W. EBERHARD & R. TURNER.

Oatmeal-Machine.

No. 208,970. Patented Oct. 15, 1878.

Fig. 1.

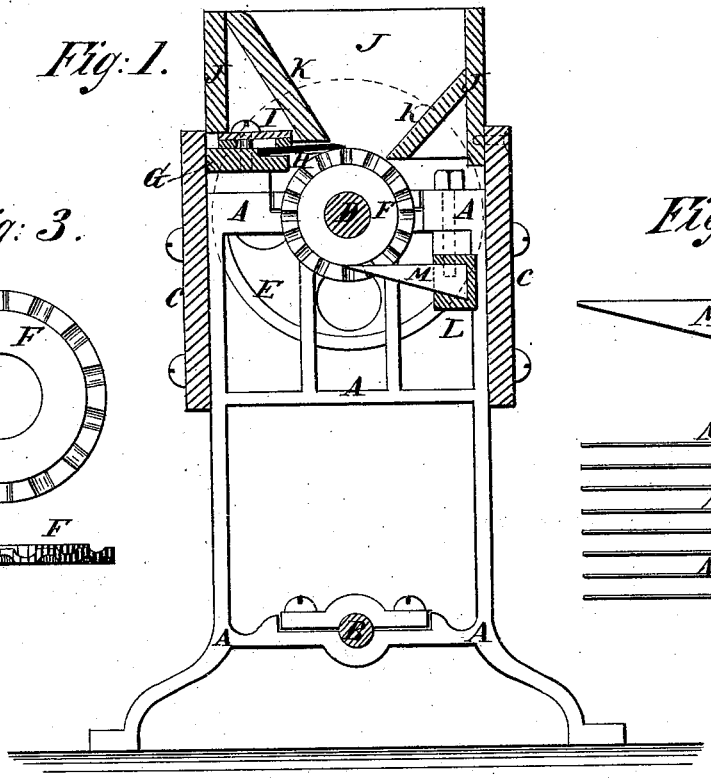


Fig. 3.

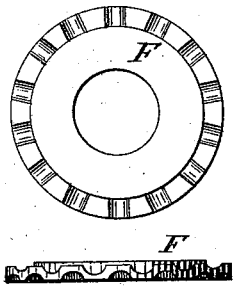


Fig. 4.

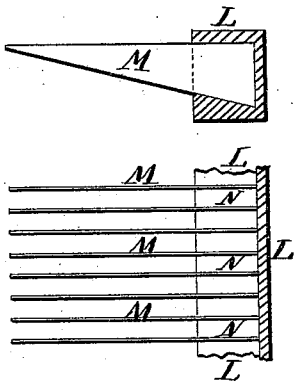
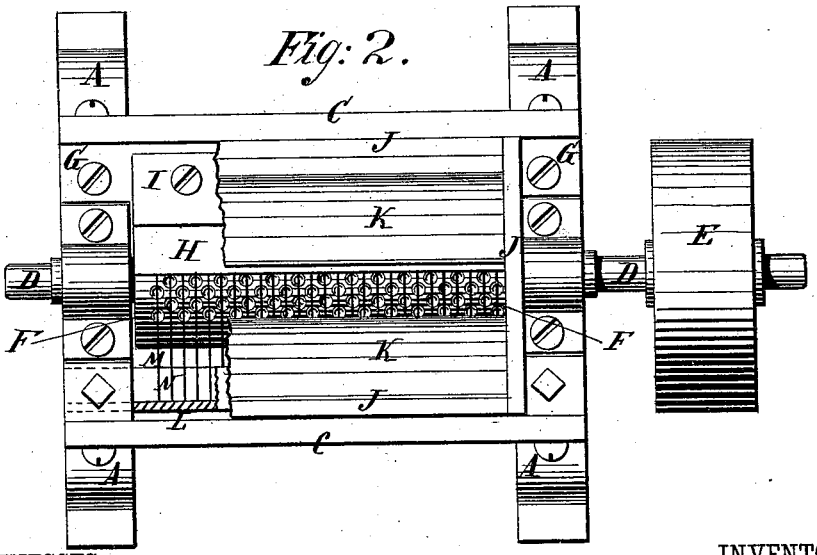


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM EBERHARD AND ROBERT TURNER, OF AKRON, OHIO.

