

Nov. 1, 1932.

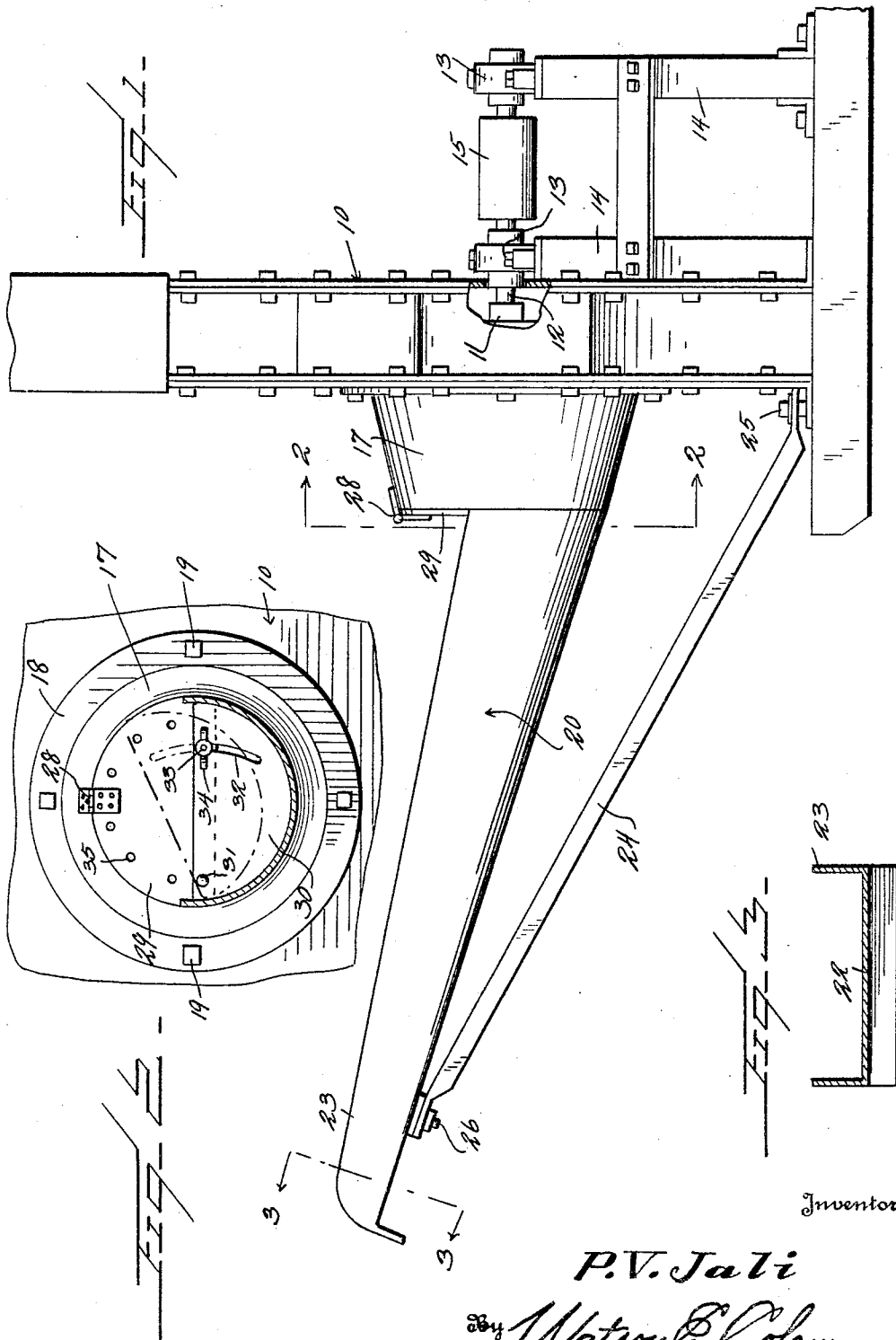
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1,886,103

