

(No Model.)

W. HUTCHISON.
ROLLER MILL FEED MECHANISM.

No. 321,030.

Patented June 30, 1885.

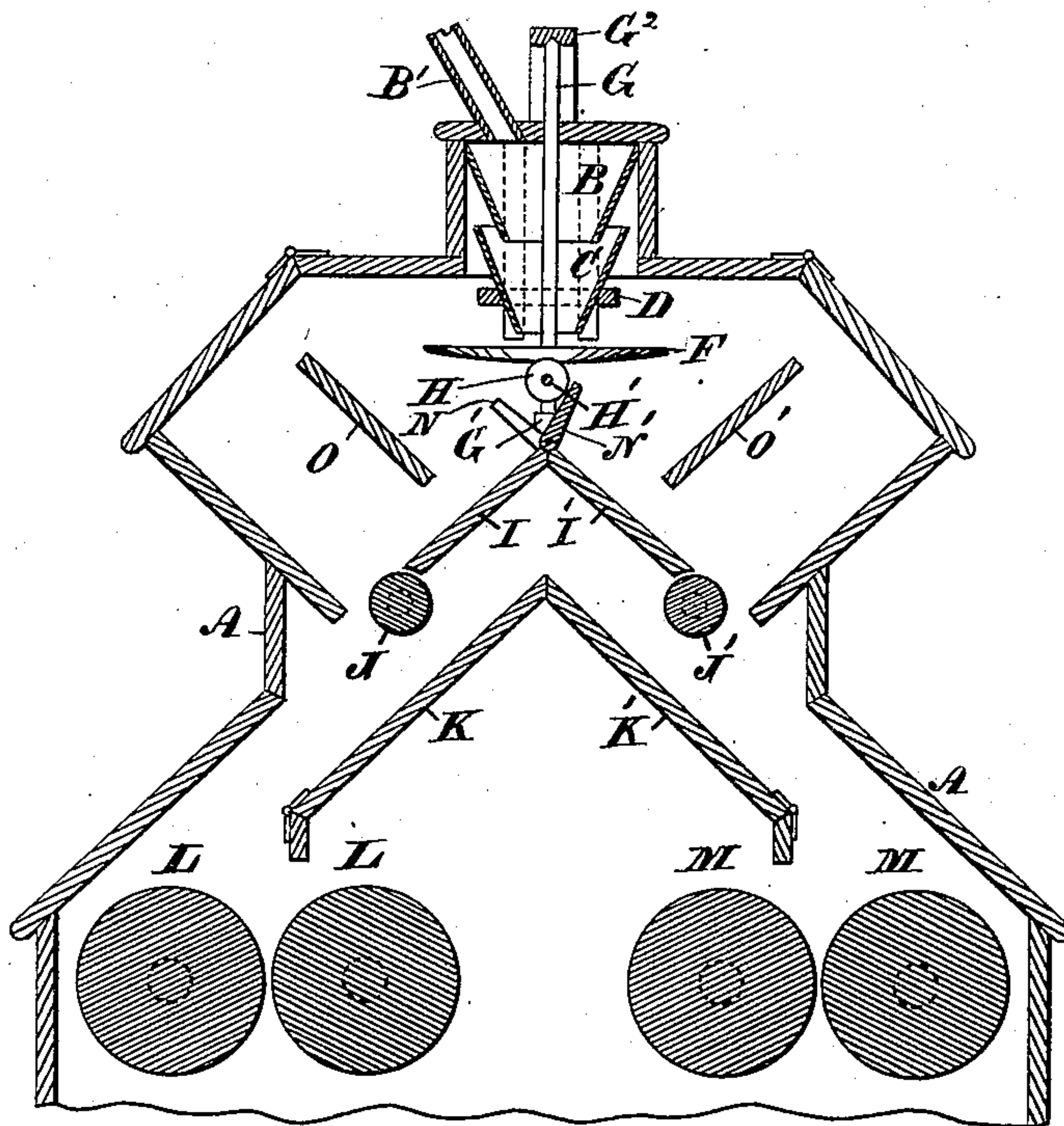


Fig. 1.

