

G. W. N. Yost.
Harvester Rake.

No 14036

Patented Jan. 1, 1856.

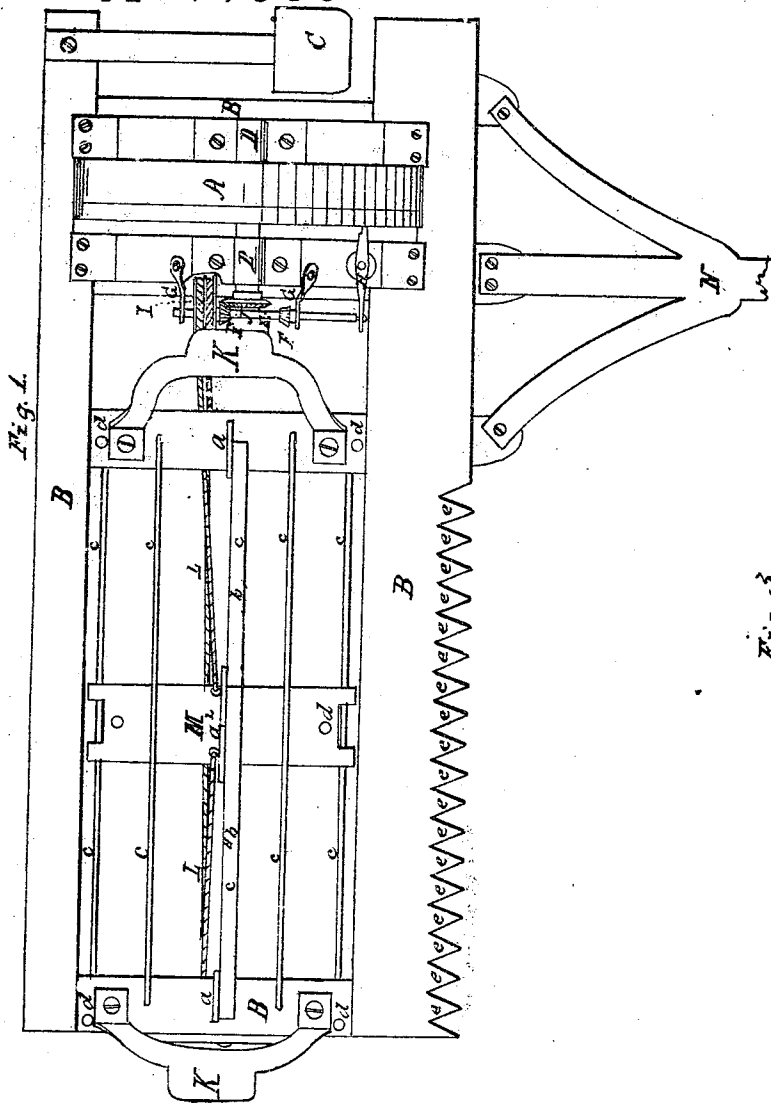
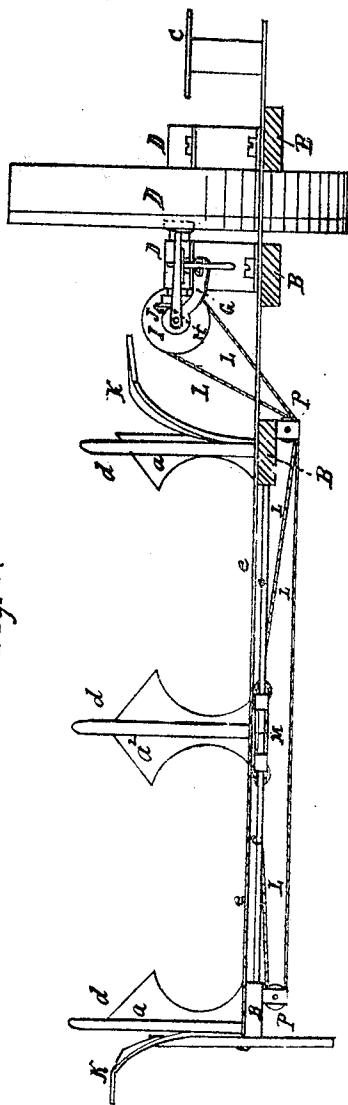


Fig. 2.



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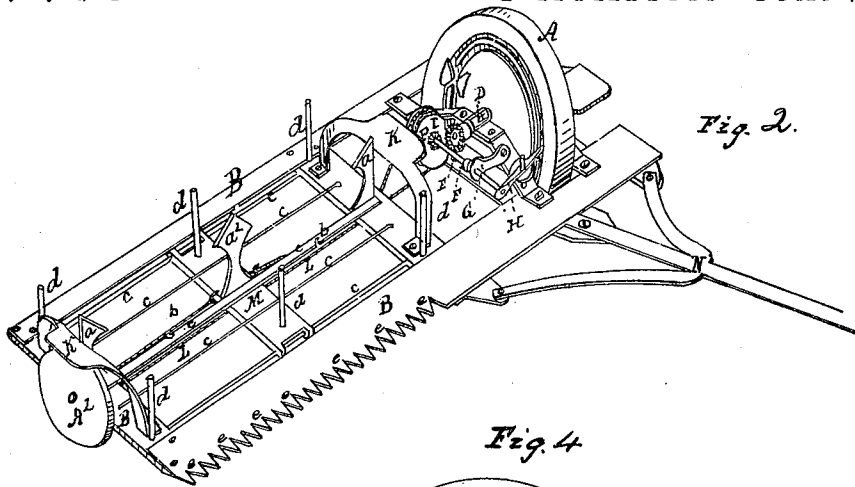


Fig. 2.

