

J. B. HASTINGS & G. HASTINGS, Jr.
 ROLLING MACHINE.

No. 102,816.

Patented May 10, 1870.

FIG. 1.

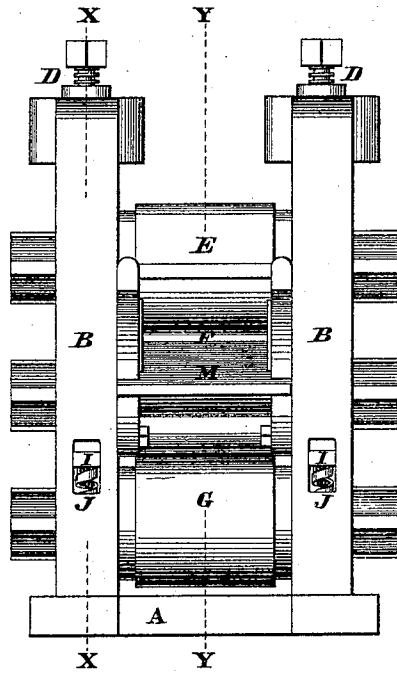


FIG. 2.

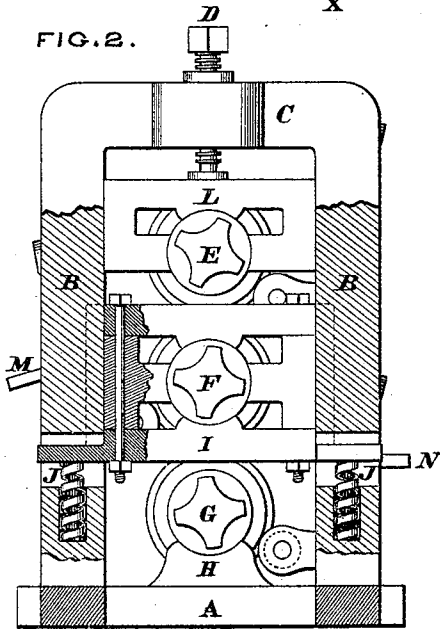
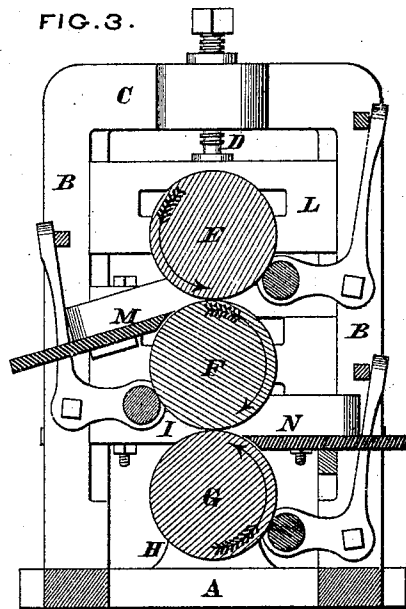


FIG. 3.



ATTEST.
 Jas. H. Layman.
 William F. Rau.

J. B. Hastings & G. Hastings, Jr.
 G. Hastings, Jr. Atty.

United States Patent Office.

JOHN B. HASTINGS, OF IRONTON, OHIO, AND GEORGE HASTINGS, JR., OF
WHEELING, WEST VIRGINIA.

Letters Patent No. 102,816, dated May 10, 1870.

IMPROVED ROLLING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

We, JOHN B. HASTINGS, of Ironton, Lawrence county, Ohio, and GEORGE HASTINGS, Jr., of Wheeling, Ohio county, West Virginia, have invented a new and useful Rolling-Machine, of which the following is a specification.

Nature and Objects of the Invention.

This is an improvement in the class of rolling-machines which consists mainly of three horizontal rolls, arranged in a vertical series one above the other, in a suitable frame or housings; and

Our improvement consists in supporting the middle roll of the series on yielding bearings, so as, on the one hand, to allow the passage of any unusually thick or incompressible slab of iron, without breaking the machine, and, on the other hand, to afford all the required pressure to a slab of medium or less than medium thickness.

General Description with Reference to the Drawings.

Figure 1 is a side elevation of a rolling-machine embodying our invention.

Figure 2 is an end elevation of the same, the housings being partly in section in the line X X.

Figure 3 is a transverse section at the line Y Y.

A is the bed-plate, and

B are the vertical portions or standards of the housings, connected by customary bridges C, which receive the usual set-screws D, for holding down the uppermost roll E, and which, in our machine, also hold down the middle roll F.

The lowest roll G, in our machine, journals on a step, H, upon the bed-plate, and is not adjustable.

The step I of the middle roll F rests upon stout springs J, occupying cavities in the housing, which springs, while pressing the said roll up with considerable force against the top roll E, permit said roll to yield or give way to any extraordinary pressure, such as accompanies the passage of unusually thick or hard slab.

The upward stress or pressure of the springs may be increased or diminished by causing the set-screws K to bear, with more or less force, upon the riders L of the top roll, by turning said screws either to the right or to the left, as the case may be.

Step I may be upheld on any suitable springs, or even on counterbalances.

In operating, the slab is first passed over the fore plate M, between the top and middle rolls, and then over the fore plate N between the middle and bottom rolls.

Claim.

We claim herein as new and of our invention—

The described arrangement, in a "three-high" rolling-machine, of a stationary bottom, adjustable top, and yielding middle roll, for the purpose explained.

In testimony of which invention we hereunto set our hands.

JOHN B. HASTINGS.
GEORGE HASTINGS, JR.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.