

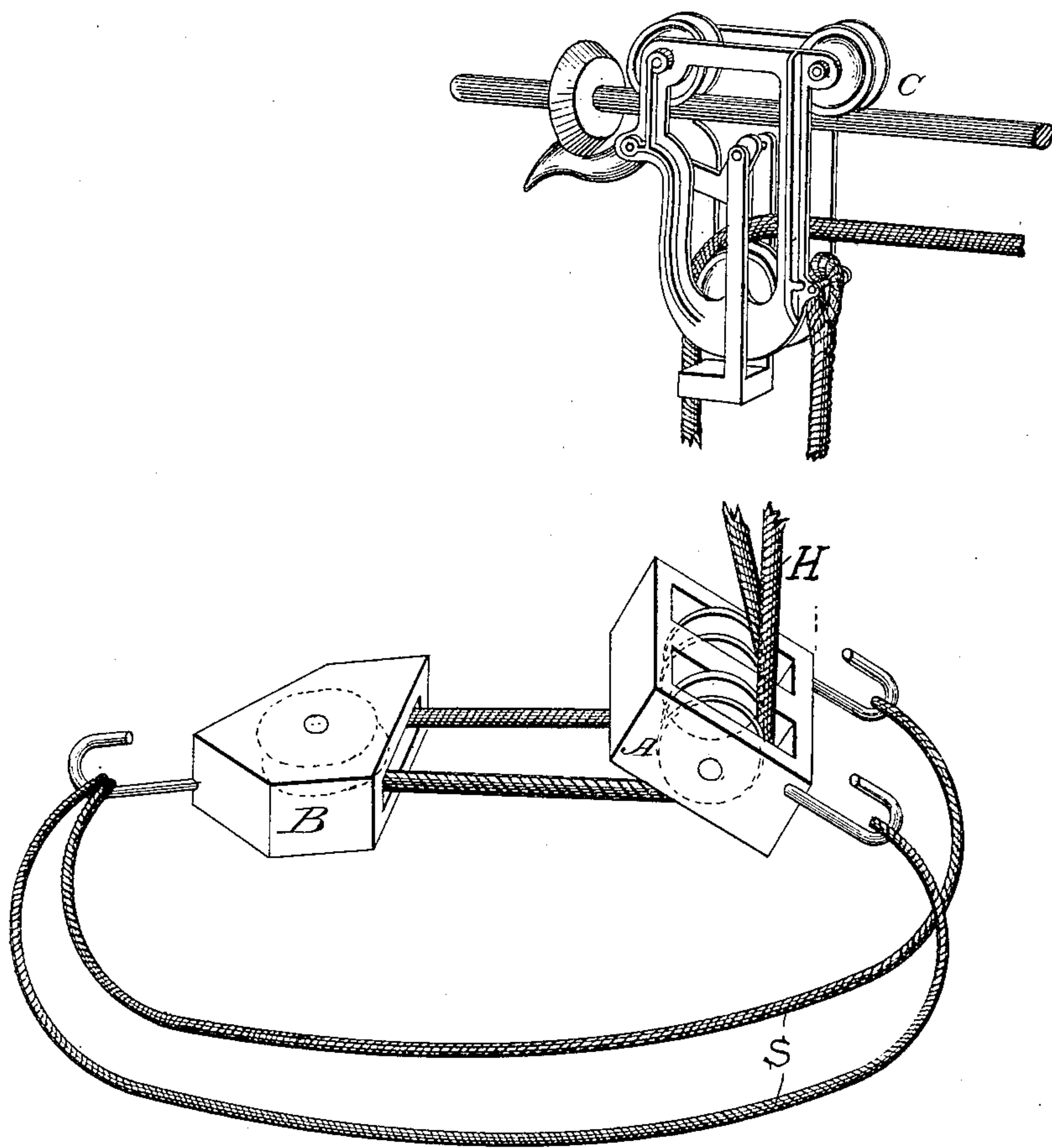
(Model.)

A. P. BOYER.

HAY OR GRAIN UNLOADER.

No. 377,012.

Patented Jan. 31, 1888.



Witnesses:

Therman Miller  
Mrs Anna Miller.

Inventor:

Allen P. Boyer.

# UNITED STATES PATENT OFFICE.

ALLEN P. BOYER, OF JONES, MICHIGAN.

## HAY OR GRAIN UNLOADER.

SPECIFICATION forming part of Letters Patent No. 377,012, dated January 31, 1888.

Application filed July 18, 1887. Serial No. 244,657. (Model.)

*To all whom it may concern:*

Be it known that I, ALLEN P. BOYER, of Jones, in the county of Cass and State of Michigan, have invented certain new and useful Improvements in Hay or Grain Unloaders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing, which forms a part of this specification.

My invention relates to an improvement in that class of hay or grain unloaders known as "slings;" and it consists in a combination of pulleys, as hereinafter described, the object of which is to compress the load, and thereby cause it to occupy less space in the operation of unloading.

Reference being had to the accompanying drawing, which is a perspective of my device, B is a single-pulley block having one sheave.

A is a double-pulley block having two sheaves.

C is a hay-carrier or other hoisting apparatus. One end of a hoisting-rope is secured to the carrier C and the free end passed over one of the sheaves in double block A, over sheave in single block B, over sheave in the other side of A, and forward over sheave in carrier C, as shown in the drawing. The pulley-blocks A and B are provided with hooks for the attachment of ropes or slings on which

the load has been previously loaded. These ropes or slings should be of sufficient length to come up at the ends of the load as high as the load, so as to be within easy reach of the operator on the load. Each set of ends of the sling are secured to A and B, respectively, as shown. A and B are at some distance apart, but connected by the hoisting-rope, as shown in the drawing. When the power is applied to the loose end of the hoisting-rope, A and B will move toward each other and roll or compress the load into a compact bundle, and when it is so compressed it will be elevated in the usual manner.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of the carrier, the single and double blocks provided with pulleys, and hooks to receive the sling, and a hoisting-rope secured to the carrier, passing over sheave at one side of double block, over sheave in single block, over the other sheave in double block, and forward over the sheave in carrier, substantially as described.

In testimony whereof I have hereunto subscribed my name this 6th day of May, A. D. 1887.

ALLEN P. BOYER.

In presence of—

SHERMAN MILLER,  
Mrs. SHERMAN MILLER.