

No. 747,510.

PATENTED DEC. 22, 1903.

M. B. & C. L. TODD & E. H. NEFF.

DUMPING WAGON BOX.

APPLICATION FILED NOV. 2, 1903.

2 SHEETS—SHEET 1

NO MODEL.

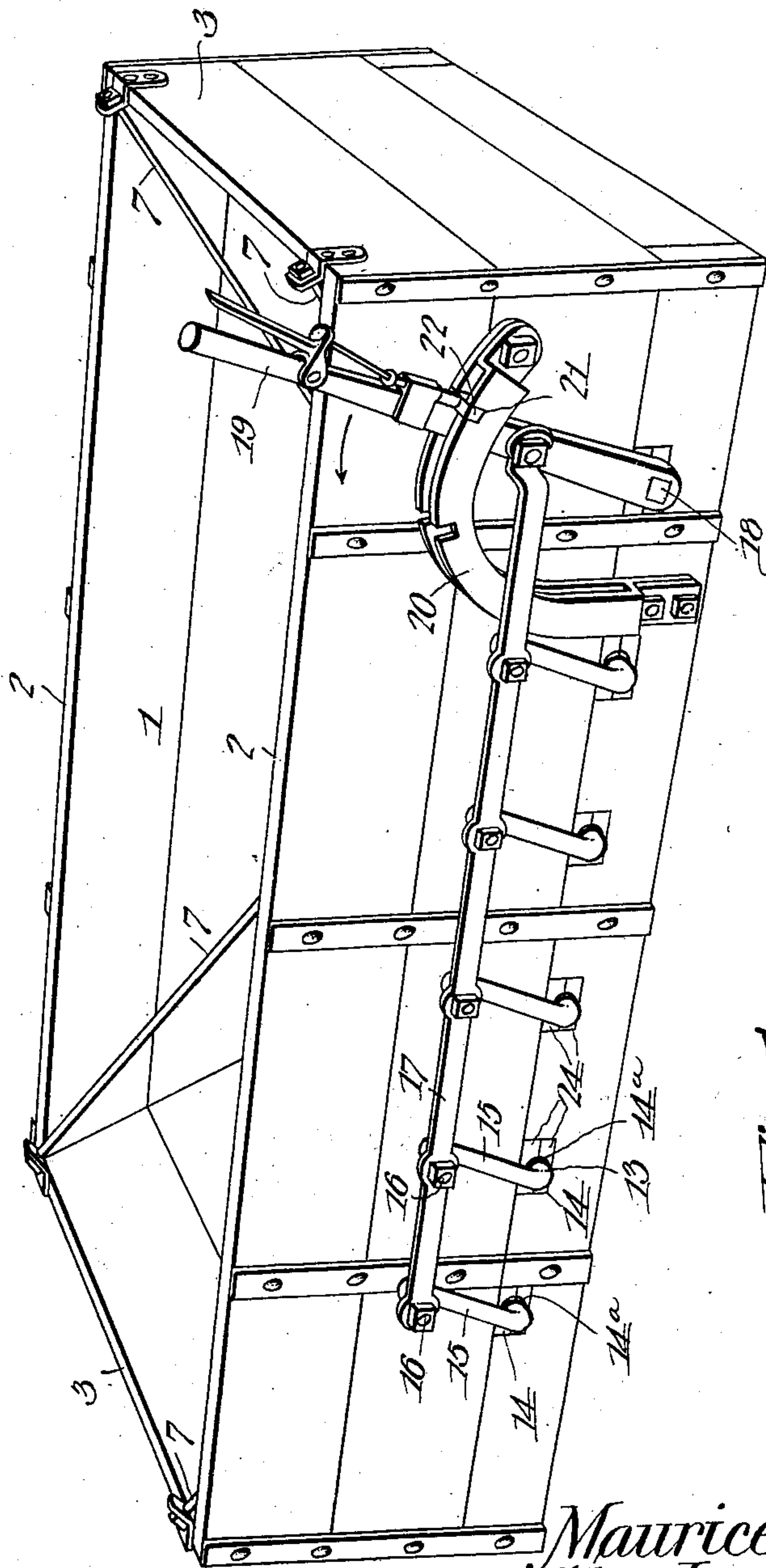


Fig. 1.

