

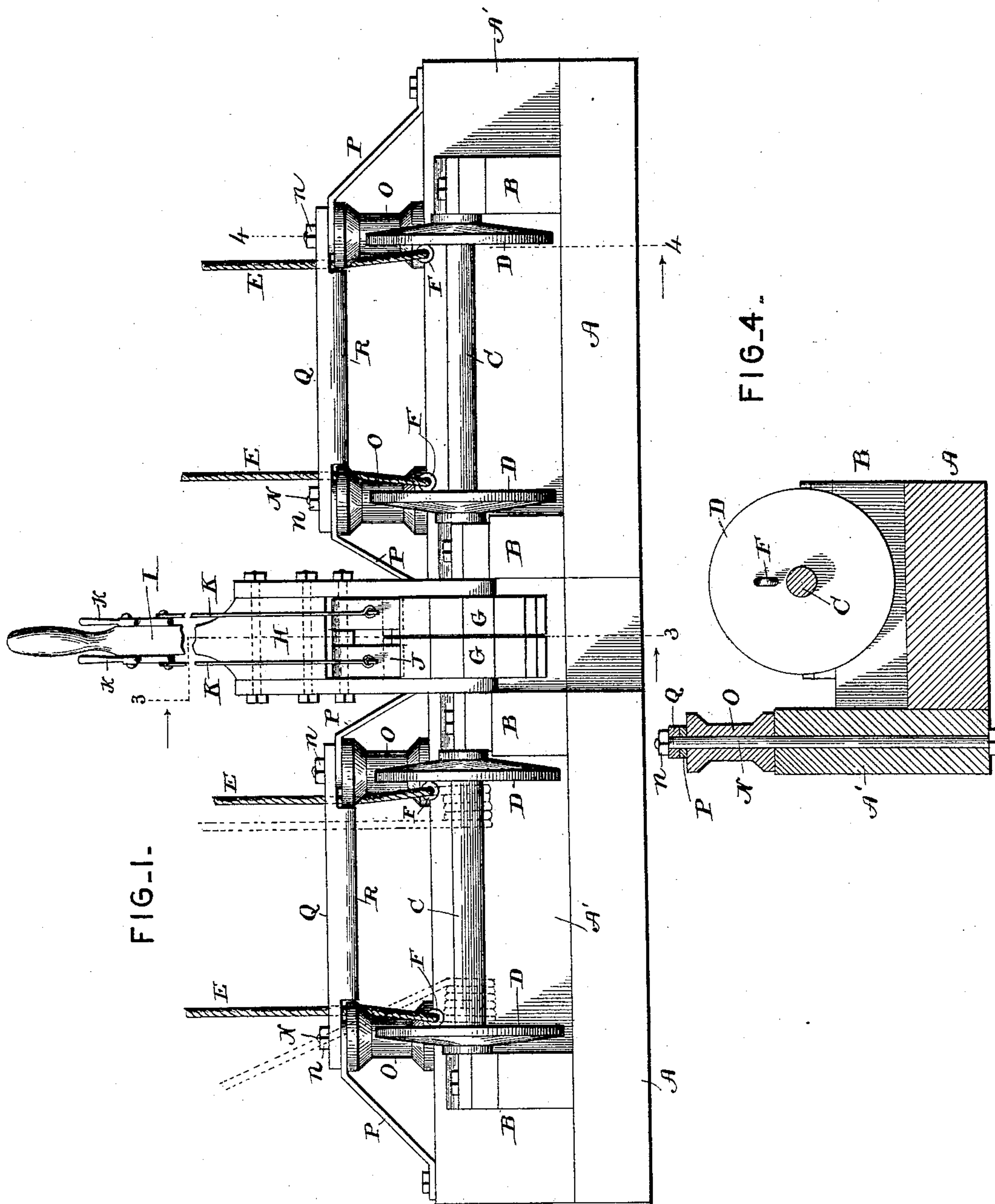
(No Model.)

2 Sheets—Sheet 1.

W. R. DILLION & A. C. CARR.
HAY BOOM.

No. 486,438.

Patented Nov. 22, 1892.



Witnesses

Jas. H. McElathran
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By *their* Attorneys,

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William R. Dillion
Albert C. Carr

Ca Annots.

