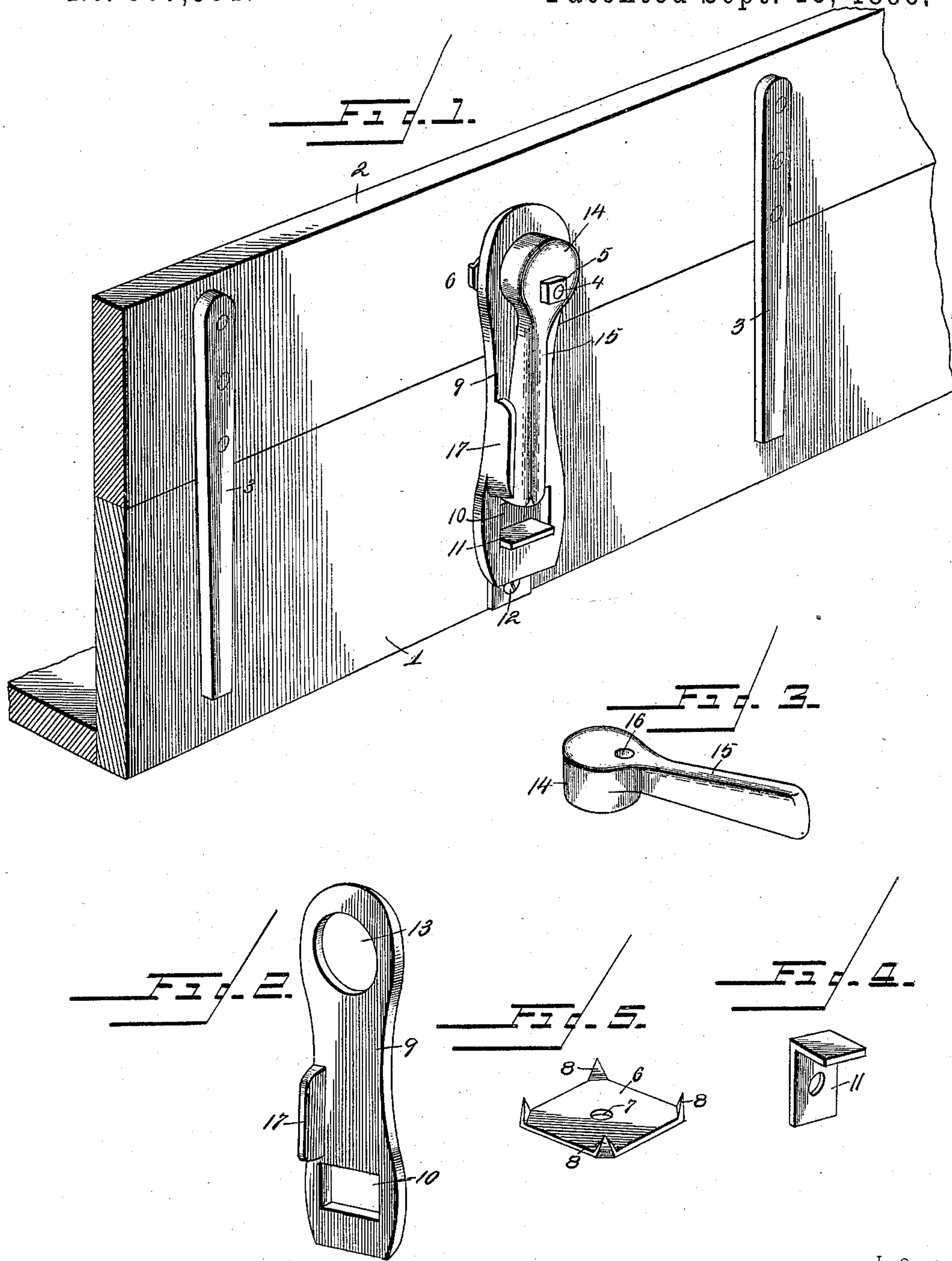


(No Model.)

J. M. HAINES.  
TOP BOARD FASTENER FOR WAGONS.

No. 567,591.

Patented Sept. 15, 1896.



Inventor

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Witnesses  
T. W. Riley.  
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By his Attorneys.

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

JAMES M. HAINES, OF CEDAR RAPIDS, IOWA.

## TOP-BOARD FASTENER FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 567,591, dated September 15, 1896.

Application filed March 16, 1895. Serial No. 542,042. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES M. HAINES, a citizen of the United States, residing at Cedar Rapids, in the county of Linn and State of Iowa, have invented a new and useful Top-Board Fastener for Wagons, of which the following is a specification.

This invention relates to an improvement in devices for fastening the top or extension boards of wagon-bodies to the wagon-box or wagon proper.

The object of the present invention is to provide a simple and inexpensive fastening device which is adapted to be interposed between the wagon-body and the top or extension boards, and to operate upon the same in such manner as to securely fasten such top or extension boards in place, which shall be strong and durable in practice, effective in operation, not liable to get out of order, and which will effectively clamp the contiguous edges of the boards snugly and tightly together.