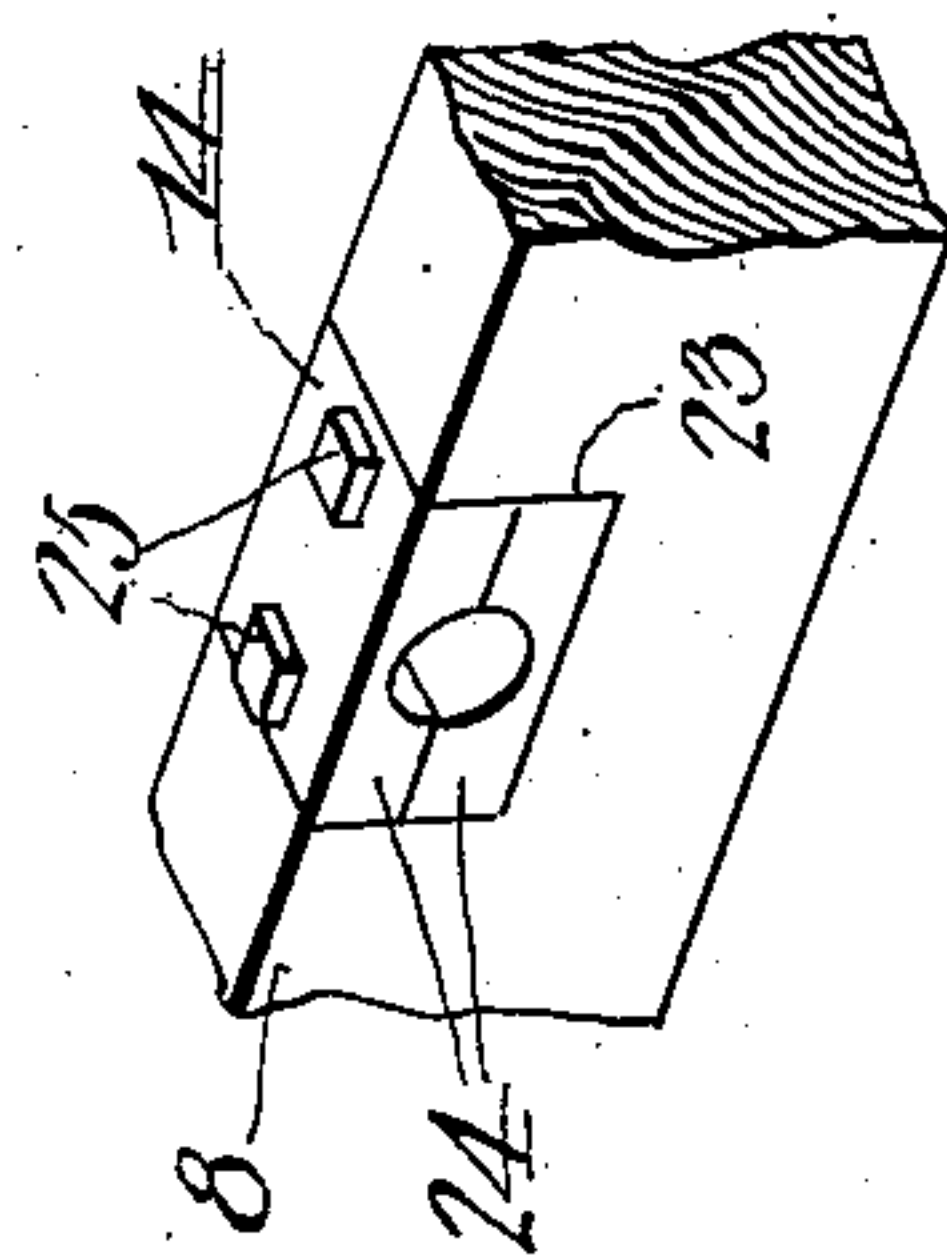


Fig. 5.

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2 SHEETS—SHEET 2.

