

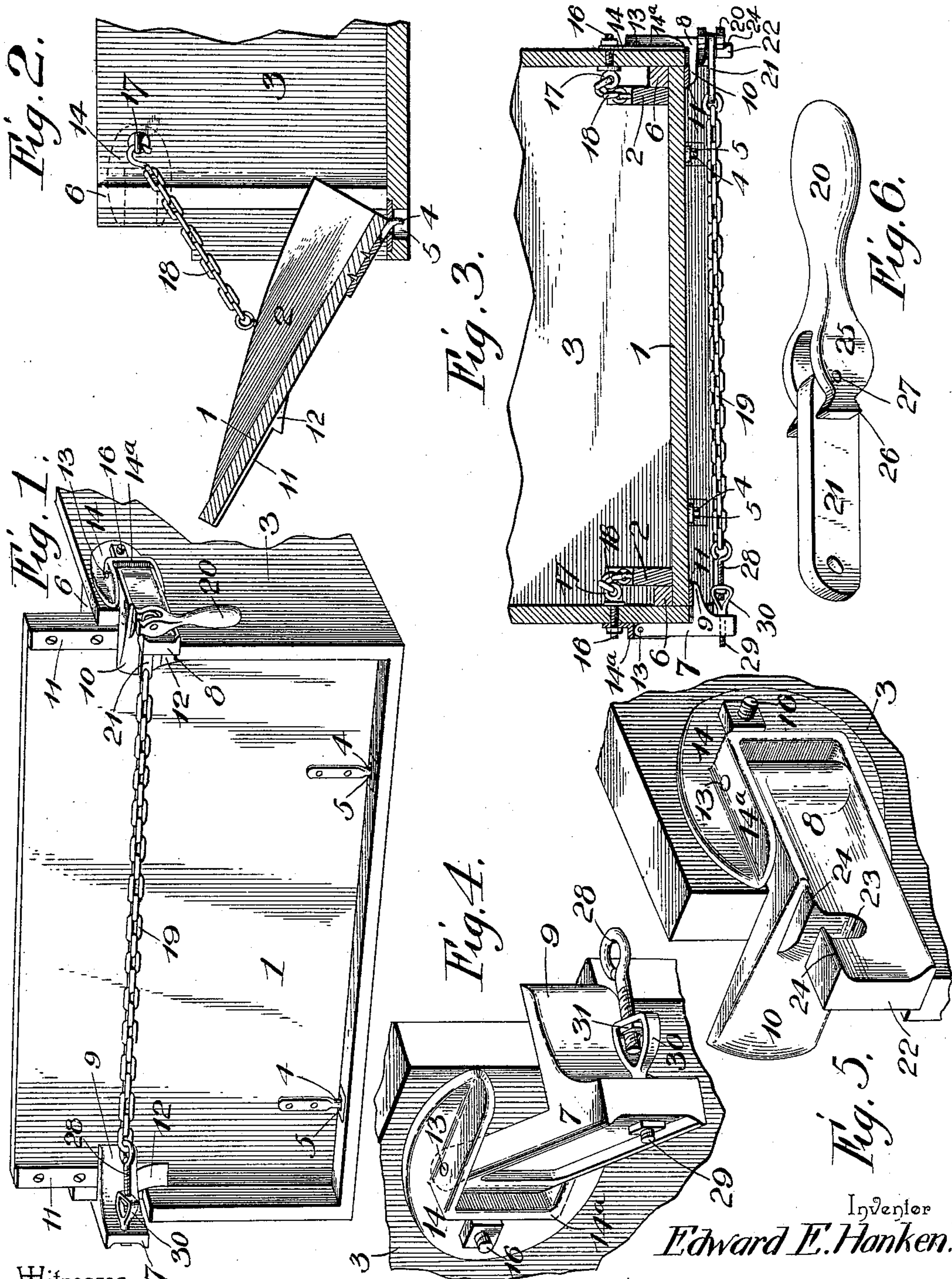
No. 614,104.

Patented Nov. 15, 1898.

E. E. HANKEN.
END GATE.

(Application filed Oct. 9, 1897.)

(No Model.)



Witnesses

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END-GATE.

SPECIFICATION forming part of Letters Patent No. 614,104, dated November 15, 1898.

Application filed October 9, 1897. Serial No. 654,692. (No model.)

To all whom it may concern:

Be it known that I, EDWARD E. HANKEN, a citizen of the United States, residing at Waggoner, in the county of Montgomery and State of Illinois, have invented a new and useful End-Gate, of which the following is a specification.

This invention relates to improvements in end-gates.

