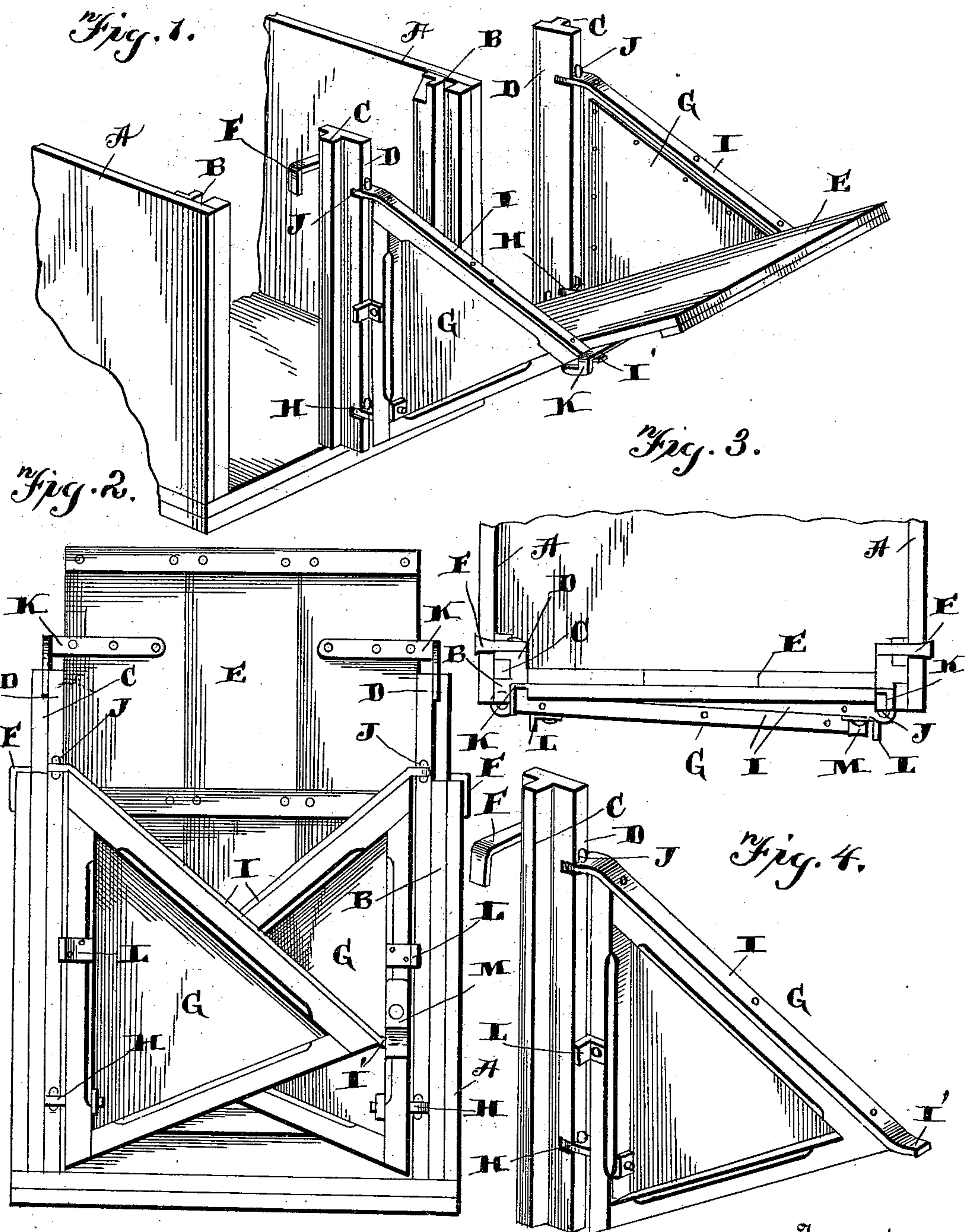


(No Model.)

D. HUFNAGEL.  
SHOVELING BOARD.

No. 560,996.

Patented May 26, 1896.