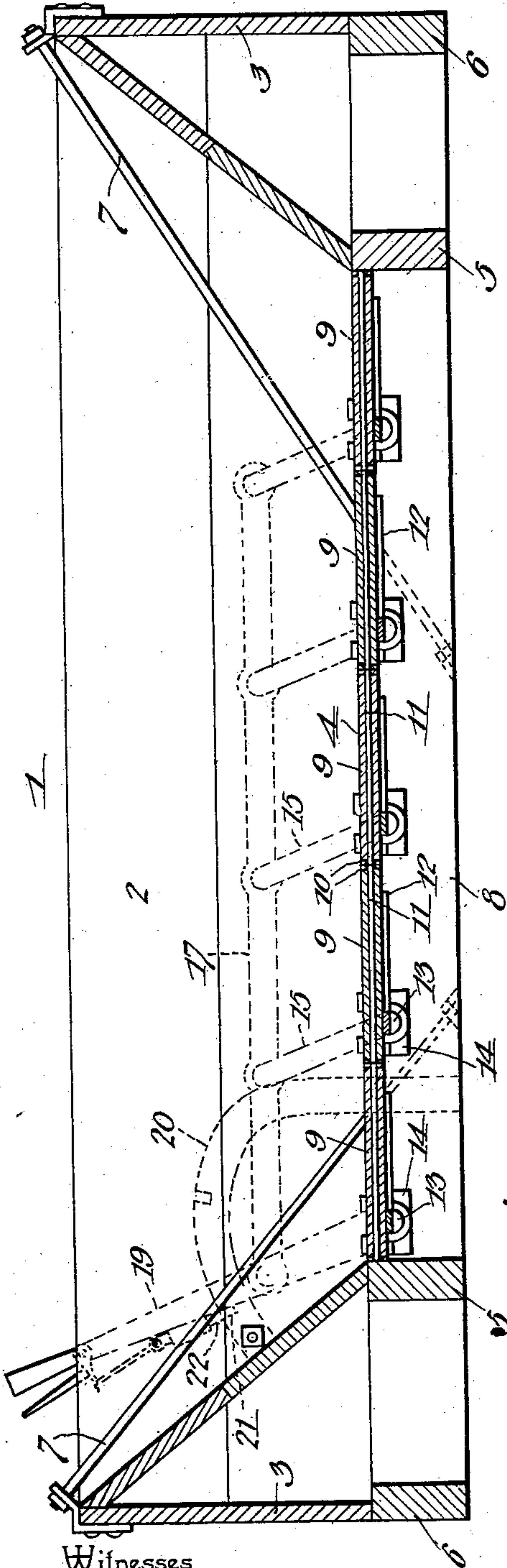


Fig. 2.

