

J. R. MOFFITT.
Thrashing Machine.

No. 18,761.

Patented Dec. 1, 1857.

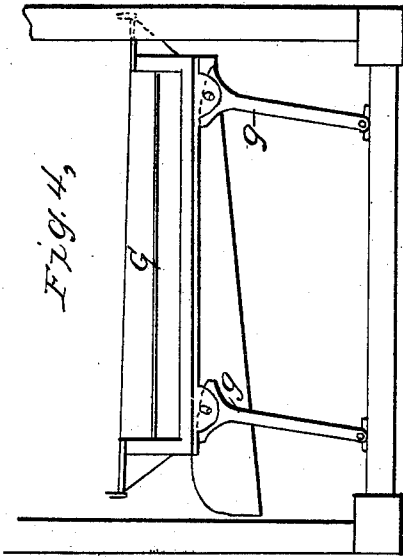


Fig. 3,

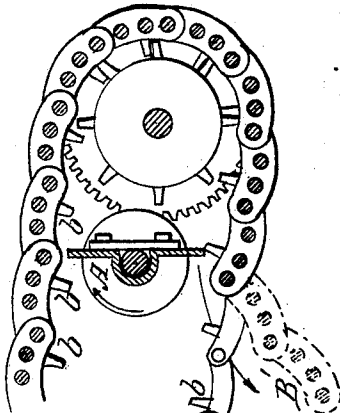


Fig. 1,

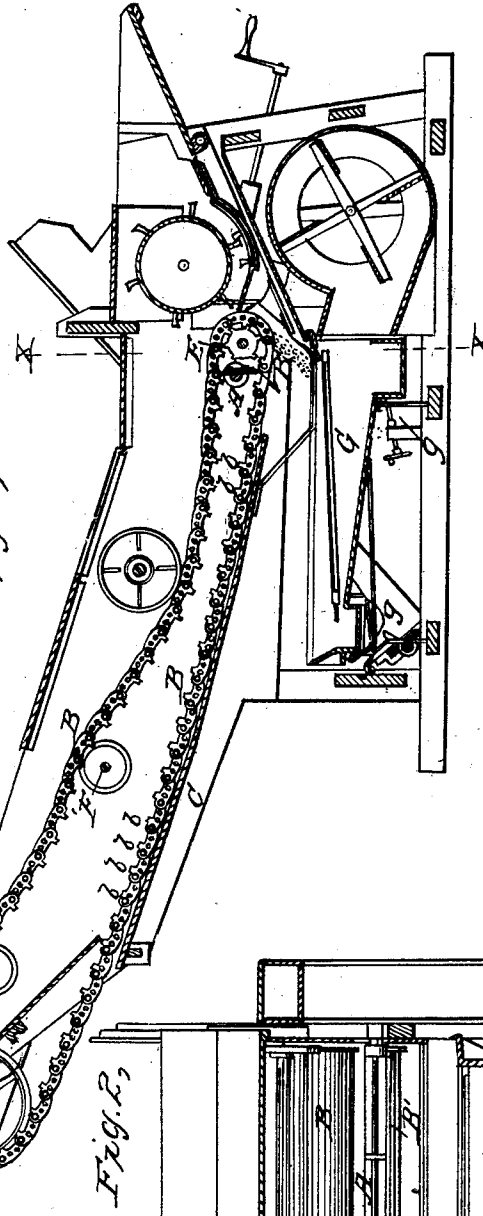
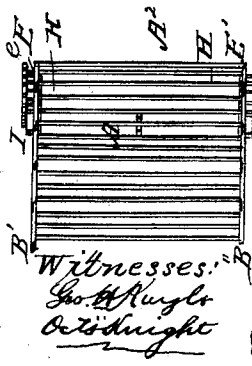
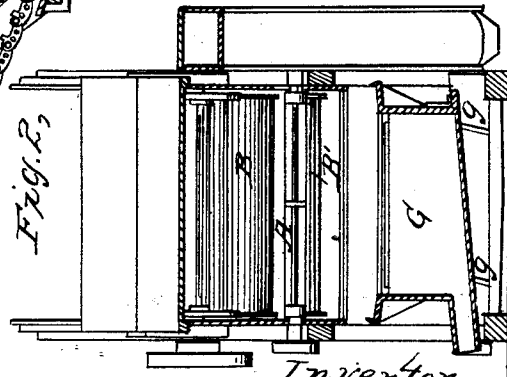


Fig. 4,



Witnesses:
Geo. H. Kuyler
Oct. 18, 1857

Fig. 2,



Inventor
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UNITED STATES PATENT OFFICE.

