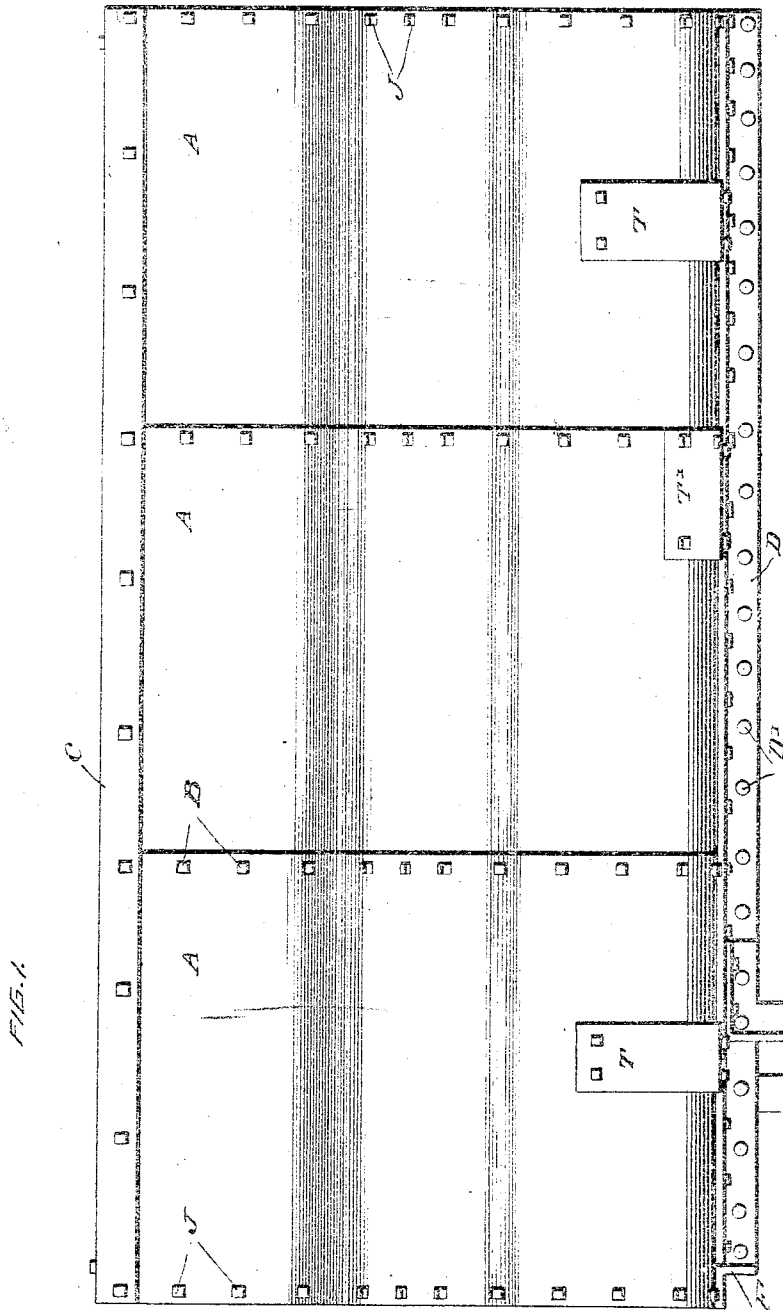


W. MILNER.  
METALLIC KNOCKDOWN WAGON BOX.  
APPLICATION FILED FEB. 1, 1913.

1,066,303.

Patented July 1, 1913.

