No. 812,252. PATENTED FEB. 13, 1906.

M. H. ALLWARDT.

HAY NET.

APPLICATION FILED AUG. 2, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

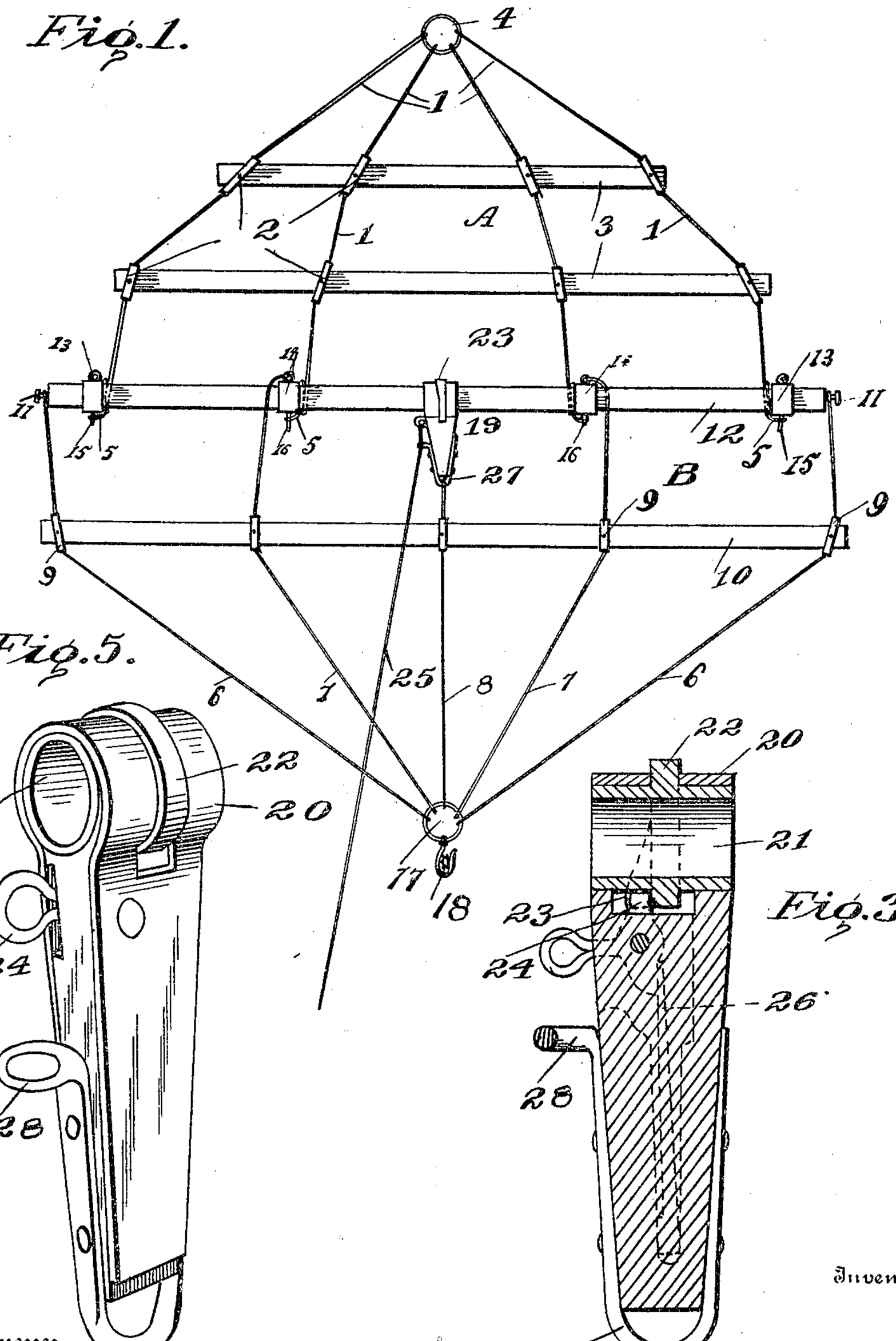

Fig. 5.

