

F. B. GRAFF.  
End-Board for Wagon-Boxes.

No. 223,445.

Patented Jan. 13, 1880.

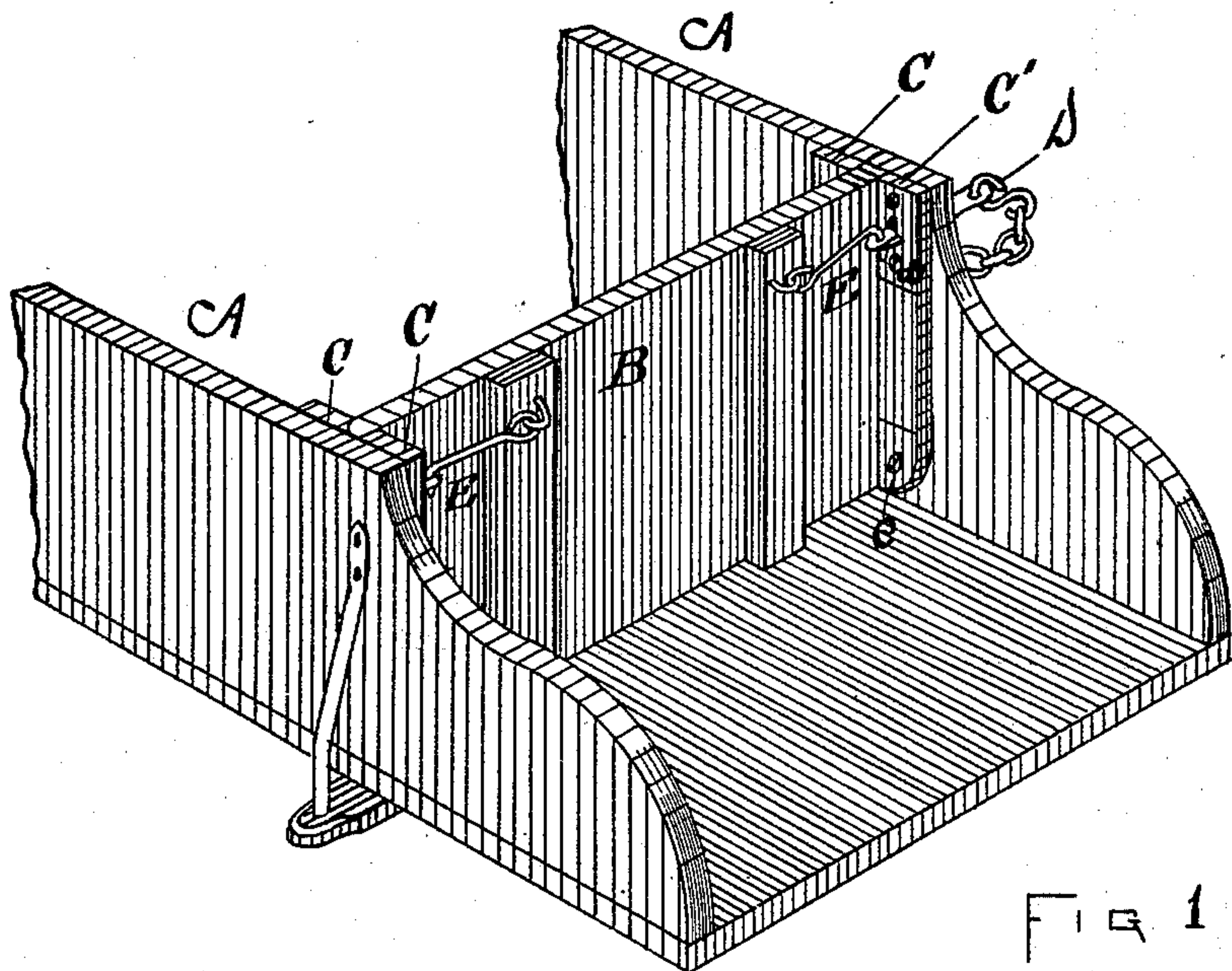


FIG 1

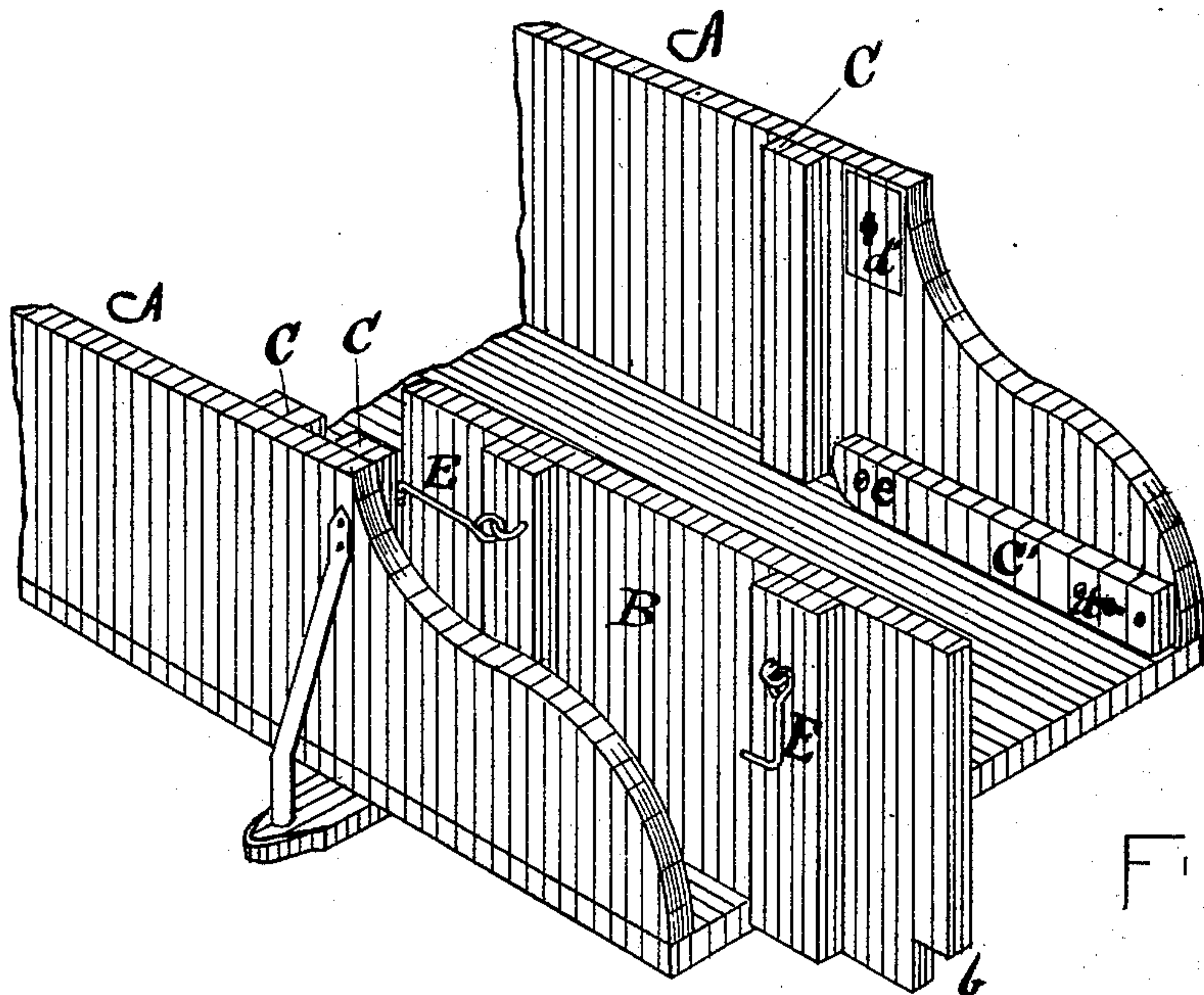


FIG 2

WITNESSES  
*G. F. Dean.*  
*S. H. Dean*

INVENTOR  
*Felix B Graff*  
PER *Jud K. Hullock*  
ATTY



# UNITED STATES PATENT OFFICE.

FELIX B. GRAFF, OF ERIE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF OF  
HIS RIGHT TO ROBERT J. SALTSMAN, OF SAME PLACE.

## END-BOARD FOR WAGON-BOXES.

SPECIFICATION forming part of Letters Patent No. 223,445, dated January 13, 1880.

Application filed August 11, 1879.

*To all whom it may concern:*

Be it known that I, FELIX B. GRAFF, of Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful  
5 End-Board for Wagon-Boxes; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to the construction of and fastening for end-boards of wagon-boxes; and it consists in combining, with the end-  
10 board, devices whereby the same can be easily loosened and removed from the box.

My device is illustrated in the accompanying drawings as follows:

15 Figure 1 is a perspective view of the rear end of a wagon-box, and shows my improvements in place and holding the end-board in position in the box. Fig. 2 is a like view of the same parts, only showing the end-board  
20 removed from position in the box.

A A are the side-boards of the box, and B is the end-board. C C C and C' are the vertical cleats which hold the end-board in position. E E are hooks which serve the purpose of a cross binding-rod. One of the  
25 cleats, C', which hold the end-board in position is made movable by being pivoted at its lower end at e. Its upper end is provided with a hole, d, for the admission of a key-bolt,  
30 D, which passes through a hole, d', in the side-board of the box. The cleat C' is kept in a vertical position by the key-bolt D, when inserted, as shown in Fig. 1. The head of the key-bolt D is provided with an eye, into which  
