and a resident of the borough of Westmont, in the county of Cambria and State of Pennsylvania, (whose post-office address is Johnstown, Pennsylvania,) have invented certain new and useful Improvements in Angle-Cock Holders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improved angle cock holder which is particularly adapted for use in maintaining the angle cock in position and for holding the air pipe in position both longitudinally and laterally while at the same time affording a ready means for installing the same or removing the parts from their position.

My construction is particularly adapted for use in connection with the train pipe and angle cock which carry and in a measure control the air supply on railroad cars equipped with an air brake system. My construction includes means for securing the train pipe to the car ends, or end sills in a simple and economical manner and for restraining the endwise movement of the train pipe due to the pull on the air hose when the cars are being uncoupled or to the longitudinal pull on the pipe for any reason whatsoever, and my construction also includes simple and adjustable means for locking the angle cock in position on the pipe in order to prevent the screw end thereof from being unscrewed due to any cause whatsoever, the locking device being also adjustable so as to become inoperative when it is desired to remove the angle cock or to replace one, after which it may again be locked in position by means of my device.

Having thus given a general description of my invention I will now, in order to make the matter more clear, refer to the annexed sheet of drawings.

Figure 1 is a front elevation of the lower part of the end of a car illustrating the application of my invention. Fig. 2 is a side elevation of my improved angle cock holder drawn on a larger scale than Fig. 1, with a portion of the adjacent parts to which it is secured. Fig. 3 is a side elevation similar to Fig. 2, but drawn on a smaller scale to show a greater portion of the parts of the car adjacent to the angle cock holder. Fig. 4 is a vertical transverse sectional elevation taken on the line IV—IV of Fig. 2, and Fig. 5 is a top plan view of my angle cock holder.

Referring now to characters of reference on the drawings:—1 indicates the car end sill shown as a channel with the flanges turned inwardly, but which car sill may be of wood, metal plate, plate and angle, an angle, a Z-bar or in fact any type of end sill which may be desired, to which my angle cock holder is secured by means on the flanges 2 which is provided with holes registering with other holes in the sill through which rivets or bolts may be passed in order to secure these portions together. The angle cock holder is further provided with side flanges 3 extending longitudinally and on each side thereof between these two members is a transverse web member 4 preferably provided with a bulb or enlargement as illustrated on its upper edge for the purpose of engaging with the end of the leaf spring 15 in order to insure that it abuts against the web portion in order to hold the locking bolt 8 in position over the flange or nut portion of the angle cock holder. A hole 5 is provided in this web portion 4, which hole is preferably of greater depth than the combined thickness of the locking rod or bolt 8 and the leaf spring so that when the leaf spring is pressed downwardly in order to unlock the bolt these two portions may be slipped endwise in a backward direction away from the angle cock in order that the bolt 8 may come out of contact with the nut or flange of the angle cock.

The angle cock holder is further provided with ring portions 6 and 7 which are preferably reinforced by rounded ribs as illustrated and provided with a substantially circular cylindrical opening therethrough adapted to receive the nipple 13 to the outer end of which the angle cock is screwed, while the inner end of the nipple is screwed into the pipe coupling 11 and the other end of the coupling 11 receives the main train pipe 12. The construction and arrangement of these parts are such and the train pipe 12 is made of such length that when the nipple 13 is screwed upon the end of the train pipe by means of the coupling 11, the end of the coupling 11 is adapted to contact with the inner end of the ring portion 6 of the angle cock holder, and as a similar construction is

provided at the other end of the car the train pipe, nipple and angle cock holder are all securely held in longitudinal direction and prevented from being shifted by any pull whatsoever on the angle cock or the air hose which is normally attached thereto.

The angle cock, which is of the usual construction, is 14, and leaf spring 15 is secured to the locking rod or bolt 8 by means of the rivet 16. The angle cock holder is provided with a horizontal web portion 20 which connects the side flanges 3 and is provided with a hole 17 therein to allow access to the interior in order to drive the head of the rivet 16, and when this rivet is driven the locking bolt and attached leaf spring cannot be lost or taken out without cutting off the rivet. The substantially cylindrical openings in the ring portions 6 and 7 are 18 and 19 into which openings the nipple 13 is adapted to be seated.

Certain of the advantages of my construction are that it is substantially integral, as the body is all in one piece and the locking bolt and leaf spring are so placed and inserted that after the rivet 16 is driven the two pieces of which the construction is composed cannot be taken apart, thus conducing to simplicity of construction and ease of maintenance, adjustment and repair.

In addition to this the looking device for preventing the turning of the angle cock consisting of the locking bar 8 and the leaf spring 15 automatically locks the angle cock when the end of the bolt is placed in position, and the contact of the end of the leaf spring 15 with the transverse web 4 maintains it in locking engagement with the angle cock.

In addition to serving as a device to hold and lock the angle cock in position my invention also is adapted to support the train pipe and prevent it from endwise movement as herein described.

When it is desired to remove the angle cock, the leaf spring 15 is pressed downwardly and this and the locking bar slid endwise, the hole in the web member permitting the leaf spring to pass therethrough for this purpose. Another advantage of the construction is that the train pipe is securely prevented from longitudinal movement by the contact of the end of the coupling 11 against the end of the ring 6, and as a similar construction is at the other end of the car the train pipe is firmly fixed and cannot be loosened by any pull or push on the train pipe or from any cause whatsoever.

No U-bolts, nut, bolts, cotters or other loose devices whatsoever are used which thereby eliminates any failure of this device to function properly through any carelessness or omission on the part of the car constructor or repair man.

Although I have described and illustrated my invention in considerable detail, I do not wish to be limited to the exact and specific details thereof, as shown and described, but may use such modifications in, substitutions for, or equivalents thereof, as are embraced within the scope of my invention, or as pointed out in the claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:—

1. The combination with a train pipe and angle cock thereon, of a holder for same secured to the car body and provided with a locking bolt and a spring adapted to slide endwise, whereby the locking bolt contacts with the angle cock while the end of the spring is adapted to abut against a portion of the holder to lock the bolt in operative position.

2. An angle cock holder adapted to support a train pipe and angle cock thereon, said holder being provided with a transverse member having an opening therethrough, a locking bolt slidably mounted therein and provided with a spring secured thereto, the end of which is normally arranged to be above said bolt, whereby said spring and bolt can be moved endwise in said opening while the spring is depressed and whereby the end of the spring contacts with said member and locks said bolt in operative position against said angle cock.

3. An angle cock and train pipe holder secured to a car body adapted to support a train pipe which is jointed adjacent to the holder and provided with a pipe coupling the end of which is adapted to contact with said holder to restrain longitudinal movement of said pipe, an angle cock mounted on the outer end of said pipe, a transverse member in said holder provided with a slotted opening therethrough in which is slidably mounted a locking bolt provided with a spring the end of which is normally adapted to be apart from said locking bolt and to abut said transverse member to hold said locking bolt in operative position against the angle cock, said bolt being adapted to be retracted by pressing said spring against the bolt and sliding the bolt endwise.

In witness whereof I hereunto affix my signature.

LOUIS G. MILLER.