

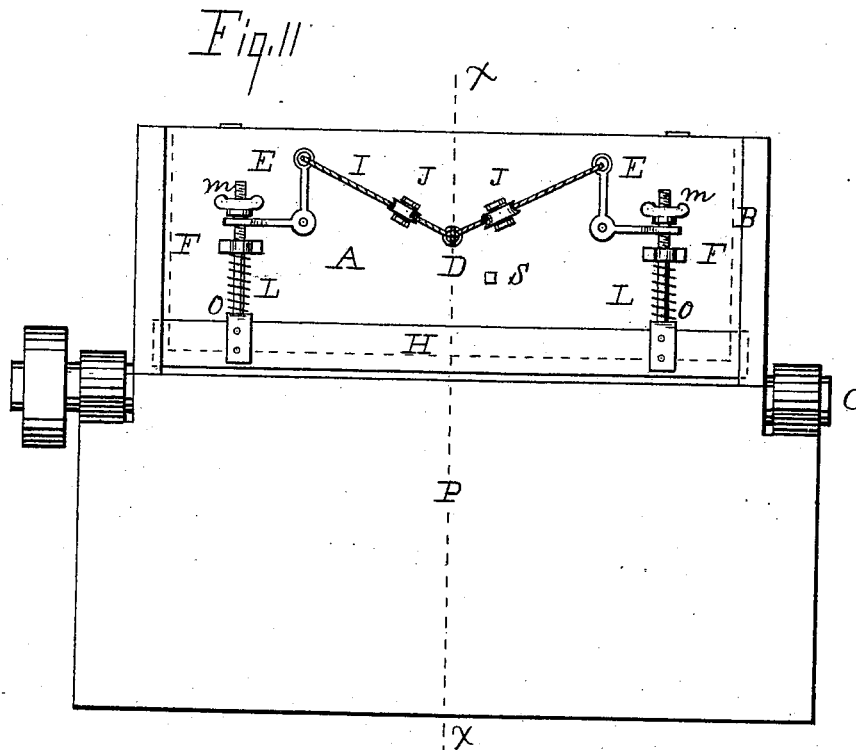
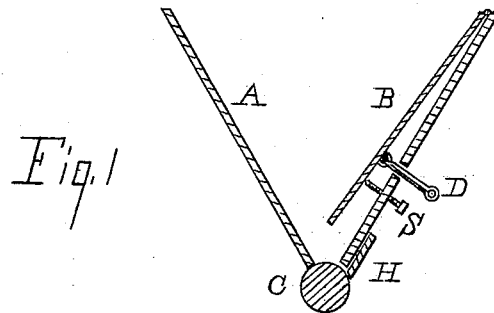
(No Model.)

H. O. STAHLER.

FEED MECHANISM FOR MIDDLEINGS PURIFIERS, &c.

No. 266,218.

Patented Oct. 17, 1882.



WITNESSES:

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HARRY O. STAHLEY, OF DAYTON, OHIO.

FEED MECHANISM FOR MIDLINGS-PURIFIERS, &c.

SPECIFICATION forming part of Letters Patent No. 266,218, dated October 17, 1882.

Application filed September 1, 1882. (No model.)

To all whom it may concern:

Be it known that I, HARRY O. STAHLEY, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Feed Mechanism for Middlings-Purifiers and Roller-Mills, of which the following is a specification.

My invention relates to an adjustable and self-regulating feed used in the processes of manufacturing flour, and may be adapted to any of the machines through which the grain or the products thereof pass; and it consists in a board suspended within the hopper, to which is attached a rod that passes through the side of the same, thereby operating an angular lever which has connection with a slide over the face of the roller, said lever being connected to the rod by cords passing beneath grooved rollers, and by this means the flow is regulated, as will be clearly hereinafter set forth.

The objects I have in view are attained by the mechanism illustrated in the accompanying drawings, in which—

Figure I is a transverse section of the feeding mechanism on the line *xx*, Fig. II. Fig. II is a front view of the same.

The same letters refer to like parts throughout the several views.

The automatic feed, as here presented, is attached to a middlings-purifier, and is substantially the same when attached to a roller-mill.

At A is represented a triangular box, known as a "hopper," which is supported over the roller C on the frame P, or the inclosing box of the purifier. The relation of the hopper to the roller is shown at Fig. I.

B is a board suspended inside of the hopper, from the upper edge of the front side, and below its center is attached a pin or short rod by a staple, which rod passes out through an orifice of the hopper. The outer end of this rod has an eye through which the cord I is passed. Beneath the rod, and a little to one side, is an adjusting-screw, S. This serves to arrest the forward movement of the board, and thereby the board is held at such an angle as to retain on its surface a portion of the descending products, and, passing this board, the products are again obstructed by the slide H, under

which the products are carried by the roller, to be discharged into the receptacle beneath. To the slide are attached rods O, which have bearings F, attached to the side of the hopper, and on the upper ends of the rods are thumb-screws *m*. These screws are used to adjust the position of the slide with reference to the roller, thereby causing the feed to be scant or free. Between the bearings F and the slide are spiral springs L, which embrace the rods. The slide, in addition to the bearings, is supported in grooves in the side of the frame, and to overcome any friction of the guides the springs press the slide down until the thumb-screws rest on the forked ends of the angular levers E. To the vertical ends of these levers is attached the cord I, which passes through the eye of the connecting-rod and beneath the grooved pulleys J.

The operation of the automatic feed is as follows: By means of the thumb-screws the slide is adjusted slightly above the roller. The cord is tightened and made fast to the levers, thus throwing the suspended board out into the hopper-space. The ground products, descending through a conveyer, fall upon the board, and this added weight to the board causes it to descend, forcing out the rod carrying the cord. This carries inward the tops of the levers and raises the slide, and therefore increases the flow onto the roller. When the weight of the products is lessened the board rises and the slide is lowered, thereby arresting the flow, and thus the products are fed to the roller with much regularity simply by the action of the descending products. It is equally applicable to roller-mills as to purifiers, and the device has only relation to the hopper and the rollers of the same.

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

The hopper A, suspended board B, rod D, cord I, levers E, rods O, and slide H, in combination, substantially as set forth.

HARRY O. STAHLEY.

Witnesses:

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