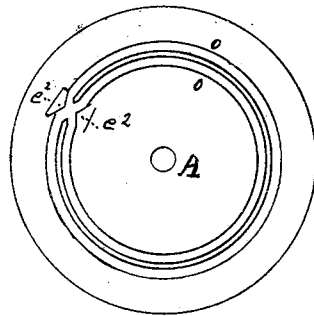


Fig. 4

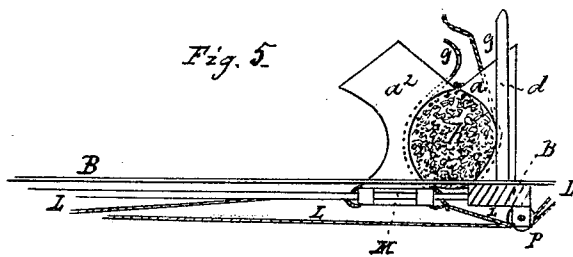


Fig. 5

UNITED STATES PATENT OFFICE.

GEO. W. N. YOST, OF PORT GIBSON, MISSISSIPPI.

IMPROVEMENT IN GRAIN-BINDERS FOR HARVESTERS.

Specification forming part of Letters Patent No. 14,036, dated January 1, 1856.

To all whom it may concern:

Be it known that I, GEO. W. N. YOST, of Port Gibson, Claiborne county, State of Mississippi, have invented a new and useful Improvement in Grain-Harvesters; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a plan view. Fig. 2 is a perspective view. Fig. 3 is a front view. Fig. 4 is a section showing the face of the wheel with the cams. Fig. 5 is a section showing the sheaf compressed ready for binding.

In the construction of my invention, Fig. 1, A is the driving-wheel; B, the frame; C, the seat; D, the bearings; E, the pinion-shaft; F, the pinions; G, the bearings for pinion-shaft; H, the lever working in cams *o*; I, the pulley on pinion-shaft; J, beveled wheel on the end of the main shaft; K K, seats for the binders; L, the cord for operating the slide; M, the rake and compressor a^2 ; a , the stationary compressors; b , the slot cut in the bottom strip for holding the band; c , the grate-bottom, on which the grain falls; N, the guide-pole; d , the upright posts for keeping the grain straight; e , the fingers.

In Fig. 2 A is the driving-wheel; B, the frame; C, the seats; D, bearings; E, pinion-shaft; F, pinions; G, pinion-bearings; H, lever operating in cams *o*; I, the pulley on pinion-shaft; J, the bevel-wheel on the end of the main shaft; K K, seats for the binders; L, cord; M, rake and compressor a^2 ; N, the guide-pole; a , the stationary compressors; b , the slot cut in the bottom strip for holding the band; c , the grate-bottom; d , the upright posts for keeping the grain straight; A^2 , the small wheel for carrying the machine; e , the fingers.

In Fig. 3 P are the pulleys over which the cord passes for sliding the rake and compressor. The other letters of reference are the same as in Fig. 2.

In Fig. 4 A is the driving-wheel; O, the circular cams; e^2 , the irregular cams for reversing the motion.

In Fig. 5 B is the frame; a^2 , the movable compressor; a , the stationary compressor; d , the stationary upright posts; g , the cord for

binding the sheaf; h , the sheaf; M, the rake; L, the cord; P, the lower pulley.

In the operation of my invention motion is communicated by means of the driving-wheel. On the face of my driving-wheels are cams *o* and e^2 , into which lever H operates, and as the wheel revolves this lever follows the regular cams *o* alternately. The irregular cams e^2 are for changing the direction of the lever from the inner to the outer cam, as at *o*, and vice versa. When the lever H is on the outside of cam *o* the gear-wheel operates on the left pinion and revolves the pulley I, which operates the cord L, attached to slide or rake M, and draws it into the compressed position as in Fig. 5, letters a^2 , a , and h . As the lever passes over the outer irregular cam e^2 it is changed to the inner cam *o* and throws the right-hand pinion into gear, and by means of the cord, as before, draws the rake in a compressed form, as above, on the other end of the machine, ready for binding. The lever H in passing over the inner irregular cam changes the levers H to the outer cam *o* again. I may use a spring in the rear of the stationary compressors a to allow them to yield.

A man or boy is seated on each of the seats K for binding. He is prepared with bands of cord, which have a knot on the end, and as the rake or compressor slides back he places a cord in slot *o* and brings the other end under the seat, where it is held until the sheaf is compressed, when he brings the two ends up and ties the band in time for the compressor to let it go, when the sheaf is removed by him and the same operation is performed at the other end, as before described.

Having thus fully described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

The double reciprocating compressor a^2 for gathering and compressing the grain against the stationary compressors a , ready for binding, operating and operated substantially as described.

GEO. W. N. YOST. [L. s.]

Witnesses:

J. C. CLAYTON,
EDM. F. BROWN.