

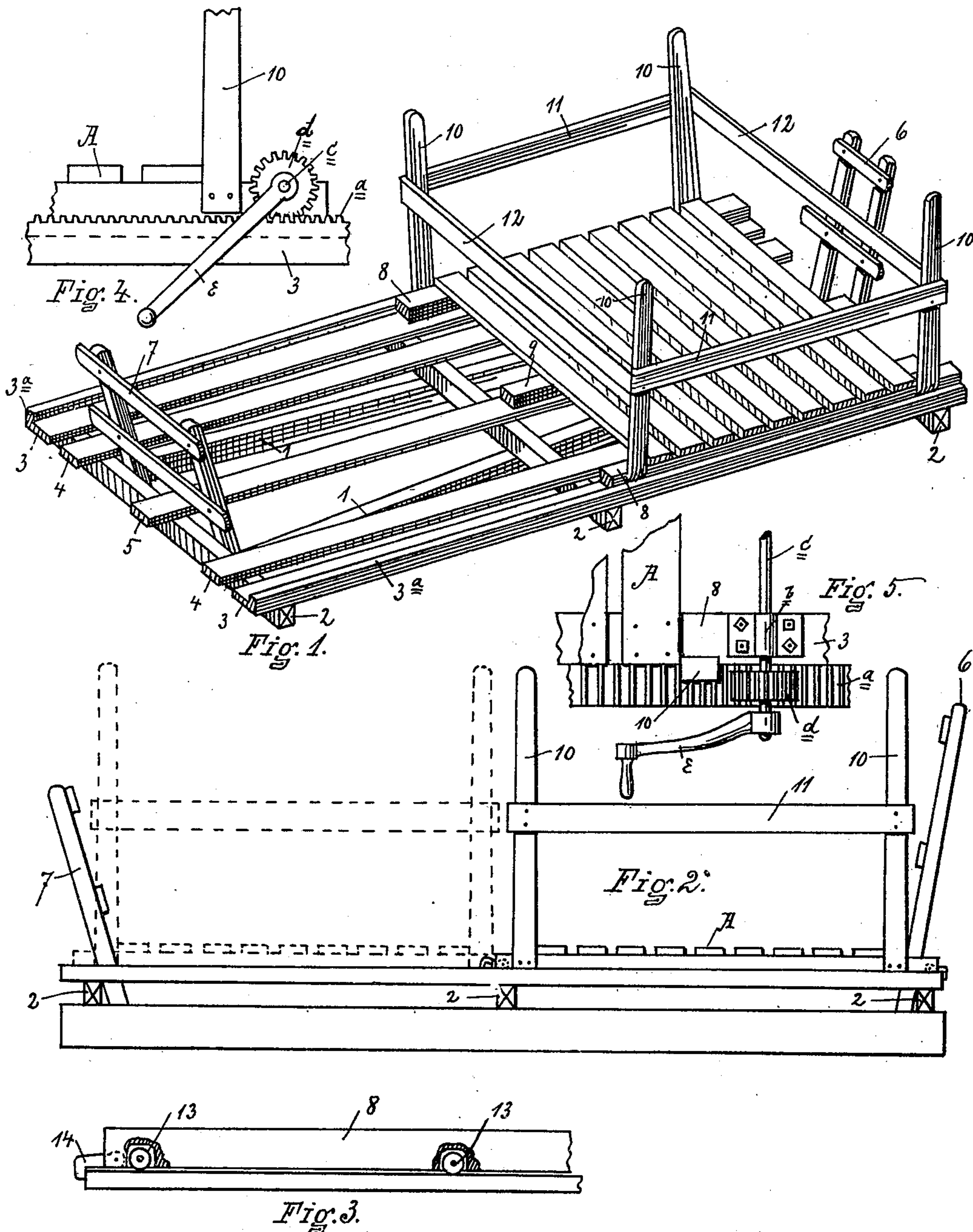
No. 639,825.

Patented Dec. 26, 1899.

T. PRITCHARD.  
HAY RACK.

(Application filed Aug. 14, 1899.)

(No Model.)



WITNESSES  
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# UNITED STATES PATENT OFFICE.

THOMAS PRITCHARD, OF DEERFIELD, NEW YORK.

## HAY-RACK.

SPECIFICATION forming part of Letters Patent No. 639,825, dated December 26, 1899.

Application filed August 14, 1899. Serial No. 727,125. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS PRITCHARD, of the town of Deerfield, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Hay-Racks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form part of this specification.

The object of my present invention is to provide an improvement in hay-racks particularly adapted for use with hay-loaders, whereby the work or labor of making the load of hay is greatly reduced.

In the drawings, Figure 1 shows a perspective view of a hay-rack of my improved construction. Fig. 2 shows a side elevation of the same. Fig. 3 shows details of construction, showing particularly rollers for reducing friction and a hook or catch. Fig. 4 shows, on an enlarged scale, details of a modified form of construction in which means are provided for operating the device. Fig. 5 shows a plan view of the parts shown in Fig. 4.

