

G. H. EASTMAN.  
Grist-Alarms.

No. 154,948.

Patented Sept. 15, 1874.

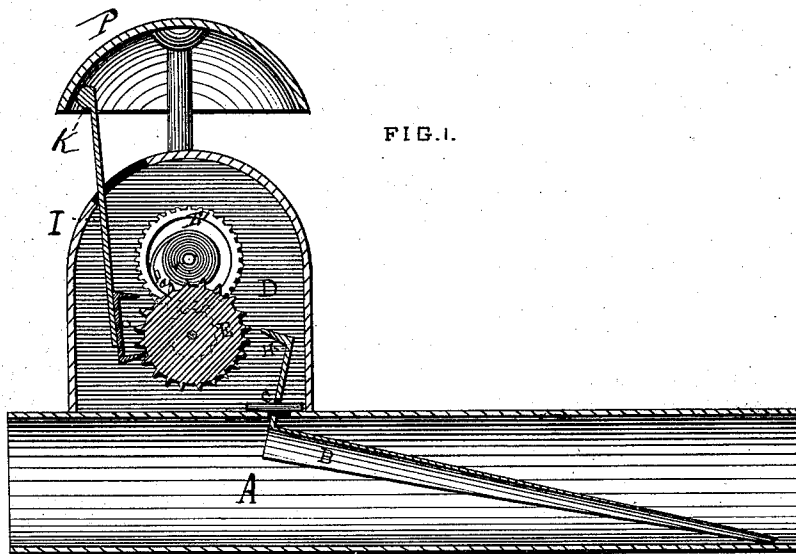


FIG. I.

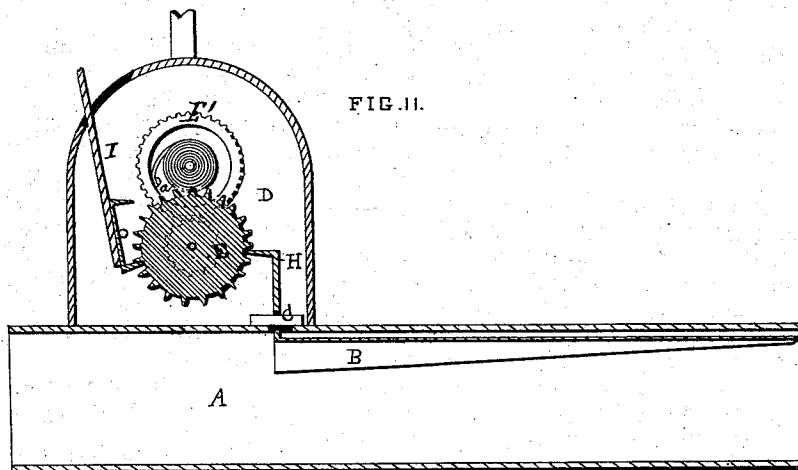


FIG. II.

WITNESSES.

*J. P. Cowl*  
*H. S. Miller*

INVENTOR.

*Geo. H. Eastman*  
*by his attys*  
*Craw, Condit & Co*

# UNITED STATES PATENT OFFICE.

GEORGE H. EASTMAN, OF MINNEAPOLIS, MINNESOTA.

## IMPROVEMENT IN GRIST-ALARMS.

Specification forming part of Letters Patent No. **154,948**, dated September 15, 1874; application filed July 24, 1874.

*To all whom it may concern:*

Be it known that I, GEORGE H. EASTMAN, a resident of the city of Minneapolis, county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Millstone-Alarms, of which the following is a full, clear, and exact description:

Figure 1 is a longitudinal center section view of my device, showing the conduit-pipe A empty. Fig. 2 is the same, showing the position of the pallet B when the pipe A is filled with running grain.

The same letters of reference are used in both figures in the designation of identical parts.

The object of my invention is to secure a simple, cheap, and perfectly effective device that shall give to the miller or his assistant due notice that the material running through a conduit-pipe to be ground has or is about to run out, said notice allowing of ample time to take such steps as may be necessary to prevent the grinding-surfaces of the millstones from coming in contact. The alarm may be used for such other purposes as it may be adapted for.

The conduit-pipe A leads from a grain-bin to a hopper. Within the pipe A is placed the pallet B, said pallet being hinged or pivoted at the point C. At right angles to and attached to the pallet at the point of pivoting is a detent-pawl, H, projecting into the alarm-box sufficiently far to catch on the teeth of the wheel E. On the opposite side of the wheel E is an escapement-pallet, pivoted to

the case at its center, and a prolongation, I, of the pallet has a hammer, K, upon it, to strike the bell P. The wheel E has a cogged hub on its inner face, which engages in the teeth of a wheel, E, upon which lies a coiled spring, one end being fastened to the spindle of the wheel, and the other end to its face at *a*. The spring is wound by means of a key fitting its spindle.

The exit of the grain from the conduit-pipe A allows the pallet B within said pipe to drop, as seen in Fig. 1, which withdraws the projecting spur H from out the cog-wheel E, allowing its escape from the detent and the spring to revolve the wheel E', which, in turn, revolves the wheel E and gives the hammer K an intermittent motion through the escapement, striking the alarm.

The pallet B may be of any desired shape or form that may be required by the conduit-pipe to produce the action necessary to operate the alarm.

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

The grain-conduit A and the swinging pallet B, in combination with the detent-pawl H, clock mechanism E E', hammer K, and alarm P, all constructed, arranged, and operated substantially as set forth.

GEORGE H. EASTMAN.

Witnesses:

F. M. COMSTOCK,  
CHAS. A. EATON.