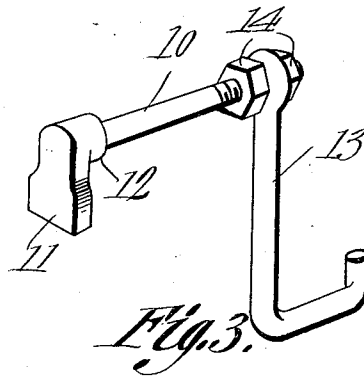
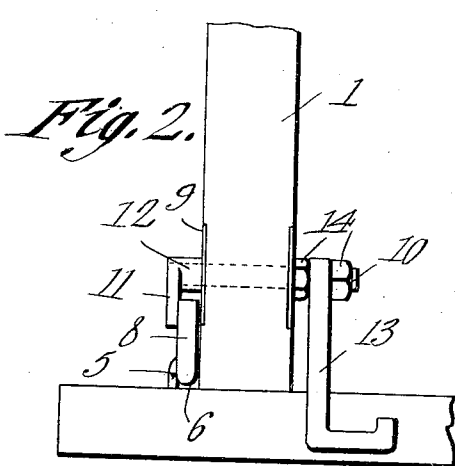
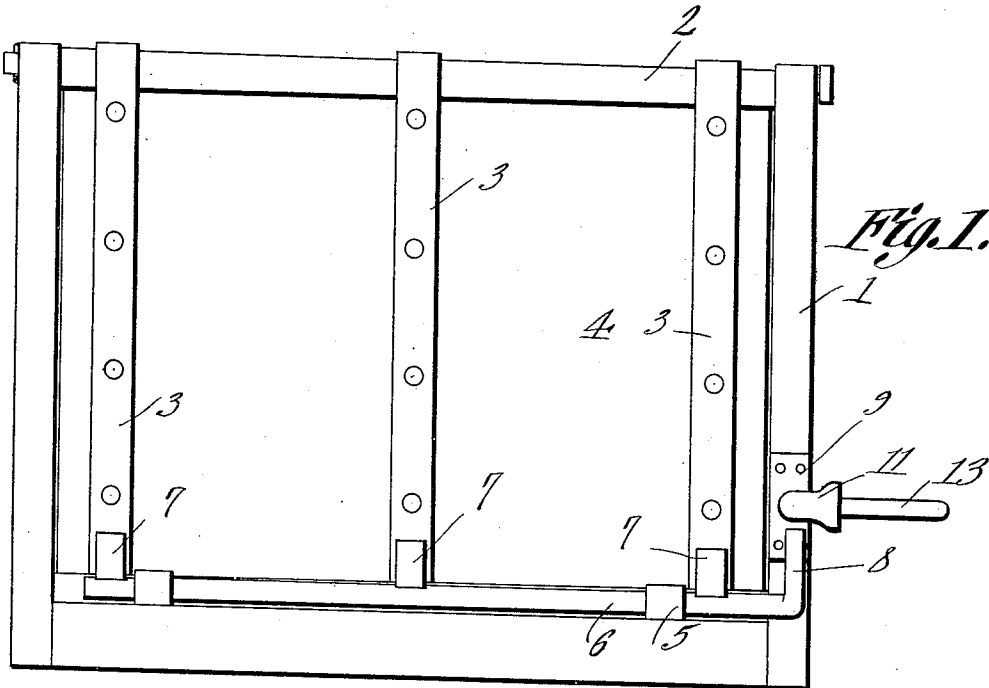


I. K. BEAVER.
 LATCH FOR END GATES OF MINING CARS AND THE LIKE.
 APPLICATION FILED OCT. 7, 1912.

1,064,278.

Patented June 10, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

ISAAC K. BEAVER, OF WILBURTON, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO
ELMER E. STRAUB, OF WILBURTON, PENNSYLVANIA.

LATCH FOR END-GATES OF MINING-CARS AND THE LIKE.

1,064,278.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed October 7, 1912. Serial No. 724,399.

To all whom it may concern:

Be it known that I, ISAAC K. BEAVER, a citizen of the United States, residing at Wilburton, in the county of Columbia and State of Pennsylvania, have invented a new and useful Latch for End-Gates of Mining-Cars and the Like, of which the following is a specification.

This invention relates to latches for the end gates of mining cars and the like and is more particularly an improvement upon the structure disclosed in Patent No. 958,075, issued to me on May 17, 1910.

One of the objects of the present invention is to provide improved means for engaging the arm of the tumbler rod, said means eliminating the necessity of slotting the arm and also reducing the cost of the latch to the minimum.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is an elevation of an end gate having the present improvements combined therewith, the locking button being shown shifted out of normal position. Fig. 2 is a side elevation of the locking means, the button being shown in normal position. Fig. 3 is a perspective view of the locking button and its bolt and lever.

Referring to the figures by characters of reference 1 designates the corner posts of a car body, the same supporting a cross bar 2 pivotally engaged by straps 3 which are secured to the end gate 4 of the car. Brackets 5 are secured to the bottom of the body of the car and journaled within them is a tumbler rod 6 having fingers 7 adapted to engage the straps 3 and to hold the end gate

in closed position. An imperforate arm 8 is formed at one end of the tumbler rod and is adapted, when the fingers 7 are in engaging position, to bear against a wear plate 9 secured to one of the corner posts 1. Journaled within this wear plate is a bolt 10 and secured to one end of the bolt is a button 11 having an integral spacing collar 12. A lever 13 is connected to the other end of the bolt 10 and may be secured thereto in any suitable manner, as by means of nuts 14. This lever is so positioned that, when it is suspended vertically, the button 11 hangs downwardly from the bolt 10 so as to lap the front portion of the arm 8 thus prevent the tumbler rod 6 from rotating. This position of the parts has been indicated in Fig. 2 and by referring to said figure it will be seen that the spacing collar 12 provides sufficient space between the button 11 and the post 1 to receive the arm 8. Lever 13 operates as a weight for holding the button in engaging position. When it is desired to release the end gate 4, lever 13 is swung upwardly to the position shown in Fig. 1. Button 11 is thus removed from in front of the arm 8 and said arm is free to swing downwardly and rearwardly. Fingers 7 will thus be removed from the paths of the straps 3 and the gate 4 can therefore swing open. By providing the broad button 11 more or less oscillation of lever 13 is permitted without releasing the arm 8. This is particularly desirable in view of the fact that the car body is oscillated to a greater or less extent while the car is in motion.

It will be seen that the latch herein described securely holds the end gate closed without necessitating slotting the arm 8 or providing any special form of latch head or button, expensive to manufacture.

What is claimed is:

The combination with an end gate mounted to swing, and a corner post, of a tumbler rod mounted for rotation and having retaining fingers for holding the gate against movement, an arm at one end of the tumbler rod, a bolt mounted for rotation in the corner posts, a button at one end of the bolt and having a spacing collar, said arm being

adapted to be seated between the posts and
the button, said button being flat and hav-
ing a broad end adapted to extend across the
arm to hold it against the post, and a lever
5 at one end of the bolt for rotating said bolt
and swinging the button into or out of hold-
ing position.

In testimony that I claim the foregoing
as my own, I have hereto affixed my signa-
ture in the presence of two witnesses.

ISAAC K. BEAVER.

Witnesses:

JEFFERSON SHIPMAN,
GORDON WHETSTONE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
