

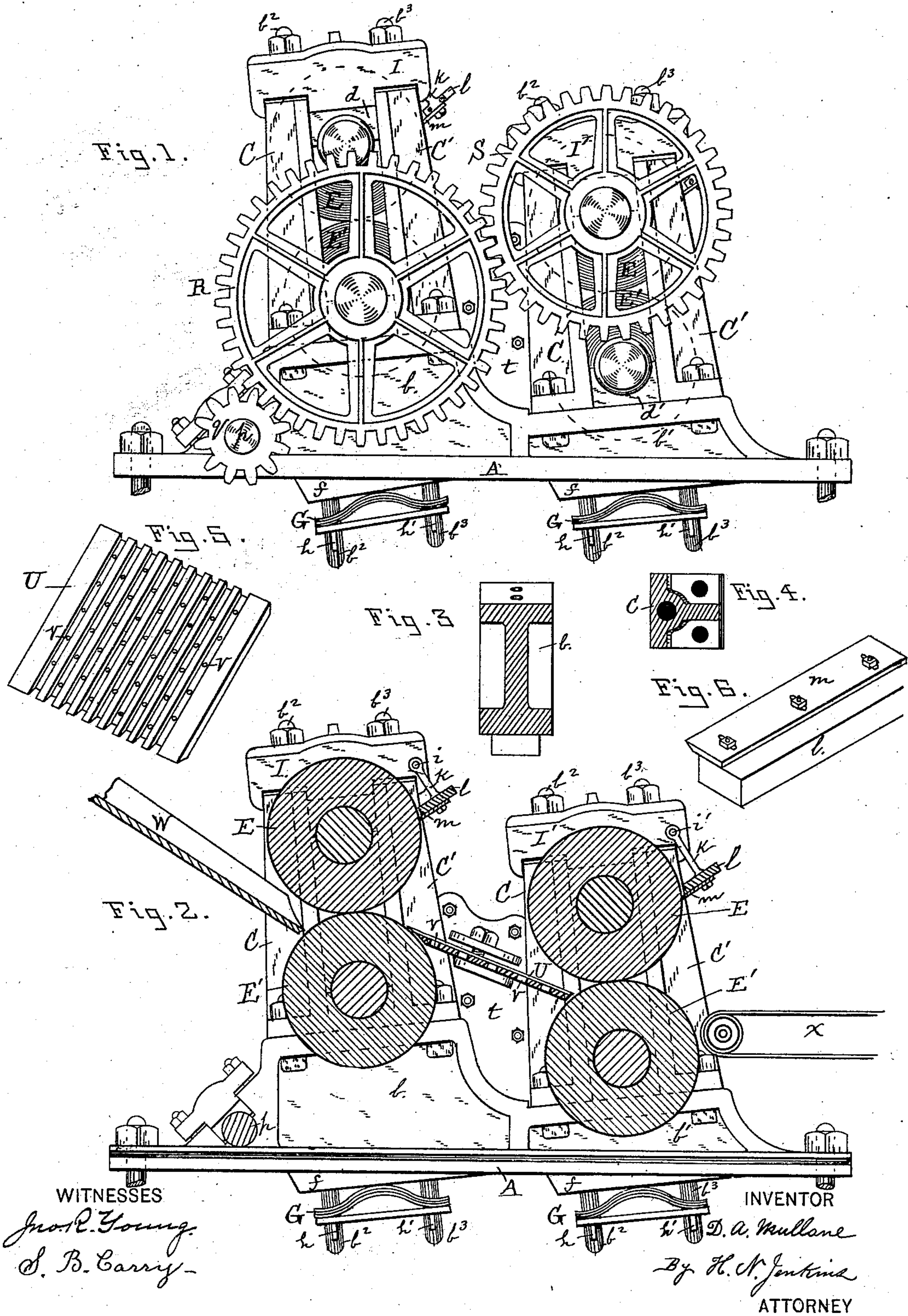
(No Model.)

