

(No Model.)

J. DAIN, Jr.  
SHOVELING BOARD FOR WAGON BOXES.

No. 593,199.

Patented Nov. 9, 1897.

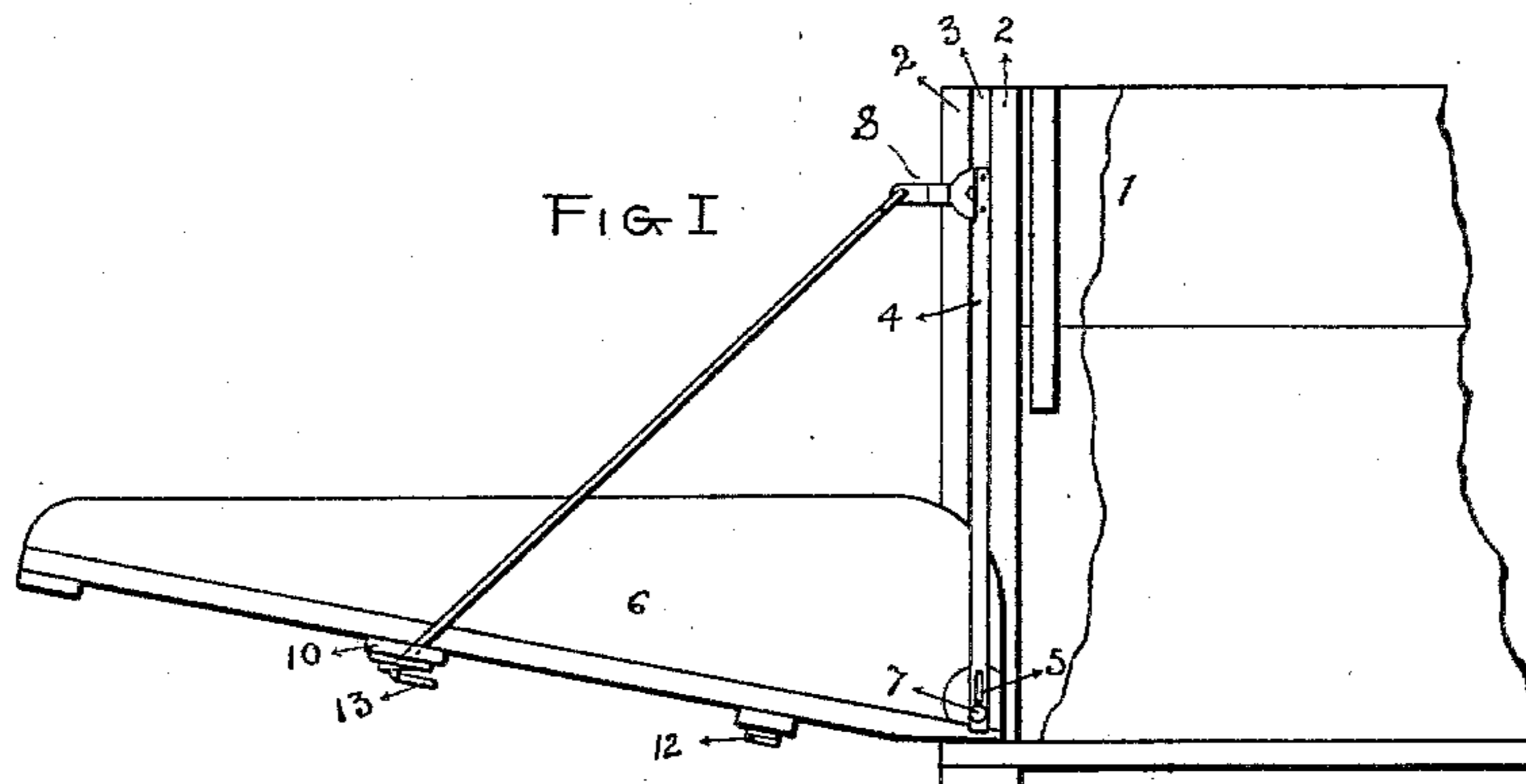


FIG II

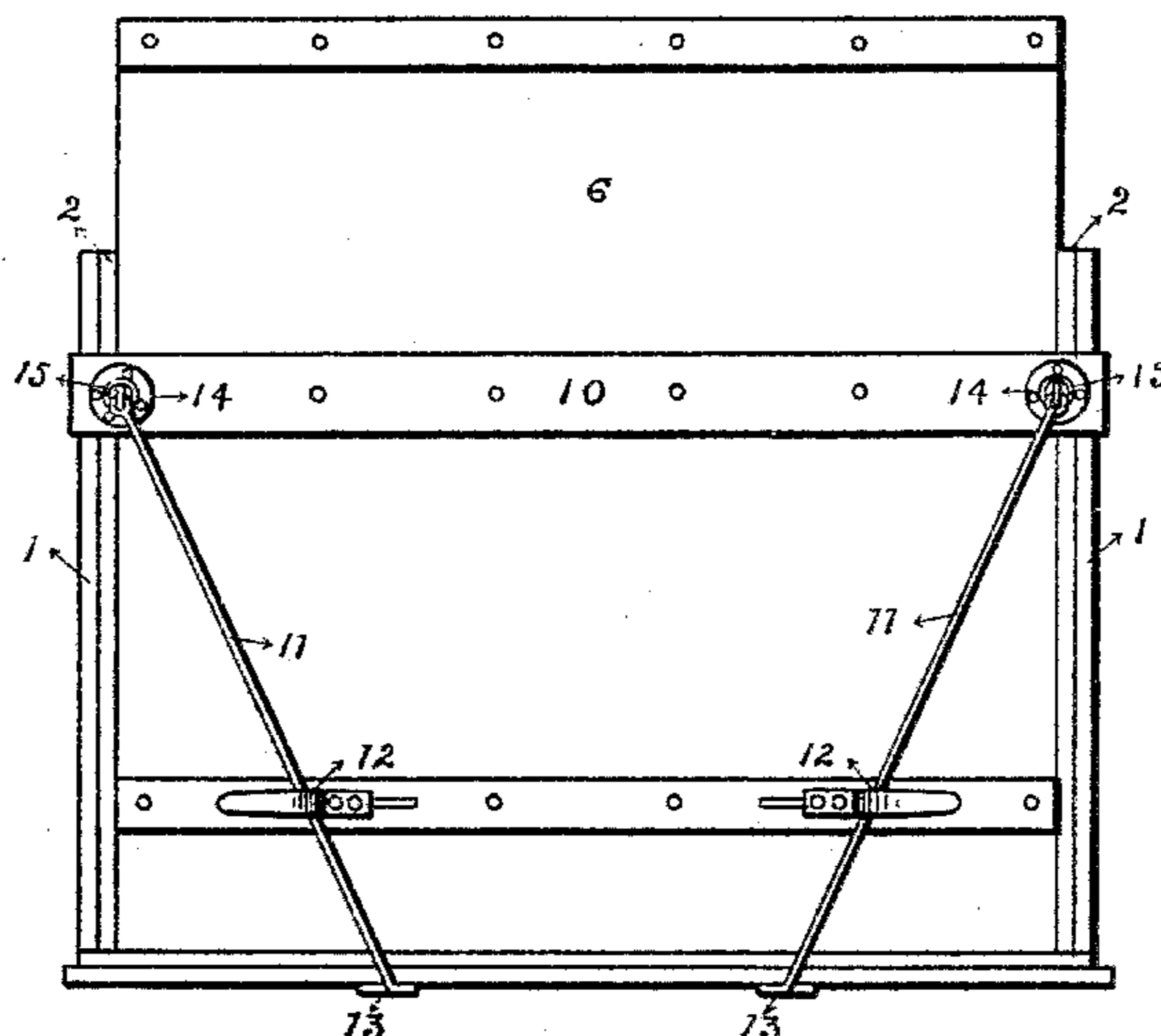


FIG IV

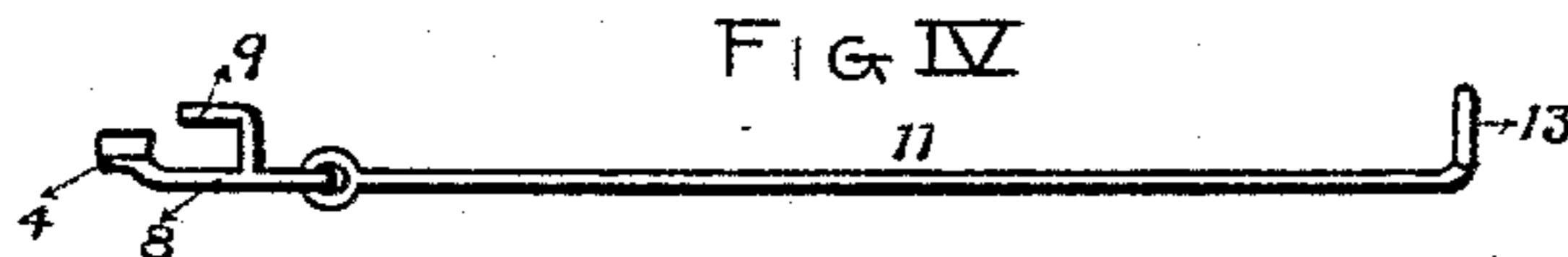


