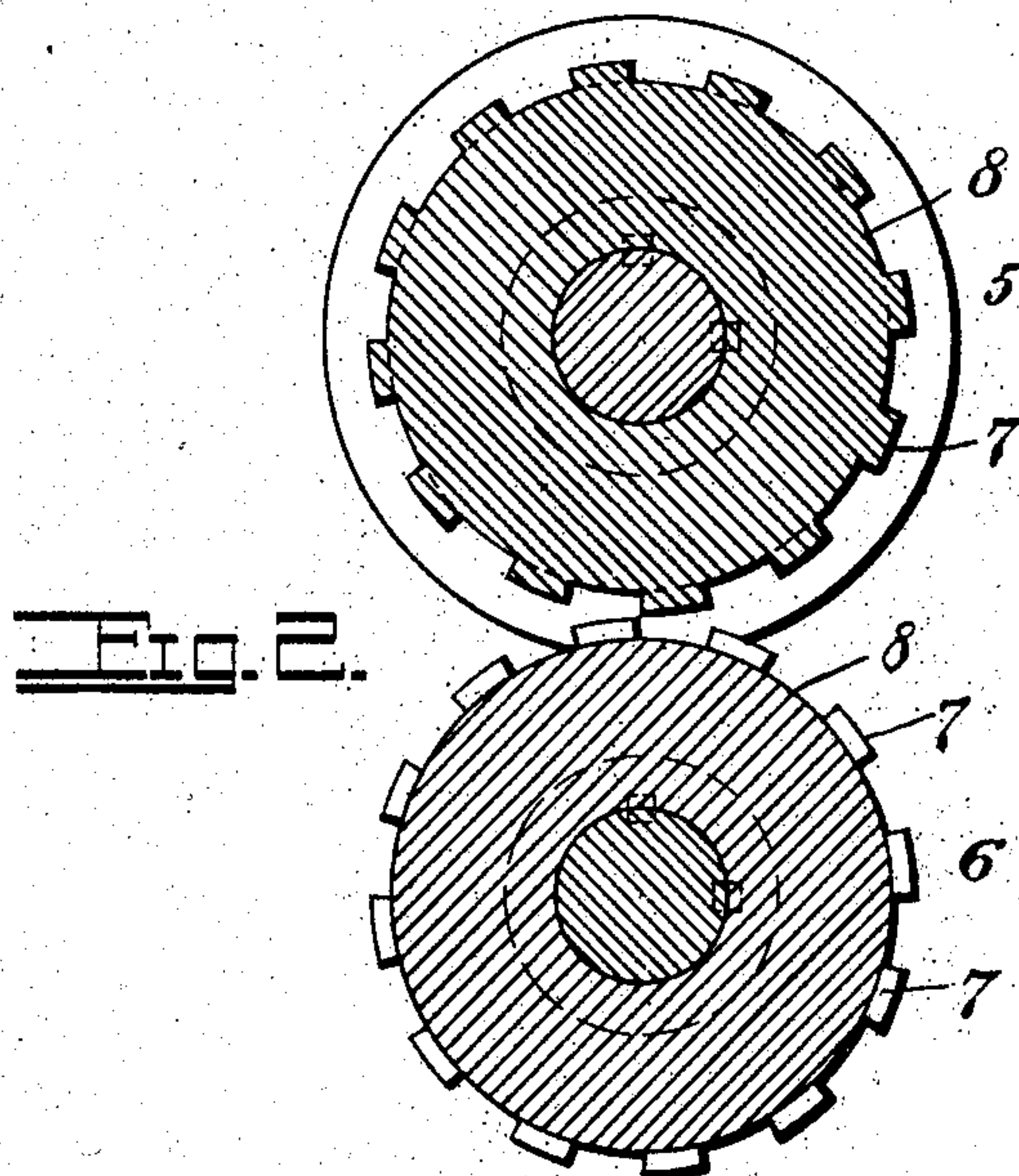
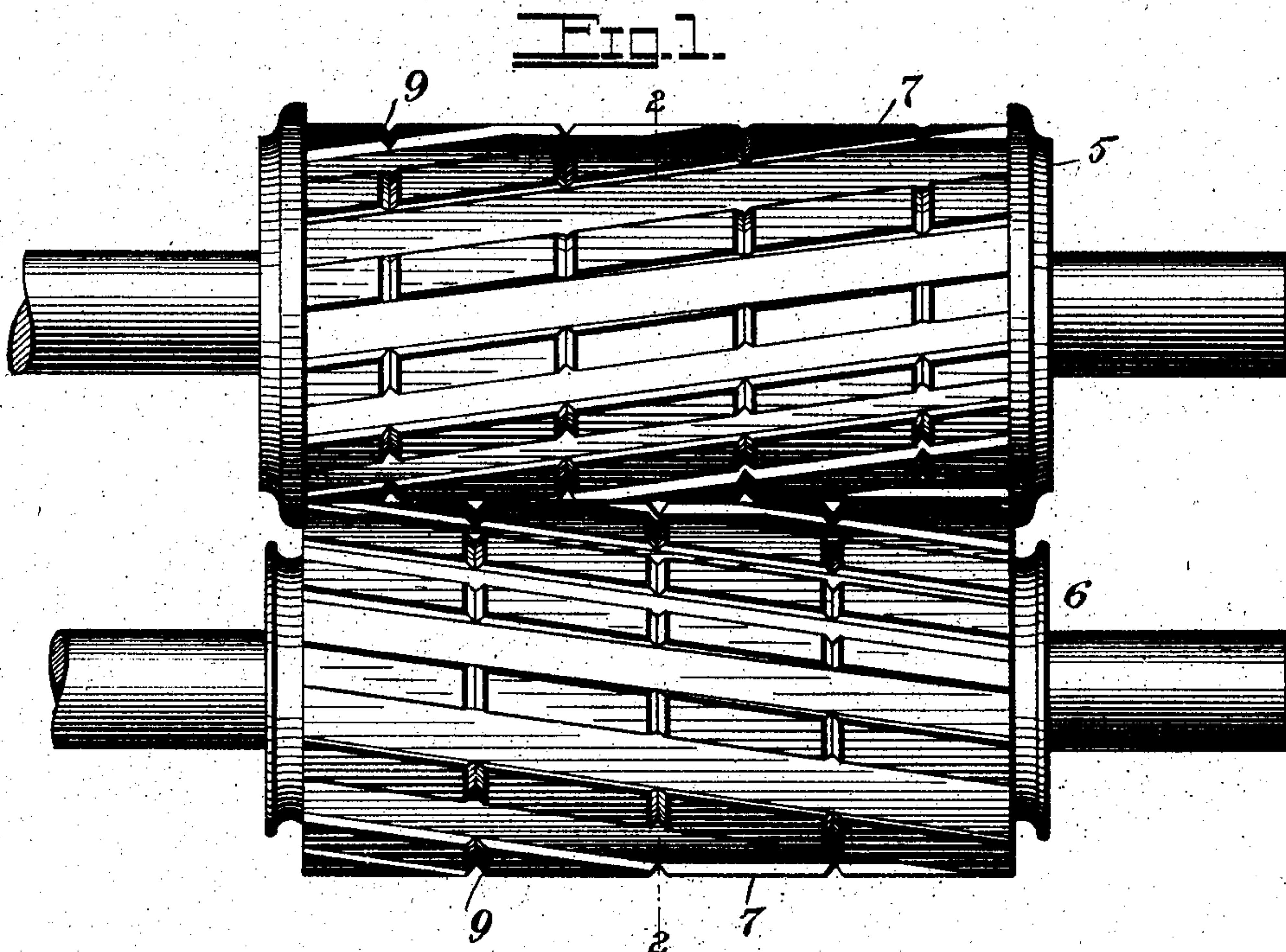


