G. PFEIFFER.
Millstone-Feeder.

No. 209,356. Patented Oct. 29, 1878.

Fig. 1.

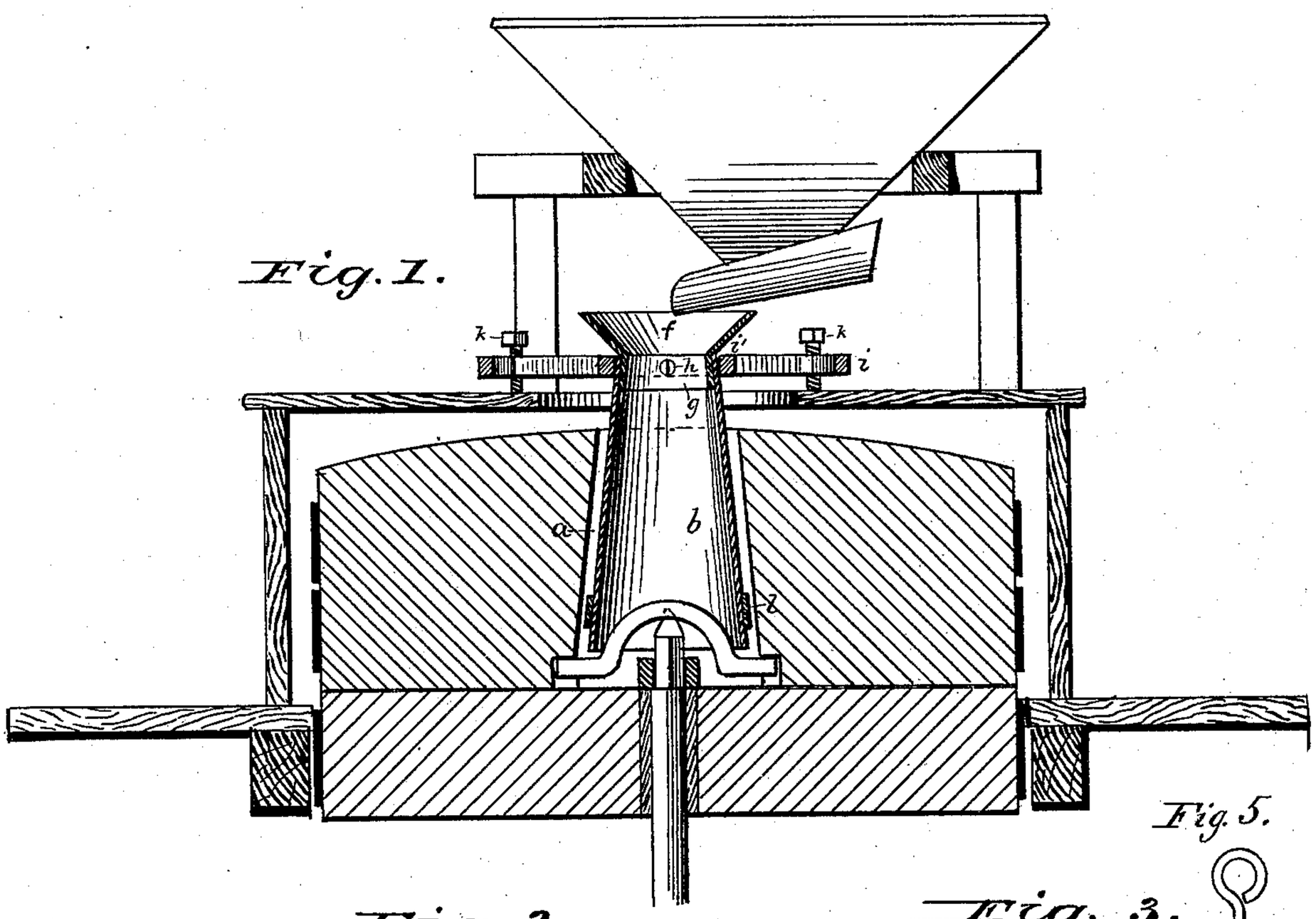


Fig. 2.

