

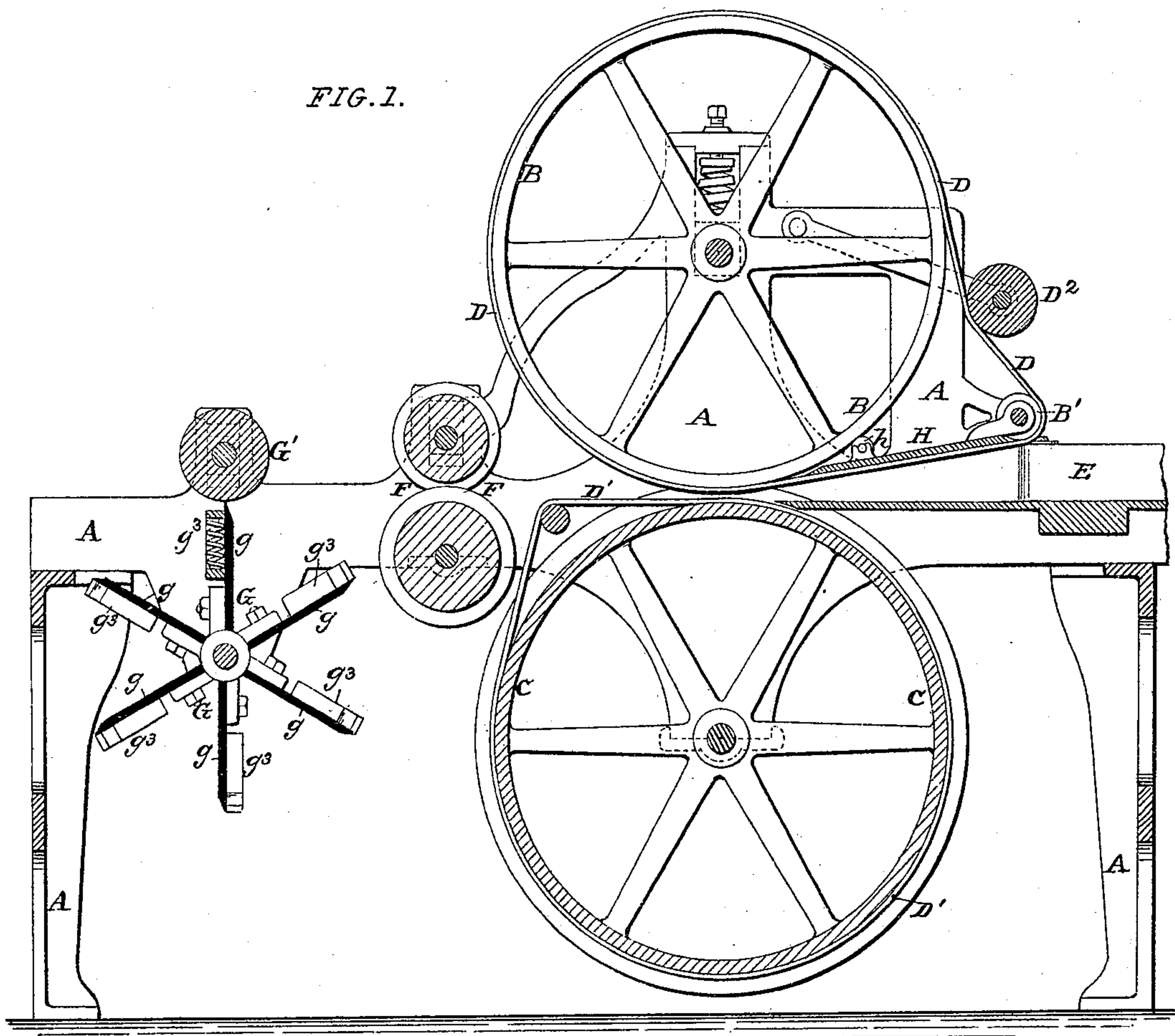
(No Model.)

J. RAMMING.
PLUG TOBACCO MACHINE.

No. 252,899.

Patented Jan. 31, 1882.

FIG. 1.



ATTEST:

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UNITED STATES PATENT OFFICE.

JOHN RAMMING, OF ST. LOUIS, MISSOURI.