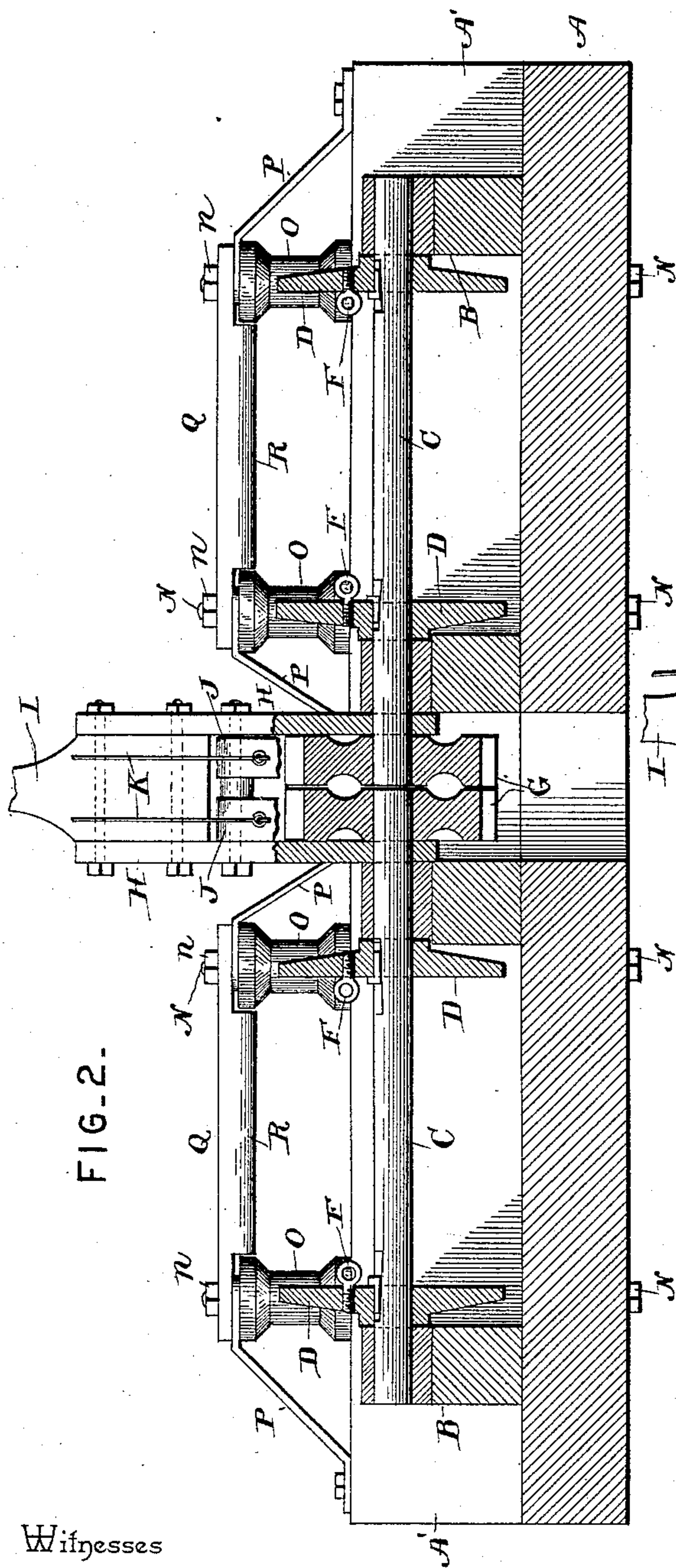
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UNITED STATES PATENT OFFICE.

WILLIAM R. DILLION AND ALBERT C. CARR, OF DILLION, KENTUCKY.

HAY-BOOM.

SPECIFICATION forming part of Letters Patent No. 486,438, dated November 22, 1892.

Application filed August 23, 1892. Serial No. 443,883. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM R. DILLION and ALBERT C. CARR, citizens of the United States, residing at Dillion, in the county of Laurel and State of Kentucky, have invented a new and useful Hay-Boom, of which the following is a specification.

This invention relates to hay-booms; and it has for its object to provide an improved apparatus designed to boom or hold a load of hay or other bulky feed or, in fact, any kinds of loads hauled on wagon-beds or hay-racks, in which cases it is necessary to fasten the load in with either the ordinary boom poles or ropes.

To this end the invention contemplates general improvements in devices of this character.

With these and many other objects in view, which will readily appear as the nature of the invention is better understood, the same consists of the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a front elevation of a hay-booming apparatus constructed in accordance with this invention. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a vertical sectional view on the line 3 3 of Fig. 1. Fig. 4 is a detail sectional view on the line 4 4 of Fig. 1.