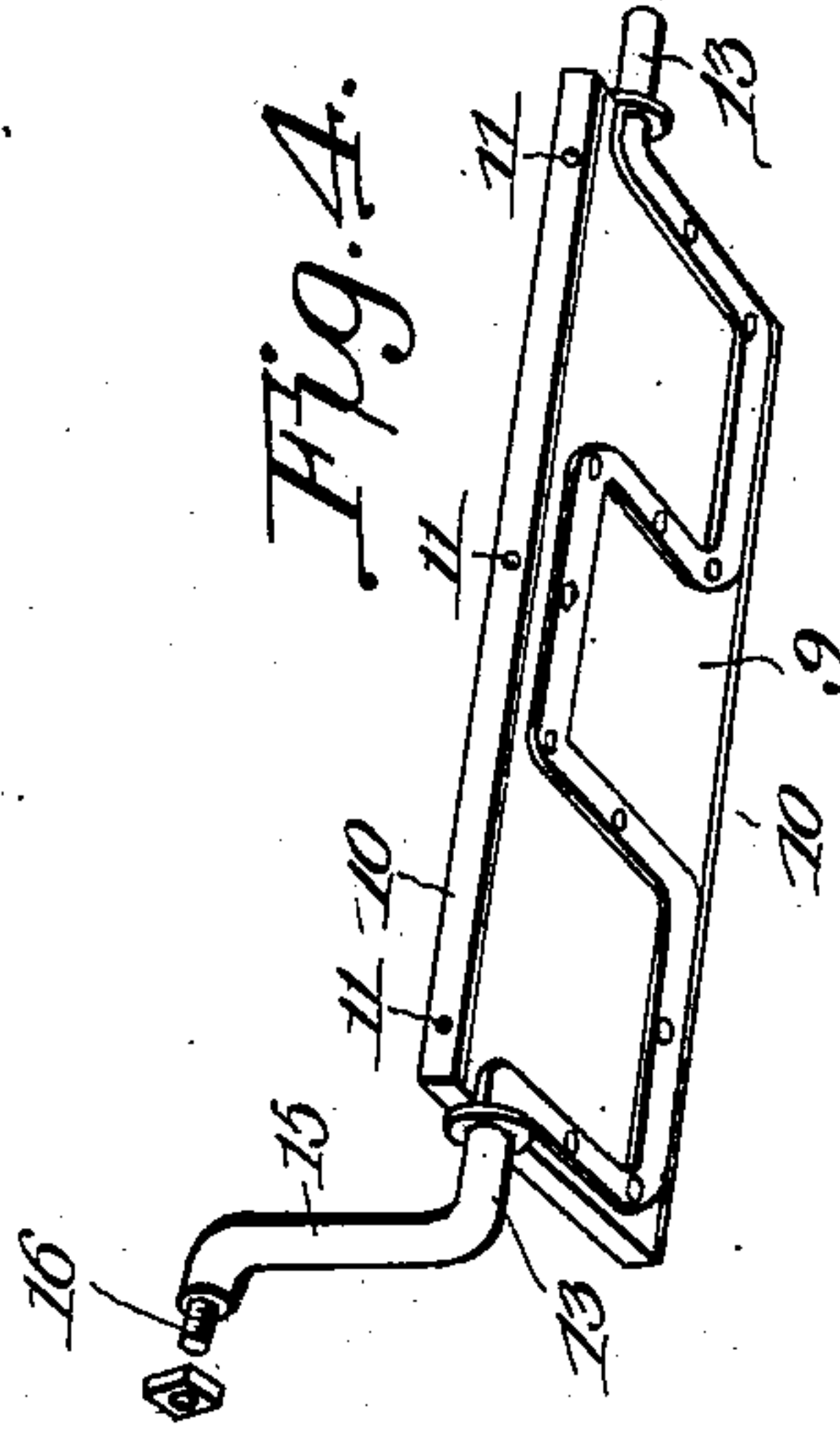


Fig. 4.

