(No Model.)

M. J. SCHECH.

KNOCKER FOR BRAN DUSTERS.

No. 302,946. Patented Aug. 5, 1884.

Fig. 1

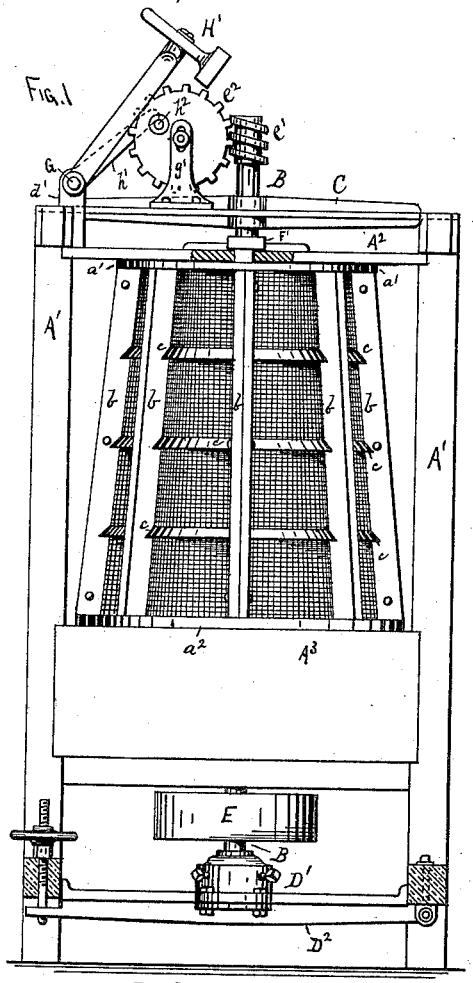


Fig. 2

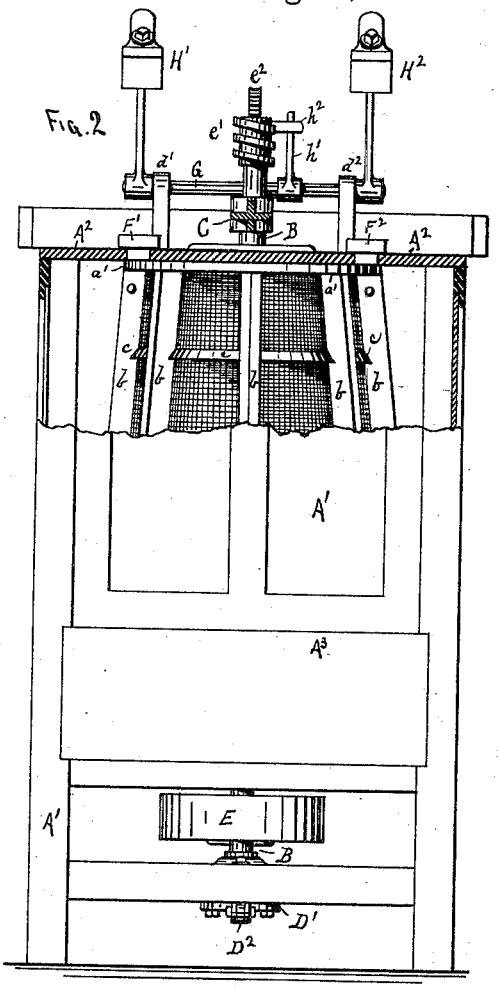


Fig. 3

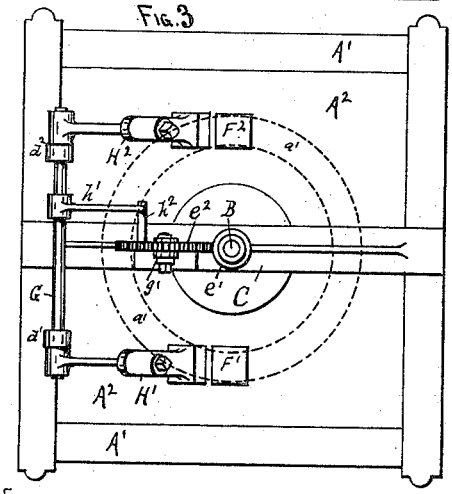
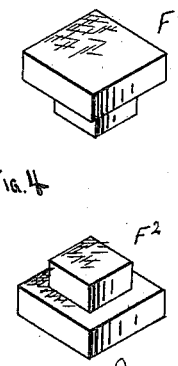


Fig. 4



WITNESSES.
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UNITED STATES PATENT OFFICE.