The object of the present invention is to improve the construction of end-gates, more especially the means for fastening them in their closed position, and to provide a simple, inexpensive, and efficient fastening device capable of ready manipulation to lock and release an end-gate and designed to obviate the necessity of adjusting a nut to accomplish such result.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of an end-gate constructed in accordance with this invention and shown applied to a wagon-body. Fig. 2 is a vertical longitudinal sectional view, the end-gate being lowered to form a shoveling-board. Fig. 3 is a horizontal sectional view, the end-gate being closed. Figs. 4 and 5 are detail perspective views of the latch-levers. Fig. 6 is a detail view of the locking-lever.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates an end-gate provided with wings 2 and adapted to be lowered to an inclined position, as illustrated in Fig. 2 of the accompanying drawings, to form a shoveling-board for a wagon-body 3, and it is detachably hinged to the same at its lower edge by means of depending lugs 4, which engage suitable sockets or openings 5 of the bottom of the wagon-body. The wagon-body is provided at the inner faces of its sides with vertical cleats 6, against which the end-gate abuts when the same is closed, and it is locked in its closed position by latch-levers 7 and 8, fulcrumed at their front terminals on the outer faces of the sides of the wagon-body and provided between their ends with inwardly-ex-

tending arms 9 and 10, which engage the rear face of the end-gate. The end-gate is provided with metal strips 11, secured to the outer or rear face of the end-gate, at the upper portion thereof, and located at the side edges of the same in position to receive the engaging arms of the latch-levers 7 and 8, and they are provided with shoulders 12, engaging the lower edges of the arms of the levers 7 and 8 and locking the end-gate against upward movement. The metal strips of the end-gate and the latter are designed to project above the sides of the wagon-body 3 to form the end-gate of a top box when the latter is employed, and the metal strips are adapted to be engaged by the fastening devices thereof, such fastening devices being designed to be duplications of the locking mechanism illustrated in the accompanying drawings for securing the end-gate to the wagon-body.

The front ends of the horizontally-swinging latch-levers are secured by vertical pivots 13 to plates 14, provided with openings and having flanges 14^a surrounding the openings and receiving the levers. The openings of the plates 14 are rectangular and the flanges at the sides thereof are parallel and serve to support the latch-levers. The plates are secured to the outer faces of the sides of the wagon-body by bolts 16, which are provided at their inner ends with eyes 17 and which are connected with the end-gate by chains 18, linked into the eyes 17 and secured to the wings 2 of the end-gate. The chains limit the downward swing of the end-gate and support the same in an inclined position to form a shoveling-board, as illustrated in Fig. 2 of the accompanying drawings.

The latch-levers are connected and held in engagement with the end-gate by a chain 19, adjustably connected at one end with the latch-lever 7 and detachably secured to the other latch-lever 8 by a locking-lever 20 and a link-bar 21. The extension 22 of the latch-lever 8 is provided in rear of the arm 10 with a notch 23, extending downward from the upper edge of the lever, and the upper edges of the notch 23, are projected outward, as shown, and are adapted to be engaged by the lever 20, the outer face of the extension 22 being concave. The lever 20 is provided with a bifur-

cated head 25, in which is pivoted the link-bar 21, and the terminals of the sides formed by the bifurcation are inwardly tapered or wedge-shaped to provide engaging portions 26. The link is of a size to fit within the notch 23 when the parts are locked, as illustrated in Fig. 1 of the accompanying drawings, and in locking the parts the lever 20 is elevated or swung upward to bring its handle portion at the top, and the engaging portions 26 are interlocked with the projecting edges 24. The lever is then swung downward, and owing to its eccentric pivot 27 the link-bar 21 is drawn outward, the latch-levers being toward each other and forced tightly in engagement with the end-gate and the sides of the wagon-body. The end-gate is released by swinging the locking-lever 20 upward, which motion disengages it from the latch-lever 8. The outer face of the latch-lever 8 is concave and forms a seat for the head of the lever 20, which is rounded at its side edges, as shown, and there is no liability of the lever becoming accidentally disengaged from the concave face of the latch-lever.

The adjustable connection between the chain 19 and the latch-lever 7 avoids twisting the former and comprises an eyebolt 28 and a screw 29, engaging a threaded perforation of the extension of the lever 7, and provided at its inner end with a yoke 30. The screw 29 is capable of adjustment to vary the length of the connection between the latch-levers, and its yoke 30 is provided with a perforation receiving the eyebolt 28, which is secured to the yoke by means of a nut 31, arranged within the same and engaging the eyebolt. The eyebolt is also capable of adjustment to vary the connection between the latch-levers.

The invention has the following advantages: The end-gate fastening devices are simple and comparatively inexpensive in construction and capable of ready manipulation to lock and unlock an end-gate without adjusting a nut. The connection between the latch-levers may be varied in length to secure

the desired tension, and the device effectually prevents the sides of a wagon-body from separating or spreading when loaded. The chains which support the end-gate in an inclined position for shoveling are detachably interlocked with the eyebolts that fasten the plates 14 to the sides of the wagon-body, and the end-gate illustrated in the accompanying drawings may be readily removed and an ordinary wingless end-gate may be employed.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

In an end-gate fastening, the combination with the wagon-body, and the swinging end-gate; of a pair of oppositely-located L-shaped latch-levers pivoted at one end respectively to opposite sides of the wagon-body, one of said latch-levers being provided with an extension formed with a concaved outer face and provided in its upper edge with a notch and at each side of said notch with a projecting edge 24, a transverse chain having an adjustable swivel connection at one end with one of the latch-levers, a link-bar loosely connected with the other end of said chain and adapted to rest in the notch of the latch-lever extension, and a locking-lever having a bifurcated head eccentrically pivoted to one end of the link-bar, the bifurcated head of the locking-lever being provided with inwardly-tapering engaging portions adapted to have an interlocking engagement with the projecting edge 24 at each side of the notch receiving the link-bar, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDWARD E. HANKEN.

Witnesses:

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F. M. HUDSPETH.