

(No Model.)

C. D. PATTERSON.

FEED REGULATOR.

No. 398,746.

Patented Feb. 26, 1889.

Fig 2

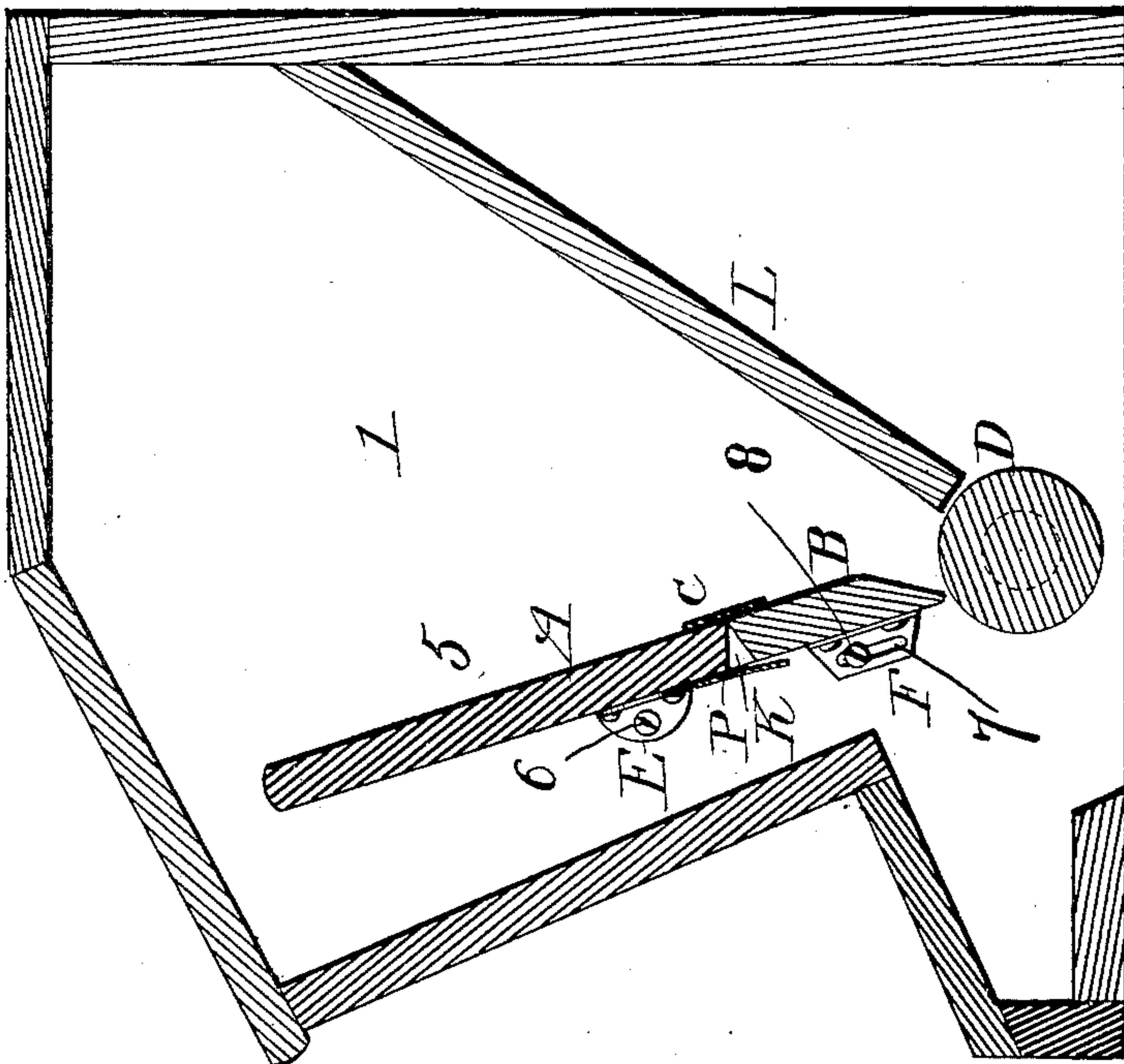
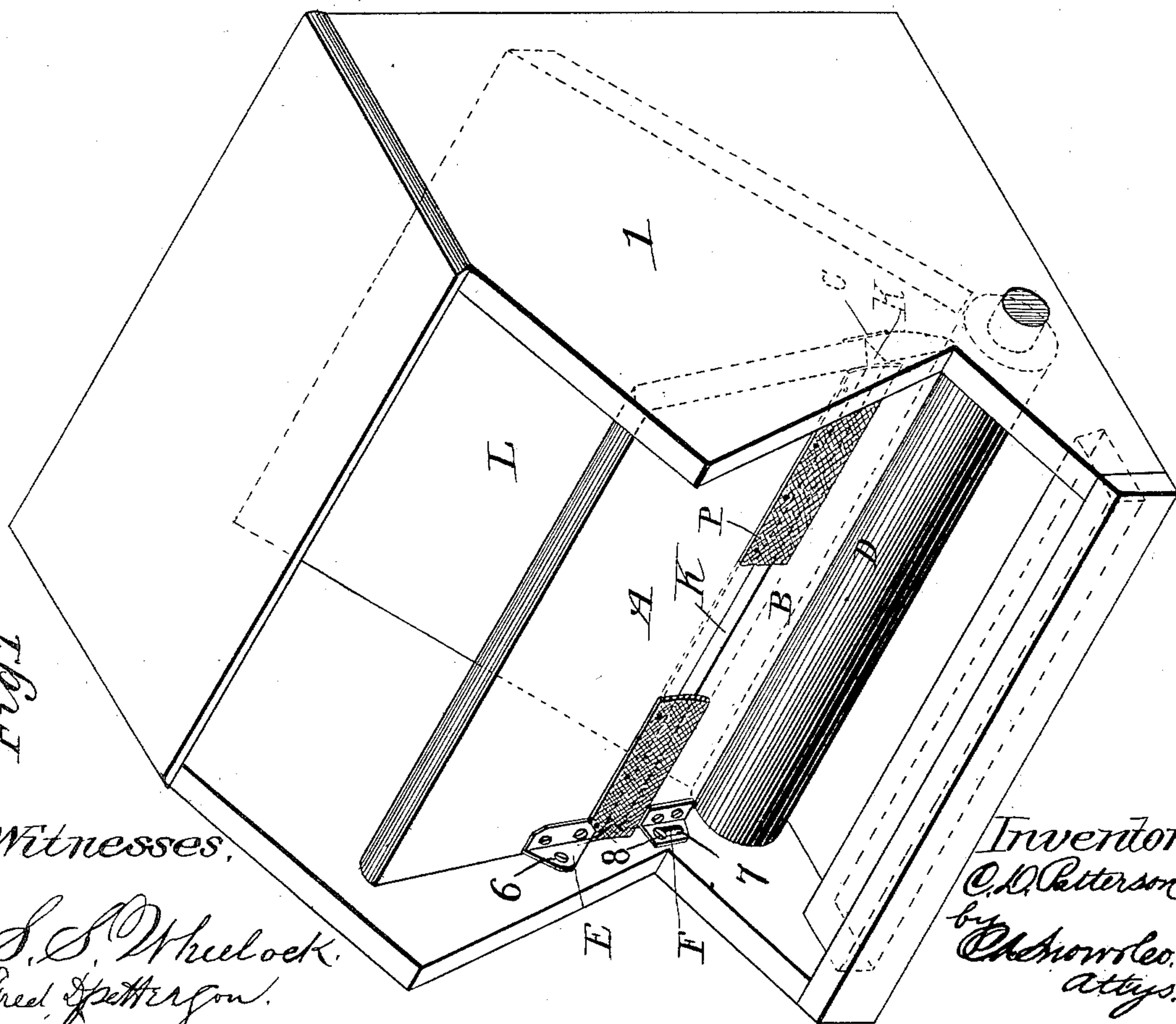


Fig 1



Witnesses,

S. S. Wheelock.
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UNITED STATES PATENT OFFICE.

CARLISLE D. PATTERSON, OF GIRARD, KANSAS.