MICHAEL JOSEPH SCHECH, OF ST. PAUL, MINNESOTA.

KNOCKER FOR BRAN-DUSTERS.

SPECIFICATION forming part of Letters Patent No. 302,946, dated August 5, 1884.

Application filed April 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL JOSEPH SCHECH, a citizen of the United States, and a resident of St. Paul, in the county of Ramsey, in the State of Minnesota, have invented certain new and useful Improvements in Knockers for Bran-Dusters, of which the following specification is a full, clear, and exact description, reference being also had to the accompanying drawings, in which—

Figure 1 is a semi-sectional side elevation. Fig. 2 is a semi-sectional rear elevation; and Fig. 3 is a plan view of a bran-duster, showing my improved knocking mechanism attached thereto. Fig. 4 are enlarged perspective views of the knockers-blocks removed.

This invention is designed to effectually remove the adhering dust, &c., from the bolting-cloth of upright bran-dusters and similar machines, and may be applied to any form of such machines; but for the purpose of illustration I have shown it applied to one of the well-known forms of bran-dusters, A′ being the outer casing, supporting an upright central shaft, B, to which conical beater-arms are attached inside a stationary bolting-cloth-covered conical frame, as shown. This shaft B runs at the top through a bridge-tree, C, and is supported at the bottom by a tram-pot, D′, and adjusting-lever D^2, so that the shaft can be adjusted higher and lower.

E is the driving-pulley by which the shaft may be revolved.

The stationary conical bolting-cloth-covered frame is formed of an upper ring, a', resting against the under surface of the top A^2 of the casing A′, and a bottom ring, a^2, resting upon a floor or division plate, A^3, attached to the frame A′ near its bottom, these two rings being connected by upright ribs *b*. This forms a circular conical frame or reel, to the inside of which the bolting-cloth is secured. Angular rings *c* are arranged around the outside of the bolting-cloth and between the ribs *b*, to still further support the cloth and preserve its rotundity.

F′ F^2 are two wooden blocks formed with their lower parts smaller than their upper parts, and with said smaller parts fitting into holes in the top A^2 of the frame A′, and resting upon the top of the upper ring, a', at opposite sides of the machine, the said enlarged upper parts forming shoulders to support the blocks upon the top A^2, and prevent them falling through in the event of the removal of the conical reel-frame.

G is a rock-shaft journaled by its ends in standards d' d^2 upon top of the frame A′, and having secured thereto two hammers or knockers, H′ H^2, adapted, when lowered down, to rest with their faces in contact with the upper enlarged ends of the blocks F′ F^2. The shaft B extends up above the bridge-tree C, and is provided with a worm-pinion, e', adapted to engage with a worm-gear, e^2, journaled in a standard, g', fast on the bridge-tree C. By this means the revolving motion of the shaft B will be communicated to the worm-gear e^2.

h' is an arm fast by one end to the shaft G, and extending forward and adapted to be acted upon by a pin, h^2, projecting from the side of the gear e^2, so that when the gear is revolved the pin h^2 will run beneath the arm h', raise it up, and also elevate the hammers H′ H^2, and then, when the pin passes out from under the end of the arm h', the hammers will drop upon the blocks F′ F^2. These blocks resting directly upon the frame of the conical bolting-cloth-covered frame, and the parts of the latter being all firmly and rigidly connected together, these blows of the hammers F′ F^2 will vibrate and jar the entire surface of the bolting-cloth and shake the adhering dust loose therefrom. The shaft C and worm e' will revolve at a speed of about three hundred revolutions per minute, and the gear e^2 will revolve at about eight revolutions per minute; hence the hammers will strike about eight blows per minute, which is often enough for ordinary purposes. The worm-gear e^2 is adjustable in the standard g', and the latter is adjustable upon the bridge-tree C, so that a larger or smaller worm-gear may be arranged thereon at will, to increase or decrease the number of blows per minute to adapt the machine to different qualities of material.

Having described my invention and set forth its merits, what I claim is—

The combination, with the casing A′ and stationary bolting-cloth-covered frame within the same, of the loose blocks F′ F² in the frame, the beater-shaft B, provided with the worm-screw e', the worm-wheel e^2, provided with the pin h^2, and the rock-shaft G, provided with the arm h', and hammers H′ H², substantially as and for the purpose herein specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

MICHAEL JOSEPH SCHECH.

Witnesses:
C. N. WOODWARD,
LOUIS FEESER, Sr.