Referring to the accompanying drawings, A represents the base-block of a booming apparatus adapted to be securely bolted or otherwise suitably fastened on the rear end of a hay-rack or wagon-bed or upon the rear bolster of the wagon. Mounted upon the base-block A are the bearings B, in which are journaled the opposite independent winding drums or shafts C, each of which accommodates the end flanges or disks D, secured thereto within the bearings of each shaft or drum and forming spools upon which the booming ropes or chains E are wound to tighten the same upon the load on the wagon. Said booming ropes or chains have their ends connected to the screw eyes or hooks F, secured to the inner faces of the disks or flanges D. The inner ends of the opposite winding shafts or drums C terminate short of each other between the central bearings B and have se-

cured thereto the separate and independent ratchet-wheels G, working side by side to each other, but independently controlled. The lever-yoke H straddles the two ratchet-wheels G and is pivotally mounted upon the adjacent end of the shafts C. The said lever-yoke H is moved back and forth by means of the operating-lever I and carries the gravity pawls or dogs J, which normally contact with both of the ratchet-wheels to turn both of the winding drums or shafts simultaneously with each other as the lever is moved in one direction and which loosely run over the ratchet-wheels when the lever is moved in the other direction. Lifting-wires K are connected to each of the pawls J and the lever-arms k, pivoted to the upper end of the operating-lever, so that either one of the pawls may be lifted in order to operate either one of the winding-drums, or both, at the option of the operator. Stop-pawls M are pivotally secured at one end to the base-flange A', arising from one edge of the base, and are adapted to engage said ratchet-wheels, so as to prevent the same from turning backward in tightening the booming-ropes.

Journaled upon the bolts N, passing through the base-flange A' at points back of and adjacent to each of the flanges or disks D, are the guide-pulleys O, which serve to guide the booming ropes onto the winding drums or shafts and prevent the same from having lateral play and catching on the disks or flanges D, to which the ends of the ropes are attached. Diagonal strips P are arranged adjacent to each of the bolts N and have their upper ends take over said bolts to form braces therefor and also washers for the guide-pulleys, while clamped over the washer portion of said braces and upon the top of the pulleys are the horizontal guide-bars Q. The horizontal connecting guide-bars Q have their ends take over the upper ends of the bolts N and are clamped thereto by means of the nuts n, said connecting-bars having under rounded faces R, which prevent undue wear upon the ropes passing thereunder, while at the same time serving to hold the ropes down onto the guide-pulleys.

Now it will be readily seen that to boom a load of hay the booming-ropes E are securely fastened at one end to the front ends of the wagon, and from thence are passed up and over the load of hay to the rear booming

apparatus, to the drums of which the ends of the ropes employed are connected, so that by operating the drums as described the rope or ropes can be drawn to any desired tension to hold the load to its place. It will also be apparent that by the use of the outermost guide-pulleys in holding the ropes to their proper position the operator is enabled, if the load sags to one side, to throw the side rope over on the edge or side of the load and by means of the apparatus draw it back to its proper position.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a hay-booming apparatus, the combination, with the booming-ropes, of the opposite independent winding-drums, ratchet-wheels secured to the adjacent ends of said winding-drums, a single swinging operating-lever working over both of said ratchet-wheels, separate and independent gravity-pawls pivotally mounted to the same point of attachment within the lever and independently engaging the ratchet-wheels, and a rope-guide arranged in rear of each drum, substantially as set forth.

2. In a hay-booming apparatus, the combination of the base-block having bearings mounted thereon, opposite independent winding-drums journaled in said bearings, separate ratchet-wheels secured to the inner adjacent ends of said drum, a single swinging operating-lever having a yoke pivotally connected to said shafts and spanning both of said ratchet-wheels, independent gravity-pawls pivotally mounted to the same point of attachment within said yoke and independently engaging the ratchet-wheels, separate means for lifting either of said pawls out of engagement with each ratchet-wheel, stop-pawls pivotally mounted upon the base-block

and engaging said ratchet-wheels, guides arranged adjacent to each winding-drum, and the booming-ropes passing through said guides to said drum, substantially as set forth.

3. In a hay-booming apparatus, the combination, with a base-block having a rear base-flange, of the opposite independent winding-drums mounted upon the base-block and having end flanges or disks, means for simultaneously or independently rotating said drums, vertically-arranged guide-pulleys journaled upon said base-flange adjacent to the drum flanges or disks, horizontal guide-bars connecting the upper end of said pulleys, and the booming-ropes adapted to pass under said guide-bars between the guide-pulleys and connected to the end flanges or disks, substantially as set forth.

4. In a hay-booming apparatus, the combination, with a base-block having a rear flange, of the opposite independent winding-drums having end flanges or disks provided with hooks adapted to connect the ends of the booming-ropes to the drums, means for simultaneously or independently rotating said drums, guide-pulleys journaled upon the base-flange adjacent to the drum flanges or disks, diagonal bracing and washer strips secured to the base-flange adjacent to each pulley and clamped thereover, and horizontal guide-bars connecting the pulleys in pairs and provided with under rounded faces, substantially as set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

WILLIAM R. DILLION.
ALBERT C. CARR.

Witnesses:

E. R. DAVIS,
WILSON DILLION.