E. H. FRICKEY.

SCREEN FOR PULVERIZERS.

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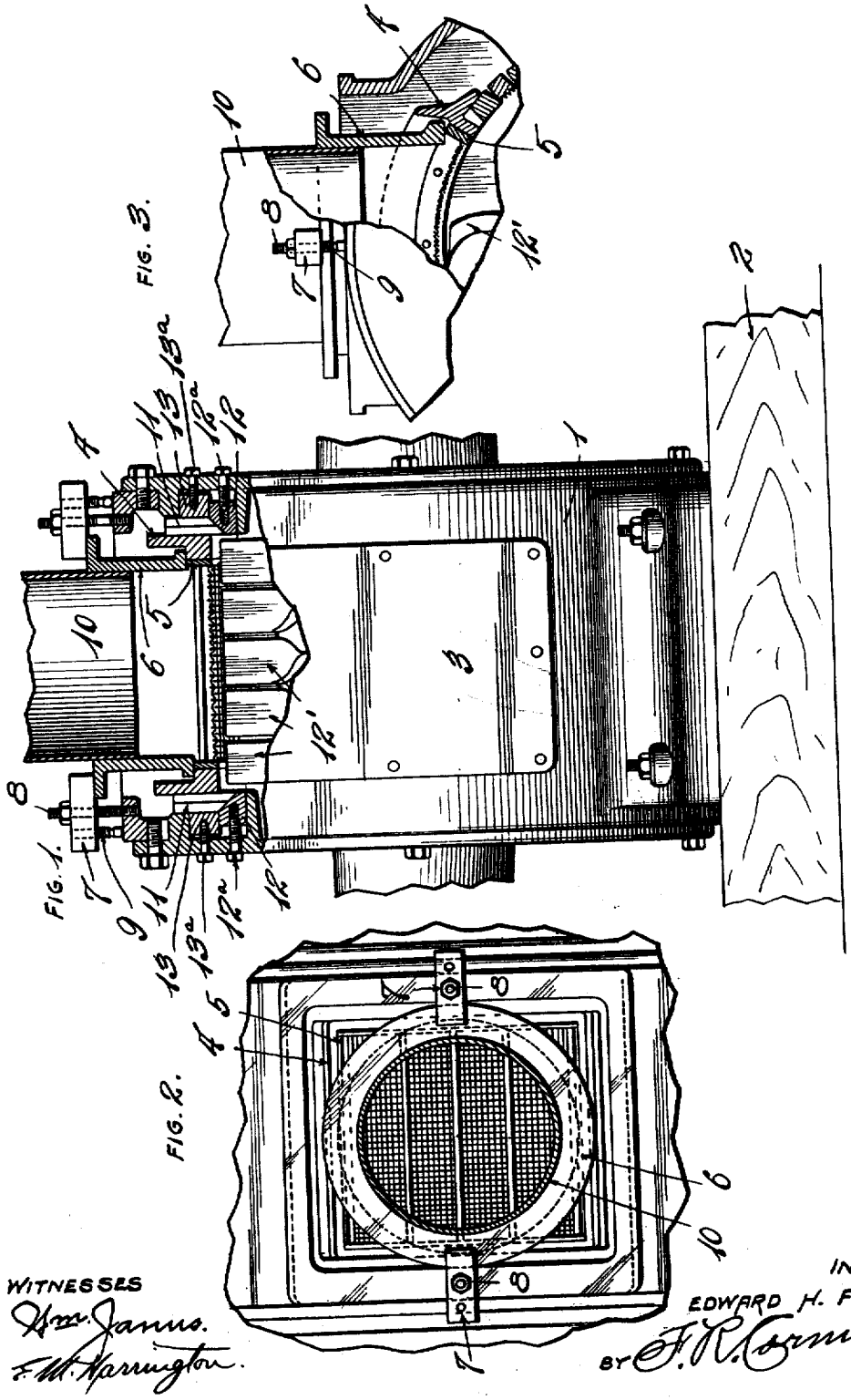
1,014,384.



UNITED STATES PATENT OFFICE.

EDWARD H. FRICKEY, OF ST. LOUIS, MISSOURI, ASSIGNOR TO WILLIAMS PATENT CRUSHER & PULVERIZER COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

SCREEN FOR PULVERIZERS.

1,014,384. Specification of Letters Patent. Patented Jan. 9, 1912.

