No. 672,339. Patented Apr. 16, 1901.

W. B. STURGIS.

SHOVELING BOARD.

(No Model.) (Application filed Jan. 15, 1901.)

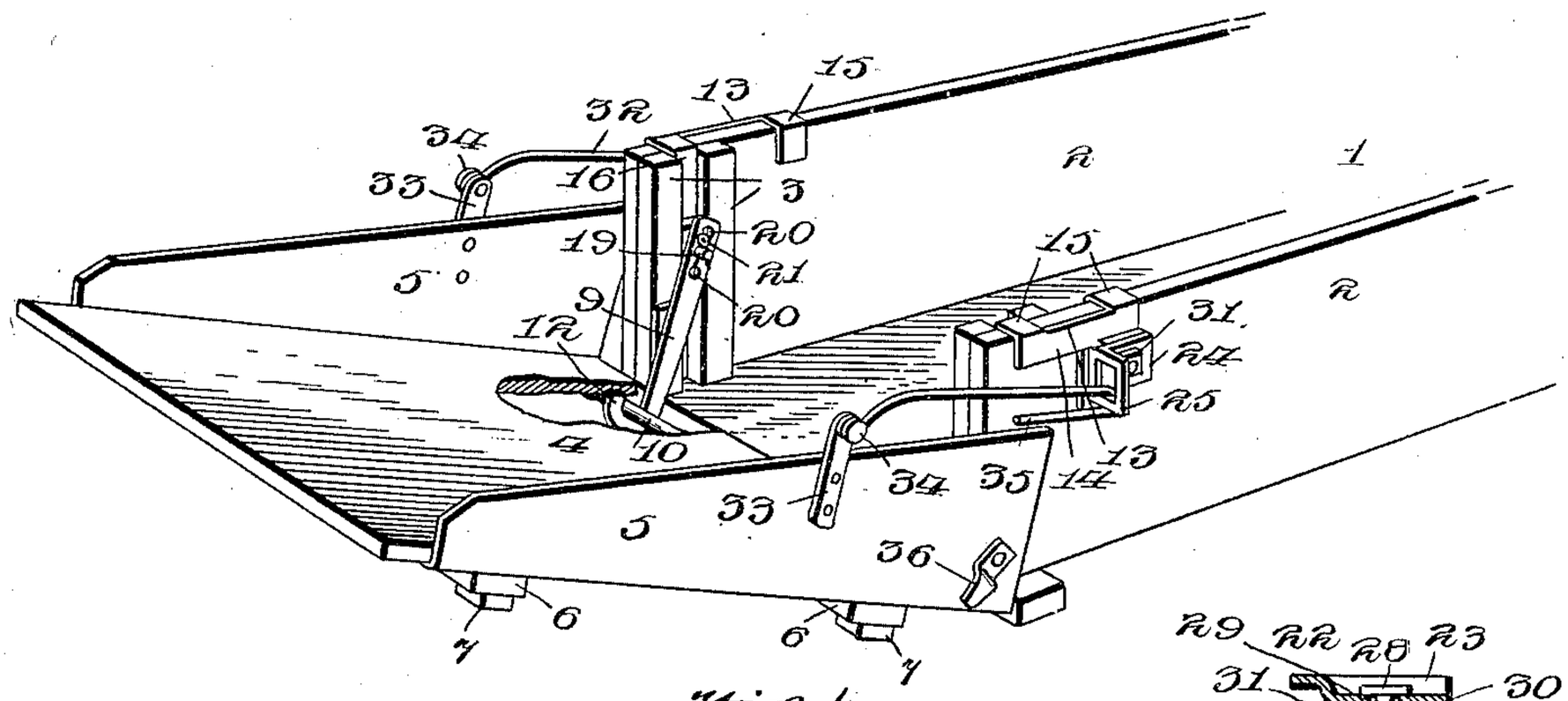

Fig. 1.

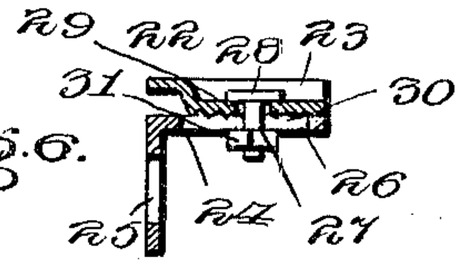

Fig. 6.