FIG V

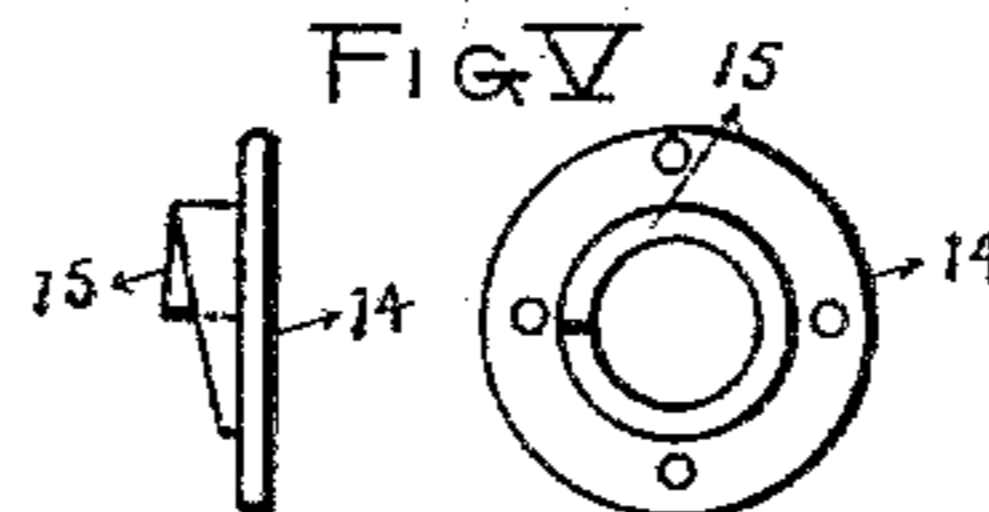
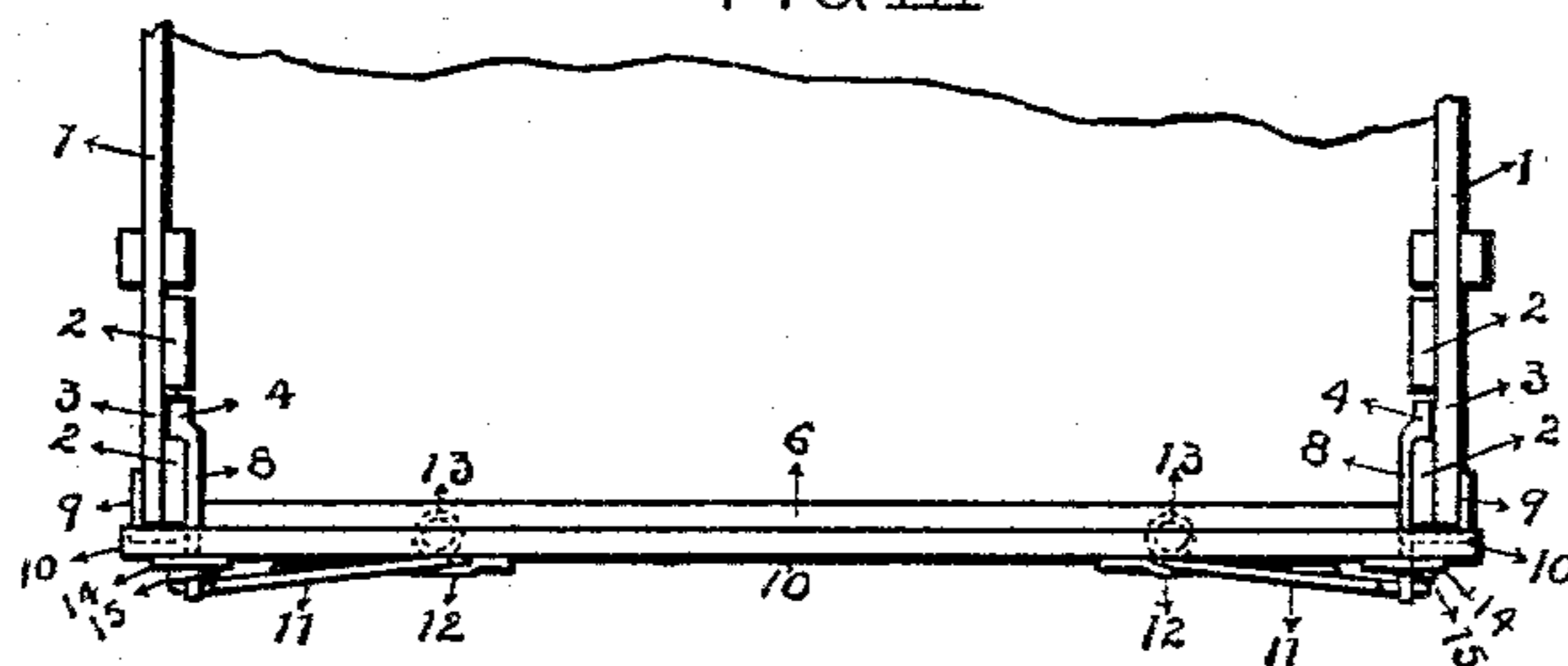


