2 Sheets--Sheet 1.

J. ROBERT.

Sugar-Cane Cutting-Machine.

No. 160,121 Patented Feb. 23, 1875.

Fig. 1

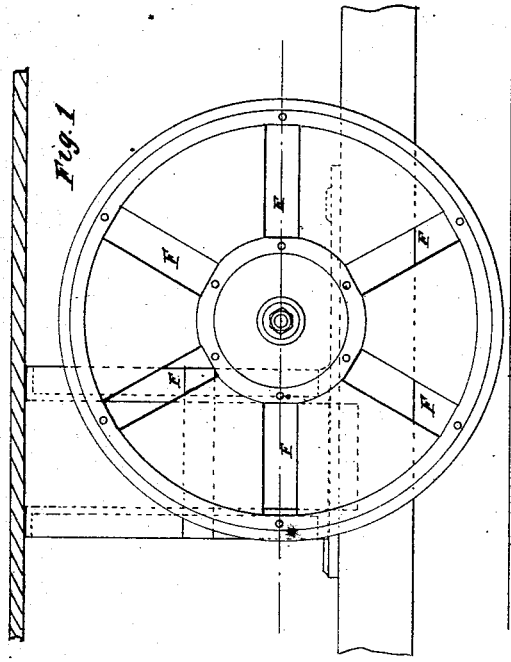


Fig. 2

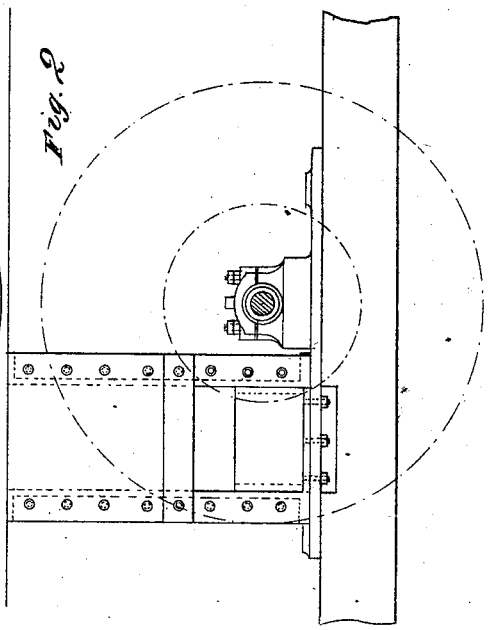


Fig. 4

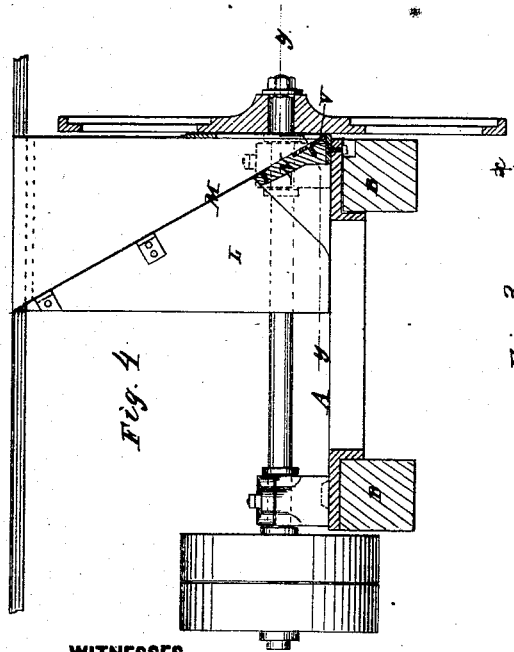
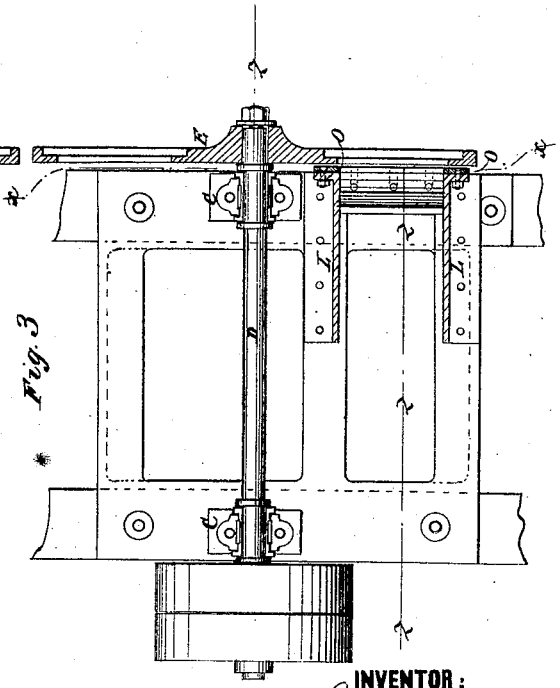