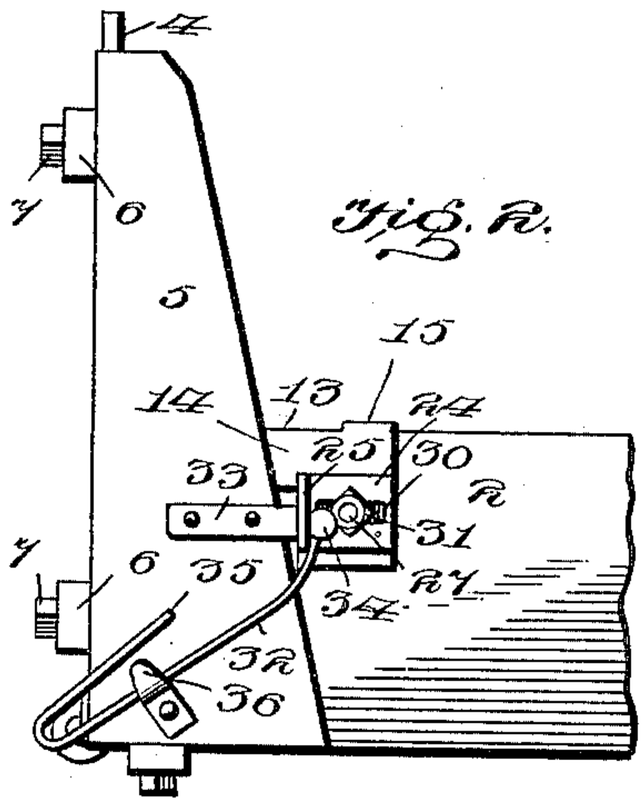

Fig. 2.

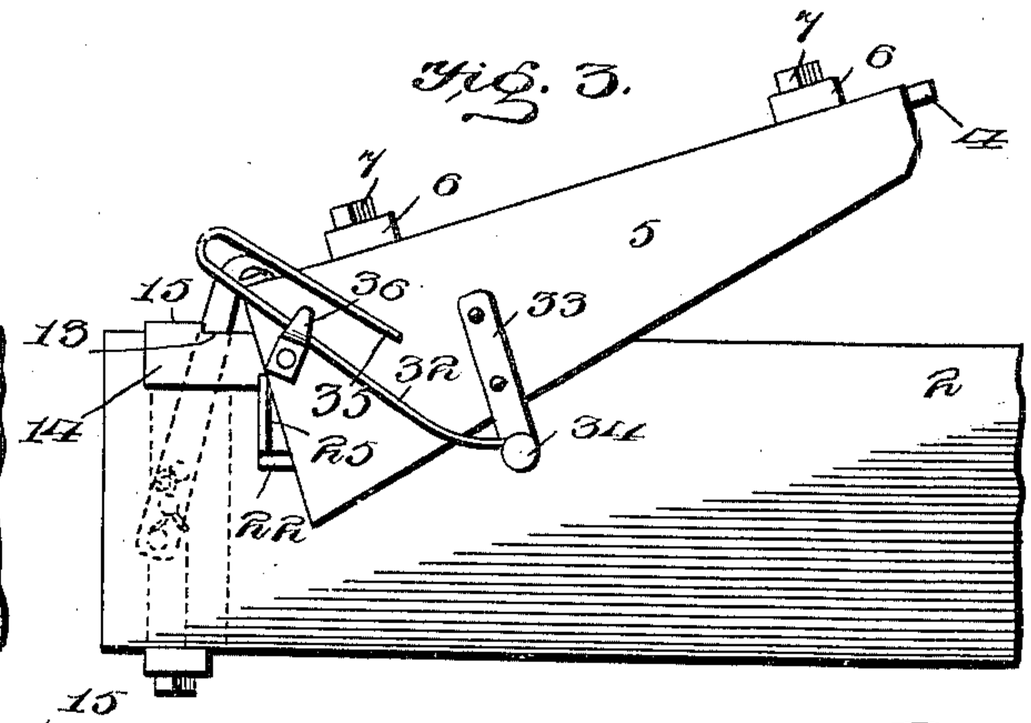

Fig. 3.