Witnesses  
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Attorneys



# UNITED STATES PATENT OFFICE.

DANIEL HUFNAGEL, OF MILO, ILLINOIS.

## SHOVELING-BOARD.

SPECIFICATION forming part of Letters Patent No. 560,996, dated May 26, 1896.

Application filed November 8, 1895. Serial No. 568,330. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL HUFNAGEL, of Milo, in the county of Bureau and State of Illinois, have invented certain new and useful Improvements in Shoveling-Boards; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

This invention pertains to shoveling-boards; and it consists in the novel features of construction hereinafter fully described and claimed, and illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of the shoveling-board detached from the end of the wagon-body. Fig. 2 is an end elevation of the same in position upon the body with the shoveling-board closed. Fig. 3 is a plan view of Fig. 2. Fig. 4 is a detail perspective view of one of the shoveling-board sides and post to which it is hinged.

The object of the invention is to provide a simple and improved detachable shoveling-board for wagon-bodies for use in handling corn and other grains in bulk, and which is so arranged and proportioned as to prevent overflowing and spilling, while at the same time ample opportunity is afforded for starting the shoveling or unloading operation.

A designates the sides of the wagon-body, and B the vertically-arranged separated cleats, which form guideways upon the inner opposite walls of sides A for accommodating the cleats C, arranged vertically upon the outer sides of posts D. The posts are thus removably held from displacement, and arranged between their lower ends is the shoveling-board proper, E, the same having the laterally-projecting bolts or pivots near its lower end and upon its respective edges which bear in openings formed near the lower ends of posts D. Thus the posts at their lower ends are held from displacement by the shoveling-board, while at their upper ends they carry the hooks F, which engage over the upper edges of sides A, and thus the posts are held securely in position.

G indicates the wings or swinging sides of the shoveling-board, which are secured at

their lower ends by hinges H to posts D, while the top inclined edges of said wings or sides carry the elongated strips or plates I, the latter being projected slightly at their upper ends and formed with apertures to take the hinge-bolts J. The wings or sides are triangular-shaped, and plates I extend to their lower outer extremities and are turned upward to form the hooks or stops I', which support the shoveling-board, when lowered, through the medium of the hooked ear K projected therefrom. When the shoveling-board is raised, these hooked ears extend over the upper ends of posts D and engage the same, as shown in Figs. 2 and 3, thus holding the sides of the wagon-body well braced. Sides G carry the angle-stops L, which limit the outward movement of said sides, only permitting them to open sufficiently far to permit the downward passage of the shoveling-board, thereby avoiding waste and spilling of the grain. With the sides closed, as in Fig. 2, one is folded within the other, and the outer one is held to the inner one by means of the angular latch M, carried by the inner side and engaging hook or stop I' of the outer side, as clearly shown. By means of the arrangement here shown and described the weight of the shoveling-board is brought directly upon the vertical posts through the medium of the elongated plates I, thus relieving the swinging sides or wings of all strain.

The shoveling-board when closed projects above the wagon-body and forms an effectual end-gate, and when lowered affords a ready start for shoveling out the contents of the box. The swinging sides being substantially the same depth at their widest edges as the body prevent the grain from spilling when the shoveling-board is lowered. The shoveling-board, comprising as well the swinging sides and vertically-sliding posts as the shoveling-board proper, constitutes a complete and readily removable and adjustable device which may be applied to any wagon-body of proper width.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of the removable vertical posts D adapted to be secured to the wagon-

body, said posts having the transverse narrow depressions in their outer sides, sides G, the lower hinges for said sides secured in the lower depressions of the posts, strap-irons I  
5 secured to and traversing the top transverse edges of the sides, the upper extremities of the irons extended rearward from the sides and disposed horizontally and secured in the upper transverse depressions of the posts  
10 thereby forming the top hinges, supports as

at I' on the sides, the outwardly-swinging shoveling-board and the stops extended therefrom adapted to rest on supports I', substantially as shown and described.

In testimony whereof I affix my signature 15  
in presence of two witnesses.

DANIEL HUFNAGEL.

Witnesses:

GEORGE T. EUARD,  
EDWIN G. BATES.