Original application filed June 9, 1910, Serial No. 565,949. Divided and this application filed October 29, 1910. Serial No. 589,827.

To all whom it may concern:

Be it known that I, EDWARD H. FRICKEY, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvements in Screens for Pulverizers, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevational view of my improved device, partly in vertical section; Fig. 2 is a plan view of Fig. 1; Fig. 3 is a partial side elevational view showing a portion of the casing broken away and other parts in section.

This invention relates to a new and useful improvement in screens and adjusting means therefor. This improvement is of special advantage in connection with a well-known form of pulverizer, although it may be used in any other connection and with any other analogous type of machine.

This application is a division of that filed by me on June 9, 1910, serially numbered 565,949.

This invention consists in the construction, arrangement and combination of the various parts, as will hereinafter be described and pointed out in the claims.

In the drawings, 1 indicates a casting, which is preferably anchored to suitable timbers 2 constituting the foundation or support. This casting constitutes a casing having a grinding surface interiorly thereof, in the peripheral wall of which is arranged a suitable man-hole plate 3, by which access may be gained to the interior. The outer part of the casting is provided with an opening, in which is arranged a removable casting 4 constituting a support for a screen frame 5 containing a wire mesh covering the discharge opening.

6 indicates a flanged ring coöperating with the screen frame to hold the same in its seat, said ring in turn being held in position by blocks 7 adjustably secured in position by means of threaded bolts 8, said blocks being loosely mounted on said bolts 8, so that by turning the screws 9, the inner ends of said blocks may be forced downwardly to tighten the clamping ring 6 in position.

10 is a discharge spout, which is preferably connected to an exhaust fan or blower.

To renew the screen, it is only necessary to loosen the bolts 9, to swing the blocks 7 on the bolts 8 and raise the flanged ring 6, whereupon the screen may be removed. If necessary, the pipe 10 may also be raised for the same purpose.

The casting 4 which supports the screen frame is mounted to move in vertical guideways and provided with ribs 11 fitting in said guideways, said ribs having their lower ends beveled.

12 is a bar having a beveled inner end to coöperate with the ribs 11, whereby, when the clamping ring 6 is not firmly secured in position, the bar 12 may be adjusted inwardly and outwardly to adjust the screen with relation to the paths of travel of the revolving beaters 12′, by means of bolts 12^a secured in the casing. Bar 13, having a vertical inner face, is also made adjustable inwardly and outwardly by means of a threaded bolt 13^a secured in the casing for clamping the screen in its vertically adjustable position. Bars 12 and 13 are duplicated on each side of the screen, the bars 12 serving to support the casting 4 and its carried screen, while the bars 13 serve to clamp the same in position. The clamping blocks 7 force the flanged screen and its associate parts downwardly. To adjust the screen downwardly, it is only necessary to loosen the bolts 12^a, to move the bars 12 outwardly, and tighten the clamping blocks 7. To adjust the screen upwardly, the clamping blocks are first loosened, then the bolts 12^a rotated so as to move the bars 12 inwardly. Bolts 13^a, which move the bars 13 inwardly and outwardly may be turned to clamp and unclamp the casting 4.

The operation of the screen will be understood from the description given above, as screens have been commonly used in connection with devices of this character.

I am aware that minor changes in the construction, arrangement and combination of the various parts of my device can be made and substituted for those herein shown and described without departing from the nature and spirit of my invention.

I claim:

1. In a device of the character described, the combination of a casing having a discharge opening, a screen covering said discharge opening, a frame for supporting said screen in position, means on each side of said frame for adjusting the same relative to the casing, a discharge pipe mounted above the screen, and a casting surrounding the discharge pipe and supported by the screen support.

2. In a device of the character described, the combination of a casing having a discharge opening, a screen covering said discharge opening, a frame supporting said screen in position, means on each side of said frame for adjusting the same relative to the casing, a discharge pipe mounted above the screen, a casting surrounding the discharge pipe and supported by the screen support, and means for adjustably holding the casting in position.

3. In a device of the character described, the combination of a casing having a discharge opening, a supply pipe above said opening, a screen covering said discharge opening, a casting supported by said screen and embracing the discharge pipe, and means for adjustably holding said casting in position, comprising blocks engaging the face of the casting and screws adjustably connecting said blocks with the casing.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 26th day of October 1910.

EDWARD H. FRICKEY.

Witnesses:
M. P. SMITH,
ALMA GEBHART.