E. N. PACKARD.

GATE FOR LOCOMOTIVE TENDERS.

APPLICATION FILED FEB. 11, 1913.

1,070,517. Patented Aug. 19, 1913.

Fig. 1.

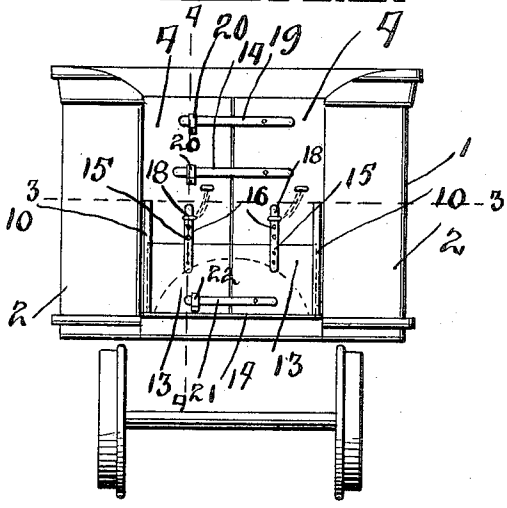


Fig. 2.

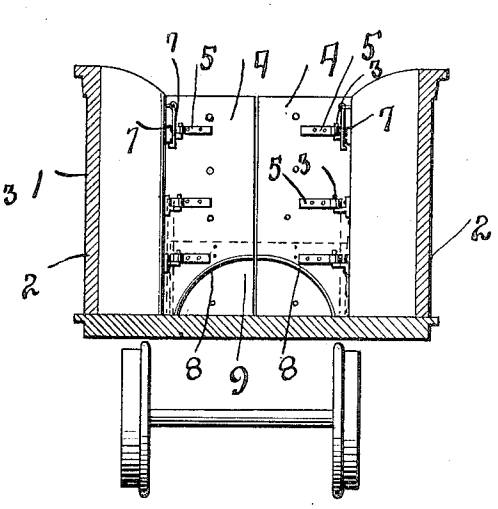


Fig. 3.

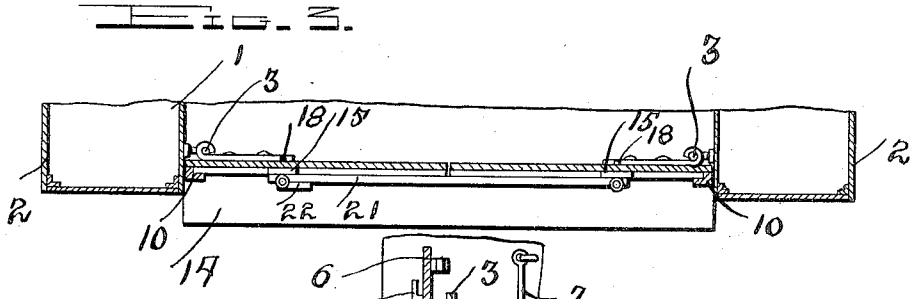
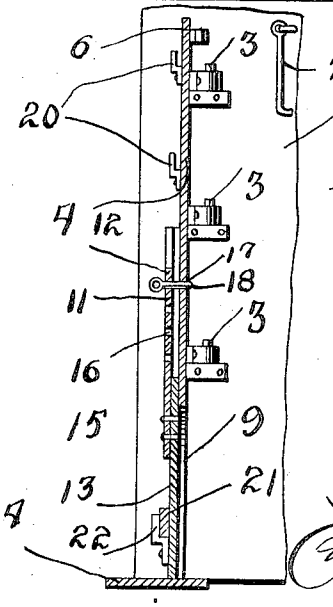


Fig. 4.



Witnesses
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GATE FOR LOCOMOTIVE-TENDERS.

1,070,517. Specification of Letters Patent. Patented Aug. 19, 1913.

Application filed February 11, 1913. Serial No. 747,822.

To all whom it may concern:

Be it known that I, EDWARD N. PACKARD, a citizen of the United States, residing at Perry, in the county of Dallas, State of Iowa, have invented certain new and useful Improvements in Gates for Locomotive-Tenders; 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.

