J. W. PRICE.

GRAIN-TOLLERS FOR GRIST-MILLS.

No. 194,463. Patented Aug. 21, 1877.

Fig. 1

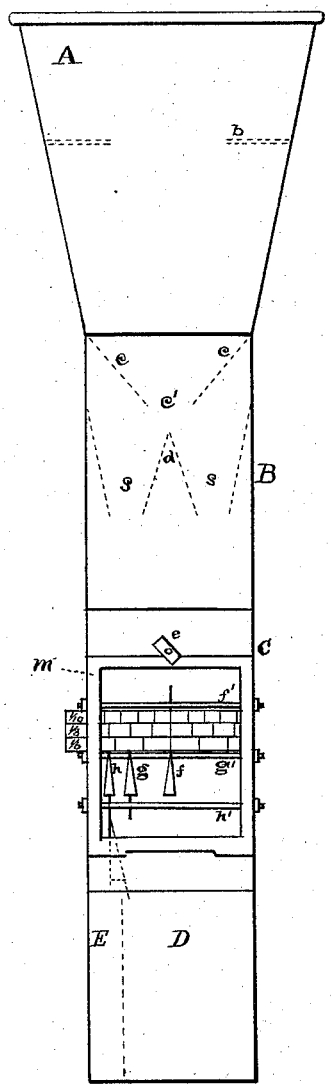
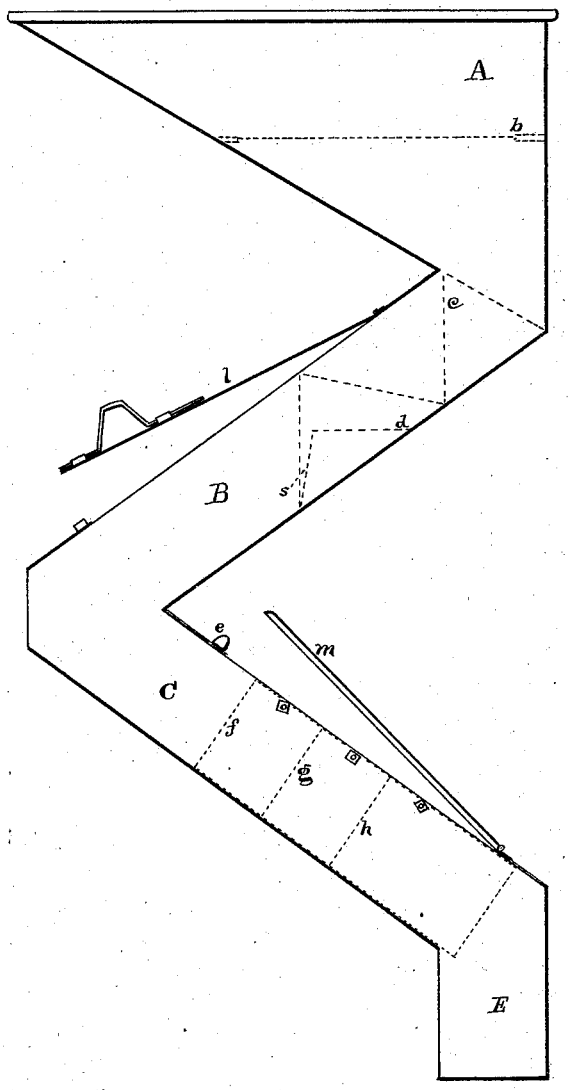


Fig. 2



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JAMES W. PRICE, OF MICHIGANTOWN, INDIANA.

IMPROVEMENT IN GRAIN-TOLLERS FOR GRIST-MILLS.

Specification forming part of Letters Patent No. **194,463**, dated August 21, 1877; application filed March 31, 1877.

To all whom it may concern:

Be it known that I, JAMES W. PRICE, of Michigantown, Clinton county, Indiana, have invented a new and useful Grain-Toller for Grist-Mills; and I hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

The object of my invention is to furnish an apparatus by which millers may take their toll from grain with accuracy, while avoiding the trouble of weighing or measuring the same.