3 SHEETS—SHEET 1.



WITNESSES  
*W. F. Taylor*  
*J. W. Shaw*

By

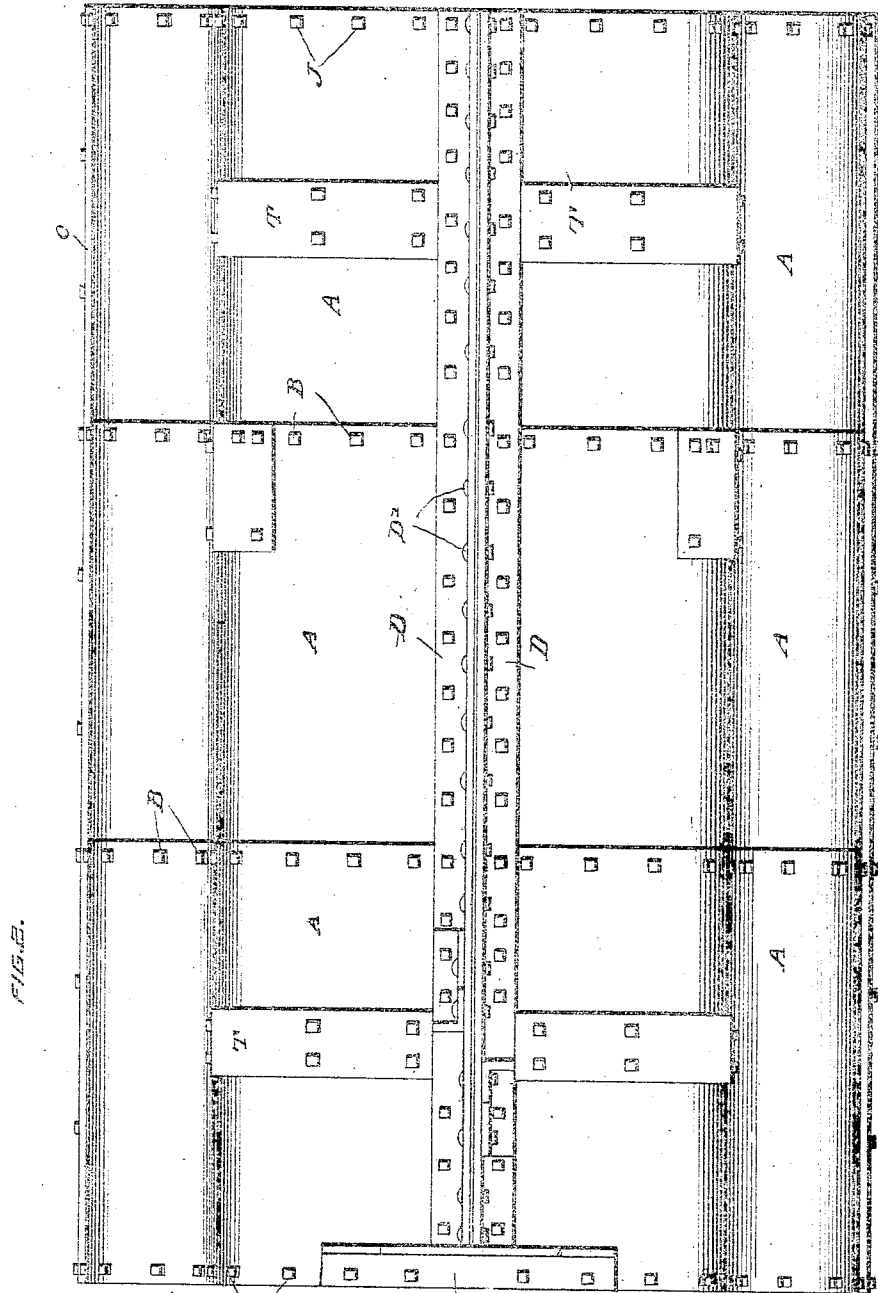
INVENTOR  
William Milner,  
*Franklin H. Long*  
Attorney

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3 SHEETS-SHEET 2.