The present invention is directed to improvements in gates for locomotive tenders, the same being so constructed as to keep the coal from feeding from the tender faster than required for the fire box.

The invention has for its object to so construct a gate of this character that the coal will be prevented from endangering the lives of the engineer or fireman in case of collisions, which frequently occur, due to the fact that the usual coal gate is not strong enough to withstand the weight of the coal under such conditions, ofttimes burying the engineer and fireman under the coal after the same rushes from the tender.

A further object of the invention is to provide a gate with means so that the feed of the coal may be regulated to the shoveling sheet for use in the fire box.

With these and other objects in view, this invention resides in the novel features of construction, formation, combinations and arrangements of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, in view.

Figure 1 is a front view of the tender, showing the same equipped with the improved gate. Fig. 2 is a view taken from the interior of the tender. Fig. 3 is a sectional view on line 3—3 of Fig. 1. Fig. 4 is a sectional view on line 4—4 of Fig. 1.

Referring to the drawing, the numeral 1 designates a tender of the usual construction, and 2 the sides thereof. Secured interiorly of the sides 1 and adjacent the forward ends thereof are pintles 3, the same being vertically spaced, the number of which may be varied but in this instance there is shown three upon each side of the tender.

A pair of gates 4 are provided and are formed from heavy timber, said gates having secured to their inner faces strap hinges 5 which engage the pintles 3. The gates are adapted to swing inwardly and are provided near their upper ends with loops 6 which are engageable by the hooks 7 which are connected to the upper edges of the sides 2, said hooks serving to hold the gates in their open positions, it being of course understood that sufficient coal has been removed from the tender to permit the gates to swing inwardly. The gates 4 have their inner faces covered with sheet steel to prolong the life of the same, or if desired the same may be provided with other means of reinforcement such as steel strips. The lower edges of the gates 4 are provided with curved cutaway portions 8, so that when said gates are in their closed positions, a feed opening 9 is provided, the same being substantially semi-circular in contour. Secured upon the outer faces of each gate 4, and adjacent the outer edges thereof are guideways 10, the same being formed by the off-set flanges 11 of the angle bars 12.

Adapted for vertical sliding movement in the guideways are cutoffs 13, the same being rectangular in shape, and may be formed from any suitable material, said cutoffs being adapted to partially close or wholly close the feed opening 9. The lower edges of the cutoffs 13, when in their closed position rest upon the shoveling sheet 14. Each cutoff has connected thereto a strip 15, said strip having its upper end provided with a plurality of vertically spaced perforations 16, either one of which being adapted to register with a perforation 17 formed in the gate 4 so that the flexibly supported pin 18 may be engaged in the registered perforations so as to hold the cutoffs in adjusted positions so that the feed of the coal through the opening 9 may be regulated. To hold the gates 4 in their closed position, a pair of bars 19 are provided, said bars being pivotally connected to one of the gates, and have their ends adapted to swing into or out of engagement with the catches 20 carried by the other gate. Pivotally connected to one of the cutoffs 12 is a bar 21, said bar being adapted to engage a catch 22 formed upon the other cutoff.

From the foregoing description it will be seen that a coal gate has been provided so constructed that the feed of the coal from the tender to the shoveling sheet may be regulated, and further that a gate has been pro-

vided constructed in such a manner that the weight of the coal in the tender will be sustained under all conditions.

What is claimed is:—

The combination with a locomotive tender, of a pair of gates hingedly connected to the sides thereof, said gates having their lower ends formed with curved cutaway portions, whereby when said gates are closed a semi-circular feed opening is provided, guides carried by the gates, cutoffs slidable in said guides, means carried by the cutoffs for holding the same in adjusted relations to the feed opening, and means for holding the gates in their closed position.

In testimony whereof, I affix my signature, in the presence of two witnesses.

EDWARD N. PACKARD.

Witnesses:
W. A. THORNBURG,
A. J. BLOUGHAS.

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