

J. P. SMITH.

Straw Carrier.

No. 78,766.

Patented June 9, 1868.

Fig. 1.

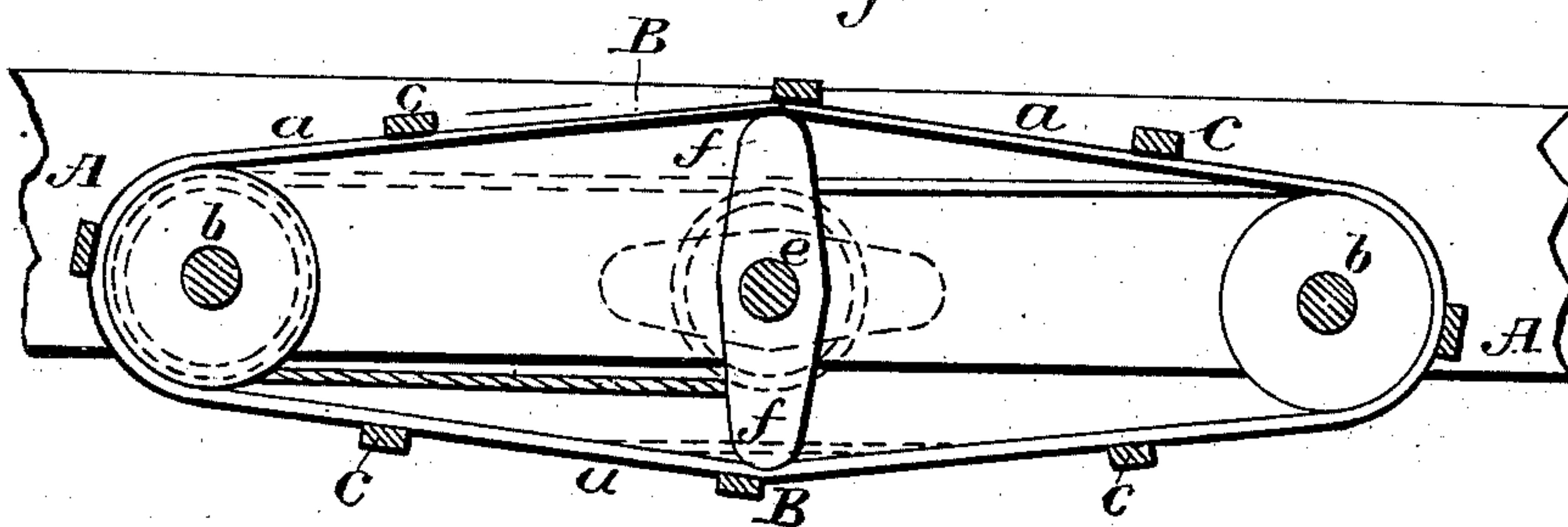
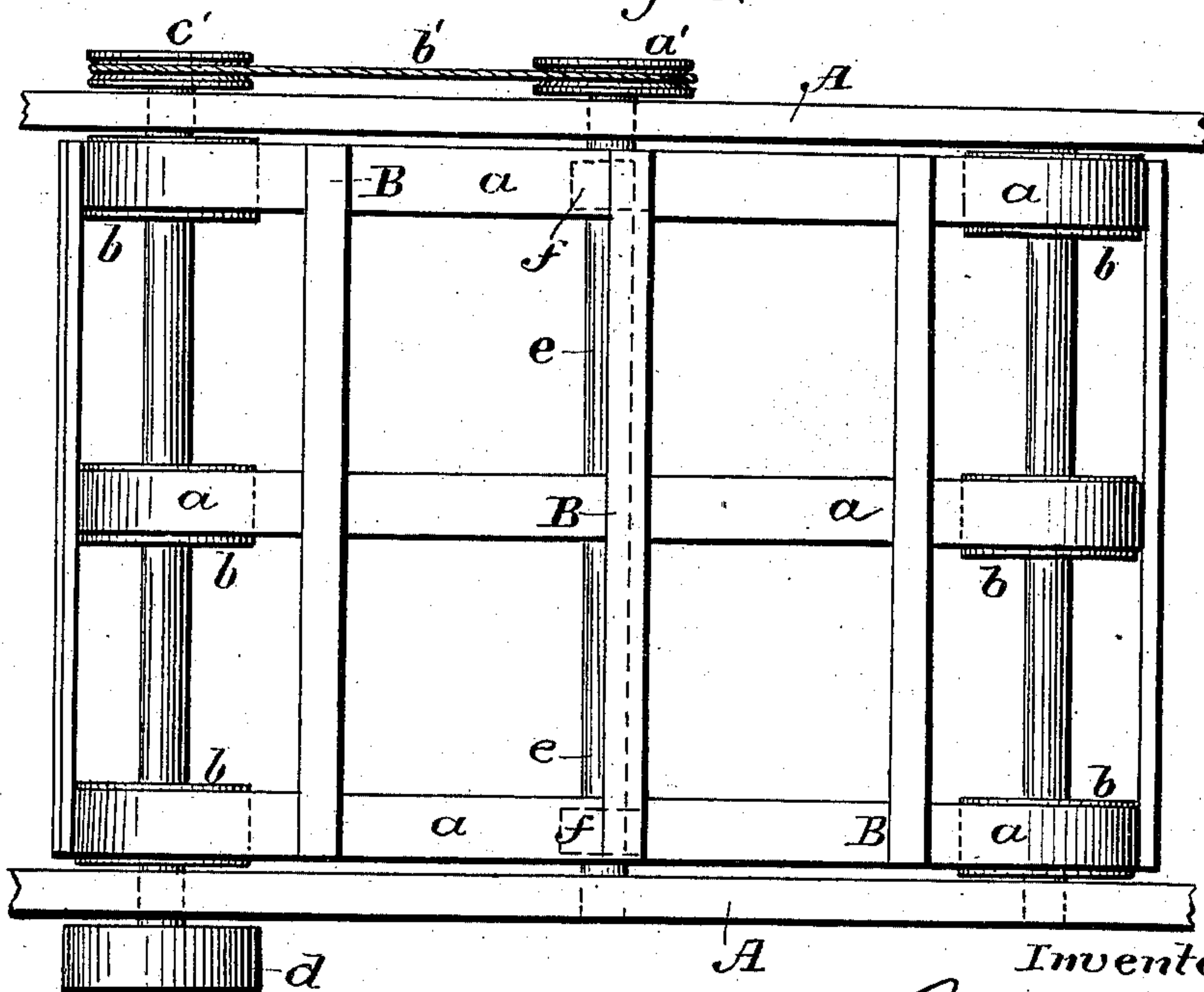