Figure 1 is a front view of my apparatus. Fig. 2 is a transverse view of same.

A represents the hopper which receives the grain. *b* is a sieve or screen arranged in said hopper to prevent anything passing with the grain into the spouts that might obstruct them. B is an inclined spout, in cross-section, of rectangular form, arranged at an angle to the hopper with which it is connected. In the upper end of this spout is a chute, *c*, with inclined sides contracting the vent *c'*. *d* is an ∧-shaped divider placed in relation to the chute-vent, as shown, to divide the flowing grain. On each side of this divider are chutes *s s*. C is an inclined spout, a continuation of B, but arranged at an angle thereto. *f*, *g*, and *h* are longitudinal partitions or dividers in the spout C, and are held in place by the rods *f' g' h'*, to which they are respectively secured, the rods being screw-threaded on each end, and passing through the sides of the spout, permit of adjusting the partitions or dividers by taps or thumb-screws. E represents the toll-grain spout, and D the grist-grain spout. *l* is a hinged cover to permit access to spout B. *m* is a framed glass door in the spout C just over the partitions or dividers.

The operation of my grain-tolling apparatus is as follows: The grain is received into the hopper and passes through the screen and chute *c*, being thus collected from a scattered condition, and is divided by the ∧-shaped divider into two equal columns of flowing grain, which, thence passing through the chutes *s s* and spout B, become evenly spread over the spout on reaching spout C. The flowing grain is here equally divided into two columns, making a division of one-half by the first partition or divider *f*. One of these columns of flowing grain is again equally divided by the second partition or divider *g* into a one-fourth division, and one of these fourths again divided by the divider *h* into an eighth division, which is the prevailing rate of toll for grinding wheat. This division of one-eighth being effected, the toll-grain is delivered into the spout E, which the miller can direct to a bin, or have spouted to any desired place. The other seven-eighths are delivered into the grist-spout D and conveyed to the stock-hopper.

It will be seen that, by changing the adjustment of the partitions or dividers by means of the nuts or thumb-screws on the ends of the rods, the rate of toll may be varied. To effect this change of rate readily and accurately, I place across the spout C a strip with a scale of divisions marked thereon, showing sixths, eighths, and tenths, and to each partition or divider is attached a pointer, so that it is only necessary to shift the dividers until the pointers and scale indicate the desired rate. Thus, if it is desired to take one-sixth, first set divider *f* at four-sixths, then set divider *g* at two-sixths, and divider *h* at one-sixth. If one-tenth toll is desired, set *f* at four-tenths, *g* at two-tenths, and *h* at one-tenth.

The framed glass door *m* being immediately over the dividers and scale, an inspection can at all times be made of the division to know that it is in proper working order, without interrupting the flow of grain.

The construction of the chute *c* with contracted vent *c'* secures an accurate division when the flow of grain from the hopper is small, as well as when there is a full flow.

Having described my invention, I claim and desire to secure by Letters Patent—

1. In a grain-toller, the inclined spout B having stationary chutes and dividers arranged within for the purpose of effecting a regular and evenly-shaped flow of the grain, as described, and connected to which is the reversely-inclined spout C, with the adjustable dividers *f g h*, operating substantially as shown and described, and the toll-spout E and grist-spout D.

2. In a grain-toller, the dividers *f g h* rigidly secured to the rods *f' g' h'*, with ends extending from each side of the lower inclined spout

C, and threaded to receive the thumb screws or taps, whereby the dividers are adjusted laterally, as and for the purpose specified.

3. The chute *c*, with contracted vent *c'*, Λ-shaped divider, and chutes *s s* arranged in the spout B relative to each other, as shown and described, for the purpose of obtaining a regular and evenly-spread flow of the grain before it reaches the dividers, as herein specified.

JAMES W. PRICE.

Witnesses:
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