JOHN R. MOFFITT, OF ST. LOUIS, MISSOURI.

GRAIN-SEPARATOR.

Specification forming part of Letters Patent No. 18,761, dated December 1, 1857; Reissued May 17, 1859, Nos. 718 and 719.

To all whom it may concern:

Be it known that I, JOHN R. MOFFITT, of St. Louis, Missouri, have invented a new and useful Improvement in Grain-Separators; and I hereby declare the following to be a full and exact description thereof, reference being had to the annexed drawings, making part of this specification.

The leading feature of novelty in this invention consists in an arrangement for the effectual cleansing of the inside of the straw carrying apron from accumulated straws, &c.

In the accompanying drawing:—Figure 1 is a longitudinal section of the machine. Fig. 2 is a transverse section at the line $x x$ Fig. 1. Fig. 3 is a longitudinal section exhibiting the propelling, pulley, rotating beater and a portion of the carrying and separating apron and chute board on a larger scale. Fig. 4 is an end view of the rocking shoe.

B, is a continuous apron carried by a pulley D, at the upper end and a pair of driving pinions E, at the lower end. This apron is composed of two chains united by slats with intervals between them through which the grain falls while the straw is conveyed off and discharged at the end of the machine. Each link is provided with a tooth b , which meshing with the pinion E, enables the propulsion of the apron by said pinion. This device admits of the apron being quite slack especially at the upper or advancing side, which greatly facilitates the shaking of the straw, and separation of the grain. The teeth b , also by striking against rollers F, on the frame cause an increased agitation of the apron.

The endless carrying and separating apron and accessories above described are substantially such as are set forth in my patent of November 30, 1852. B' (represented by red lines) are sections of the carrying apron consisting of one, two or more links which being attached by but one edge supply rest upon the main portions of the chain so as to form a continuous slat surface on the advancing or upper side of the apron but in the return motion fall by their gravity until reaching the chute board C, by which they are supported until they nearly reach the driving pinions E, where escaping from the chute board they suddenly drop and thus liberate the straw and trash

that have accumulated within the apron, the liberation taking place where the straw and other matters can be most effectually unmowed and separated from the grain by the joint actions of the fan, and the shaking shoe G. But most of the trash which thus accumulates is so very light that it fails of its own accord to drop through the ventage thus provided during the brief period of the passage of the loose sections under the point of accumulation, and being carried forward chokes the driving pinions. I have therefore provided within the space between the upper and lower portions of the apron, and extending parallel to and of nearly equal in length with the slats, a rotating beater A, which moving with considerable velocity effectually ejects all the particles that may have lodged on the lower member of the apron just where if permitted to remain they would interfere with the driving pinions and otherwise clog the movement and impair the efficiency of the carrying apron.

The shaking shoe G is supported at each end on a pair of rockers, g, g , (as represented in Fig. 4) the supporting surfaces of which form arcs the centers of which are coincident with the points of attachment and motion of the rockers. The effect of this is to avoid unnecessary friction and at the same time to prevent the shoe from describing in its vibrations either perpendicular or horizontal curves, which are found to seriously impair the effectiveness of the shaking action.

The grain and other matters which fall through the apron onto the chute board C, are conveyed thereby to the shoe G, entering that part of the machine in company with the matters which escape through the falling sections of the apron.

The operation of the falling sections and beater is as follows: At the upper or advancing part of their motion the sections B', remain closed by their own weight, forming a continuous conveyor for the straw but after passing over the large carrying roller or pulley D, they are supported by the chute board C, until in their return motion, approaching the lower end of the apron where the greatest accumulation of matter takes place, they escape from the chute board and at this point the beater A, rotating in the direction indicated by the arrow, operates

in connection with the falling section and effectually removes any such accumulation. By this means I have effectually and successfully removed the only serious objection that has been urged to the open carrying and separating apron.

I am aware that straw carriers have been constructed with falling sections similar to those above described, but such have been to a great extent inoperative from difficulties which I find to be completely overcome by the described combination with them of the rotary beater A.

I claim as new and of my invention herein—

The construction and arrangement (substantially as described) of the rotary beater A within the apron in combination with the falling sections B', operating in the manner and for the purposes set forth.

In testimony of which invention I hereunto set my hand.

J. R. MOFFITT.

Witnesses:

GEO. H. KNIGHT,
OCT. KNIGHT.

[FIRST PRINTED 1911.]