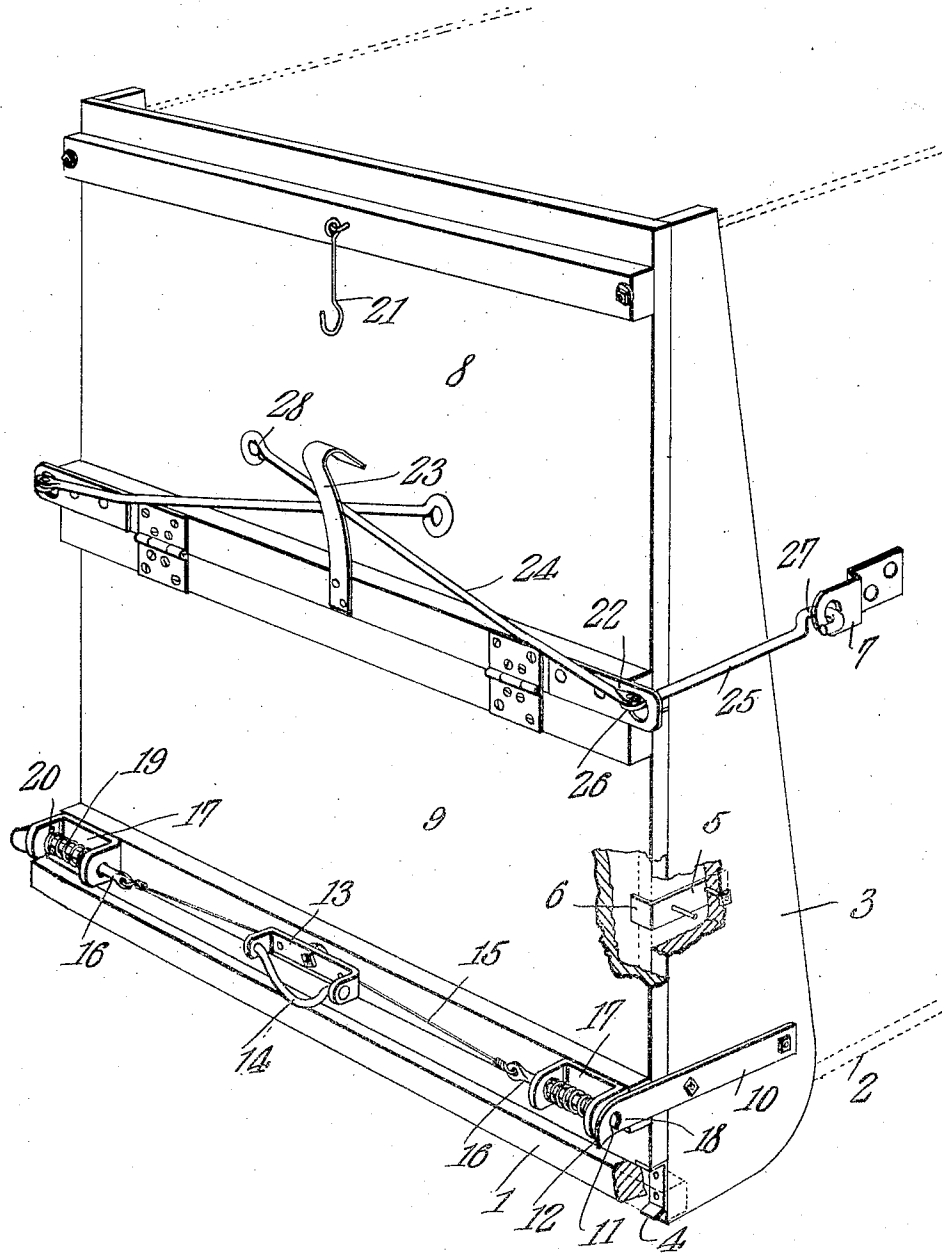


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 COMBINED SHOVEL BOARD AND END GATE.
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932,980.

Patented Aug. 31, 1909.



Witnesses

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WILHELM A. GIERMANN, OF BLENCOE, IOWA.

COMBINED SHOVEL-BOARD AND END-GATE.