FEED-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 398,746, dated February 26, 1889.

Application filed June 16, 1888. Serial No. 277,395. (No model.)

To all whom it may concern:

Be it known that I, CARLISLE D. PATTERSON, a citizen of the United States, residing at Girard, in the county of Crawford and State of Kansas, have invented certain new and useful Improvements in Feed-Regulators, of which the following is a specification.

My invention relates to improvements in feed-regulators for roller-mills, and has for its object the provision of a device in which the amount of material fed to the grinding-rollers will be automatically regulated. This object I accomplish by the use of the mechanism shown in the accompanying drawings; and the invention consists in certain novel features hereinafter described and claimed.

In the drawings referred to, Figure 1 is a perspective view of my improved device with the front of the casing open, and Fig. 2 is a vertical section of the same.

Referring more particularly to the drawings, 1 designates the hopper, having the transverse feed-roller D journaled in its lower portion in the usual manner and provided with the inclined cant-board L, extending from its rear side to the feed-roller, as shown.

The valve or gate 5 is composed of two sections, A B, and is arranged transversely in the hopper near the front side of the same. The lower section, B, has its upper edge connected to the lower edge of the upper section, A, by a strip, C, of some flexible material—such as leather—as shown. A guard, P, of suitable material, is secured to the front side of the upper section and projects over the open space K between the adjacent edges of the two sections to prevent the accumulation of dust therein, which would be liable to prevent the successful operation of the device. The upper section of the valve is provided on its rear side with the lugs or brackets E, through which screws 6 are passed into the sides of the hopper to pivotally secure the said section within the hopper. The lower section of the valve is provided on its front side with the brackets or lugs F, having slots 7, through which pins or screws 8 are passed into the sides of the hopper.

The construction and arrangement of the

parts of my device being thus made known, it is thought the operation of the same will be readily understood. The material is placed in the hopper in the usual manner, and passes therefrom over the feed-roller through the space between said roller and the lower section of the valve. The material fills the same between the cant-board L and the valve and presses against the valve with a tendency to open the same.

When the hopper has been filled to a point about in the horizontal plane of the brackets E, the material pressing against the valve will force the joint of the same outward, thereby causing the lower section to move downward and inward by reason of the slotted brackets, thereby causing its lower edge to be moved toward the feed-roller, so as to check the flow of material to the grinding-rollers. As the material rises in the hopper, the pressure of the same upon the valve will gradually open the same and maintain it in equilibrium, so that the material will be fed to the grinding-rollers in an even steady stream.

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

1. In a feed-regulator, the combination of the hopper, the feed-roller arranged transversely therein, and the valve arranged above the roller and consisting of an upper section pivoted to and extending between the sides of the hopper and a lower section hinged to the upper section and also pivoted to and extending between the sides of the hopper, as set forth.

2. In a feed-regulator, the combination of the hopper and the valve arranged therein and consisting of an upper section pivoted to the sides of the hopper, the lower section hinged to the upper section and also pivoted to the sides of the hopper, and the guard secured to the upper section and projecting over the space between the adjacent edges of the two sections, as set forth.

3. The combination of the hopper, the valve pivoted in the hopper and composed of the upper valve-section having the brackets E on its front side, the said brackets being piv-

otally secured to the hopper, the lower valve-
section hinged to the upper section, the
brackets F on the front side of the said sec-
tion and having the slots 7, and the retaining
5 pins or screws passing through said slots into
the casing of the hopper, as specified.
In testimony that I claim the foregoing as

my own I have hereto affixed my signature
in the presence of two witnesses.

CARLISLE D. PATTERSON.

Witnesses:

MYRON A. WOOD,
JOHN SONTZ.