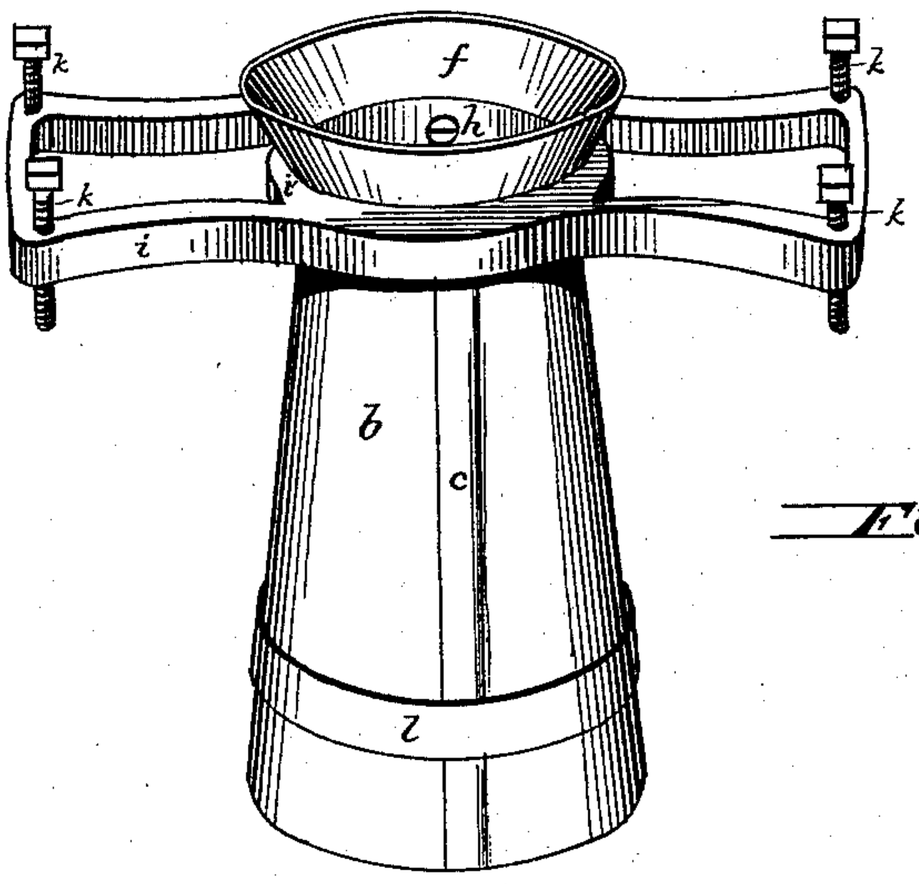


Fig. 3.

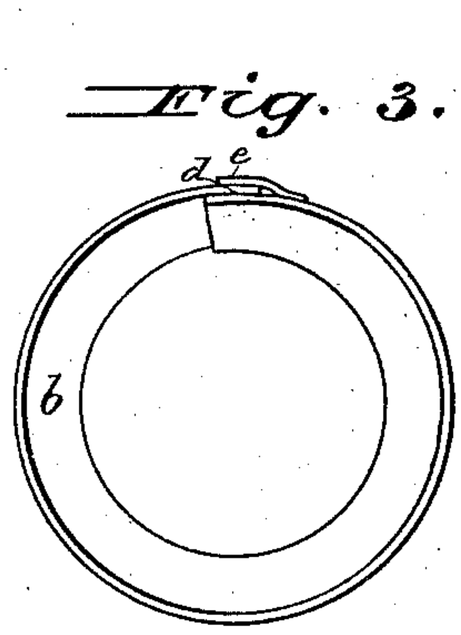


Fig. 4.

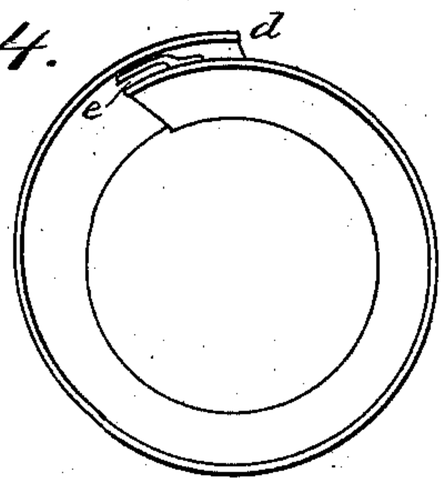
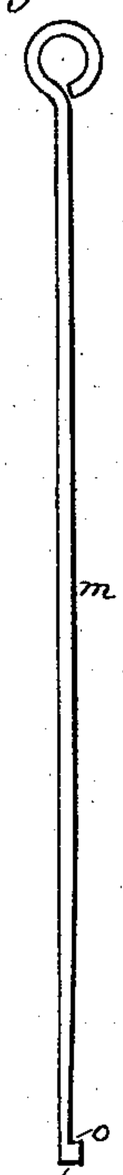


Fig. 5.



Attest:
H. D. Perrine
D. P. Lowl

Inventor.
Godfrey Pfeiffer,
By Wm. H. Pincke Attys.

UNITED STATES PATENT OFFICE.

GODFREY PFEIFFER, OF NEWTON, IOWA.

IMPROVEMENT IN MILLSTONE-FEEDERS.

Specification forming part of Letters Patent No. **209,356,** dated October 29, 1878; application filed August 17, 1878.

To all whom it may concern:

Be it known that I, GODFREY PFEIFFER, of Newton, in the county of Jasper, in the State of Iowa, have invented certain new and useful Improvements in Feeders for Millstones, of which the following is a full, clear, and exact description.