FIG III



WITNESSES

*Frank M. Smith*

*Benj. S. Brown*

INVENTOR

*Joseph Dain, Jr.*

By *J. L. Brown* ATT

# UNITED STATES PATENT OFFICE.

JOSEPH DAIN, JR., OF CARROLLTON, MISSOURI.

## SHOVELING-BOARD FOR WAGON-BOXES.

SPECIFICATION forming part of Letters Patent No. 593,199, dated November 9, 1897.

Application filed April 6, 1896. Serial No. 586,309. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH DAIN, Jr., of Carrollton, in the county of Carroll, in the State of Missouri, have invented certain new and useful Improvements in Shoveling-Boards for Wagon-Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to certain new and useful improvements in shoveling-boards for wagon-boxes; and my invention consists of certain features of novelty hereinafter described, and pointed out in the claims.

Figure I represents a side elevation of the rear end of a wagon-box provided with my improvements. Fig. II represents an end elevation of the same. Fig. III represents a plan view of same. Fig. IV represents a detail view of the rod for supporting the shoveling-board and showing my improved device for connecting said rod to the wagon-box. Fig. V represents a detail view of the washer, provided with a graduated face through and upon which the rod acts when the shoveling-board is elevated to form an end-gate to the wagon-box.

Similar numerals refer to similar parts throughout the several views.

1 represents the sides of a wagon-box provided with the cleats 2, forming the grooves 3, constituting the usual and ordinary construction of the end of the wagon-box to receive the end-gate thereof. 4 represents rails adapted to slide in said grooves 3, said rails being provided at or near the bottom with the slots 5.