PULVERIZING MACHINE

Filed July 1, 1931

2 Sheets-Sheet 1



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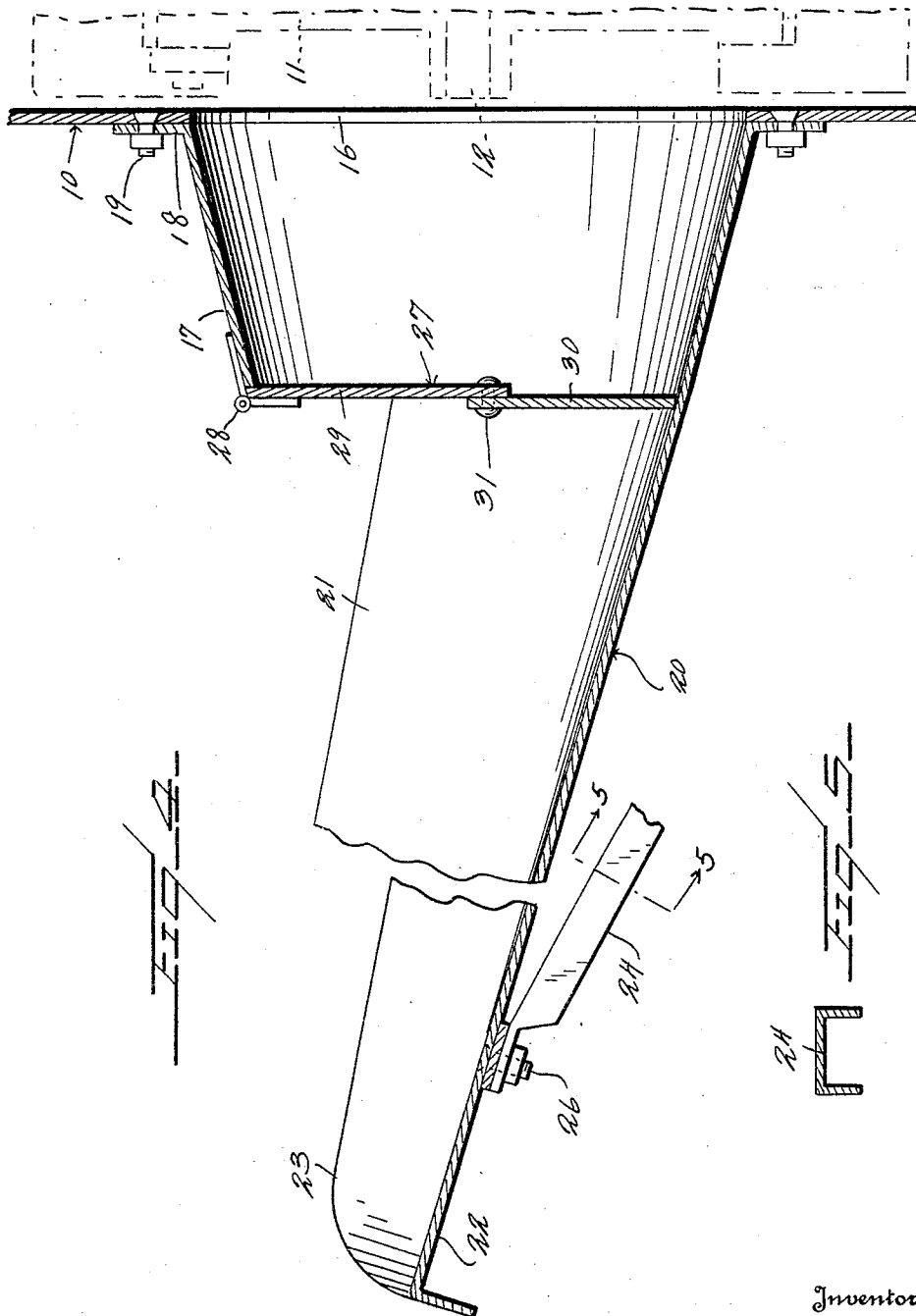
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UNITED STATES PATENT OFFICE

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PULVERIZING MACHINE

Application filed July 1, 1931. Serial No. 548,183.

This invention relates to pulverizing mechanisms, and is an improvement over the construction disclosed in my prior Patent No. 1,798,676, issued March 31, 1931.

5 An object of this invention is to provide an improved pulverizing mill or mechanism by means of which various kinds of material may be fed into the mill at the desired rate of speed.

10 A further object of this invention is to provide an improved pulverizing mechanism by means of which the pulverizing wheel is rotatably mounted within the housing so that the material may be fed into the housing
15 from one side thereof.

A still further object of this invention is to provide a chute which may be mounted on a pulverizing mechanism of this kind, the chute embodying means for feeding a
20 predetermined quantity of material into the pulverizing mechanism.

The above and various other objects and advantages of this invention will in part be described in and in part be understood from the following detailed description of the
25 present preferred embodiment, the same being illustrated in the accompanying drawings, wherein:—

Figure 1 is a detail side elevation partly
30 broken away of a device constructed according to the preferred embodiment of this invention;

Figure 2 is a fragmentary sectional view partly in detail taken on the line 2—2 of
35 Figure 1;

Figure 3 is a sectional view taken on the line 3—3 of Figure 1;

Figure 4 is a fragmentary longitudinal section taken substantially through the longitudinal center of the chute, and
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Figure 5 is a sectional view taken on the line 5—5 of Figure 4.

