(12) **United States Patent**
Hock

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(54) **THRASHING & WINNOWING MACHINS/THRA**

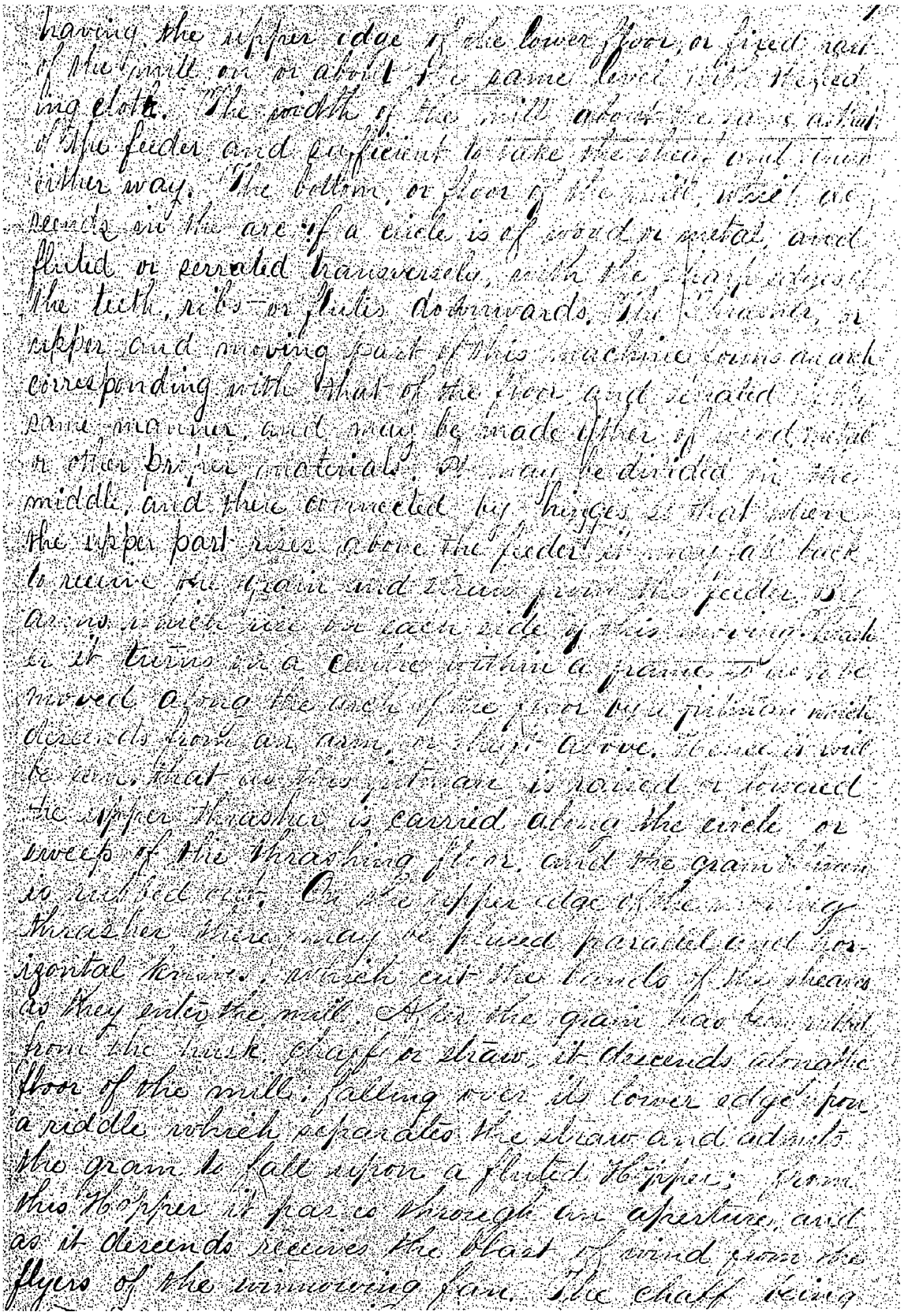
(76) Inventor: **Lawrence Hock**

The Schedule referred to in these Letters Patent and making part of the same, containing a description in the Words of the said Laurence Keefe himself of his Threshing and Winnowing machine.

This invention consists of the Threshing Machine or Mill, the Winnowing Fan, and the frame or carriage.

The Thrashing Machine which forms the principal part of this invention may be divided into two parts: the feeder, and the Thrashing mill. The feeder is a stage of such height as to carry the grain in the straw horizontally to the Thrashing mill. This is effected by two endless aprons or platforms one above the other and carried round and round on rollers one of the rollers which is moved by a hand in the same manner as the carriage when of the saw mill is propelled. The straw or grain in the straw being laid on this stage passes to the thrashing mill regularly so as to give a continuous supply.

The Thrashing mill which I claim as the invention is composed of the chief part of the invention is a contrivance for rubbing the grain from the ear by the passing it between two serrated or latticed surfaces. These may be either horizontal or perpendicular or forming the part of a circle or a curve. The latter is the form which I prefer to make known this my invention. I shall proceed to describe a threshing mill the form of which is part of a circle. In this case about the arch of one fourth of a circle will answer well



having the upper edge of the lower floor, or fixed part of the mill on or about the same level with the feeding cloth. The width of the mill about the same as that of the feeder and sufficient to take the sheaves either way. The bottom, or floor of the mill, which extends on the arc of a circle is of wood or metal, and fluted or serrated transversely, with the sharp edges of the teeth, ribs or flutes downwards. The thrasher, or upper and moving part of this machine forms an arch corresponding with that of the floor, and is made in the same manner, and may be made either of wood tube or other brace materials. It may be divided in the middle, and then connected by hinges so that when the upper part rises above the feeder it may fall back to receive the grain and straw from the feeder. It has as many ribs or cams on each side of this thrasher-frame as it turns on a centre within a frame. It may be moved along the arch of the floor by a pinion which descends from an arm, or shaft above. From it will be seen, that as the pinion is raised or lowered the upper thrasher is carried along the circle or sweep of the thrashing floor, and the grain thus so rubbed out. On the upper edge of the moving thrasher there may be fixed parallel and horizontal knives, which cut the heads of the sheaves as they enter the mill. After the grain has been rubbed from the husk, chaff or straw, it descends on the floor of the mill, falling over its lower edge, for a riddle notch separates the straw and admits the grain to fall upon a fluted Hopper. From this Hopper it passes through an aperture, and as it descends receives the blast of wind from the flyers of the winnowing fan. The chaff being

thus separated. The grain falls on a screen where the impurities, dirt, and small (Immaterial) pass from the clean grain.

The winnowing fan has four or more vertical sails, revolving horizontally, being raised eight feet high, and the air being expelled through an horizontal aperture to the grain as it descends from the hopper. To give motion to this machine, I have a frame placed within the frame of the carriage. The toothed horizontal wheel of which works in the pinion of an horizontal shaft on the other end of which is placed a spur wheel which turns the treadle head on a upright shaft of the fingers or jaws. The same horizontal shaft has at its other end a crank which by a vertical pitman moves the ears which carries the pitman of the movable fingers; and also the band wheel which drives the vertical wheel of the feeder.

The carriage or frame which contains this machinery I place on wheels or wheels by which it can be drawn from place to place when needed.

Lawrence Black

Witnesses

H. Fuchs

Reed Dinsmore

Recorded March 6th 1882.

United States Patent

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All communications should be addressed to "The Commissioner of Patents, Washington, D. C."

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