

(No Model.)

W. T. FORBES.

MACHINE FOR DECORTICATING RAMIE, &c.

No. 480,084.

Patented Aug. 2, 1892.

Fig. 1.

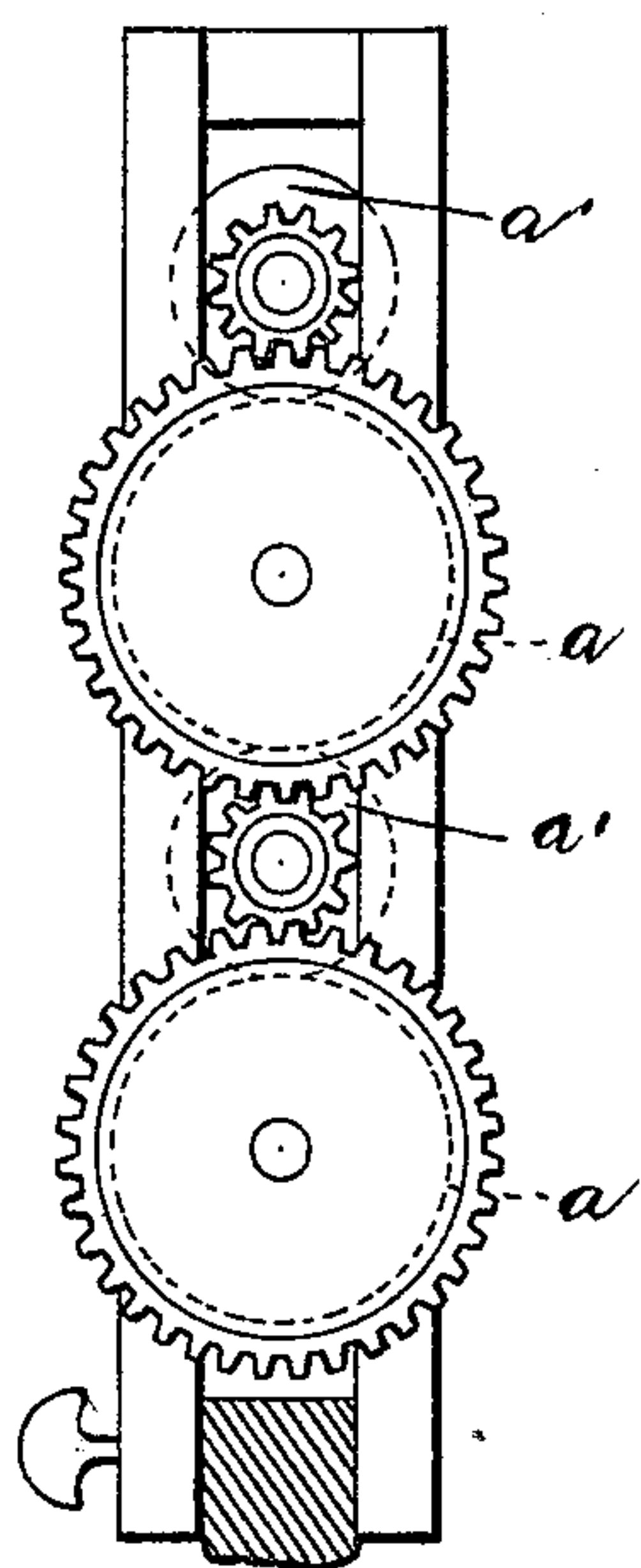
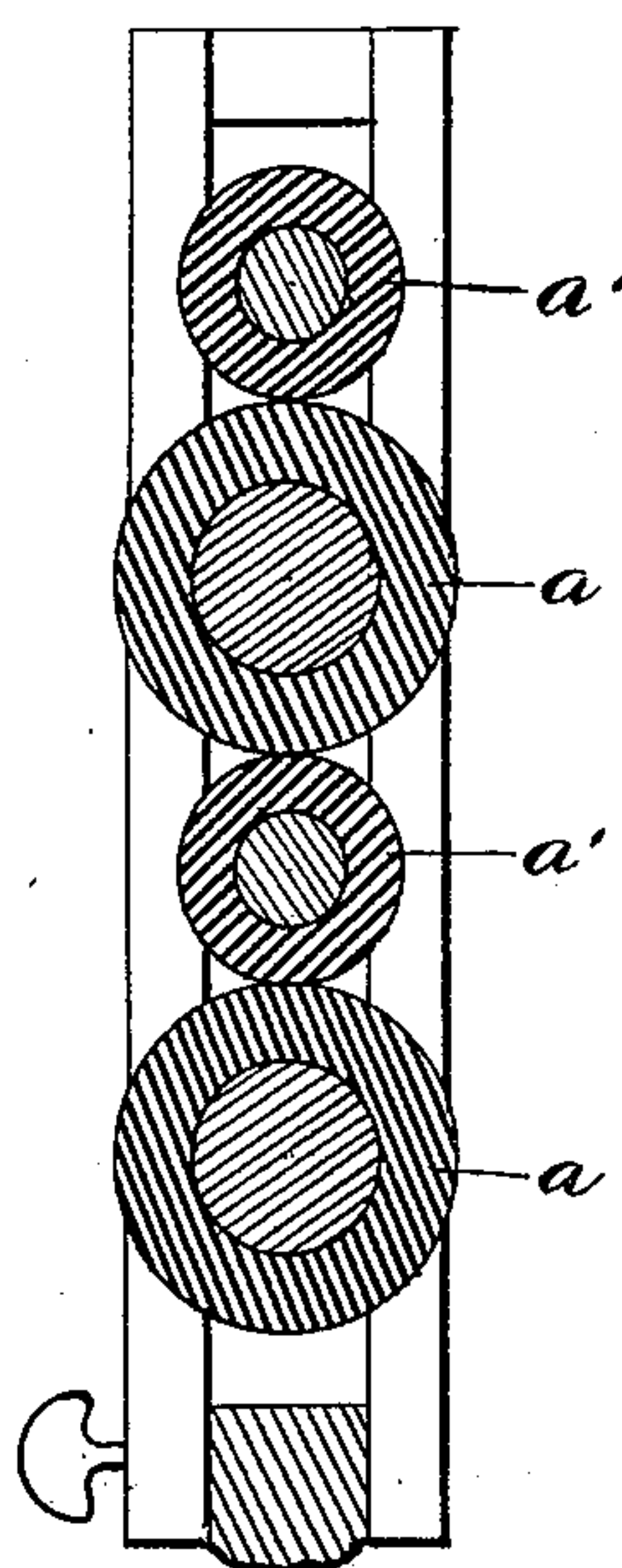


