

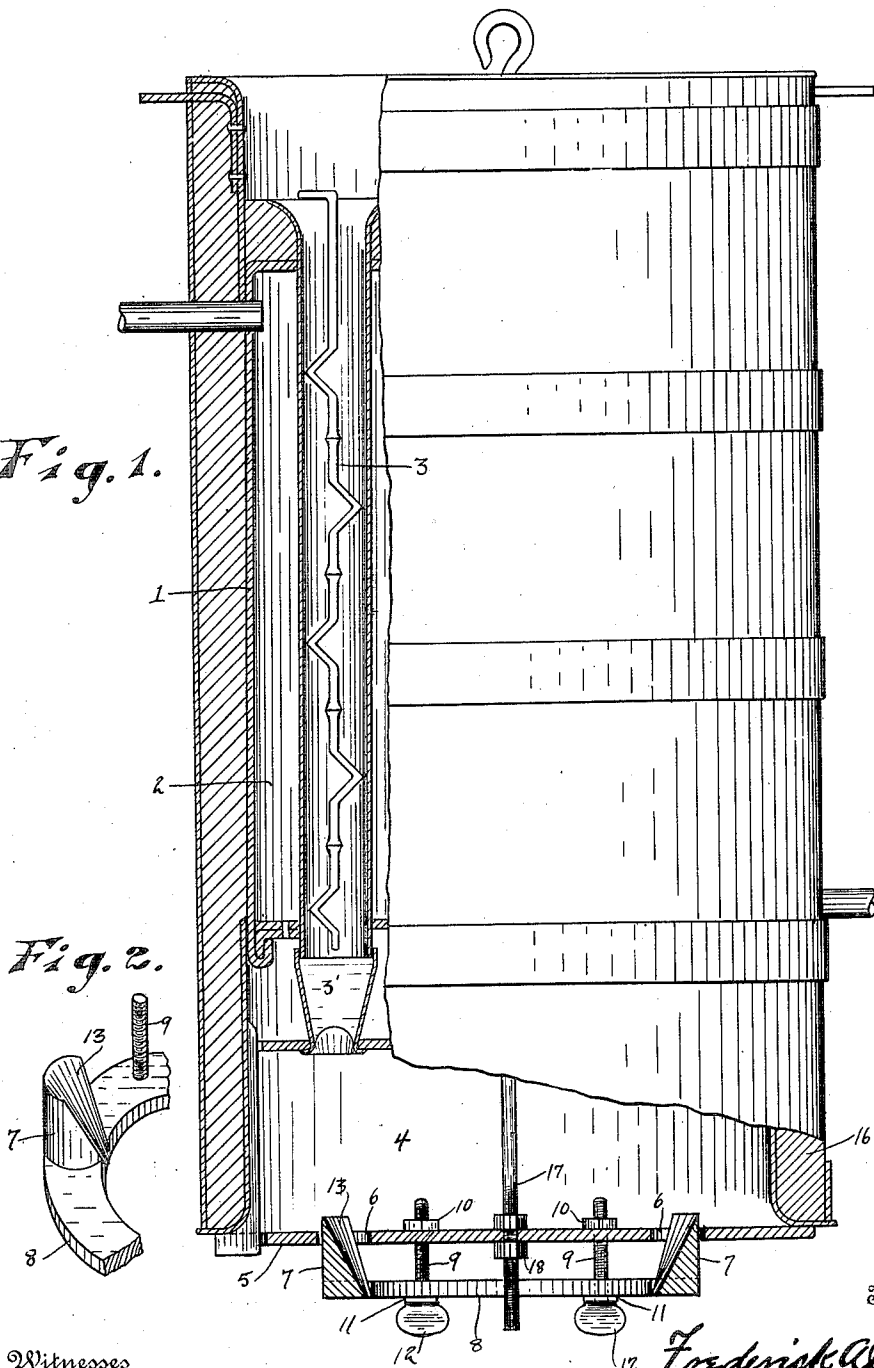
F. A. WEGNER.
 DEVICE FOR REGULATING THE DISCHARGE OF GRAIN HEATERS.
 APPLICATION FILED JAN. 8, 1910.

971,479.

Patented Sept. 27, 1910.

Fig. 1.

Fig. 2.



Inventor

Witnesses

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UNITED STATES PATENT OFFICE.