My invention relates to means for preventing the accumulation of ground stuff in the eyes of upper-runner millstones. It is well known to millers that in grinding feed at high speed with small burrs, and in grinding oats or barley, or regrinding middlings, the centrifugal force of the runner will cause the feed to collect and adhere to the walls of the eye of the burr and about the driving-irons, and completely fill up the eye of the burr, so as to prevent the descent of the light grain and middlings to the stones. In order to overcome this difficulty I provide a metallic tube, adapted to be fitted closely to the walls of the eye of the burr, and extending down nearly to the driving or hang irons, said tube being capable of contraction, so as to fit in various sizes of eyes, and mounted upon an adjustable frame, so as to be set the proper depth in the eye, all as hereinafter specified.

In the drawings illustrating my invention, and forming part hereof, Figure 1 shows my feeder in vertical section in position in a millstone. Fig. 2 is a perspective view thereof detached. Fig. 3 is a bottom view of the tube, showing its edges jointed in position; and Fig. 4 is a similar view, showing the joint apart or edges separated. Fig. 5 is a side view of a hook employed in connection with this invention.

At *a*, Fig. 1, is shown an eye in a millstone or burr which is small at the top and gradually tapers outwardly to the bottom of the stone, such being an ordinary construction. Within such eye I place a tube, *b*, of sheet metal, of such size as to clear the walls of the eye about three-eighths of an inch. This tube conforms to the shape of the eye, and it is divided longitudinally at one side to form a loose joint, *c*. This joint is composed of a pocket, *e*, upon one edge, into which is inserted the other edge *d*, (see Figs. 3 and 4,) the joint being secured by a slip ring or hoop, *l*, encircling the tube. *f* is a flaring mouth-piece, having a curtain, *g*, to which the tube is secured by screws *h*. *i* is a rectangular frame, having a central collar, *i'*, in which the tube and mouth-piece are secured, if desired, by the screws *h*. This frame is provided with set-screws *k* at each corner, which rest upon the mill-curb, and said screws constitute a convenient means for regulating the depth at which the tube shall be hung in the eye of the burr, this means for adjustment being provided in order to adapt the feeder for application to stones of various thicknesses, it being observed that the tube extends to within a fraction of an inch, or thereabout, of the hang-irons.

My invention being constructed as above described, its application is as follows, viz: In order to contract the wide lower end of the tube *b* it is removed from the frame and mouth-piece by taking out the screws *h*. The hoop *l* is then pulled toward the small end of the tube, and the edge *d* pulled from the pocket *e*, and the edges made to overlap, as in Fig. 4. The tube can thus be sufficiently contracted to be placed within the burr-eye, and this being done the edge *d* is pressed outwardly until it can be slipped into the pocket *e*, which being effected the ring *l* is slid down and pressed tightly downward against the larger end of the tube, a hook-rod, *m*, having a flat head, *n*, being used for this purpose. The frame *i* is then placed in position so that the tube can enter its collar *i'*. The mouth-piece *f* is then placed within the tube, and it and the tube secured to the collar *i'* by the screws *h*. The screws *k* are then adjusted upon the curb so as to bring the tube to a proper height with relation to the hang-irons.

In order to remove the feeder the tube is freed from its frame by removing the screws *h*. The rod *m* is then inserted between the eye-walls and the tube, and by means of its hook-edge *o* the band or ring *l* is loosened and pulled up, so that the tube may be disjointed, contracted, and drawn out.

My feeder may be employed in connection with almost any kind of hopper, whereby it is adapted to be applied to ordinary mills already in use. It will be found of special value and utility in those mills having an upper runner

and used to grind mixed grain, such as corn and oats, barley and oats, and also unmixed grain, for grinding middlings, and for making new process flour, particularly in mills with small burrs run at a high rate of speed. It is also adapted for feeding paints of every description. In grinding at high speed the centrifugal action of the mill is such as to cause the feed to clog upon the walls of the eye and upon the hang-irons and seriously interfere with the passage of the grain, &c. My feeder entirely obviates this and permits running at very high speed.

It is to be understood that I do not confine my invention to the exact form of frame shown, for it may be varied. I may, for example, omit the collar *i'* and simply fasten the tube to the frame direct; or the collar may be in one piece with or separate from the frame.

What I claim is—

1. A millstone-feeder provided with an anti-clogging conical tube, adapted to be contracted for the purpose of inserting it within the conical eye of a burr, substantially as described.

2. As a new article of manufacture, a millstone-feeder consisting of a conical tube contractile as to its diameter, a slip ring or hoop, a mouth-piece, and a supporting-frame separable one from another, substantially as and for the purpose described.

G. PFEIFFER.

Witnesses:
S. C. COOK,
A. S. STUVER.