IMPROVEMENT IN OATMEAL-MACHINES.

Specification forming part of Letters Patent No. **208,970,** dated October 15, 1878; application filed September 10, 1878.

To all whom it may concern:

Be it known that we, WILLIAM EBERHARD and ROBERT TURNER, of Akron, in the county of Summit and State of Ohio, have invented a new and useful Improvement in Machines for Granulating Grain, of which the following is a specification:

Figure 1 is a vertical cross-section of our improved machine. Fig. 2 is a top view of the same, part of the hopper being broken away to show the construction. Fig. 3 is a detail side and edge view of one of the roller-sections. Fig. 4 is a detail section and top view of a portion of the clearing device.

The object of this invention is to furnish an improved machine for granulating or cutting grain, such as oats, wheat, barley, corn, &c., which shall be simple in construction, convenient in use, and effective in operation, doing its work rapidly and well and keeping itself clear.

The invention consists in the combination of the roller, whether made solid or in sections, having circular rows of holes in its face and ring-grooves through the said holes, and the knife and its supporting and clamping bars, with each other, and with the frame and the hopper of the machine; and in the combination of the grooved bar, the clearers, and the separating-blocks with the roller and the frame of the machine, as hereinafter fully described.

Similar letters of reference indicate corresponding parts.

A are the end frames of the machine, which are connected at their lower parts by a rod, B, and at their upper parts by the side boards, C. In bearings in the upper parts of the frames A revolves a shaft, D, to one of the ends of which is attached a pulley, E, to receive the driving-belt. To the shaft D, between the frames A, are attached ring plates or sections F, in the opposite sides of the edges of which are formed alternately half-round or polygonal notches, which, when the sections F are arranged side by side upon the shaft D, form round or polygonal holes to receive the ends of the kernels. The notched parts of the sections F are made a little thinner than the bodies of the said sections, to form ring-grooves through the centers of the holes formed by the said notches.

G is a bar, the ends of which are bolted to the top cross-bars of the frame A at one side of the roller D F. The upper forward part of the bar G is rabbeted, to form a seat for the rear part of the knife H, the forward part or edge of which rests upon the upper side of the roller D F. The knife H is secured in place adjustably by the plate I, which is bolted to the bar G, and the forward part of which overlaps the rear part of the said knife H. Leather or other packing may be interposed between the plate I and the bar G and knife H, if desired. The height of the bar G may also be adjusted by washers and packing interposed between its ends and the bars of the frames A, to which the said bars are secured.

J is the hopper, which fits upon and is secured to the top of the machine, and which is provided with inclined side boards, K, so that the grain to be operated upon will only come in contact with the upper part of the roller D F. To the under sides of the top cross-bars of the frames A is bolted a bar, L, upon the opposite side of the roller D F from the bar G, and which is adjusted in height by washers or packing interposed between it and the said cross-bar of the frames A. In the inner side of the bar L is formed a half-dovetailed groove to receive the rear ends of the triangular-shaped clearers M, which are made of such a thickness that their forward ends may enter the ring-grooves through the holes in the roller D F, and push out any parts of kernels that may stick in the holes of the said roller. The clearers M are kept at the proper distance apart by blocks N, fitted into the groove in the bar L, and interposed between the said clearers M.

With this construction, as the roller D F is revolved the ends of the kernels of grain enter the holes in the face of the said roller, and the said kernels are carried against and cut off by the edge of the knife H, no kernels of grain escaping except in pieces so small as to enter and be carried out by the holes of the said roller D F.

If desired, more than one roller D F can be put in the same frame, and run from the same power by suitable gearing.

The rollers may be made of iron or steel, as may be desired.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination of the roller D F, whether made solid or in sections, having circular rows of holes in its face and ring-grooves through the said holes, and the knife H and its supporting and clamping bars G I, with each other, and with the frame A B C and the hopper J K, substantially as herein shown and described.

2. The combination of the grooved bar L, the clearers M, and the separating-blocks N with the roller D F and the frame A B C, substantially as herein shown and described.

WILLIAM EBERHARD.
ROBERT TURNER.

Witnesses:
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