No. 652,274. Patented June 26, 1900.

C. A. KLITZKE.

GRAIN BOARD.

(Application filed Jan. 18, 1900.)

(No Model.)

Fig. 1.

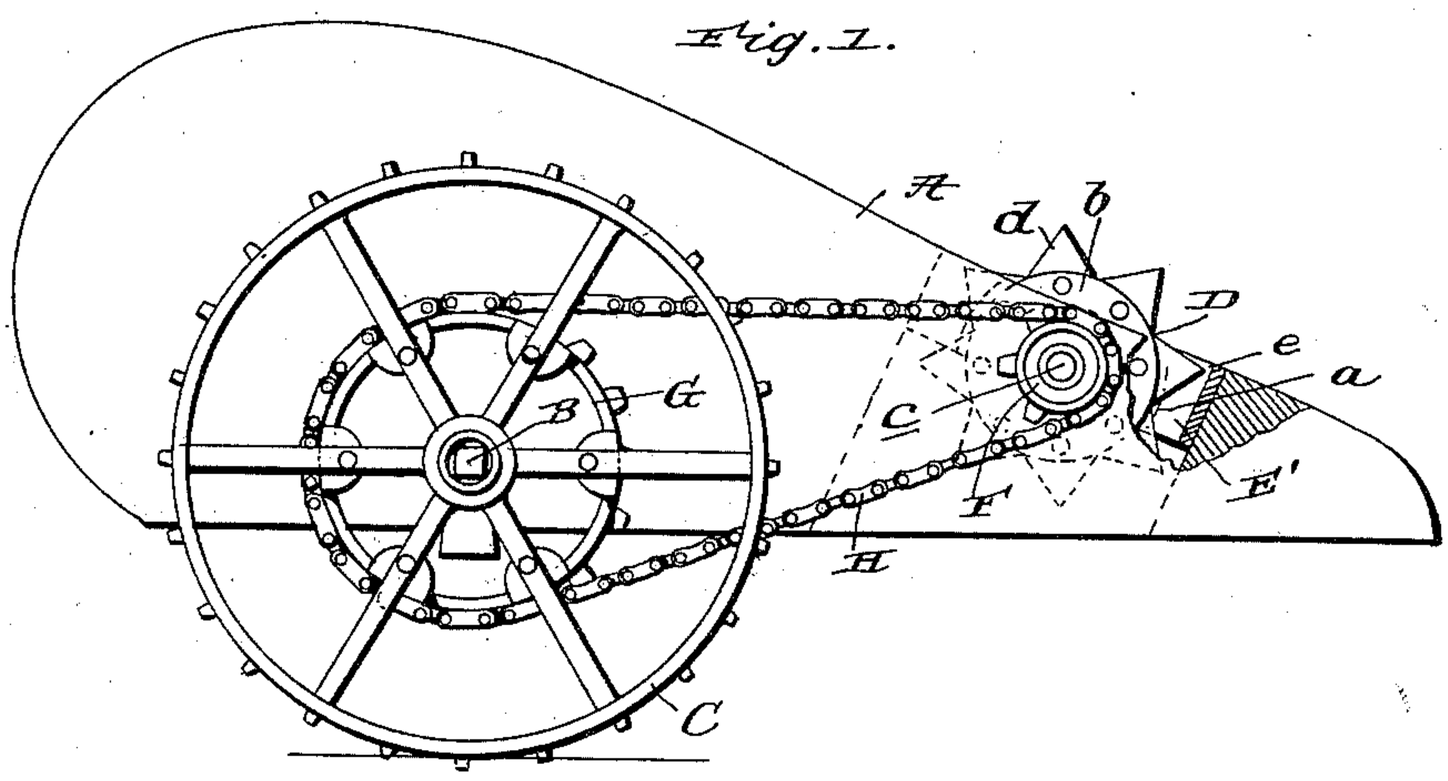


Fig. 2.