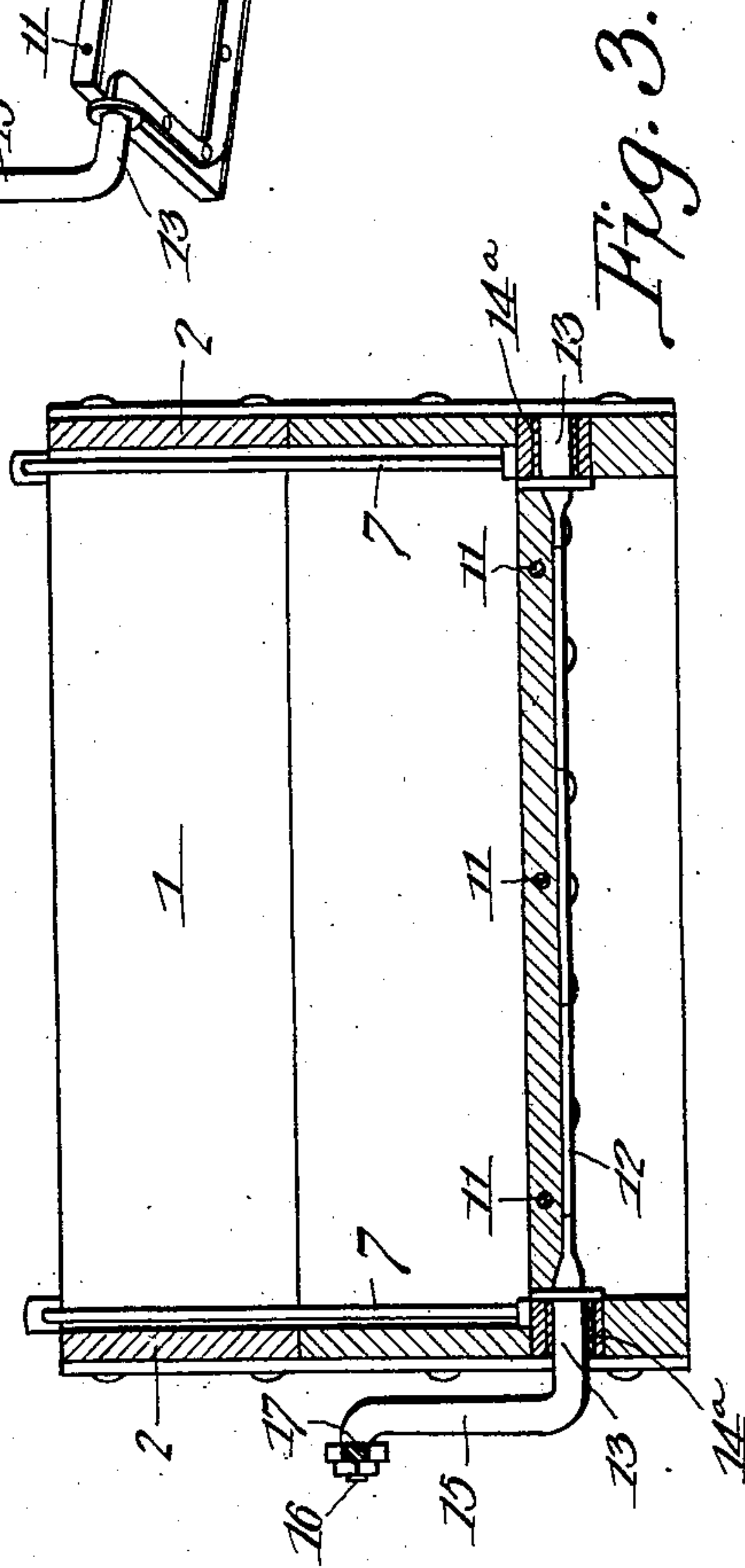


Fig. 3.

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UNITED STATES PATENT OFFICE.

MAURICE B. TODD, CHARLES L. TODD, AND EDWARD H. NEFF, OF NORTH
TOPEKA, KANSAS.

DUMPING WAGON-BOX.

SPECIFICATION forming part of Letters Patent No. 747,510, dated December 22, 1903.

Application filed November 2, 1903. Serial No. 179,621. (No model.)

To all whom it may concern:

Be it known that we, MAURICE B. TODD, CHARLES L. TODD, and EDWARD H. NEFF, citizens of the United States, residing at North Topeka, in the county of Shawnee and State of Kansas, have invented a new and useful Dump Wagon-Box, of which the following is a specification.

This invention relates to dumping-wagons of the type employed for hauling sand, grain, &c., and has for its object to produce a comparatively simple inexpensive device of this character which may be readily manipulated for discharging the contents of the wagon-body.

To these ends the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view of a wagon-body embodying the invention. Fig. 2 is a longitudinal sectional elevation of the same, certain parts being shown in dotted lines. Fig. 3 is a vertical transverse section taken on a line with the pivotal axis of one of the bottom sections. Fig. 4 is a detail perspective of one of said sections. Fig. 5 is a detail view.

Referring to the drawings, 1 designates the wagon-body, comprising sides 2, ends 3, and a sectional bottom 4. These parts, which are of wood or other suitable material, may be assembled in any desired manner, but preferably as herein shown, in which the sides 2 are connected at the front and rear by inner and outer transverse beams 5 and 6 and the ends are downwardly and inwardly inclined and have their lower edges attached to the inner beams 5, the parts being braced and strengthened by diagonal tie-rods 7, extending from the outer upper corners of the body inward and downward toward the center of the latter to a point of engagement with lower longitudinal side beams 8.

The bottom 4 is composed of a series of pivoted sections 9, arranged edge to edge in horizontal alinement, with their meeting edges in close assemblage, thus rendering the bottom normally practically continuous. Each section 9 consists, preferably, of a single piece of board, having its edges metal-bound, as at 10, while extending transversely through the sec-

