

(No Model.)

G. W. FRIEND.
WAGON END GATE.

No. 303,275.

Patented Aug. 12, 1884.

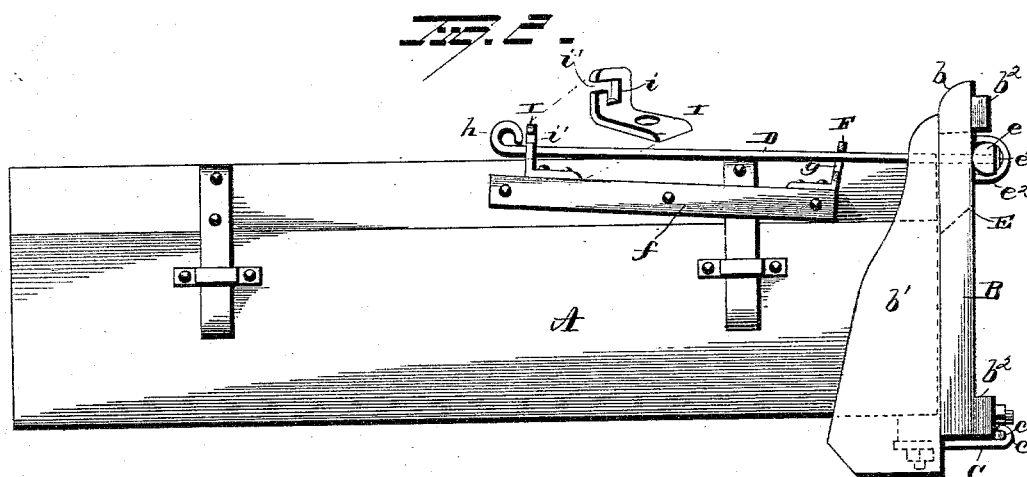
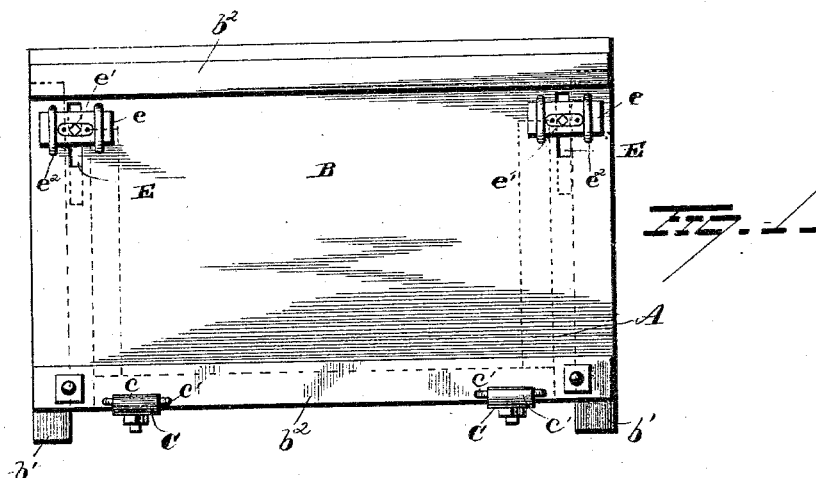
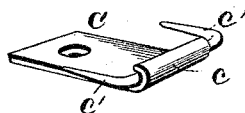


FIG. 3.



WITNESSES
W. Nottingham,
Geo. F. Downing.

INVENTOR
George W. Friend
By *H. A. Seymour.*
Attorney

UNITED STATES PATENT OFFICE.

GEORGE W. FRIEND, OF TARKIO, MISSOURI.

WAGON END-GATE.

SPECIFICATION forming part of Letters Patent No. 303,275, dated August 12, 1884.

Application filed February 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. FRIEND, of Tarkio, in the county of Atchison and State of Missouri, have invented certain new and useful Improvements in a Combined End-Gate and Shoveling-Board; 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 improvement in combined end-gate and shoveling-boards, the object of the same being to provide a shoveling-board which shall be so constructed and attached as to answer the purposes of an end-gate, a further object being to provide improved means for securing and operating the shoveling-board and gate.

With these ends in view my invention consists in certain features of construction and combinations of parts, as will be fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of the end of a wagon-body with the shoveling-board end-gate attached. Fig. 2 is a view in side elevation, representing the board closed; and Fig. 3 is a detached view of one of the supporting-hooks.