WITNESSES

*J. W. Sherwood*

By

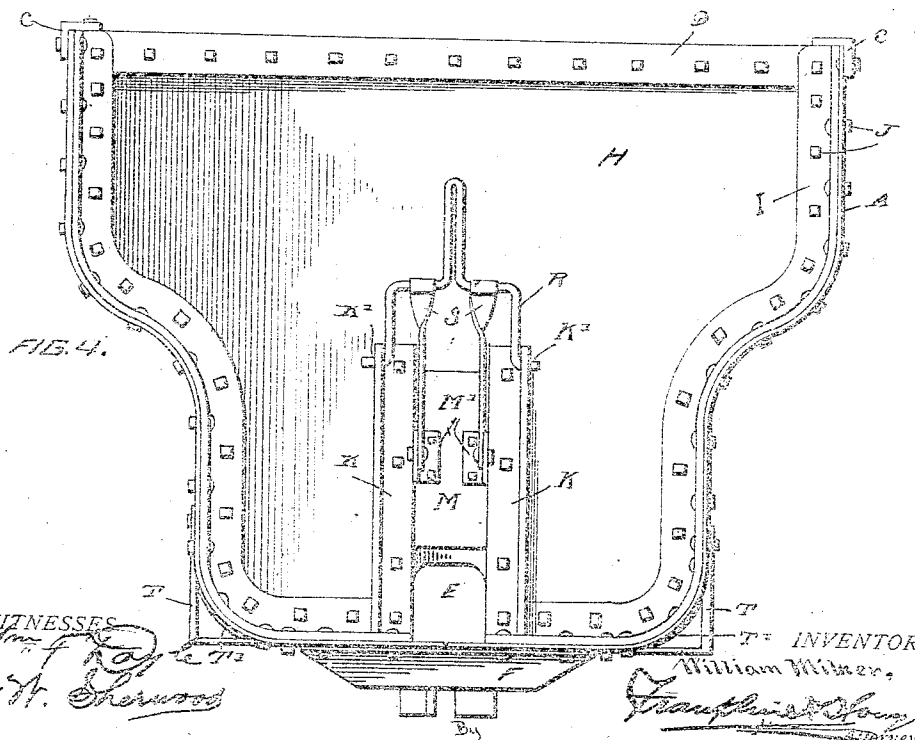
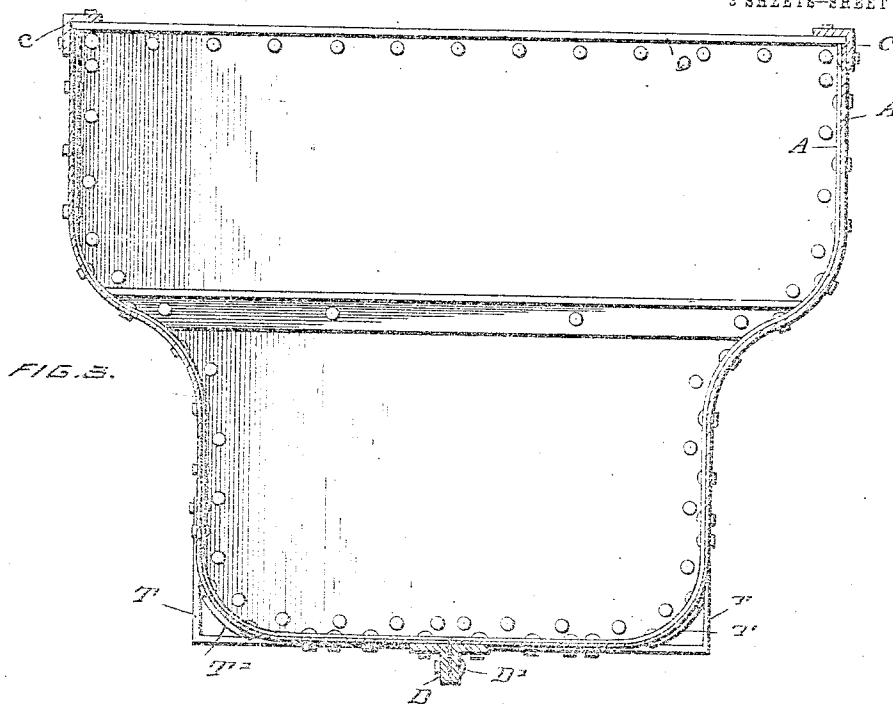
INVENTOR

*William Milner,*  
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Attorney

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3 SHEETS--SHEET 3.



# UNITED STATES PATENT OFFICE.

WILLIAM MILNER, OF CASSELTON, NORTH DAKOTA.

METALLIC KNOCKDOWN WAGON-BOX.

1,000,303.

Specification of Letters Patent.

