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A. J. BUSEY.

WAGON BODY OR HAY RACK LIFTER.

(Application filed May 11, 1899.)

(No Model.)

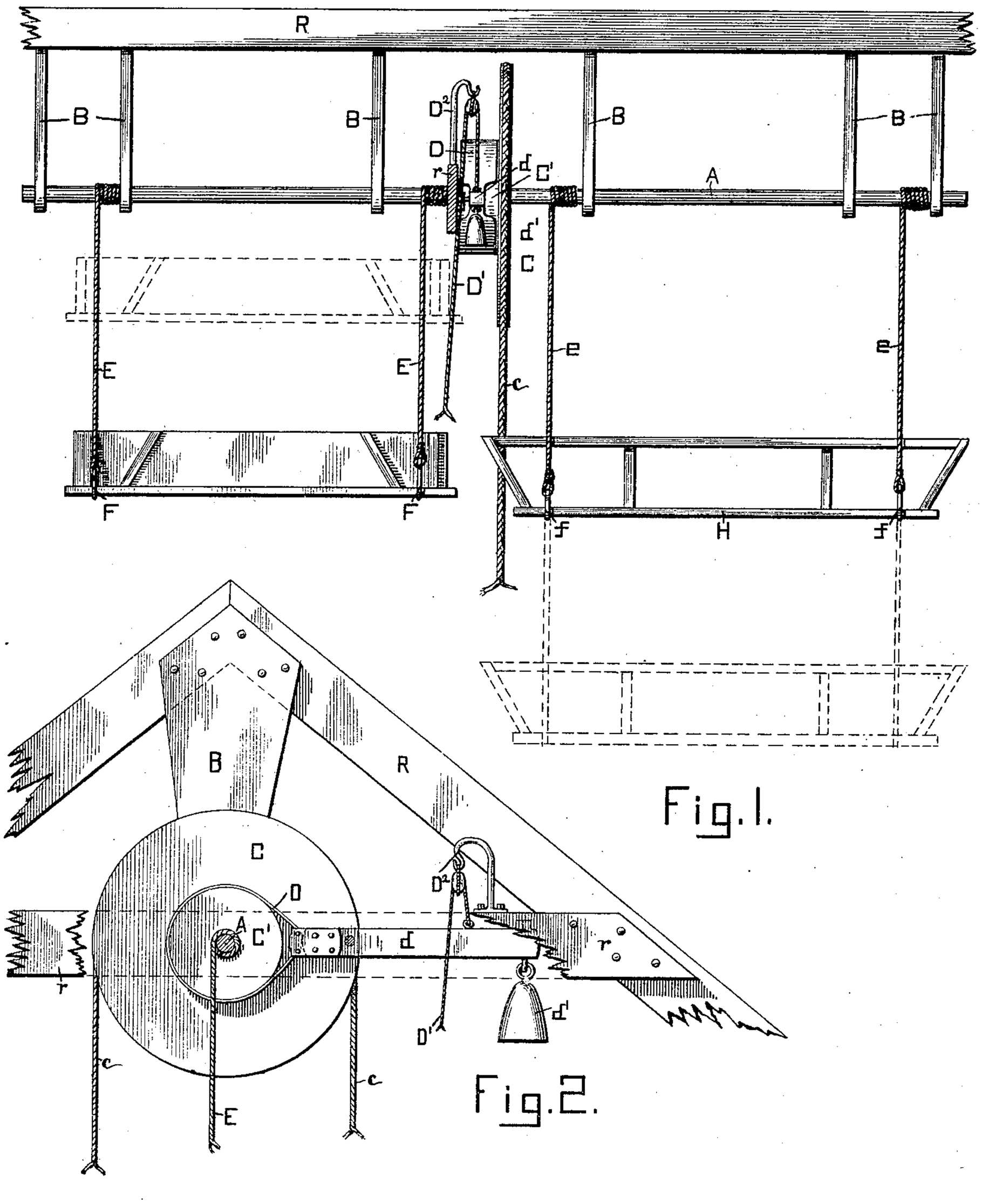

Fig. 1.

Fig. 2.

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UNITED STATES PATENT OFFICE.

ALBERT J. BUSEY, OF URBANA, ILLINOIS.

WAGON-BODY OR HAY-RACK LIFTER.

SPECIFICATION forming part of Letters Patent No. 632,097, dated August 29, 1899.

Application filed May 11, 1899. Serial No. 716,392. (No model.)

To all whom it may concern:

Be it known that I, ALBERT J. BUSEY, of Urbana, in the county of Champaign and State of Illinois, have invented certain new and useful Improvements in Wagon-Body or Hay-Rack Lifters; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is an improvement in devices for lifting wagon-bodies off of running-gear and storing same out of the way. The invention is an improved apparatus of this class designed for the purpose of lifting wagon beds or racks off the running-gear of wagons on a farm and to lift off a rack while lowering a body thereon, or vice versa. The machine is to be located in the comb of the roof of a crib, barn, shed, or other building in which farmers or others using it may desire to keep their wagon beds or racks when out of use, and by this machine a single man can with little exertion lift a bed or rack off a wagon and by the same operation lower the suspended hay-rack or bed to a position to be placed on the wagon gear or trucks.