Fig. 3



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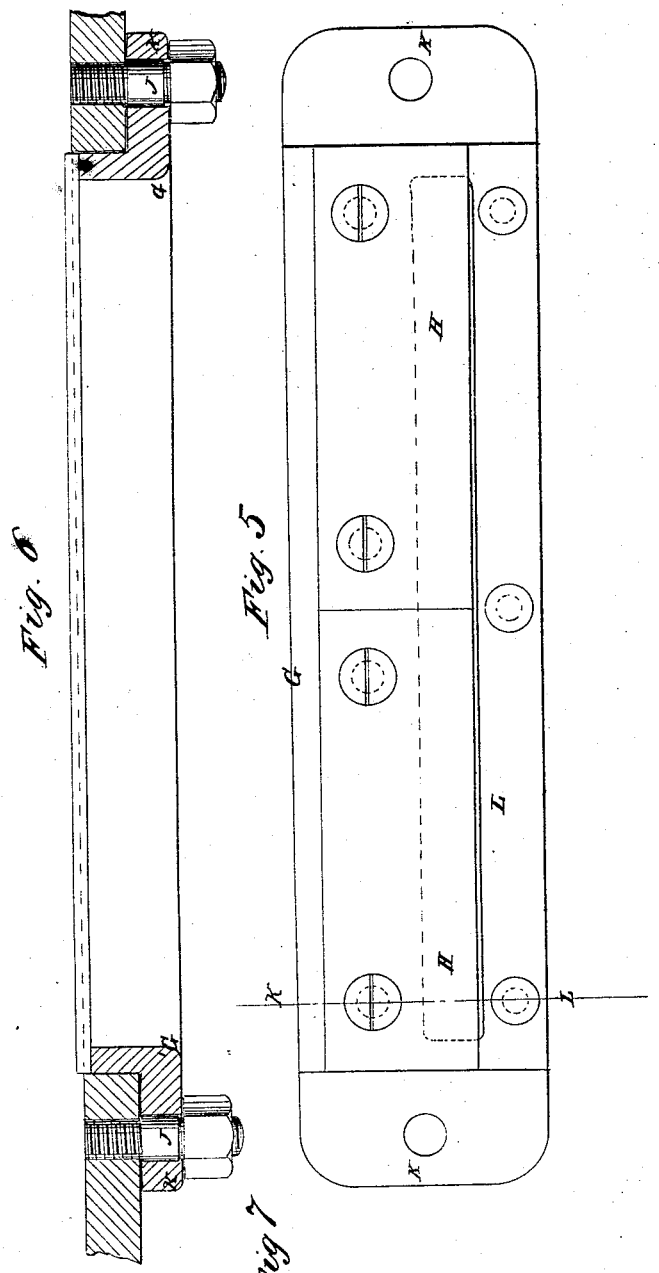
2 Sheets--Sheet 2.

J. ROBERT.

Sugar-Cane Cutting-Machine.

No. 160,121. Patented Feb. 23, 1875.



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UNITED STATES PATENT OFFICE.

JULIUS ROBERT, OF GROSS SEELOWITZ, AUSTRIA, ASSIGNOR TO DR. OTTO KRATZ AND R. SIEG, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN SUGAR-CANE-CUTTING MACHINE.

Specification forming part of Letters Patent No. **160,121**, dated February 23, 1875; application filed August 1, 1874.

To all whom it may concern:

Be it known that I, JULIUS ROBERT, of Gross Seelowitz, Austria, have invented a new and Improved Cane-Cutting Machine, of which the following is a specification:

My invention relates to machines for cutting cane and other plants, as required for extracting the juice by the process of diffusion, as described in the patent granted to me October 30, 1866, No. 59,330; and it consists essentially of detachable cutter-holding plates for connecting the cutters to the cutter-carrying wheel, contrived for the ready removal of the cutters for grinding, and the application of other plates with sharpened cutters, to be used while the dull cutters are ground and attached to their attaching-plates, two sets of plates and cutters being used. These plates are also useful for adjusting the cutters for cutting thick or thin.

Figure 1 is an end elevation of the machine without the cutter-plates and cutters. Fig. 2 is a similar elevation with the cutter-carrying disk or wheel removed. Fig. 3 is a horizontal section of the machine, taken on the line *y y* of Fig. 4. Fig. 4 is a sectional elevation taken on the line *z z* of Fig. 3. Fig. 5 is a front elevation of a cutter-carrying plate and cutter. Fig. 6 is a horizontal section of Fig. 5, and also a portion of the cutter-carrying wheel; and Fig. 7 is a transverse section of Fig. 5 and a portion of the cutter-carrying wheel.

Similar letters of reference indicate corresponding parts.

A cast-iron plate, A, is fastened to the supporting-beams B, on which plate are formed the boxes of the shaft C, which carries the cutter-carrying wheel or disk E, in which are radial openings F, wherein cast-iron throat-plates G, on which the cutters H and steel face-plates I are mounted, are fitted and secured by bolts J and the ends K, which overlap the side of the wheel at the hub and the rims. These plates are used in order to allow of taking off and putting on the cutters more readily than they could be if attached directly to the wheel. The plates, being strong and heavy, are held properly by only two screws, whereas the thin cutters require four or more to hold them, all of which would have to be taken out and put in in one case, while only two have to be adjusted in the other case. Moreover, the screws for fastening the plates are on the side of the wheel most convenient to reach, while the cutter-screws are on the other side. By putting on or taking off the bolts J thin packing-strips of paper or other substance, the cutters may be adjusted for cutting the required thickness. The cutters may also be adjusted to cut thick or thin by packing between them and the throat-plates.

The feed-box or hopper for conveying the materials to be cut to the cutting-wheel consists of the two side plates L and the bottom plate M N, the plates L and N being made of cast metal, with a flange at the bottom bolted to the bed-plate A, and they are faced with steel bearing-plates O, which may be replaced by others when worn out. They may also be adjusted forward as they are worn away by the action or contact of the cutting-wheel by inserting thin slips of leather, paper, or other substance under them from time to time.

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

The combination of the detachable throat-plates G, cutters H, and fastening-bolts J with the revolving wheel E, having radial openings F for the reception of the throat-plates, substantially as set forth.

The above specification of my invention signed by me this 15th day of April, 1874.

JULIUS ROBERT.

Witnesses:

ANTON MARTIMÜLLER,

ANTON ESSINGER.