Referring to the drawings wherein like numerals of reference designate corresponding parts throughout the several views, the numeral 10 designates generally a housing for a pulverizing mechanism including a pulverizing member 11, which is mounted on a stub shaft 12 which is rotatably carried by
45 a pair of standards 14 having bearings 13

mounted on the upper ends thereof. A pulley 15 is mounted on the shaft 12 intermediate the standards 14 and a flexible member in the form of a belt or the like, may be trained over this pulley 15, so as to rotate the pulverizing member 11. This housing 10 is provided with an intake port 16 at one side thereof and substantially concentrically of the shaft 12 and disposed about this intake port 16 is positioned a frusto-conical intake
55 spout 17 which has a flange 18 secured to the side wall of the housing 10 by means of bolts 19 or the like.

An elongated chute, generally designated as 20, is secured to the spout 17 and extends
60 at an upward inclination therefrom, the inner end portion 21 of the chute 20 being curved so as to substantially conform to the configuration of the frusto-conical spout 17, and the outer end of the chute 20 is bent in substantially U-shaped form, as disclosed in Figure 3, having a flat bottom 22 and vertically
65 disposed side members 23. This chute 20 is securely held in upwardly inclined position by means of a pair of bracing members 24, which are preferably of channel or angular construction, being secured at one end to the housing 10 by means of bolts 25 and secured
70 to the chute 20 by means of bolts 26 or the like. The material which it is desired to pulverize or grind in the housing 10 is fed into the housing by means of the chute 20, and in order to control the amount of material passing downwardly within the chute 20, I have provided a closure member, generally designated as 27, which is hinged, as at
75 28, to the spout or intake member 17.

This closure member 27 comprises an upper plate 29 which is hinged to the intake member 17 and a lower plate 30 which is pivotally secured adjacent one edge thereof to the upper plate 19 by means of a pivotal member
80 31. These plate members 29 and 30 are constructed substantially in the form of a semi-circular plate which overlap each other at the abutting edges thereof, and the lower plate 30 is provided with a segmental slot 32 for receiving a bolt 33 which is carried by the upper plate 29, and a thumb nut 34 is threadably mounted on the bolt 33 and is adapted
85 90 95 100

to hold the lower plate 30 in vertically adjusted position with respect to the upper plate 29.

When the lower plate 30 is lowered, the peripheral edge thereof is adapted to engage the inner surface of the lower end of the chute 20 so as to close this opening and prevent the passage of material into the housing 10 from the chute 20. As disclosed in dotted lines in Figure 2, the lower plate 30 may be raised upwardly so as to permit material to pass therebeneath and into the housing 10, or if desired, the entire closure 27 may be swung upwardly on the hinge 28 so as not to impede the passage of the material, such as hay, straw or the like passing downwardly through the chute 20 and the intake member 17. This upper plate 29 is provided with a plurality of apertures 35 therethrough, so as to permit the entrance of air or the like into the housing and to prevent the formation of a vacuum within the housing 10 as the material passes through the intake port 16.

In the operation of this device, the pulley 15 and the shaft 12 are adapted to be rotated from a conventional power member so as to rotate the pulverizing member 11, the operation of which is more specifically described in my prior patent hereinbefore referred to. The closure 27 may be opened to the desired degree, depending upon the character of the material which it is desired to pulverize.

It is, of course, understood that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claims.

I claim:—

1. In a pulverizing means, a frustro-conical intake member, and a closure engaging the outer end of the member, said closure comprising an upper portion swingable outwardly of the outer end of the member, and a lower portion swingable transversely of the outer end of the member.

2. In a pulverizing means, an intake member, a closure for said member and hinge means for hinging the closure to the member for upward swinging movement, said closure comprising an upper plate, a lower plate, a pivot for securing the lower plate to the upper plate for vertical swinging movement in a plane parallel to the outer surface of the upper plate, and means engaging each plate to hold the lower plate in adjusted position.

3. In a pulverizing means, an intake member, a closure for said member, hinge means for hinging the closure to the member for upward swinging movement, said closure comprising an upper plate hinged to the intake member, a lower plate, a pivot engaging the upper and lower plates at one side of the

center thereof, one of said plates having an arcuate slot therein, and a thumb bolt carried by the other plate and extending through the slot whereby to permit vertical adjustment of the lower plate relative to the upper plate.

In testimony whereof I hereunto affix my signature.

PETER V. JALI.

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