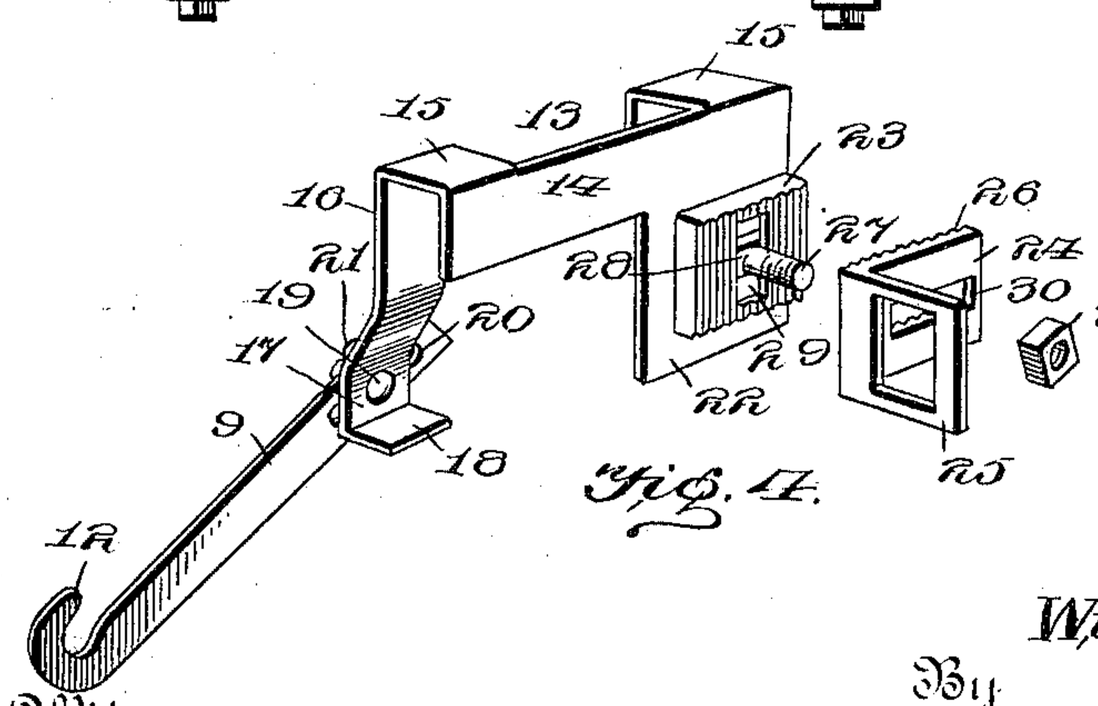

Fig. 4.

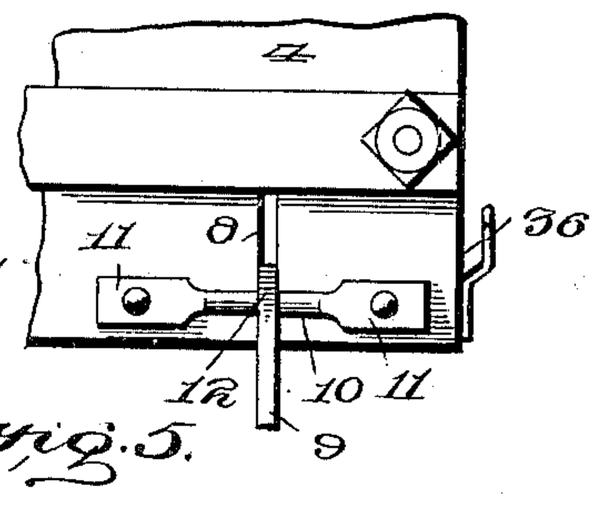

Fig. 5.

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UNITED STATES PATENT OFFICE.

WILLIAM B. STURGIS, OF SHELBYVILLE, ILLINOIS.

SHOVELING-BOARD.

SPECIFICATION forming part of Letters Patent No. 672,339, dated April 16, 1901.

Application filed January 15, 1901. Serial No. 43,410. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. STURGIS, a citizen of the United States, residing at Shelbyville, in the county of Shelby and State of Illinois, have invented a new and useful Shoveling-Board, of which the following is a specification.

This invention relates to shoveling-boards for wagons, the object in view being to provide an attachment for wagons employing removable end-gates, which attachment is in the nature of a combined shoveling-board and end-gate, the same having employed in connection therewith supporting-links, by which it is loosely and pivotally swung upon the wagon-body, and locking stay-rods for holding the board in proper position relatively to the wagon-body.

The shoveling-board is so connected with the wagon-body that it may be detached therefrom, together with the appliances by means of which it is hingedly supported, or the shoveling-board may be thrown upward and over upon the top of the wagon-body, so as to rest upon the sides thereof when it is desired to dump the contents of the wagon.

The invention contemplates certain novel features by means of which the device as a whole may be instantly removed from the wagon-body and as quickly reapplied thereto when required for use.