Fig. 3.

Witnesses

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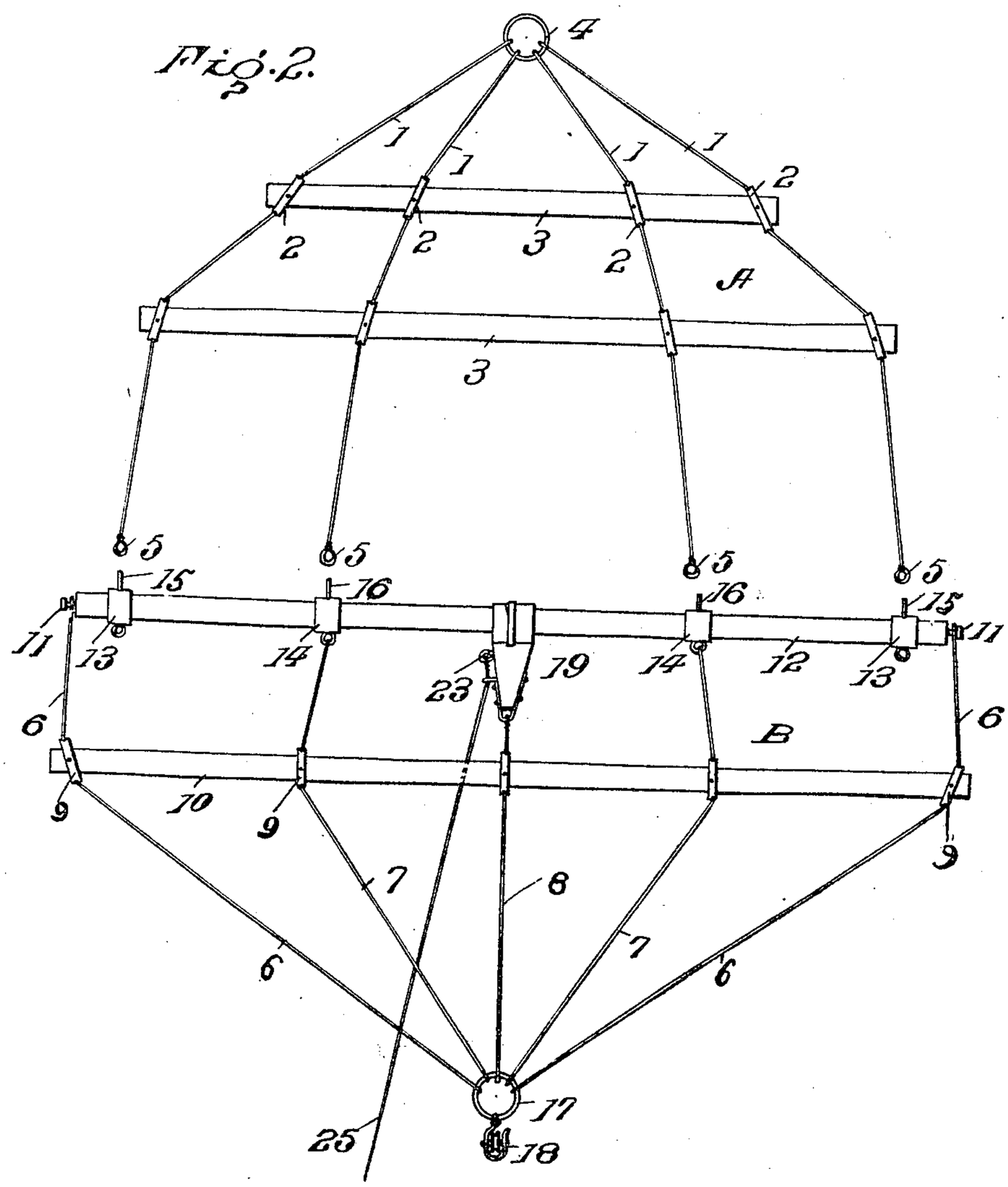
2 SHEETS—SHEET 2.