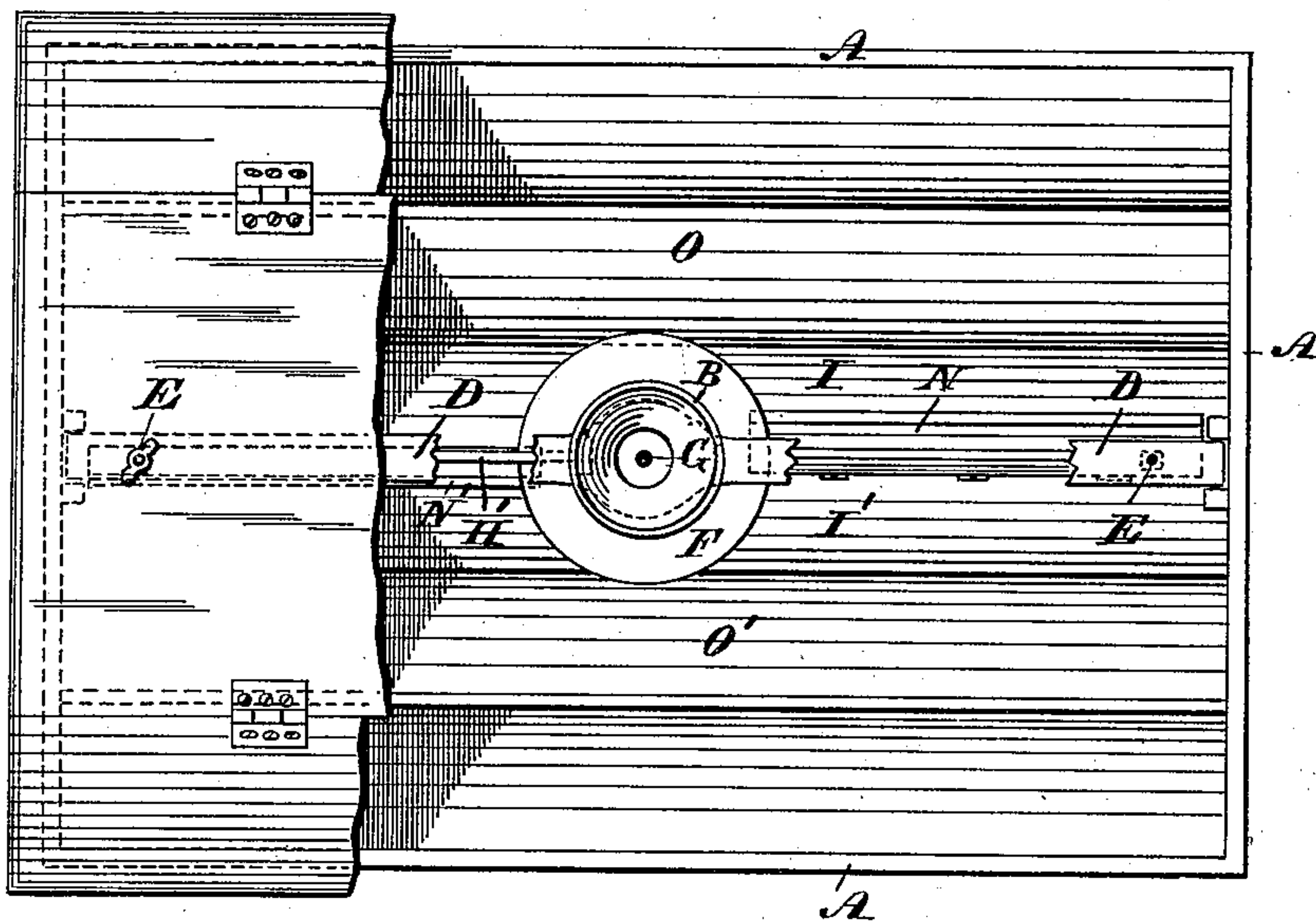


Fig. 2.

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ROLLER-MILL FEED MECHANISM.

SPECIFICATION forming part of Letters Patent No. 321,030, dated June 30, 1885.

Application filed February 5, 1885. (No model.) Patented in Canada January 19, 1885, No. 20,917.

To all whom it may concern:

Be it known that I, WILLIAM HUTCHISON, of the city of Ottawa, in the Province of Ontario, Canada, have invented certain new and useful
5 Improvements in Roller-Mill Feed Mechanism; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention has for its object to distribute
10 the material, whereby it will be fed to the rollers in a thin film and in equally-divided quantity to two sets of rollers.

Figure 1 is a vertical section of the feed mechanism and two sets of rollers within the
15 feed-casing of a roller-mill, showing my improvements. Fig. 2 is a plan of the same, the top of the casing being partly broken away and one feed-hopper removed to show my improvements.

20 A is the casing inclosing the feed-hoppers, the distributing devices, and two sets of crushing-rollers.

B is an upper fixed feed-hopper, fed by spout B', and discharging into lower adjustable hopper, C, seated on a bridge-bar, D, which is adjustable by set-screws E, near the ends, to raise or lower the mouth of the hopper C from a saucer, F, for increasing or diminishing the feed. The saucer F is secured to a vertical
30 spindle, G, which is rotated by a wheel, H, having frictional contact with its under side, said wheel keyed on a shaft, H', which is driven by gearing outside casing A. The spindle G passes vertically through the hoppers, and is stepped in a bearing, G'. The top of the spindle turns in a heading, G².

I I' are divergent feed-boards below the saucer, on the apex of which boards the bearing G' is planted.

40 J J' are rollers receiving the feed material sliding down the feed-boards I I', and discharging it onto downwardly-divergent feed-boards

K K', which shoot the feed material between the rollers L L and M M.

N N' are shutters or boards hinged longitudinally to the apex of the divergent feed-boards I I'—the one shutter forward and the other rearward of the saucer—to catch a portion of the feed material distributed by the rotation of the saucer, so that by setting up one shutter and setting down the other shutter the feed
45 can be equalized, whereby both sets of rollers, L L, M M, will receive the same quantity, and the feed striking the shutters will glance and be distributed so as to fall in a thin film to
50 the crushing-rollers.

O O' are convergently-inclined cant-boards fixed to casing A to catch the feed material thrown off by the rotation of the saucer and that rebounding from the shutters. The material so arrested by the cant-boards slides
60 onto the feed-boards I I'; thence down the boards K K' to the rollers.

I claim as my invention—

1. The combination, with the fixed and adjustable feed-hoppers B C, of the rotary saucer F, divergent feed-boards I I', and adjustable hinged shutters N N', whereby the feed material thrown out by the saucer is divided equally to the two pairs of rollers, L L, M M, by adjustment of the shutters, as set forth.

2. The combination, with the fixed and adjustable feed-hoppers B C, of the cant-boards O O', rotary saucer F, divergent feed-boards I I', having adjustable hinged shutters N N',
75 rollers J J', and feed-boards K K', whereby the material thrown out by the saucer is distributed and conveyed in a thin film to the rollers L L M M, as set forth.

WM. HUTCHISON.

Witnesses:

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