(No Model.)

F. H. HOCH.

BRAKE FOR HAY FRAMES.

No. 519,907. Patented May 15, 1894.

Fig. 1.

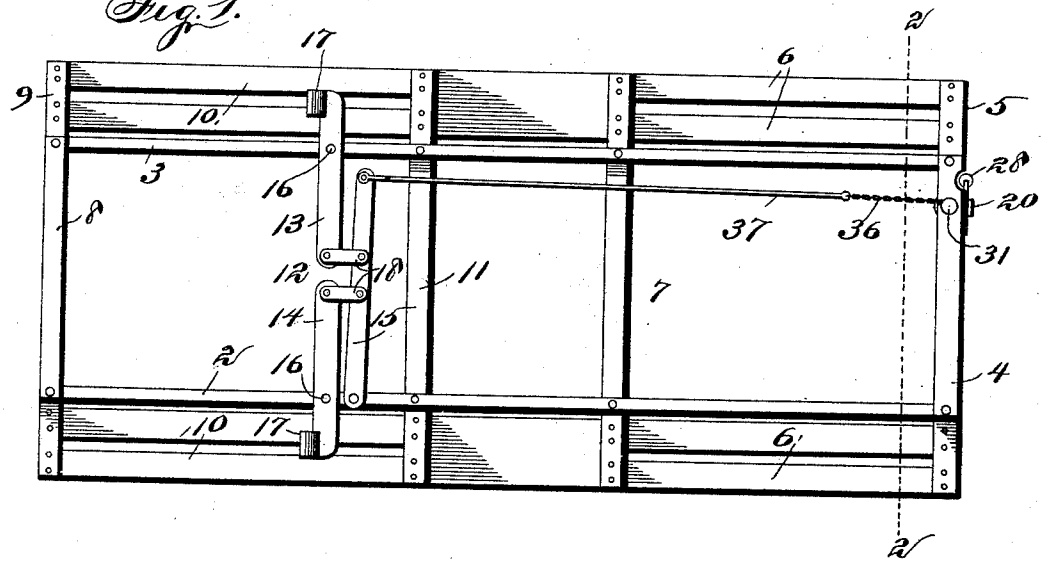


Fig. 2.

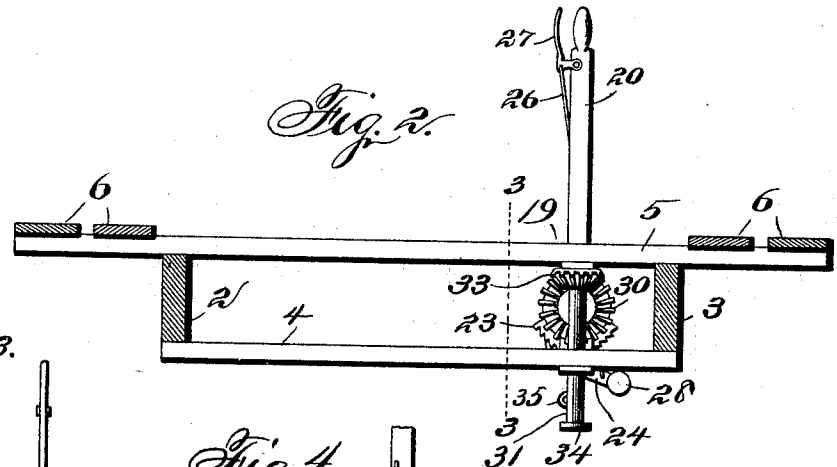


Fig. 3.

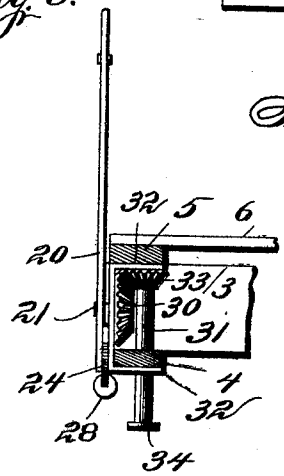


Fig. 4.

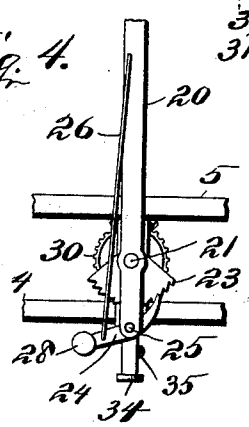
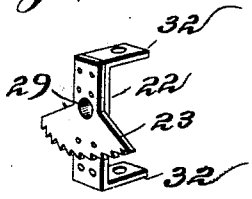


Fig. 5.



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BRAKE FOR HAY-FRAMES.

SPECIFICATION forming part of Letters Patent No. 519,907, dated May 15, 1894.

Application filed January 11, 1894. Serial No. 496,509. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK H. HOCH, of Valley Park, St. Louis county, State of Missouri, have invented certain new and useful Improvements in Brakes for Hay-Frames, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved brake for hay-racks, and consists in the novel construction, combination and arrangement of parts hereinafter described and designated in the claim, and illustrated in the accompanying drawings.

The object of my invention is to construct a cheap and durable wagon brake to be connected to a hay-rack.