Fig. 2.



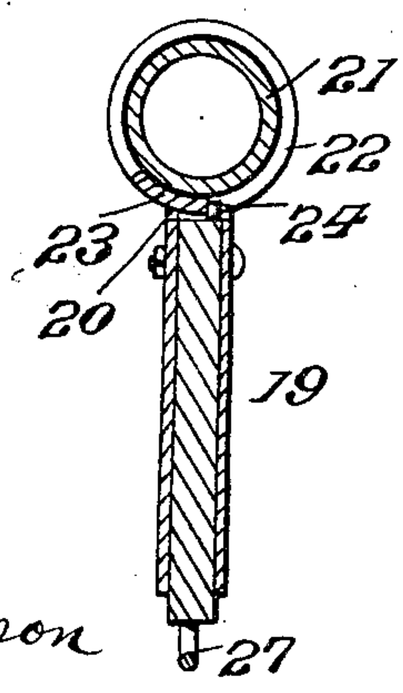


Fig. 4.

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MORRIS H. ALLWARDT, OF JORDAN VALLEY, OREGON.

HAY-NET.

No. 812,252. Specification of Letters Patent. Patented Feb. 13, 1906.

Application filed August 2, 1905. Serial No. 272,428.

To all whom it may concern:

Be it known that I, MORRIS H. ALLWARDT, a citizen of the United States, residing at Jordan Valley, in the county of Malheur and State of Oregon, have invented certain new and useful Improvements in Hay-Nets, of which the following is a specification.

This invention embodies novel improvements in hay-nets.

The hay-net comprising the invention is of the type adapted to be hoisted by means of a derrick or the like until it reaches a position above the stack, the net consisting of two parts which are adapted to be separated after the load has been raised to the desired point to admit of dropping the hay upon the stack.

The invention resides not only in the general form of the net, but in the special means employed for connecting the parts thereof and operable to disconnect these parts to permit the load to drop at a predetermined time.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a plan view of a hay-net embodying the invention, parts assembled as when in operative position. Fig. 2 is a view similar to Fig. 1, the parts of the net, however, being shown separated. Fig. 3 is a horizontal sectional view of the supporting member or arm carrying the trip mechanism. Fig. 4 is a vertical longitudinal sectional view of the member shown in Fig. 3. Fig. 5 is a perspective view of the supporting arm or member.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Specifically describing the invention and referring to the drawings, the net is composed of two parts (indicated at A and B) and each part preferably embodies a suitable number of net-ropes and transverse bars connected with said ropes. The net-ropes of the part A are indicated at 1, and said ropes are attached to bands or collars 2, which are secured to the transverse bars 3 of said part A. The ropes 1 are connected at one end by means of a suitable ring 4, the opposite ends of the ropes being separate and provided with small rings 5. The ropes of the part B of the net are indicated by the numerals 6, 7, and 8, the ropes 6 being outermost and connected with collars or bands 9 on a transverse bar 10, said ropes 6 being connected with pins 11, projecting from opposite ends of a second transverse bar 12, which forms a part of the part B of the net. The bar 12 is rotatable and is provided in its length with a plurality of bands 13 and 14. The bands 13 have pins or studs 15 projecting therefrom, and these bands are arranged adjacent the ends of the bar 12. The bands 14 of the bar 12 are arranged between the ends thereof, and pins 16 are adapted to pass through the bar 12, these pins being detachable therefrom. The ropes 6 and 7 of the part B of the net are connected at the outer ends by means of a ring 17, and a pulley-hook 18 is carried by this ring. The ropes 7 connect at the opposite ends with eyes at one end of the pins 16, said pins 16 being adapted to pass entirely through the bar 12 and project some distance from opposite sides thereof.