No. 796,244.

PATENTED AUG. 1, 1905.

R. PICK.
CRUSHING ROLLS.
APPLICATION FILED APR. 8, 1905.



WITNESSES:
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UNITED STATES PATENT OFFICE.

RICHARD PICK, OF BUFFALO, NEW YORK.

CRUSHING-ROLLS.

No. 796,244.

Specification of Letters Patent.

Patented Aug. 1, 1905.

Application filed April 8, 1905. Serial No. 254,499.

To all whom it may concern:

Be it known that I, RICHARD PICK, a subject of the Emperor of Austria-Hungary, and a resident of Buffalo, in the county of Erie and State of New York, have invented a new and Improved Crushing-Roll, of which the following is a full, clear, and exact description.

This invention relates particularly to rolls for crushing sugar-cane and extracting the juice, the object being to provide crushing-rolls so formed as to crush or break the cane in uniform lengths without shocks and whereby the cane will pass lengthwise between the rolls at right angles to their axes.

I will describe a crushing-roll embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is an elevation of a pair of crushing-rolls embodying my invention, and Fig. 2 is a section on the line 2 2 of Fig. 1.

Referring to the drawings, 5 designates the upper crushing-roll and 6 the lower roll. Each roll has on its periphery and extended the entire length a series of ribs 7, these ribs being arranged at a slight transverse angle with relation to the axes of the rolls. The spaces 8 between the ribs are substantially equal to the width of the ribs; but, as will be noted in Fig. 2, the ribs of one roll do not pass into the spaces between the ribs of the other roll, there being a slight clearance between the ribs of the two rolls, and the edges of these rolls are quite sharp, so as to readily break the cane passing between the rolls. To cause the cane to pass between the rolls lengthwise or at

right angles to the axes of the rolls, each rib is provided with a series of V-shaped transverse grooves 9. The roll 5 has its ribs provided, as here shown, with four grooves, while the ribs of the other roll are provided with three grooves, which alternate or pass between the grooves of the first-named roll.

While I have shown the ribs as formed integral with the rolls, it is obvious that they may be otherwise formed without departing from the spirit of my invention. For instance, the ribs may consist of hard steel seated in channels formed in the periphery of the rolls.

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

1. A crushing-roll having peripheral ribs arranged at an angle with relation to the roll-axis, each of said ribs having a plurality of transverse V-shaped grooves.

2. A pair of crushing-rolls having peripheral ribs, the ribs of one roll alternating with the ribs of the other roll, the said ribs being transversely grooved, the grooves of one roll being between or alternating with the grooves of the other roll.

3. A pair of crushing-rolls having peripheral ribs arranged at a transverse angle with relation to the roll-axes, the spaces between the ribs being substantially equal to the width of the ribs, the said ribs having sharp edges and provided with transverse grooves.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RICHARD PICK.

Witnesses:

JAMES H. GILLAM,
BASIL F. NOBLE.