Patented July 1, 1913.

Application filed February 1, 1913. Serial No. 745,680.

*To all whom it may concern:*

Be it known that I, WILLIAM MILNER, a citizen of the United States, residing at Casselton, in the county of Cass and State of North Dakota, have invented certain new and useful improvements in Metallic Knock-down Wagon-Boxes; 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in knock-down metallic wagon boxes, so arranged that they may be quickly and conveniently reduced to a compact form when desired for shipment or otherwise and, when put together, to form a substantial, well braced wagon box.

The invention comprises various details of construction and combinations and arrangements of parts which will be hereinafter fully described, shown in the accompanying drawings and then specifically defined in the appended claim.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a side elevation of the wagon box made in accordance with my invention. Fig. 2 is a bottom plan view. Fig. 3 is a cross sectional view through the box, and Fig. 4 is a rear elevation showing the grain exit and door for regulating the same.

Reference now being had to the details of the drawings by letter, A, A designate the metallic plates forming the sides of the box. It will be noted upon reference to the drawings that the sides and bottom extend from the top to the central longitudinal portion of the bottom and are held together by means of bolts B with nuts thereon, thereby affording means whereby the wagon box may be taken apart when desired. An angle plate C is bolted or otherwise secured to the upper edges of the plates and forms a marginal edge to the top of the box. Angle plates D are fastened to the bottom of the box along the marginal edges of the side plates and said angle plates D are held together by means of bolts D', thus making a tight joint. Said angle plates D terminate at the rear end of the box at a slight dis-

tance from the end thereof, as shown in the bottom plan view, and immediately underneath the exit opening E, shown in the end view, is a transversely disposed angle plate F, which is bolted or otherwise secured to the bottom and one face of the angle plate F abuts against the ends of the angle plates D, as shown, while the rear edge of the angle plate F is flush with the ends of the side and bottom plates which extend to the rear end of the wagon.

The end of the wagon is designated by letter H and has its edge shaped to conform to the side walls of the wagon, and angled plates I are fastened to said end and those portions of the side walls which extend beyond the end.

Upon either side of the rear end of the box in which the exit opening is formed are the vertically disposed angle bars K spaced apart and between which and the end a closure M is guided and adapted to have a vertical play. Said angle bars K are apertured at K' for the reception of the end of the operating lever R which is pivotally connected by means of the links S with the lugs M' upon the closure, thus forming a toggle link connection between the lever and the door, forming means whereby the closure may be forced closed and held securely in such relation to form a tight joint to avoid grain passing through the exit opening. Said transverse angle bar, which is secured to the bottom of the box, it will be noted is directly underneath the exit opening, thus reinforcing the same and serving as a means to hold the bottom from springing when the closure is forced down by the toggle link and lever connection.

Bolster straps, designated by letter T, are fastened transversely to the bottom and extend up the sides a distance and serve to reinforce the box when it is adapted to rest upon the bolster of a wagon gear. Wear blocks T' are also fastened to the side at locations where the wheels would likely come in contact with the box when turning.

By the provision of a box made in accordance with my invention, it will be noted that a simple and efficient means is afforded whereby the box, when not in use, may be reduced to a compact form for convenience in shipment and, when put together, will be so braced that it will withstand any loading which may be placed upon it, the closure

over the exit opening serving as means for preventing any grain running out through said opening.

What I claim to be new is:—

- 5 A wagon box for transporting grain, etc., made up of a series of curved plates bolted together, each plate extending from the upper marginal edge to the central longitudinal portion of the bottom, angle bars secured to the bottom of the wagon and flush with the longitudinal marginal edges of said plates, the ends of the wagon box having edges conforming to the curvature of the
- 10

side walls, curved angle bars conforming to the curvature of the side walls and fastened to said ends and the portions of the side walls which project beyond the ends, and angled bars fastened to the opposite longitudinal edges of the side walls and overlapping the same, as set forth. 15

In testimony whereof I hereunto affix my signature in the presence of two witnesses. 20

WILLIAM MILNER.

Witnesses:

FLORENCE HARRINGTON,  
J. F. CALLAHAN.