A represents a wagon-body of any approved construction. The shoveling-board end-gate consists of the floor B, provided with the beveled edge *b* and the side-boards *b'*, and is strengthened by the cross-cleats *b''*, placed, respectively, near the beveled edge and flush with the forward edge of the said shoveling-board. Two strong flat projections, C, terminating in hooks *c*, are firmly secured underneath the end of the wagon-body A, and extend rearwardly, before curving, a distance sufficient to form a rest for the lower edge of the shoveling-board. Iron lugs or staples *c'* are secured to the outer corner of the lower edge of the shoveling-board, and are constructed to engage the hooks *c* and lock the lower edge of the board against displacement when the said board is in an upright position. The shoveling-board end-gate is raised and lowered by the rods D, which pass through elongated slots E, formed near the upper corners of the board. The rods, after passing through the slots E, pass also through perforations in the short transverse rocking bars *e*, and the said rods are provided

with threaded ends, which engage the nuts *e'*, firmly set in the bars *e*. The rocking bars *e* are journaled in the collars, or other suitable fastenings, *e''*, the latter being either rigidly or adjustably secured to the board B—one on each side of the slot E. The rods D extend forward through elongated closed slots *g* in the brackets F, the latter being secured conveniently near the rear end of the body A, on cleats *f*, attached to the outside of the body. The rods D are further provided with handles *h*, formed, preferably, by bending the rods, and are constructed to be placed within and removed from the elongated slots *i* in the brackets I through the openings *i'*. The brackets I are conveniently secured to the cleats *f*, in positions nearly the length of the rods D from the brackets F. The rods D are made of sufficient length to allow the shoveling-board to be lowered to a horizontal position just as the handles *h* reach the closed slots *g* in the brackets F. The rods, when in this position, form effective supports for the upper or outer edge of the shoveling-board, while the lower edge, during the process of lowering, slides forward against the end of the body A on the projections C. The board is returned to an upright position by taking hold of the outer edge and lifting, or by taking hold of one of the ring-handles *h* and drawing it up. The projections *c'* on the lower edge of the shoveling-board during this return motion slide outward and engage the hooks *c*. Thus, when the rods D are placed in the slots *i*, the shoveling-board will be securely locked in its upright position. By turning the rods D when in this position the shoveling-board can be drawn closely against the end of the body A, the threaded ends of said rods engaging the stationary nuts *e'*. The slots in the brackets F occupy positions a little lower than those in the brackets I, thus requiring the rods D to be sprung upward to enter the openings *i'* in the slots *i*, and preventing any liability of accidental displacement.

It is evident that many changes in the form and construction of the several parts above described may be made without departing from the spirit and scope of my invention; hence I do not wish to limit myself strictly to the construction herein set forth.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a wagon-body and shoveling-board, of the lugs or staples secured to the lower outer edge of the shoveling-board, and the elongated hooked projections C, secured to the lower face of the body, and forming a seat for the shoveling-board when the latter is in its closed adjustment.
2. The combination, with a wagon-body provided with slotted brackets and a shoveling-board, of supporting and operating rods constructed to slide in the slotted brackets and secured to the shoveling-board in rocking bars, substantially as set forth.
3. The combination, with a wagon-body provided with slotted brackets and a shoveling-board provided with slots, of rods constructed to slide in the brackets and be locked in the slots, thereby supporting and operating the shoveling-board, substantially as set forth.
4. The combination, with a wagon-body, of a tilting end-gate provided with female screw-threaded rocking bars and slots, threaded operating-rods secured in the rocking bars, and devices for locking the rods to the wagon-body, substantially as set forth.

5. The combination, with a wagon-body provided with a bracket having a closed slot and a bracket having an open slot, of a tilting end-gate and a supporting-rod, the latter constructed to engage the said slots, and thereby lock the end-gate in upright and horizontal positions, substantially as set forth.

6. The combination, with the wagon-body A and tilting end-gate B, of the rods D, the rocking bars *e*, and the brackets F and I, constructed in the manner and for the purpose substantially as set forth.

7. The combination, with the wagon-body A and tilting end-gate B, of the rods D, the rocking bars *e*, the rigid or adjustable rocking-bar fastenings *e'*, and the brackets F and I, the whole constructed in the manner and for the purpose substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE W. FRIEND.

Witnesses:

A. McNULTY,
J. T. HUGGINS.