D. A. MULLANE.

CANE MILL.

No. 294,902.

Patented Mar. 11, 1884.



UNITED STATES PATENT OFFICE.

DENIS A. MULLANE, OF NEW ORLEANS, LOUISIANA.

CANE-MILL.

SPECIFICATION forming part of Letters Patent No. 294,902, dated March 11, 1884.

Application filed December 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, DENIS A. MULLANE, a citizen of the United States, and a resident of the city of New Orleans, parish of Orleans, and State of Louisiana, have invented a certain new and useful Improvement in Cane-Mills; and I do hereby declare the following to be a full, clear, and correct description of the same, reference being had to the annexed drawings, making a part of this specification.

My invention consists in the novel construction and combinations of parts, all as hereinafter described and specifically claimed.

In the drawings, Figure 1 is a side elevation of my improved mill. Fig. 2 is a vertical longitudinal section of same. Fig. 3 is a detail representing a cross-section of one side of the bed-plate. Fig. 4 shows a transverse section of one of the housing-standards. Fig. 5 is a perspective view of a plate or slide for conveying the crushed cane from the first to the second set of rollers; and Fig. 6 is a perspective view of one of the scrapers.

The letter A designates the bed-plate, each side of which is provided with two inclined housing-bearings of different heights, as shown at $b\ b'$, and upon which are secured, by means of bolts $b^2\ b^3$, the vertical sections or housing-standards $C\ C'$, between which are fitted the bearings $d\ d'$ for the reception of the journals of the rollers $E\ E'$. The housing-bolts are made sufficiently long to project through inclined planes f , that are formed on the bottom or under part of the bed-plate, and through springs G , which are held against the same by the keys $h\ h'$. The said springs, by reason of their contact with the inclined planes, exert pressure in direct lines with the bolts, which permits the upper rollers to yield to a heavy feed of cane without damage to the mill. The tops of the housings are provided with ordinary caps, $I\ I'$, to the inner sides of which are pivoted, as shown at $i\ i'$, the upper ends of links k , each pair of which are connected at their lower ends by a beam, l , to which are bolted or otherwise secured, as shown in Fig. 6, sharp-edged iron plates or scrapers m , for removing from the surface of the rollers any material which may adhere to same. Each pair of rollers is connected at

their rear ends, in the usual manner, by ordinary gear-wheels, and motion is imparted to the mill from a driving-shaft, p , and pinion q , the latter gearing into a cog-wheel, R , that is keyed or otherwise secured to the lower shaft of the first or highest set of rollers, and through said wheel to a second wheel, S , of smaller diameter, which is keyed to the upper shaft of the second set of rollers. By the above arrangement of gearing the rollers of the mill are made to travel in the same direction, but with different speeds, the second set moving more rapidly than the first, and thereby preventing the choking of the mill. Between the two sets of housings are bolted side plates, t , having inclined grooves therein, in which is bolted or otherwise secured a slide, U , for conveying the crushed cane from the first to the second set of rollers. This slide is longitudinally corrugated or ribbed, and provided in the channels formed by same with perforations v for the escape of juice, which falls therefrom into the juice-pan, which, as in all other mills, is located below the rollers.

The letter W designates the chute through which the cane is fed to the mill, and x the carrier for conveying the crushed cane or bagasse away from same.

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

1. The combination, in a cane-mill, of two sets of rollers, the first set being arranged at a greater height than its second set, with an intermediate longitudinally corrugated or ribbed slide, the channels of which are provided with perforations, substantially as and for the purpose set forth.

2. The combination, in a cane-mill, of a bed-plate provided with inclined planes f and inclined housing-bearings, as described, the housing-standards $C\ C'$, caps $I\ I'$, bolts $b^2\ b^3$, and springs G , substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

DENIS A. MULLANE.

Witnesses:

H. M. HYAMS,
JAS. TYMAN.