35 one of the hooks E engages, thus serving as a staple, and the hook serves also to prevent the key-bolt slipping out.

When the cleat C' is in the position shown in Fig. 1 the end-board B can be slipped down  
40 into place, as in a common wagon-box, and the hooks E E, when engaged with the staples

on the side-boards, (the key-bolt serving as one staple,) serve the same office as a common binding-rod.

When it is desired to remove the end-board 45 the hook E is unhooked from the key-bolt, and it is turned and withdrawn from the holes d d', and the cleat C' is free to drop into the position shown in Fig. 2, and the end-board can then be thrown around into the position 50 shown in Fig. 2, which will permit the load to be shoveled out; or it can be entirely removed from the box by unhooking the other hook E, which engages with a common staple on the side of the box. 55

The end-board is made with a notch, b, at one corner, so as to slip over the cleat C', as it lies in the position shown in Fig. 2. By making the cleat C' a little thinner than the companion cleat the notch b will be covered by 60 the companion cleat when the end-board is in place, and no opening will be made for the escape of the contents of the box.

The advantages of my device are, that is simple and cheap, and it is quickly and easily 65 operated, effective, and very durable. It costs little more than the most common construction, and there are no complicated parts to get out of repair.

What I claim as my invention is— 70

In combination with the side-boards A A, cleats C C C, and end-board B, the cleat C', pivoted at e, and fastened by a key-bolt, D, substantially as and for the purposes mentioned. 75

In testimony whereof I, the said FELIX B. GRAFF, have hereunto set my hand.

FELIX B. GRAFF.

Witnesses:

JNO. K. HALLOCK,  
JACOB F. WALTHER.