tion is a plurality of bracing or strengthening rods 11, which serve to prevent warping or splitting of the sections. Each section has riveted or otherwise secured to its lower face a strap-metal member 12, which preferably extends back and forth across the section, as herein shown, thus further bracing and strengthening the latter, and terminating at its ends in pivoting pintles or trunnions 13, disposed in end-to-end alinement parallel with the longitudinal axis of the section, these trunnions being extended outward from end edges of the section adjacent to one of its longitudinal sides, whereby the section will in practice be eccentrically pivoted and will in moving to an open position swing downward substantially wholly beneath the box or body. The trunnions 13 are journaled in suitable bearings 14, more fully hereinafter described, in the sides 2 of the box, between the walls of which openings and the trunnions there are disposed upon the latter wearing sleeves or thimbles 14^a, designed to sustain the wear incident to the operation of the parts and to be readily replaced or renewed when circumstances require. One of the trunnions 13 of each of the sections, with the exception of the front section of the series, is provided with a preferably integral crank-arm 15, which arises from the trunnion normally in a substantially vertical plane and is in turn provided at its upper end with a horizontal outwardly-projecting wrist-pin 16. The arms 15 of all of the sections lie upon the outer face of one of the sides 2 and are operatively connected by a shaft or other suitable element 17, having at suitable intervals openings which pivotally receive the wrist-pin 16. It is apparent from this arrangement that the connecting shaft or element 17 may be manipulated for simultaneously swinging all of the sections on their pivots to an open or closed position.

The trunnion of the front section 9 instead of having a crank-arm 15 formed integral therewith terminates in a squared or other non-circular portion 18, which fits a corresponding opening formed at the lower end of an elongated crank-arm or lever 19, with which the forward end of shaft 17 is pivotally connected. This lever travels upon and is

guided by a semicircular rack or guide 20, bolted or otherwise secured to the wagon-body and provided with a notch 21, adapted for engagement by a dog 22, operated in the usual manner for locking the lever in its normal position.

As seen more clearly in Fig. 5, the bearings 14 are each seated in a mortise opening or recess 23, formed in the side beams 8, and consist each of a pair of castings 24, disposed one upon the other, with their meeting faces having semicircular openings transversely disposed and adapted to coincide to form circular bearing-openings, which receive the trunnions 13. The castings 24 are maintained in assemblage and secured in the openings 23 by vertical bolts 25, passing downward through the aligned openings in the casting and beam. Thus a strong durable bearing is provided which permits of the bottom sections being readily removed if circumstances require.

From the foregoing it is apparent that when the lever is locked in the position as in Fig. 1 the sections 9 will all be maintained in closed position, but that when the lever is released and swung backward, as indicated by the arrow, the crank-arms 15 will, through the medium of shaft 17, be simultaneously actuated for swinging the sections to an open position, as heretofore explained, thus discharging the contents of the box. In attaining these ends various minor changes may be made in the details of construction herein set forth without departing from the spirit of the invention. For example, the arms 15 instead of being formed integral with the trunnions 13 may be engaged therewith in the manner similar to that of engagement of lever 19 with its trunnions, and this or like changes will fall within the scope of the invention.

Having thus described our invention, what we claim is—

1. The combination with a vehicle-body having sides provided with bearing-openings, of a bottom comprising a plurality of sections, trunnions carried by the sections and pivotally engaging the bearing-openings, the trunnions of each section being disposed in end-to-end alinement parallel with and adjacent to one of its longitudinal edges, an operating-lever carried by a trunnion of one of the sections, crank-arms associated with the corresponding trunnions of the remaining sections, and an element connecting said lever and crank-arms for uniform movement to operate the bottom sections simultaneously.

2. The combination with a vehicle-body having sides provided with bearing-openings, of a bottom comprising a plurality of sections, strengthening members attached to the sections and terminating in trunnions pivotally engaging the bearing-openings, the trunnions of each section being disposed in end-to-end alinement parallel with and adjacent to one of its longitudinal edges, an operating-lever detachably engaged with a trunnion of one of the sections, crank-arms formed integral with the corresponding trunnions of the remaining sections, and a shaft connecting said lever and crank-arms for uniform movement to operate the bottom sections simultaneously.

3. The combination with a vehicle-body having sides provided with bearing-openings, of a bottom comprising a plurality of sections, strengthening members attached to and extending back and forth across said sections transversely and terminating in trunnions pivotally engaging the bearing-openings, the trunnions of each section being disposed in end-to-end alinement parallel with and adjacent to one of its longitudinal edges, wearing-sleeves removably mounted upon the trunnions within the bearing-openings, an operating-lever detachably engaged with a trunnion of one of the sections, crank-arms formed integral with the corresponding trunnions of the remaining sections, and a shaft connecting said lever and crank-arms for uniform movement to operate the bottom sections simultaneously.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

MAURICE B. TODD.
CHARLES L. TODD.
EDWARD H. NEFF.

Witnesses:

PETER F. KELLEY,
ROBERT F. MAZE.