6 represents the shoveling-board, which is adapted to be let down to form a shoveling-board, as shown in Fig. I, or to be raised up to close the end of the wagon-box, forming an end-gate thereto, as shown in Fig. II. Said shoveling-board is pivotally connected with said rails by means of the pintles 7, mounted thereon, engaging the slots 5 in the rails. 8 represents arms connected with said rails near the upper ends thereof, provided with brackets 9, adapted to embrace the sides of the wagon-box, as shown in Fig. III. Said arms 8 are adapted to pass through suitable openings in a bar 10 upon the outer or under side

of said shoveling-board when said board is raised to close the end of the wagon-box. 11 represents suitable rods connected with said arms 8, adapted, when said shoveling-board is raised, to form an end-gate, as shown in Fig. II, to extend across said board, engaging the adjustable spring-keepers 12 thereon, and are formed with hooked or angular extensions 13, adapted to engage the bottom of the wagon-box to retain such end-gate securely in position, and when said shoveling-board is let down, as shown in Fig. I, said hooks 13 engage said cross-bar 10 and said board is supported upon the rods 11. As said board is raised to form the end-gate or let down to form the shoveling-board, as above set forth, the pintles 7 will move up and down in the slots 5. By providing such movement for the pintles when the board is raised up to form an end-gate latitude is given to permit the board to be drawn down closely upon the bottom of the wagon-box, preventing the escape of any of the contents thereof, and by the engagement of the hooks or angular extensions 13 on the rods 11 on and against the under side of the bottom of the box said board is retained thus closely upon the bottom, and the spring-keepers 12, being adjustable, may be set in such position as to be engaged by and hold the rods 11 and retain said hooks 13 in proper position. 14 represents washers provided at the openings in the cross-bar 10, through which said arms 8 and rods 11 pass. Said washers are formed, as shown in Fig. V, with a graduated face 15, the purpose of which is as follows:

In different wagon-boxes the width of the cleats 2, varies so that the distance from the rail 4 to the outside of the cross-bar 10 will also vary proportionally, and when the rods 11 are drawn down, as shown in Fig. II, to secure the end-gate, said cross-bar will not be pressed and held closely against the end of the box, but will have sufficient freedom to permit wear and rattling, both of which are objectionable. To provide for such variation of the width of the cleats 2 and prevent such wear and rattling incident thereto, the washers are set on the cross-bar in such position that the thickness of the washer shall compensate for the variation in the width of the cleats, and

the rods, pressing against the washer, will securely bind the parts and prevent such wear and rattling.

It is apparent that the shoveling-board being entirely carried upon and supported by the rails 4, working in the grooves 3, the board is entirely independent of the wagon-box and may be placed upon and removed from the same by simply sliding the rails in or out of the grooves.

It is also apparent that when the shoveling-board is raised to form an end-gate to the box, the arms 8 engaging the cross-bar 10 and the brackets 9 embracing the ends of the wagon-box sides, the box is securely bound and cannot spread at the ends, thus forming a removable end-gate adapted to clamp the end of the wagon-box and a swinging shoveling-board independent of the wagon-box in its attachments, easily and quickly applicable to any wagon-box without the use of tools of any kind, a very great advantage is gained in the saving of time and labor usually necessary in making the attachments.

I am aware that swinging shoveling-boards adapted to form an end-gate to a wagon-box are not new, and therefore do not claim the same broadly.

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with a wagon-box provided with suitable grooves, rails arranged to slide in said grooves provided with slots near their lower ends, arms on said rails near their upper ends, and brackets on said arms

arranged to engage the ends of the wagon-box sides, of a shoveling-board, pintles on said board arranged to engage and operate in said slots, a cross-bar on said board provided with openings near its ends for the passage of said arms on said rails, rods connected with said arms, hooks on said rods arranged to engage the bottom of the wagon-box when said board is raised up, and adjustable keepers on said board arranged to engage said rods to retain the same in engagement with the bottom of the wagon-box; substantially as set forth.

2. The combination with a wagon-box provided with suitable grooves, rails 4 arranged to slide in said grooves and provided with slots 5 near their lower ends, arms 8 on said rails near their upper ends, and brackets 9 on said arms arranged to engage the ends of the wagon-box sides, of a shoveling-board 6, pintles 7 on said board arranged to engage and operate in said slots, a cross-bar 10 on said board provided with openings near its ends for the passage of said arms on said rails, rods 11 connected with said arms, hooks 13 on said rods arranged to engage the bottom of the wagon-box when said board is raised up, and adjustable keepers 12 on said board arranged to engage said rods to retain the same in engagement with the bottom of the wagon-box; substantially as set forth.

JOSEPH DAIN, JR.

Witnesses:

BENJ. S. BROWN,  
THOS. H. RIDDLE.