Fig. 2.



Inventor:

Witnesses:

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# United States Patent Office.

JOHN P. SMITH, OF CLAVERACK, NEW YORK.

*Letters Patent No. 78,766, dated June 9, 1868.*

## IMPROVEMENT IN SHAKERS FOR THRESHING-MACHINES.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN P. SMITH, of Claverack, in the county of Columbia, and State of New York, have invented certain new and useful Improvements in Shakers for Threshing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a portion of this specification, in which—

Figure 1 is a longitudinal section of a shaker made according to my invention.

Figure 2 is a plan view of the same.

Similar letters of reference indicate corresponding parts in both figures.

It is essential to the perfect operation of the "shaker" or endless carrier employed to convey the straw from a thresher, and to separate the grain from the said straw, that such shaker shall have a vibratory motion, in addition to its continuous carrying-movement; and the object of this invention is to provide an efficient, strong, and durable means of producing such vibratory motion.

The invention consists in so combining rotary shaking-arms with the endless shaker or carrier, as to communicate a vertical movement to the upper part of the shaker, thereby securing the object mentioned.

The invention further consists in a novel arrangement of parts, whereby the most effective operation of the first-mentioned and principal feature of the invention is secured.

To enable others to understand the construction and operation of my invention, I will proceed to describe it with reference to the drawings.

A represents a framing of any suitable construction, designed to be secured in the ordinary or in any appropriate manner, behind the thresher, and the office of which is to support the endless shaker or carrier B, which may consist of endless belts, *a*, running over appropriate pulleys, *b*, and furnished, at suitable distances apart, with transverse bars or strips, *c*, the shafts of the pulleys *b* working in suitable bearings provided in the framing A, and one of the said shafts being furnished with a band-wheel, *d*, whereby, through the agency of a suitable driving-band, the continuous movement indicated by the arrow in fig. 1 may be communicated to the shaker, to enable the same to carry away from the thresher the straw deposited thereon from the said thresher.

Extending from one side of the framing A to the other, and between the upper and lower portions of the endless carrier B, is a transverse shaft, *e*, furnished at one of its outer ends with a pulley, *a'*, driven by a belt, *b'*, from a pulley, *c'*, provided upon the corresponding ends of one of the shafts of the pulleys *b*. Secured near each of the ends of the shaft *e* just mentioned, and preferably underneath the lateral or outermost of the belts *a* thereof, are two shaking-arms, *f*, which, when the shaft *e* is rotated by the means hereinbefore specified, alternately lift the uppermost portion of the carrier to the position represented in fig. 1, and allow the same to drop to the position shown in red outline, this vibratory or up-and-down movement communicated to the shaker effectually shaking and separating the grain from the straw, as the latter is carried back from the thresher by the continuous movement of the said carrier around its pulleys *b*.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The rotating shaking-arms *f*, in combination with the endless carrier or shaker B, substantially as and for the purpose specified.

2. The arrangement of the shaking-arms *f*, transverse shaft *e*, endless carrier or shaker B, and framing A, substantially as and for the purpose specified.

JOHN P. SMITH.

Witnesses:

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E. G. STUDLEY.