One of the novel features of the invention resides in a pair of saddles, which are detachably mounted upon the upper edges of the side-boards of the wagon and which comprise bracket-arms, having offset pendent extensions with inwardly-projecting feet, which are adapted to lie between the usual end-gate cleats, and which offset portions carry the pivots upon which the supporting-links are journaled.

The detailed objects and advantages of the present invention will appear more fully in the course of the ensuing description.

The invention consists in a combined end-gate and shoveling-board for wagon-bodies embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and incorporated in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a wagon-body equipped with a shoveling-board constructed in accordance with the present invention and connected with the wagon-body by the novel means forming the subject-matter of this invention. Fig. 2 is a side elevation of the same, showing the shoveling-board folded upward to a position where it constitutes the end-gate of the wagon-body. Fig. 3 is a similar view showing the shoveling-board thrown upward and inward on top of the wagon-body sides for permitting the wagon to be dumped. Fig. 4 is an enlarged detail perspective view of one of the saddles, showing also one of the supporting-links and one of the adjustable eyes. Fig. 5 is a fragmentary view of a portion of one edge of the shoveling-board, showing the form of pintle thereon with which the supporting-links engage. Fig. 6 is an enlarged cross-section through one of the offset seats and pendent extensions of the saddles, showing the manner of forming said seat.

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

Referring to the drawings, 1 designates a wagon-body having the usual sides 2, which are provided adjacent to the rear end of the body and upon their inner surfaces with parallel cleats 3, between which the usual end-gate is adapted to be slidingly received and held.

The shoveling-board comprises a bottom 4, which constitutes the shoveling-board proper, and side guards 5, which are secured in any convenient manner thereto. Cross-cleats 6 extend transversely of the bottom of the board 4 and are secured thereto by means of bolts 7 or other suitable fastening devices.

The bottom 4 of the shoveling-board is provided at suitable points with slots or kerfs 8, which extend from the inner edge thereof toward the rear to receive the lower ends of a pair of supporting-links 9. The slots 8 are crossed by pintles 10, the opposite ends of which are flattened to form attaching portions 11, which are bolted, riveted, or otherwise secured to the lower surface of the bottom 4. The supporting-links 9 are provided at their free extremities with hooks 12, which detachably engage the pintles 10 in order to enable the shoveling-board to be quickly disconnected from the links whenever required.

Removably fitted upon the upper edges of the sides 2 of the wagon-body are saddles 13, each of which comprises a body or connecting portion 14, with clips 15 at each end of the body portion, adapted to pass over and frictionally engage the upper edge of one side of the body, as shown in Fig. 1. The body portion 14 is designed to bear against the outer surface of the side 2 of the wagon-body, while one of the clips 15 is extended downwardly to form a bracket-arm 16, which engages between the cleats 3, as illustrated in Fig. 1. The bracket-arm 16 is provided near its lower end with a pendent offset extension 17, the outer surface of which lies in line with or slightly beyond the exposed faces of the cleats 3, so as to enable one of the supporting-links 9 to be pivotally connected therewith. The extremity of the bracket-arm 16 is bent to form an inwardly-extending foot portion 18, which reënters the space between the cleats 3 and bears against the inner surface of the side 2 of the wagon-body. In this way the offset portion 17 of the bracket-arm is positioned so as to connect with the supporting-links 9 and at the same time is effectively braced, so as to prevent lateral movement or bending of the same.

Connected with the offset portions of each of the bracket-arms 16 is a pivot or stud 19, adapted to pivotally receive one of the supporting-links 9, each of which is provided with a plurality of openings 20, each adapted to receive the pivot 19, thereby providing for the adjustment of the supporting-links for raising or lowering one edge of the shoveling-board. The links 9 are held upon the pivots 19 by means of split pins or cotters 21 or in any other convenient manner.

Each of the saddles 13 is also provided with a pendent extension 22, which lies upon the outer side of the wagon-body and which is stamped or pressed outward to form a hollow offset seat 23, against which the base-plate 24 of the eye or loop 25 is designed to be clamped. The meeting surfaces of the base-plate 24 and offset seat 23 are correspondingly corrugated or serrated, as illustrated at 26, so as to secure a positive and non-slipping engagement between said parts, the latter being securely held in contact by means of a clamping-bolt 27, provided with a head 28, which is contained within the hollow offset seat 23. The seat 23 is further provided with a vertical slot 29 to permit the clamping-bolt 27 to be adjusted up and down, and the base-plate 24 is provided with a corresponding slot 30, which, however, extends horizontally. The bolt 27 passes through both of the slots 28 and 30 and receives a clamping-nut 31. By the means described the eye 26 may be adjusted either vertically or horizontally, and in this way the eye may be brought to any desired elevation or moved backward or forward relatively to the length of the wagon, so as to locate the eyes at the proper points to be effectively engaged by a pair of locking stay-rods 32, connected with the shoveling-board.