932,980.

Specification of Letters Patent. Patented Aug. 31, 1909.

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To all whom it may concern:

Be it known that I, WILHELM A. GIERMANN, a citizen of the United States, residing at Blencoe, in the county of Monona and State of Iowa, have invented a new and useful Combined Shovel-Board and End-Gate, of which the following is a specification.

This invention has relation to combined shovel boards and end gates, and it consists in the novel construction and arrangement of its parts, as hereinafter shown and described.

The object of the invention is to provide a combined device of the character indicated which may be applied to the end of a wagon body without necessitating the application of securing parts or members to the inner sides or surfaces of the side boards of the wagon body, thereby removing objectionable features incident to those boards wherein securing or attaching means are provided to be applied against the inner surfaces of the side boards, for the attachment of such means upon the said sides reduces the passageway at the rear end of the wagon body, and, consequently, interferes with the loading and unloading of the body.

A further object of the invention is to provide a combined device, as indicated, with a lower hinged section which may be swung away from the end of the wagon body when it is desired to unload the same by dumping.

In the accompanying drawings:—the figure is a perspective view of the combined shovel board and end gate, illustrating the same applied to a wagon body, which is shown in dotted lines.

A sill 1 is usually found at the rear end of a wagon body, (indicated by the dotted lines 2) and the end portions of the said sill project beyond the sides of the said body 2. Of the combined shovel-board and end gate the side pieces 3 are provided at their inner or forward ends with the bearings 4, which are adapted to rest upon the projecting end portions of the sill 1, and the inner sides of the said side pieces 3 are adapted to fit closely or snugly against the outer surfaces of the sides of the wagon body indicated at 2. Cleats 5 are mounted upon the inner surfaces of the side pieces 3 and are provided with the inwardly disposed end portions 6, which, when the said side pieces 3 are in their swung up positions, will engage the ends of the side boards of the wagon body and limit the upward swinging movement of the said side pieces 3. The perforated lugs

7 are mounted upon the outer surfaces of the sides of the body 2.

The platform consists of a section 8, which is fixed with relation to the upper or rear end portions of the side pieces 3, and which, when the said end gate is swung up, is adapted to bear at its end portions against the ends of the sides of the wagon body 2. A section 9 is hingedly attached to the lower edge of the fixed section 8, and, at times, is adapted to bear in a similar manner at its end portions against the ends of the sides of the wagon body. Spring keepers 10 are fixed to the lower or forward end portions of the side pieces 3 and are located upon the outer surfaces thereof. The said keepers 10 project at their end portions beyond the edges of the side pieces 3, and are perforated as at 11, and slightly out-turned, as at 12.

A latch mechanism is provided for temporarily fixing the free end portion of the section 9 with relation to the side pieces 3. Such mechanism consists of a U-shaped member 13, which is pivoted at its middle to the middle portion of the hinged section 9, and between the ends of which is pivoted a handle 14. The inner end portions of the rods 15 are pivotally connected with the end portions of the member 13, and the outer end portions of the said rods 15 are pivotally connected with the inner ends of the bolts 16. The bolts 16 are mounted for sliding movement in the U-shaped members 17, which are fixed near the edges of the section 9. The outer ends of the bolts 16 are slightly beveled, as indicated at 18, and are adapted to enter the perforations 11 provided in the keepers 10. Coil springs 19 are located between the ends of the U-shaped members 17 and surround the bolts 16, and, at their inner ends, bear against the inner ends of the said members 17, and, at their outer ends bear against pins 20, which pass transversely through the outer portions of the said bolts 16.

A hook 21 is pivotally mounted upon the upper portion of the fixed section 8 and is adapted to engage the handle 14, and hold the free or lower edge of the section 9 in an elevated position when the same is manually swung up for the purpose of dumping or unloading the wagon body. Eyes 22 are fixedly mounted at the lower edge portion of the fixed section 8, and a spring clip 23 is also mounted at the lower portion of the said fixed section 8, but in the vicinity of the middle thereof. Braces, consisting of the rod

sections 24 and 25, which sections are pivotally connected together at 26, are provided for holding the combined shovel-board and end gate in proper position with relation to the wagon body when said combined device is lowered into a swung down position. The forward ends of the rod sections 25 are provided with the hooks 27, which engage perforations in the lugs 7, and the rear ends of the sections 24 are provided with the enlargements 28, which are of such diameter as to preclude the possibility of passage through the eyes 22.

