A. W. HASSELBRING.

END GATE.

APPLICATION FILED JAN. 12, 1916.

1,203,732.

Patented Nov. 7, 1916.

Fig. 1

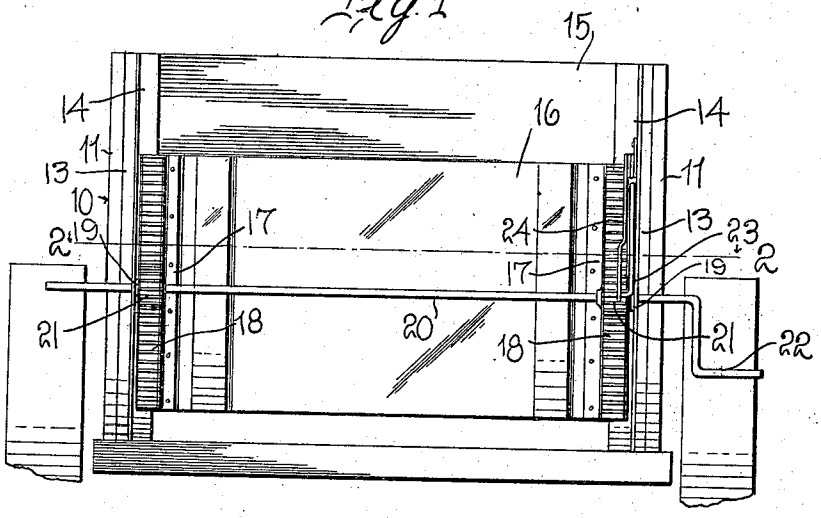
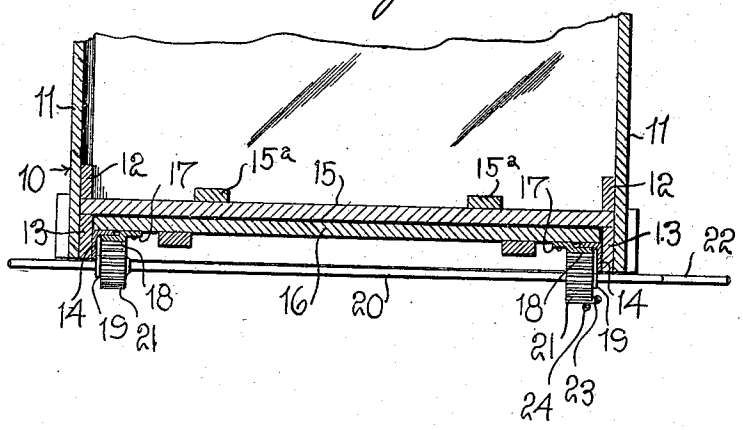


Fig. 2



Inventor

A. W. HASSELBRING

By Watson E. Coleman

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

AUGUST W. HASSELBRING, OF BARNUM, IOWA.

END-GATE.

1,203,732. Specification of Letters Patent. Patented Nov. 7, 1916.

Application filed January 12, 1916. Serial No. 71,731.

To all whom it may concern:

Be it known that I, AUGUST W. HASSELBRING, a citizen of the United States, residing at Barnum, in the county of Webster and State of Iowa, have invented certain new and useful Improvements in End-Gates, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to wagons, and particularly to the end gates therefor.

The general object of my invention is the provision of an end gate so constructed that it may be raised and lowered and held in any vertically disposed position.

A further object of my invention is the provision of a very simple form of end gate of this type which may be readily and cheaply made and easily applied to all wagons.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a rear end elevation of a wagon with my improved end gate applied thereto; Fig. 2 is a section on the line 2—2 of Fig. 1.

Referring to these figures, 10 designates a wagon body of any suitable construction and having the sides 11. The sides are formed with vertically disposed cleats 12 and 13 spaced from each other to form guides for the ordinary end gate of the wagon, and mounted upon the cleats 13 and extending up therefrom are the angle irons 14 having outwardly extending base flanges and laterally extending flanges. The top section of the ordinary end gate is designated 15.

My improved end gate is designated 16. Where my improved end gate is used the end gate 15 is reversed so that the cleats 15^a thereof extend forward so as to let the bottom board of my improved end gate slide up and down. The section 15 is disposed in the spaces between the cleats 12 and 13. The lower section 16 which constitutes my improved end gate, has a width equal to the distance between the cleats 13 and carries upon its outer face the recessed irons 17, these irons being formed with rack teeth upon their faces as at 18. The irons 17 are attached to the section 16 so as to extend over the angle irons 14, as best illustrated in Fig. 2, so that the section 16 of the end gate is adapted to slide up and down upon the tracks formed by the angle irons 14. Bolted to the cleats 13 and preferably disposed upon the faces of the angle irons 14 and bolted therethrough are the supporting brackets 19 through which the shaft 20 passes and is supported. This shaft carries upon it the toothed wheels 21 which are keyed to the shaft and which mesh with the rack teeth on the irons 17. The shaft 20 is formed with a crank 22 whereby it may be rotated by hand.

For the purpose of providing means for locking the lower section 16 of the end gate in any of its vertically adjusted positions, I pivotally support upon one of the angle irons 14 the angular detent 23 which is bent at its lower end so as to engage across the teeth of one of the gear wheels 21. A spring 24 is also mounted in conjunction with the detent 23 and bears against this detent and urges it into interlocking engagement with the teeth.

The practical use of my invention will be obvious from what has gone before. By means of the crank shaft 20 the lower section of the end gate may be raised or lowered to any desired degree and held in any desired position after it is so raised, the detent when released engaging with the teeth on the gear wheel 21 holding the end gate raised. It will be obvious that the end gate may be entirely withdrawn, if desired, and it is also readily possible to release the keys holding the wheels 21 in engagement with the shaft 20 so as to permit the shaft to be withdrawn thus leaving the rear end of the wagon body entirely unobstructed.

Having described my invention, what I claim is:

1. The combination with a wagon body including sides and having angle irons attached to the sides, each angle iron having an inwardly extending flange, of an end gate having angle irons attached to its face and flanges extending over and spaced from the face of the gate and extending over the inwardly projecting flanges of the angle iron guides, the flanges of the angle irons on the gate being formed with gear teeth, a shaft operatively supported upon the sides of the body, and gear wheels on said shaft engaging the said gear teeth.

2. The combination with a wagon body including sides and having angle irons attached to the sides, each angle iron having an inwardly projecting flange, of an end gate having irons attached to its face and formed with flanges extending over the flanges of

the first named angle irons and formed with gear teeth upon their outer faces, a shaft operatively supported upon the sides of the body, gear wheels on said shaft engaging the gear teeth on the end gate irons, and a locking detent adapted to engage one of the gear wheels and hold the shaft from rotation.

3. The combination with a wagon body including sides and vertical cleats, of vertical angle irons disposed upon said cleats, an end gate section disposed behind the angle irons, irons mounted upon the face of the section and extending over the first-named angle irons and having sliding engagement therewith, the irons on the end gate section being formed with gear teeth, a shaft mounted upon the side walls of the body and having gear wheels intermeshing with the gear teeth on said irons, and a spring actuated pivoted detent operatively engaging with one of said gear wheels to prevent its rotation.

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

AUGUST W. HASSELBRING.

Witnesses:

JOHN T. O'HERN,

W. F. GURNETT.

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