FREDERICK A. WEGNER, OF MILWAUKEE, WISCONSIN, ASSIGNOR, BY MESNE ASSIGNMENTS, OF ONE-HALF TO HERBERT C. GRAHAM, OF MILWAUKEE, WISCONSIN.

DEVICE FOR REGULATING THE DISCHARGE OF GRAIN-HEATERS.

971,479.

Specification of Letters Patent. Patented Sept. 27, 1910.

Application filed January 8, 1910. Serial No. 537,064.

To all whom it may concern:

Be it known that I, FREDERICK A. WEGNER, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Devices for Regulating the Discharge of Grain-Heaters, of which the following is a specification.

My invention relates to improvements in grain heaters, and it pertains more especially, among other things, to the device for regulating and stopping the flow of grain from the heater.

Heretofore it has been common to wholly or partially close the discharge openings of a heater with a plurality of cone shaped stoppers, which have been inserted centrally in such openings, whereby the grain, when flowing, is caused to pass out in an annular stream around the stoppers, and experience has shown that the escaping grain, when so controlled, is liable to become accidentally stopped or clogged.

The object of my present improvement is to provide a stopper which is adapted to close the escape aperture gradually from one side toward the other, whereby the escaping grain is permitted to pass out in a continuous stream and the liability of the same becoming accidentally clogged in the passage, is avoided.

The construction of my improvements are further explained by reference to the accompanying drawings, in which—

Figure 1 represents a side view, part in section, of a heater provided with my improved mechanism for regulating the discharge therefrom; and Fig. 2 is a detail in perspective, of one of the stoppers in connection with a supporting member, by which the several stoppers are supported and adjusted in their respective apertures.

Like parts are identified by the same reference numerals in both views.

The steam chamber 1, grain duct 2, grain deflector or agitator 3 and discharge funnels 3' are all constructed substantially in the ordinary manner, and invention is predicated herein more especially upon the arrangement and construction of the device for regulating and stopping the flow of grain from the receiving chamber 4 as it escapes from the grain tubes above.

5 is the bottom of the heater, which is provided with a plurality of apertures 6,

through which the heated grain is permitted to flow from the heater.

7 are stoppers by which the escape of grain is regulated or stopped at the will of the operator. The several stoppers 7 are supported from the supporting member 8, which is adjustably suspended from the bottom of the heater 5, by a plurality of suspension screws 9, having screw threaded bearings in the stationary nuts 10, while the supporting member 8 rests upon the collars 11 of said bolts. The suspension screws 9 are preferably provided with hand bearings 12, by which such screws may be turned upwardly or downwardly in the nuts 10, whereby the supporting member 8, together with the stoppers 7 may be adjusted in the discharge apertures 6. The stoppers 7 are provided upon one side with a downwardly inclined concave recess 13, whereby as the stoppers are partially withdrawn from the apertures, the grain is free to escape in a solid cylindrical stream through the space between the concave sides of said stoppers and the opposing sides of said apertures.

It will be understood that as said stoppers are raised by turning up said suspension screws, the apertures 6 will be gradually closed from one side, while the grain will be free to pass in a solid stream from the opposite side. When, however, it is desired to stop the escape of grain, said suspension screws 9 are turned upwardly until the extreme lower ends of the stoppers are brought into the apertures, whereby such apertures are closed. Thus it is obvious that the escape of grain from the heater may be regulated to flow faster or slower or stopped at the will of the operator by turning said hand screws upwardly and downwardly in their bearings. The bottom member 5 is retained in contact with the lower end of the heater inclosing walls 16 by the central rod 17 and supporting nuts 18, and said rod 17 is connected at its upper end to the upper end of the heater.

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

1. In a grain heater, the combination of a bottom member provided with a plurality of apertures for the escape of grain, a plurality of stoppers having a vertical convex side conforming in shape to and adapted to bear against one side of said apertures, and an

opposite downwardly diverging side, said stoppers being adapted as they are raised to close said apertures from one side and means for adjustably supporting said stoppers in said apertures.

2. In a grain heater, the combination of a bottom member provided with a plurality of apertures for the escape of grain, a plurality of stoppers having a vertical convex side conforming in shape to and adapted to bear against one side of said apertures, and

an opposite concave downwardly diverging side, said stoppers being adapted as they are raised to close said apertures from one side and means for adjustably supporting said stoppers in said apertures.

In testimony whereof I affix my signature in the presence of two witnesses.

FREDERICK A. WEGNER.

Witnesses:

JAS. B. ERWIN,

O. R. ERWIN.