When the combined shovel-board and end gate is in a closed position against the end of a wagon body the parts are in the positions as illustrated in the figure of the drawing, in which it will be noted that the rod sections 25 are of such length as to extend from the lugs 7 through the eyes 22, and that the rod sections 24 may be swung laterally and secured behind the spring clip 23, whereby means is provided for holding the upper portion of the combined device in close relation with the rear end of the wagon body. It will also be seen that, by swinging the clip 23 back, the enlarged ends of the sections 24 may be liberated therefrom and swung into alignment with the sections 25; when the end gate may be swung down until the enlarged heads 28 come in contact with the under sides of the eyes 22. Thus, the braces, of which the rod sections 24 and 25 form component parts, support the end gate in its swung down position, and, by reason of the pivotal connection between the sections 24 and 25, and the forward ends of the sections 25 with the lugs 7, sufficient flexibility is afforded to assure that the enlarged heads 28 of both the sections 24 will properly seat or engage the under surfaces of the eyes 22.

When the combined device is swung down into the position last above indicated it may be conveniently used as a shovel-board for shoveling grain or other material from the body 2, inasmuch as sufficient uncovered surface will be exposed upon the upper side of the combined device to permit of free use of a shovel or other implement thereon.

When it is desired to unload the wagon body 2 by dumping or tilting, and the parts of the combined shovel-board and end gate are in the positions shown in the figure of the drawing, an operator grasps the handle 14 and turns the U-shaped member 13 upon its pivotal connection with the hinged section 9. Thus the rods 15 are moved longitudinally, which, in turn, will draw the bolts 16 in against the tension of the springs 19 and the beveled extremities of the said bolts will be withdrawn from the perforations 11 of the keepers 10. Thus, the lower edge portion of the section 19 is free to be swung in an upward direction, and when elevated to the proper height, the handle

member 14 is engaged with the hook 21, which will hold the lower or free portion of the said section 9 in elevated position.

After the body has been unloaded in the manner as above described, and it is desired that the section 9 be swung down into the position as shown, an operator simply disengages the handle 14 from the hook 21, when the free edge of the said section 9 will swing down by gravity, and the force gained in its descent will be sufficient to carry the beveled ends 18 of the bolts 16 between the rearwardly projecting ends of the keepers 10, and when the beveled ends 18 of the said bolts 16 arrive opposite the perforations 11 in the said keepers, the tension of the springs 19 comes into play, and the said bolts are moved longitudinally, and the beveled ends 18 thereof are forced into the said perforations 11.

By such arrangement of the parts it will be seen that it is not necessary to place any of the members or attachments upon the inner surfaces of the sides of the wagon body, and hence the passageway at the rear end of the wagon body is not reduced, nor are projecting parts present which would interfere with an operator who may stand upon the combined device and use an implement, such, for instance, as a shovel, for loading or unloading the wagon body. It will also be seen that a simple and durable structure is effected, and that when the combined shovel-board and end gate is in an elevated or closed position against the rear end of the wagon body, it serves as a brace for the sides of the body, and avoids the necessity of transverse brace rods, usually employed for holding the sides of such a body in proper relation to each other.

Having described my invention, what I claim as new, and desire to secure, by Letters Patent, is:—

A combined shovel-board and end gate comprising side pieces having at their edges and in the vicinity of their ends open-sided bearings, a platform composed of a section fixed to the side pieces, and a section hingedly connected with the first said section, cleats mounted upon the inner surfaces of the side pieces at points between the bearings and the edge of the fixed platform section and having inwardly disposed extremities, keepers mounted upon the side pieces, and a latch mechanism mounted upon the hinged section and having spring-actuated bolts adapted to engage the keepers.

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

WILHELM A. GIERMANN.

Witnesses:

IRVAN LINDLEY,
W. S. HAMMER.