To this end the invention consists in an improved form of hasp adapted to be interposed between and to connect the extension-boards and side-boards to the wagon-body, and in the combination therewith of an operating clamping-lever provided with a cam or eccentric extension engaging a perforation in one end of the hasp and adapted to operate in connection with said hasp and with a fixed hook on the wagon-body for drawing the extension-boards down tightly upon the top edges of the side-boards of the wagon-body; also in certain features and details of construction and arrangement of parts herein-after fully described, illustrated in the drawings, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a wagon-body, showing the application of my improved fastening device. Fig. 2 is a detail perspective view of the hasp or slotted connecting-bar. Fig. 3 is a similar view of the operating-lever, showing the cam-hub thereof. Fig. 4 is a similar view of the hook which attaches to the wagon-body. Fig. 5 is a similar view of the wearing-plate.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

Referring to the drawings, 1 indicates one of the side or end boards of a wagon-body, and 2 a detachable top or extension board, which is provided with the usual cleats 3, secured to either side thereof, and extending downwardly below the lower edge thereof and adapted to embrace and stride the side or end board 1 of the wagon-body in a manner well understood.

The top or extension board 2 is perforated to receive a headed bolt 4, which passes through said board from the inside, and is threaded on its outer end to receive a nut 5. A wearing-plate 6 of metal is secured to the outer face of the extension-board 2, and is provided with a central perforation 7 for the passage of the bolt 4 and with inwardly-extending corners or points 8, which are embedded in the board 2 and serve to retain said wearing-plate in position and prevent its escape.

9 designates a hasp or metallic connecting-bar, which is provided at its lower end with a rectangular opening 10, which is adapted to pass over and engage a keeper 11, secured to the body of the wagon by a screw 12, or in any convenient manner. The keeper, which is substantially L-shaped, consists of a vertical attachment-plate and a rectangular arm extending outward from the wagon-body and disposed horizontally. The hasp 9 is provided at its upper end with a large circular perforation 13, which surrounds an eccentric or cam 14 on the inner pivoted end of an operating-lever 15. The lever 15, which consists of the circular head and a straight shank, is perforated at 16 adjacent to the inner terminal of the shank for the reception of the bolt 4, above described, around which said lever is adapted to be turned. The shank, which is formed integral with the circular eccentrically-pivoted head, extends downward from the bottom side thereof, and the outer face of the shank is flush with the outer face of the head. The cam or eccentric 14 fits snugly within the circular aperture 13 in the upper end of the hasp 9, and serves, when the lever 15 is depressed, to elevate the hasp 9, thereby causing the latter, by means of its engagement with the hook 11, to draw the top or extension board 2 snugly down upon the side-board 1. The swing of the shank of the operating-lever is limited by a vertical flange 17, formed



integral with the hasp, located at one edge thereof directly above the rectangular opening and serving as a stop to maintain the operating-lever in a vertical position. By adjusting or tightening the nut 5 the lever 15 is held in close frictional engagement with the wearing-plate 6, and is thus adapted to be held by frictional grasp in its adjusted position.

By the construction above described a simple, inexpensive, and effective form of fastening device is provided for securing the top or extension boards of the wagon to the side and end boards of the wagon-body. It will be apparent that the fastening device described is applicable also to the doors of stables, barns, and other buildings, and may also be applied to freight-car doors and in various other places. By throwing the lever 15 upward the cam 14 allows the hasp to descend, and the lower end of the hasp may then be removed from its engagement with the hook 11 on the wagon-body, when the top or extension board may be removed, carrying with it the various parts of the fastening device, with the exception only of the angle iron or hook 11. When the top board is fastened in place and the lever 15 is down, as in Fig. 1, said lever presses the hasp inward at the lower end and assists in preventing the hasp from slipping off the hook on the wagon-body.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

The combination with a wagon-body side,

and a top board, of an operating-lever 15 consisting of a straight shank and a circular head provided with an eccentric perforation located adjacent to the shank, the latter being formed integral with the head and extending downward from the bottom side thereof and having its outer face flush with the outer face of the same, a fastening device passing through the perforation and fulcruming the operating-lever on the top board, a substantially L-shaped keeper 11 secured to the wagon-body side adjacent to the lower edge thereof and consisting of an attachment-plate and a horizontally-disposed outwardly-extending rectangular arm, a hasp provided at its top with a circular opening receiving the eccentrically-pivoted head of the operating-lever therein, and provided at its lower end with a rectangular opening 10 receiving the horizontal arm of the keeper and being of the same width as the arm, said hasp having a limited outward swing laterally of the wagon-body sufficient to disengage it from the arm of the keeper and being prevented from swinging outward by the shank of the operating-lever when the parts are locked, and a vertical flange 17 formed integral with the hasp, located at one end thereof at a point directly above the rectangular opening and limiting the swing of the operating-lever to maintain the shank in a vertical position, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES M. HAINES.

Witnesses:

WILLIAM C. MOORHEAD,  
SIMON P. MEYERS.