In the drawings: Figure 1 is an inverted plan view of a hay-rack of ordinary construction having my improved brake applied thereto. Fig. 2 is a vertical transverse section of a hay-rack more clearly showing the operating parts of the brake, said section being taken on the line 2—2 of Fig. 1. Fig. 3 is a vertical section of a portion of a hay-rack more clearly showing the operating parts of the brake, said section being taken on the line 3—3 of Fig. 2. Fig. 4 is a front elevation of the operating parts and a part of that portion of the hay-rack to which they are applied. Fig. 5 is a detail in perspective of a bracket and a toothed-segment, which are made use of in carrying out my invention.

Referring to the drawings: 1 indicates a hay-rack of ordinary construction, which is provided with two longitudinal parallel timbers 2 and 3, they being connected at their front end by two transverse bars 4 and 5, the bar 5 being located on the upper edge of said timbers and each end of the bar 5 projects outward from said timbers so that one end of boards, such as 6, can be connected thereto, the opposite end being connected to a transverse bar 7 which is located a suitable distance back from the end of the timbers 2 and 3. These boards 6 are so constructed that when the hay-rack is placed on a wagon of ordinary construction, they project over the front wheels and prevent the hay from coming in contact with said wheels.

The rear ends of the timbers 2 and 3 are connected by bars 8 and 9, the bar 9 being located on the upper edge of said timbers, and each end projects outward from said timbers a suitable distance so that one end of boards 10 can be connected thereto, the opposite end of said boards being connected to a transverse bar 11, which is connected to the upper edge of said timbers a suitable distance back from the bar 9. These boards 10 are for the same purpose as the boards 6.

12 indicates the wagon brake, which is constructed of three bars 13, 14 and 15. The bars 13 and 14 are pivoted to the under edge of the timbers 2 and 3 by bolts or suitable pins 16, and each bar projects a distance beyond the outer edge of said timbers 2 and 3 so that the rubbers 17 can be connected thereto, they being constructed to engage the rear wheels of the wagon. One end of the bar 15 is pivoted to the under edge of the timber 2, adjacent the bar 14, said bar 15 extending transversely of the hay-rack and terminating adjacent the timber 3, it being parallel, or nearly so, with the bars 13 and 14. The bars 13 and 14 are in alignment with each other, and their adjacent ends are connected to the bar 15 by links 18 in such a manner that when the bar 15 is manipulated it will effect the bars 13 and 14.

19 indicates the operating mechanism of the brake, said operating mechanism being constructed of a lever 20 which is rigidly connected to one end of a horizontal shaft 21. Said shaft 21 is mounted in a bracket 22, which is connected to the transverse bars 4 and 5 in such a manner that the front edge of said bracket will be in vertical alignment with the free edge of said bars.

Connected to the front edge of the bracket 22 is a toothed-segment 23, which is engaged by a pawl 24, said pawl being pivoted at 25 to the lower end of the lever 20, and one end of a rod 26 is connected to the pawl 24, and the opposite end of said rod is connected to a small lever 27, located at the upper end of the lever 20, so that it can be readily engaged by the hand of the operator for releasing the pawl from the toothed-segment.

The free end of the pawl 24 is provided with a weight 28 which holds that end of the pawl, which is engaged, down and holds the opposite end of said pawl in engagement with the toothed-segment 23.

The horizontal shaft 21 passes through an opening 29 in the bracket 22 and the segment 23, and a beveled gear-wheel 30 is rigidly connected to the inner end of said shaft.

31 indicates a vertical shaft, it being provided with its bearings in horizontal projections 32 of the bracket 22. A toothed-pinion 33 is rigidly connected to said shaft in such a manner that it will mesh with the beveled gear-wheel 30. The shaft 31 projects downward a suitable distance below the bar 4 of the hay-rack and a collar 34 is formed on or fixed to the lower end of said shaft.

An ear 35 is formed on or fixed to that portion of the shaft 31 which projects below the bar 4, so that one end of a chain, such as 36, can be connected to said shaft, the opposite end of said chain being connected to a rod 37 which is connected to the free end of the bar 15 of the brake 12.

The operation is as follows: When the pawl 24 is released from the toothed-segment 23, and the lever 20 is manipulated in the required direction, it will rotate the gear-wheel 30, and it meshing with the toothed-pinion 33 will rotate said pinion, and said pinion rotating will cause the shaft 31 to rotate, which will wind the chain 36 upon the lower end of said shaft, which will cause the free end of the bar 15 to be drawn forward, which will draw the ends of the bars 13 and 14, which are pivoted to said bar 15, forward with it, which will cause the ends of said bars 13 and 14, which carry the rubbers 17, to be pushed backward, which will cause them to come in contact with the wheels of the wagon when said rack is placed thereon. When the rubbers have been drawn against the wheels of the wagon to cause the required friction, the lever 27 is released by the hand, and the weight 28 immediately brings the pawl 24 in engagement with the toothed-segment 23, which will hold said rubbers in contact with the wheels until they have been released by the operator.

What I claim is—

A brake comprising a plurality of levers, shoes, mounted on said levers and adapted for engagement with wheels, a connecting lever, means of connection between said lever and the first said levers, a rod fixed to the connecting lever leading forward therefrom, a chain mounted on said rod and secured to a drum and adapted to be wound on said drum, a bevel gear connected with said drum, a bevel gear meshing with the first said gear, a toothed segment connected with the latter said gear, a vertically mounted lever and weighted pawl fulcrumed on said lever and adapted for engagement with the aforesaid toothed segment, and means for disengaging the said pawl from the said segment, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK H. HOCH.

Witnesses:
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