The invention, therefore, consists in the novel construction and arrangement of the parts illustrated in the drawings and hereinafter described and claimed.

In said drawings, Figure 1 is a detail view showing a longitudinal elevation of the apparatus and illustrating the mode of using the same. Fig. 2 is a transverse section.

Referring to the drawings, A designates a longitudinal shaft arranged close to and under the comb of the roof of the barn or shed where the bodies are to be stored. This shaft is sufficiently long to easily suspend two wagon bodies or racks at the same time. It is journaled in suitable hangers B, secured to the roof-timbers R, and a sufficient number of these bearings is employed to prevent the shaft sagging under the weight suspended therefrom. On said shaft, preferably at the center thereof, is keyed a large grooved pulley C, over which passes a rope *c*, by pulling upon which the shaft can be rotated. The pulley C is provided with a large hub C′, surrounded by a friction brake-band D, the ends of which are connected to a lever *d*, which is pivoted on the transverse bar *r*, also fastened to the roof-timbers and which forms a support for the shaft A, close to the wheel C. From the free end of this lever is suspended a weight *d*′, and to this end of the lever is also connected a rope D′, which passes up through a guide D^2, attached to the beam *r* above the lever *d*, and by pulling on rope D′ the friction is released. At one side of wheel C′ a set of lifting-ropes E E is attached to the shaft A and at the opposite side another set of lifting-ropes *e e* is attached thereto. The ropes *e* are preferably wound on the shaft contrary to the ropes E, so that as one set of ropes is wound up the other set will unwind. These ropes are provided with hooks F *f* or other suitable devices by which they can be readily attached to the wagon-body. A wagon-body is shown being raised by the ropes E and a wagon-rack H is shown being lowered by the ropes *e*. By this means I utilize the weight of the body in raising the rack, and vice versa.

The body and rack are adapted to the same running-gear, and when it is desired to change the farmer simply brings his wagon into the barn or shed under the shaft A and attaches the body, for example, to the ends of the unwound ropes E, the rack being suspended from the shaft by the then wound-up ropes *e*. He then releases the brake by pulling on the rope D, and if the rack be the heavier it will descend, thereby rotating shaft A′ and lifting body G. If the body is the heavier, the farmer assists the lowering of the rack and raising of the body by pulling on the rope *c*, which through pulley D imparts positive rotation to the shaft A in the desired direction. After the body is clear of the wagon and before the rack is lowered he simply drives the wagon forward underneath the rack and continues the lowering thereof, while the wagon-body is drawn up entirely out of the way and remains suspended until the rack is to be removed or until the farmer chooses to release the brake D.

The lifting of the bed by the weight of the hay-rack is a very important feature of the apparatus in farming countries where farmers use the same running-gear to deliver their grain and hay, having a bed for the grain and a rack made to fit the same gear to use in haying. One is always out of use and to

be stored away. The object of this invention is to utilize the under part of the roof over the entry to the double cribs in common use on farms to store these bodies away, and by its use the farmer can drive the wagon under the rod, attach ropes, loosen the friction-brake, and by a little exertion and the weight of the rack lift the bed off and the rack will come down, or vice versa. The wagon can be moved up or back, as the case may be, and the rack placed in position while the bed is put safely away, and when needed the reverse occurs, and the rack is lowered in place and the bed raised off the wagon.

The device can be easily applied to many already-constructed cribs and barns, is simple, inexpensive, efficient, and is particularly useful where it is frequently necessary to change the bodies on running-gear.

Having thus described my invention, what I therefore claim as new is—

1. In a body lifting and storing machine, the combination of the rotatable shaft suspended in the comb of a roof, the opposite sets of body-lifting ropes attached thereto, whereby one set is wound up as the other is unwound and the weight of one suspended body is utilized to lift another; with a brake for controlling the rotation of said shaft, and means for rotating said shaft independently of the weight of the bodies suspended therefrom, substantially as described.

2. The combination of the rotatable shaft suspended in the comb of a roof, the opposite sets of body-lifting ropes attached thereto, the large grooved pulley attached to said shaft, the rope for operating said pulley, a friction-brake for controlling the rotation of and for locking said shaft, and the rope for causing said lever to release the brake.

3. The combination of the rotatable shaft suspended in the comb of a roof, the opposite sets of body-lifting ropes attached thereto, the large grooved pulley attached to said shaft, a friction-brake engaging the hub of said pulley, the rope for operating said pulley and the weighted lever for applying said brake, and the rope for causing said lever to release the brake.

4. The combination in a wagon-elevating apparatus, of the long horizontal shaft secured under the comb of the roof, the large grooved pulley attached to the center of said shaft having a large hub, the rope engaging said pulley, the brake-lever pivoted to a stationary support beside the pulley, the friction brake-band encircling the hub of the pulley and connected to one end of said lever, the weight attached to the free end of said lever, the rope engaging said lever and passing through a guide above the same whereby said lever may be moved to release the brake, and the opposite sets of lifting-ropes attached to said shaft at opposite sides of the pulley, said ropes being wound oppositely on said shaft so that one set shall be wound up when the other is lowered, all substantially as and for the purpose described.

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

ALBERT J. BUSEY.

In presence of—
JOHN WHITE,
SPENCER M. WHITE.