Hay-racks of this construction are particularly adapted for use with wagons known as "lumber-wagons," having a front and rear bolster and stakes on the end of the bolster to retain the wagon-box in position, and in this instance retain the main rack in position. The main rack consists of the main supporting-sticks 1 1, adapted to rest upon the wagon-bolsters and which may converge, as shown in Fig. 1, toward the forward end, whereby provision is made for allowing the wagon to be turned around in a smaller space, or the pieces 1 1 may be parallel, so as to take positions on the bolsters of the wagon just inside of the stakes. Upon the sticks 1 1 are arranged the cross-pieces 2 2, &c. Upon the pieces 2 2 are arranged the longitudinal boards or pieces 3 3, 4 4, and 5, although the particular arrangement shown is not of importance. As shown, the outer boards or pieces 3 3 and the middle one 5 afford tracks or ways for the movable car or carriage, and the pieces 3 are provided with the upwardly-projecting edge 3<sup>a</sup>, providing means for preventing the

displacement of the car or carriage. At the forward end of the rack there may be provided a front frame or post 6 and at the rear a rear frame 7.

The movable car or carriage consists of a platform A, of slats, boards, or other construction, secured upon the longitudinal pieces 8 8 and 9. The pieces 8 8 and 9 are adapted to move along the ways or tracks of the main rack-pieces 3 3 and 5, respectively. The pieces 8 8 run in the guideways formed in the outer longitudinal pieces 3 3, so that the car or carriage A is supported at its extreme outer sides, and all danger of tipping the car on the wagon-body or rack proper is avoided. Thus the necessity of providing means for securing the car to the rack against tipping or lateral displacement is avoided, the said pieces 3 3, with their outer raised edges 3<sup>a</sup>, insuring the retention of the car in place. The car or carriage is provided with corner-posts 10 10, &c., and may be provided with bars 11 11 and 12 12, forming an encircling frame above the plane of the platform A. Within the pieces 8 and 9 may be provided rollers 13, adapted to run upon the track and cause the car or carriage to move easily along the rack. For securing the car or carriage at either end of the main rack there may be provided hooks or catches, as 14, secured to the car or carriage and adapted to engage with the main frame.

It will be seen that I form the bottom of the movable carriage of closely-placed slats or boards, this construction being necessary for the reason that in hay-racks of the same general construction now in use, in which the bottom of the movable section or carriage is left open, great difficulty is experienced in moving the loaded carriage to the forward end of the hay-rack, owing to the fact that the hay in the car protrudes through the open bottom and, becoming jammed in the rack beneath, prevents any movement of the carriage or movable section.

As before noted, this hay-rack is more particularly intended to use with hay-loaders which are drawn behind the wagon and deliver the hay onto the rear end of the wagon over the top of the rear frame or rack 7. As ordinarily operated, two or more men are required to load the hay and move the neces-



sary part thereof to the forward end of the main rack, and as the work has to be done while the wagon is in motion the work is arduous and requires a large amount of skill and dexterity. With my improved rack the movable car or section is moved to the rear of the rack and secured in the position shown in dotted lines in Fig. 2 and in a position where the hay-loader will deliver directly onto the movable car or carriage. A half of the load of hay is then taken on the movable section and can be easily loaded by one person upon the car or carriage. When the car or carriage has been loaded, the same is released and moved to the forward end of the main rack in the position shown in full lines in Fig. 2 and in the position shown in perspective in Fig. 1, where it is again secured. The remainder of the load of hay is then loaded directly onto the balance of the main hay-rack, where it can also be easily and conveniently loaded by one person. The stakes 10, with or without the frame-bars 11 and 12, serve as a guide to the loading, not only of the portion of the load on the car or carriage, but also of the portion of the load on the rear end of the main rack, and serve to hold the load in position on the rack.

It will be seen that by the construction described above a hay-rack is provided which may be used very readily with or without the movable section or carriage A, as the latter can be readily taken from or placed in position upon the hay-rack without its being necessary to make any change in the rack itself. This is a great advantage over many of the racks now in use, which are of a special construction and, not being convertible, can only be used in connection with a hay-loader.

In the modified form of construction shown in Figs. 4 and 5 mechanical means for moving the carriage or car backward and forward are illustrated. The means shown consist of a tooth-rack *a*, provided upon the upwardly-projecting flanges of the piece 3. On the end of the car or carriage there is secured in suitable boxes or bearings *b* a shaft *c*, which is provided at each end with a cog-pinion *d*,

adapted to mesh with the tooth-rack *a*. Upon one or both ends of the shaft *c* may be provided a crank *e*. It will be readily understood that by turning the cog-wheels *d* by means of the crank in one or the other direction the car or carriage may be moved forward or backward on the main rack, as desired. It is obvious that numerous other mechanical means might be provided for accomplishing the same purpose and which would be the equivalent of my device, and that some modifications and changes might be made in and for the construction generally which would be the equivalent of and within the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a hay-rack, the combination with a main rack or body having the outer supporting-pieces 3, 3, provided with the upwardly-projecting guiding edge 3<sup>a</sup>, of a movable car or carriage having a bottom of closely-placed slats removably mounted on said main rack, said car being supported at its outer edges by said pieces 3, 3, and held against lateral displacement by said upwardly-projecting edge, and means for securing said car to the main rack at either end thereof.

2. In a hay-rack, the combination with a main rack or body having the outer supporting-pieces 3, 3, provided with the upwardly-projecting guiding edge 3<sup>a</sup>, of a movable car or carriage having a bottom of closely-placed slats removably mounted on said main rack, said car being supported at its outer edges by said pieces 3, 3, and held against lateral displacement by said upwardly-projecting edge, means for moving said car or carriage along said guideways 3, 3, and means for securing said car to the main rack at either end thereof.

In witness whereof I have affixed my signature, in presence of two witnesses, this 8th day of August, 1899.

THOMAS PRITCHARD.

Witnesses:

E. WILLARD JONES,  
SARAH A. BROWN.