Secured to the side guards 5 of the shoveling-board 4 are metal straps 33, which are preferably provided at their upper or outer ends with head-studs 34, receiving the eyes at the pivotal ends of the locking stay-rods 32. In this way the said rods are pivotally connected to the shoveling-board, while their opposite ends are recurved to form spring-terminals 35, each diverging toward their extremities from the body portions of the stay-rods, as illustrated in the drawings, thus preventing them from passing accidentally through and escaping from the eyes 25 after they have been inserted therethrough, which result is obtained by making the distance between the extremity of the terminal and the body portion of the rod greater than the width of the eye 25, through which the spring-terminals are inserted. In order to secure the stay-rods 32, hook-shaped keepers 36 are secured to the side guards of the shoveling-board, and after said board has been thrown upward into a vertical position, as shown in Fig. 2, the said rods are sprung over and engaged upon the keepers 36, as illustrated in said figure. The rods 32 are likewise engaged with the keepers 36 when the shoveling-board is thrown upward and over upon the body of the wagon, as illustrated in Fig. 3.

When the board is used for shoveling material in the wagon-body therefrom, it is adjusted to the position illustrated in Fig. 1, in which the stay-rods 32 are inserted through the eyes 25 and engaged therewith in the manner shown. When the board is used as an end-gate, it is swung upward to the position indicated in Fig. 2 and the stay-rods are drawn rearward and engaged with the keepers 36, thus preventing the shoveling-board from accidentally falling. When it is desired to dump the contents of the wagon-body, the shoveling-board is lowered, so that the locking stay-rods 32 may be withdrawn from the eyes 25, after which said rods are engaged with the keepers 36 and the shoveling-board is swung upward and inward over the rear portion of the wagon-body and at the same time inverted and brought to the position illustrated in Fig. 3. This leaves the rear end of the wagon-body free from any obstruction and enables the contents of the wagon-body to be readily dumped; but at the same time the shoveling-board is so held that it cannot accidentally fall backward, so as to interfere with the dumping operation.

The shoveling-board, together with the holding devices therefor, may be quickly disconnected from the wagon-body by slipping the saddles 13 out of engagement with the sides of the wagon-body. This leaves merely the usual cleats 3, and an ordinary end-gate may then be used in connection therewith. The shoveling-board may be quickly applied to the wagon-body by slipping the saddles 13 into engagement with the wagon-body sides

in a manner that will be readily understood without further description.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described shoveling-board will be readily apparent to those skilled in the art without further description, and it will be understood that various changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The combination with a wagon-body, of a shoveling-board having a loose swinging and pivotal connection therewith, swinging supporting-links detachably connected at one end with the board, and adapting the board to be bodily swung upward over the wagon-body, and saddles detachably mounted on the sides of the wagon-body and each provided with a bracket-arm lying between the end-gate cleats and having a pendent offset extension with a terminal foot which lies between said cleats, the said offset extensions carrying the pivots upon which the supporting-links are journaled, substantially as set forth.

2. The combination with a wagon-body, of a shoveling-board having a loose swinging and pivotal connection therewith, swinging supporting-links connected at one end to said board, and adapting the board to be bodily swung upward over the wagon-body, saddles detachably mounted on the sides of the wagon-body and provided with pendent arms to which the links are connected, and also provided with extensions carrying eyes, and locking stay-rods connected at one end to the board and provided at their opposite ends with recurved spring-terminals which engage and coöperate with the eyes, substantially as and for the purpose described.

3. The combination with a wagon-body, of a shoveling-board having a loose swinging and pivotal connection therewith, swinging supporting-links connected at one end to the board, and adapting the board to be bodily swung upward over the wagon-body, locking stay-rods connected pivotally at one end to the board, and saddles embracing the upper edges of the wagon-body sides and comprising pendent bracket-arms to which the supporting-links are connected, pendent extensions of said brackets having hollow offset seats, rod-engaging eyes adjustably held against said seats, and clamping-bolts for said eyes having their heads contained within the hollow offsets, substantially as specified.

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

WILLIAM B. STURGIS.

Witnesses:
WM. H. CRAIG,
JOHN C. COPLIN.