PLUG-TOBACCO MACHINE.

SPECIFICATION forming part of Letters Patent No. 252,899, dated January 31, 1882.

Application filed March 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN RAMMING, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Plug-Tobacco Machines, of which the following is a specification.

This invention relates to certain improvements in that class of plug-tobacco machines in which the loose tobacco is fed or carried by endless carrier-belts between a set of rolls and pressed into shape, the pressed strip thus formed passing through a set of longitudinal slitting-cutters, and then through a set of transverse cutters, which divide the strip of tobacco into the required size to form the usual plug of tobacco; and the objects of my improvements are, first, to provide an improved construction of parts, whereby a more even and uniform pressure is imparted to the plug-strip, and the tobacco more evenly fed or carried between the pressing-rolls, thus insuring uniform thickness and weight of the resulting plug-strip; second, to provide an improved means for driving the upper pressing-roll, and allow for any required vertical adjustment of the same without affecting its driving connections; third, to provide an improved means for transversely dividing the pressed strip of tobacco into plugs while said strip is moving out of the machine. I attain these objects by the mechanism illustrated in the accompanying drawing, which is a vertical section of the machine.

A represents the main frame, in which are journaled the rolls B C, between which the loose tobacco is carried by endless carriers or belts D D', surrounding said rolls, to be pressed into a compact shape, a pair of endless belts, E, being used to carry the loose tobacco from the spreading table or box to the carriers D D'. The pressed strip of tobacco, as it passes from the rolls B C, is acted on by circular slitting knives or cutters F, that split it into the required width of a plug of tobacco.

The construction so far described is usual to plug-tobacco machines, and no novelty is claimed therefor in the present case.

The novel features of my improvement are, first, in the arrangement and construction of the cutter for dividing the strip of tobacco aforesaid into the required lengths of tobacco-

plugs. It consists of a rotary head, G, having a series of radial cutters, *g*, the abutment of which is against a cylinder or roll, G', of rubber or other elastic material. Each cutter *g* is provided with a spring-follower, *g*³, which acts, after the cutter has severed the tobacco-plug, to push the end of the plug up out of the line of travel of said cutter, and prevent injury to the same by the cutter in its forward movement.

The second novel feature of my invention consists in an improved manner of driving the upper roll, B, by means of a small pulley, B', and the carrier-belt D, a belt-tightener drum, D², being provided to take up any slack that may occur in the belt. This construction allows of a free vertical movement of the roll B to or from the under roll, C, (which is arranged in non-adjustable boxes.) without in any way interfering with its driving mechanism or connections.

The third novel feature of my invention consists in the arrangement of an inclined belt-bearing plate, H, pivoted to the shaft of the drum or pulley B', and resting against the roll B, through a friction-roller, *h*, as shown. The construction is such that the said plate will act as a support for the belt D and form an inclined throat toward the pressing rolls, the action of which throat is twofold, first, to partially press the tobacco, and, second, to evenly and uniformly spread the loose tobacco before it can pass in between the pressing-rolls.

The object of pivoting the plate H is to admit of its free end following up any adjustment of the adjustable upper pressing-roll, B, the friction-roller *h* being provided to reduce friction at the point of contact between the free end of the plate H and the roll B.

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

1. In a plug-tobacco machine, the upper pressing-roll, B, made vertically adjustable, in combination with the non-adjustable driving-pulley B', tightener-pulley D², and carrying and driving belt D, all arranged substantially as described, and for the purpose set forth.

2. The combination, in a plug-tobacco machine, of the pivoted inclined bearing-plate H, arranged forward of the rolls B C, and oper-

ating, as described, with the belt D, pulley B', and rolls B C, all substantially as described, and for the purpose set forth.

5 3. The combination, in a plug-tobacco machine, of the inclined plate H, having friction-roller *h*, with the drum B, pulley B', and endless belt or carrier D, as described, and for the purpose set forth.

10 4. In a plug-tobacco machine, the combination of the rotary head G and radial cutters *g*, provided with spring-followers *g*³, all ar-

ranged as herein described, and for the purpose set forth.

In testimony of said invention, witness my hand this 19th day of March, 1881, at St. Louis, State of Missouri.

JOHN RAMMING.

In presence of—

ROBT. BURNS,

DANIEL DEVLIN.