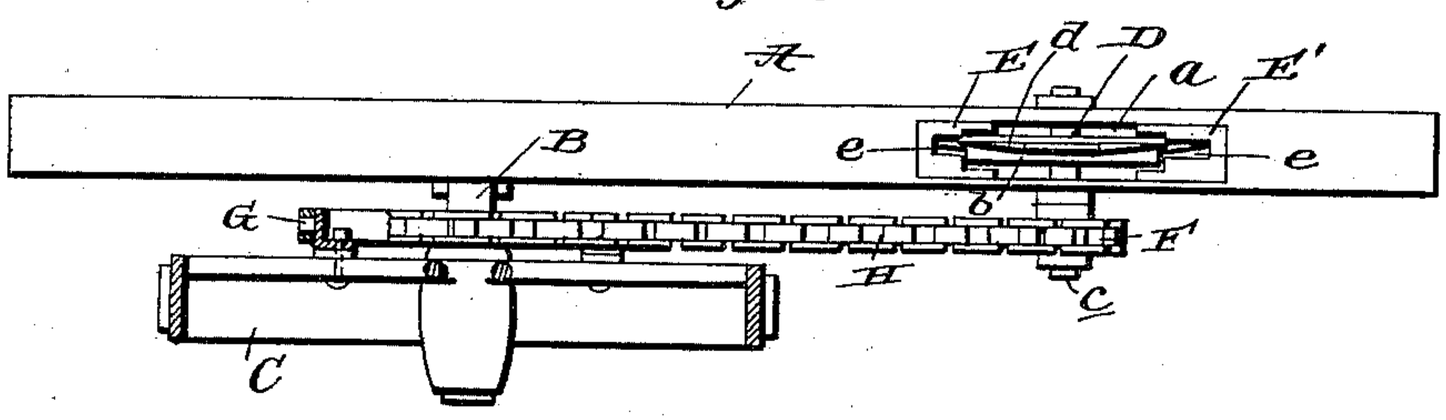
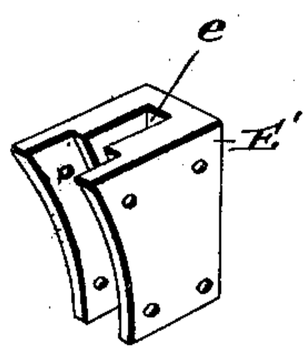


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES A. KLITZKE, OF BARABOO, WISCONSIN.

GRAIN-BOARD.

SPECIFICATION forming part of Letters Patent No. 652,274, dated June 26, 1900.

Application filed January 18, 1900. Serial No. 1,948. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. KLITZKE, a citizen of the United States, residing at Baraboo, in the county of Sauk and State of Wisconsin, have invented new and useful Improvements in Grain-Boards, of which the following is a specification.

My invention relates to grain-boards for mowers, harvesters, and similar machines, and contemplates the provision of a grain-board equipped with means calculated to clear it of any heavy grain that may fall upon it, and thereby prevent such grain from massing and interfering with the working of the cutting apparatus and other machinery and increasing the draft of the machine.

The invention will be fully understood from the following description and claim when taken in conjunction with the annexed drawings, in which—

Figure 1 is a side elevation, partly in section, of a grain-board equipped with my improvements. Fig. 2 is a plan view of the same with the grain-wheel in section. Fig. 3 is an enlarged perspective view of one of the metallic plates which operates in conjunction with the knives of the cutter-wheel to make a shear cut.

Referring by letter to the said drawings, A is a grain-board of the ordinary shape and size, B an axle extending outwardly from the grain-board, and C a grain-wheel mounted on said axle after the usual manner. At about the point illustrated the grain-board A is provided with a longitudinal groove or opening *a*. This groove or opening is disposed in the direction of the height of the board and is designed to receive a cutter-wheel D and two metallic plates E E′. The wheel D may be of any suitable construction, but is preferably made up of a body *b*, which is fixed on a transverse shaft *c*, journaled in the board A, and knives *d*, connected to and extending radially from the body *b*, as shown. The plates E E′ may be formed of sheet or cast steel or other suitable metal and are preferably of U shape in horizontal section. They are secured in the ends of the groove or opening *a*, with their upper ends flush with the upper edge of the board A and have the inner portions of the spaces *e* between their arms of a width to snugly receive the knives of the cutter-wheel D. By virtue of this it will be observed that the rear plate E is enabled to guide the knives *d* and hold the wheel D against lateral movement, while the forward plate E′ is enabled to perform the same function and is also enabled, in conjunction with the knives, to make a shear cut.

F is a sprocket-wheel fixed on the shaft *c* at the outer side of the grain-board. G is a sprocket-wheel fixed to the inner side of the grain-wheel C, and H is a sprocket-chain which takes around the said sprocket-wheels and is designed to transmit rotary motion from the grain-wheel to the cutter-wheel.

In practice when the machine is in operation the wheel D, which is preferably arranged in line with the cutting apparatus, (not shown,) is rapidly rotated, and hence is enabled, in conjunction with the plate E′, to cut any grain that may topple over the grain-board and effectually clear the grain-board of the same. This is materially advantageous when heavy grain is to be cut, for it will be readily observed that if the grain were permitted to mass or lodge on the grain-board it would interfere with the working of the cutting apparatus and other parts of the machinery and greatly increase the load on the draft-animals.

While I have shown and described the sprocket-wheel G as fixed to the inner side of the grain-wheel C, it is obvious that it might, if desired, be fixed to the outer side of said grain-wheel without departing from the scope of my invention.

Having thus described my invention, what I claim is—

The combination of a grain-board having a vertically-disposed groove, U-shaped plates arranged in said grooves with their upper ends flush with the upper edge of the grain-board, a cutter-wheel arranged in the groove and having knives movable in the U-shaped plates, a grain-wheel, and a driving connection between the grain-wheel and cutter-wheel, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES A. KLITZKE.

Witnesses:
H. GROTOPHORST,
R. A. ENNIS.