Fig. 2.



WITNESSES:

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WALTER T. FORBES, OF ATLANTA, GEORGIA.

MACHINE FOR DECORTICATING RAMIE, &c.

SPECIFICATION forming part of Letters Patent No. 480,084, dated August 2, 1892.

Application filed December 29, 1891. Serial No. 416,481. (No model.)

To all whom it may concern:

Be it known that I, WALTER T. FORBES, residing at Atlanta, Fulton county, in the State of Georgia, have invented a new and useful
5 Improvement in Machines for Decorticating Ramie, &c., of which the following is a specification.

This invention is an improved machine for decorticating ramie, hemp, jute, and similar
10 growths; and the invention consists in a machine comprising a suitable frame and rollers journaled therein vertically one above the other and arranged as two pairs, one of the rollers of each pair being geared to turn faster
15 than its fellow, the rollers of each pair being in contact and the fast-moving roller of the lower pair being arranged in contact with the slow-moving roller of the upper pair, all substantially as more fully described hereinafter,
20 whereby the fibrous material to be treated will be first subjected to the action of the upper pair of rolls, then to the action of the contacting rolls of the two pair, and then to the action of the lower pair of rolls.

25 In the drawings, Figure 1 is a side view, and Fig. 2 is a sectional view.

In carrying out my invention I provide a frame, in which is journaled the rolls *a' a a' a*, arranged in vertical series, as shown. The
30 upper rolls *a' a* constitute one pair and the lower rolls *a' a* constitute another pair, the rolls of each being in contact and the upper roll of the lower pair being in contact with the lower roll of the upper pair. The rolls *a'*
35 are smaller than the rolls *a*, and the small rolls are geared to revolve faster than the large rolls, as will be readily understood from the drawings. The rapid turning of one roller compared with the other causes the bark to
40 slip from the wood, and the rolls being formed with yielding surfaces, such surfaces serve to avoid the breaking and tearing of the fibers, and also by reason of such yielding property the surfaces of the rolls operate better to pro-
45 duce the desired longitudinal slipping of the bark.

In practice the fresh-cut ramie-stalks, which are green and supplied with leaves and con-

tain considerable moisture, are run through the opposing rolls. The natural gum which
50 holds the bark to the woody part of the ramie-stalk is ruptured by the action of the pressure and the moisture and permits the bark to be slipped from the wood.

It will be understood that the stalks are
55 first passed between the upper pair of rolls, then between the lower rolls of the upper pair and the upper roll of the lower pair, and then between the lower pair of rolls, the bending and returning of the ramie being accomplished
60 by hand or other suitable manner.

The rolls may preferably be of rubber with a metal shaft or core, or they may be of wood or iron covered by a sleeve of rubber or equivalent material to provide the yielding surfaces
65 desired.

The machine is simple and can be produced at small cost and in practice will produce the ramie-ribbons, with incased fiber unbroken, rapidly and without requiring the leaves to
70 be stripped from the stalks before they are run through the machine.

The machine is conveniently portable and may be readily secured to a bench or stand, its frame being provided with a clamp for
75 such purpose.

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

The improved machine for decorticating
80 ramie and similar growths, consisting of the frame and the two pairs of yielding surfaced rolls journaled therein, the said rolls being arranged in a common plane and the rollers of each pair being relatively one large and the
85 other small, the rollers of each pair being in contact and the small roll of one pair being in contact with the large roll of the other pair, and the drive mechanism arranged to turn the small rolls faster than the large ones, substan-
90 tially as set forth.

WALTER T. FORBES.

Witnesses:

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