As before mentioned, the bar 12 is rotatable and is mounted in an arm or member 19, which projects laterally from the central portion thereof, said member 19 being provided at one end with a bearing 20, in which is arranged a sleeve 21, rigidly attached to the bar 12 centrally of the ends thereof. The sleeve 21 is provided between its ends with an outwardly-projecting annular clutch-flange 22, the latter having a lateral cam extension 23 to be engaged by a lock-dog 24, pivoted to the arm 19, and when so engaged the bar 12 is prevented from rotation. The lock-dog 24 is of bell-crank form, one arm of said dog being adapted to engage the clutch-flange 22, while the other arm is connected with a trip-rope 25. A spring 26 bears against the member 24 and normally tends to force the same into engagement with the flange 22. A U-shaped member 27 has the sides thereof attached to opposite sides of the arm 19, one end of the member 27 being connected to the rope 8 of the part 3 and one extremity of the side of said member 27 being formed with a guide-loop 28, extending out from the arm 19 and having the trip-rope 25 passed therethrough.

In actual use when the parts A and B of the net are connected together to receive a load the outer ropes 1 of the part A have the

inner ends thereof passed beneath the bar 12 and the rings 5, receiving the pins 15, projecting from the bands 13. In similar manner the inner ropes 1 are passed beneath the bar 12 and connected with the remote ends of the pins 16 on the bands 14. The ropes 7 of the part B of the net, however, pass over the bar 12 to the point of connection with the pins 16, and thus when the parts A and B are connected the normal tendency of the pull of the ropes 7 is such as to rotate the bar 12. The rotation of the bar 12, however, is resisted by the engagement of the lock-dog 24 with the cam 23 of locking-flange 22. The load having been received in the net in the practical operation of the invention, the derrick is connected with the parts 4 and 18 in the customary way and the net is elevated to a point above the stack, whereupon the operator grasping the rope 25 and pulling the same will disengage the member 24 from the member 23, and the strain upon the connections 1 and 7 will cause the bar 12 to rotate or turn and the ropes 1 will be disengaged from the pins 15 and 16, permitting the parts A and B of the net to separate and the load supported therein to drop upon the stack or other place desired.

It will be obvious that the number of the transverse bars composed in the parts A and B of the net may be varied as well as the number of the ropes connected therewith, this depending greatly upon the size of the net.

It will be understood with reference to the several ropes 1, 6, 7, and 8 that said ropes may be continuous or they may be made in sections connected by the bands applied to the several bars of each section of the net. The ropes are described as ropes irrespective of whether they are continuous or composed of connected parts.

Having thus described the invention, what is claimed as new is—

A hay-net comprising the complemental net parts A and B, each of said parts consisting of a plurality of transverse bars and a plurality of ropes connected therewith, one of the transverse bars of the part B being rotatable, pins projecting from the outer ends of the rotatable bars aforesaid and having the outermost ropes of the part B connected therewith, a supporting-arm projecting laterally from the central portion of the rotatable bar and provided with a bearing in which said bar is rotatably mounted, a clutch-flange projecting from the rotatable bar adjacent the bearing of the arm aforesaid and formed with a lateral cam extension, a locking-dog of bell-crank form pivoted to the arm, one arm of said dog being adapted to engage with the cam of the clutch-flange, the other arm of said dog having a pull-rope connected therewith, pins permanently applied to the rotatable bar adjacent its ends and having the extremities thereof detachably connected with the outermost ropes of the part A of the net, other pins detachably applied to the rotatable bar and having detachable connection at one end with the innermost ropes of the part A, the opposite ends of said detachable pins being permanently connected with ropes of the part B, rings connected with the outer ends of the several ropes of the parts A and B of the net, and a hook-pulley applied to one of the rings for the purpose specified.

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

MORRIS H. ALLWARDT. [L. S.]

Witnesses:

J. B. BERCKOLEY,

LOUIS HURTLE.