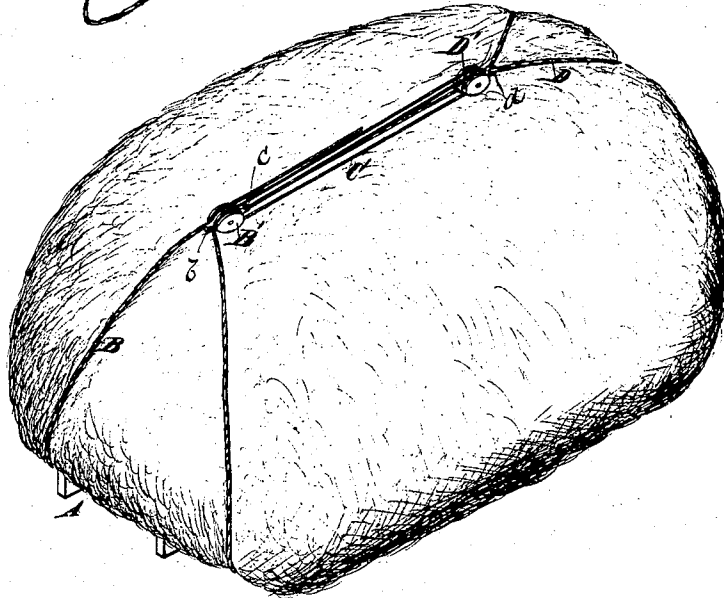
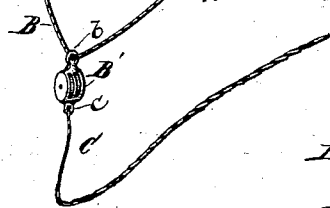
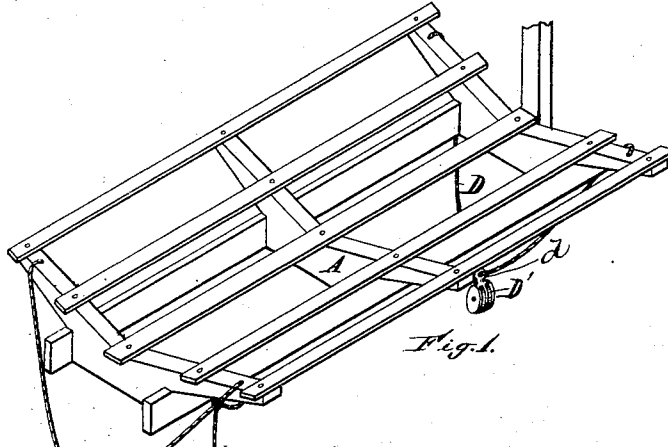


(No Model.)

G. BANKS.  
HAY BINDER.

No. 321,173.

Patented June 30, 1885.



WITNESSES

*Jno. E. Miles*  
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# UNITED STATES PATENT OFFICE.

GEORGE BANKS, OF OAKFIELD, MICHIGAN.

## HAY-BINDER.

SPECIFICATION forming part of Letters Patent No. 321,173, dated June 30, 1885.

Application filed June 18, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE BANKS, residing at Oakfield, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Hay-Binders; 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, which form a part of this specification, and in which—

Figure 1 is a perspective view of a hay-rack for a wagon provided with my improvement, and Fig. 2 is a similar view showing the rack loaded.

Similar letters of reference indicate corresponding parts in both the figures.

My invention has relation to that class of devices for binding a load of hay or grain upon the rack in which two loops of rope secured at the ends of the rack are drawn together over the load; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the rack, which may be of any suitable construction. At the ends of the rack are secured two ropes, B and D, one at each end, and one end of each of these ropes is secured to one side piece of the rack, while the other end is tied loosely or detachably and adjustably to the side piece, so that the loop formed by the rope may be lengthened or shortened according to the size of the load. Two pulley-blocks, B' and D', slide with their eyes *b* and *d* upon the ropes; and a rope, C, is secured at one end to the eye *c* of one, B', of the blocks, and may be reeved through both blocks. When the load is on the rack, the end ropes may be lengthened or shortened, as the case may require it, until the said ropes are of sufficient length to form loops extend-

ing up over the ends of the load; and the pulley-rope, which is reeved through the pulley-blocks, may now be drawn, drawing the end loops toward each other and binding the load, when the free end of the pulley-rope may be secured by a common slip-knot or any other conveniently-released fastening, and the load is ready for transportation.

I am aware that binding devices for hay-wagons have been made in which two loops secured at the ends of the wagon were wound upon a drum having a lever passing through the loops and through the drum, and having a slide upon one loop under which the free end of the lever is secured; and I am also aware that such devices have been made in which a rope attached at one end to a rope-loop secured to one end of the wagon has been passed through a pulley secured upon another rope-loop at the other end of the wagon, and provided with a catch or cam for clamping the rope and preventing it from slipping back, both of which devices, however, do not possess the adjustability of the end loops or the simplicity of fastening the rope and drawing the loops together, which I accomplish by my device; and

I therefore claim—

In combination with a hay-rack, two ropes, B and D, secured to the ends of the side pieces of the rack, each secured permanently at one end and tied detachably and adjustably with regard to length at the other end, two pulley-blocks, B' and D', sliding with their eyes *b* and *d* upon the end ropes, and a rope, C, secured at one end to one block and reeved through both blocks, as and for the purpose shown and set forth.

In testimony whereof I sign this specification in the presence of two witnesses.

GEORGE BANKS.

Witnesses:

N. S. WRIGHT,  
M. B. O'DOHERTY.