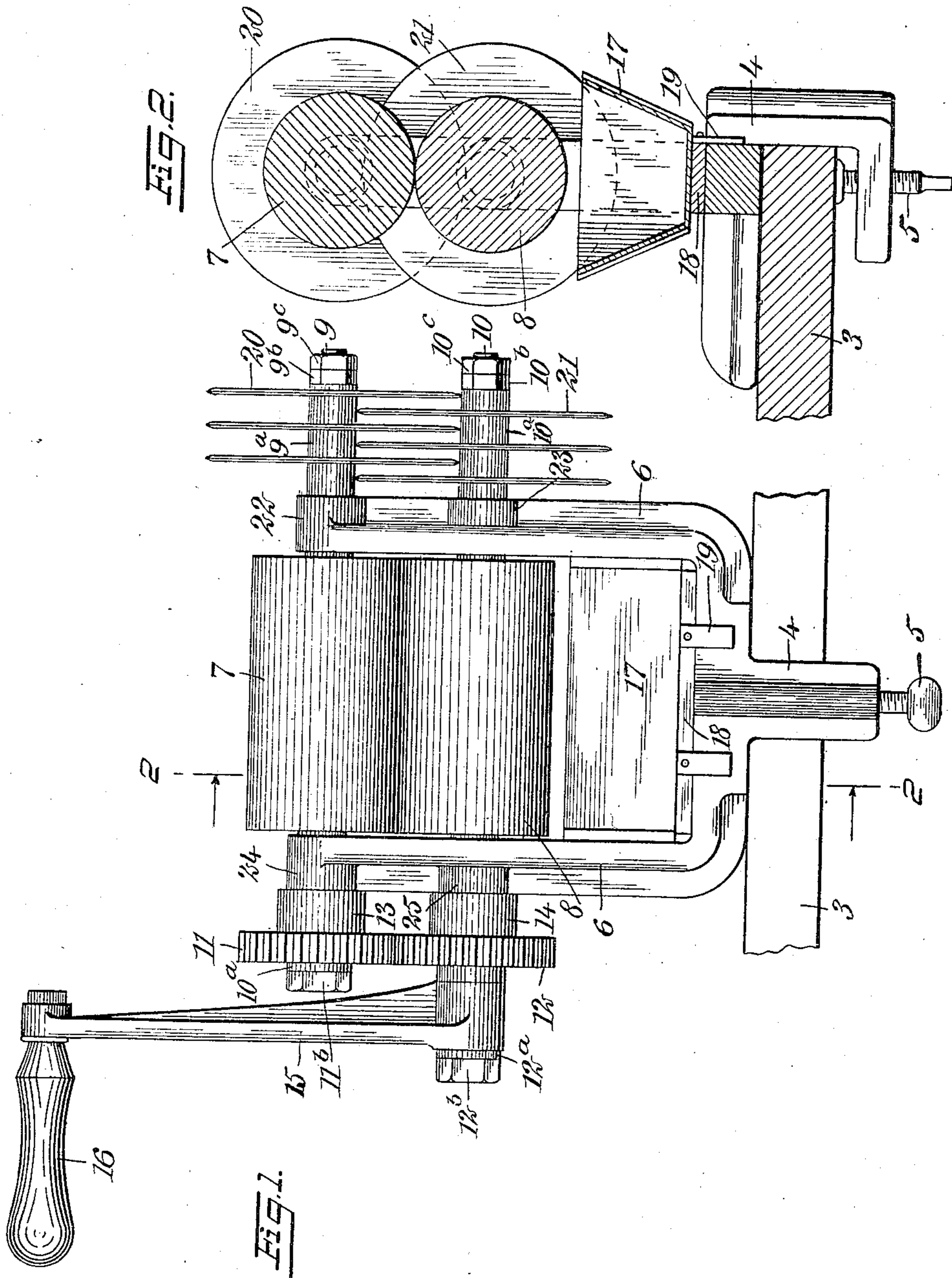


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C. W. HARRIS.
CANE CUTTER AND CRUSHER.
APPLICATION FILED AUG. 15, 1907.



WITNESSES
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CHARLES WILLIAM HARRIS, OF HAWKINSVILLE, GEORGIA.

CANE CUTTER AND CRUSHER.

No 880,989.

Specification of Letters Patent.

Patented March 3, 1908.

Application filed August 15, 1907. Serial No. 388,592.

To all whom it may concern:

Be it known that I, CHARLES WILLIAM HARRIS, a citizen of the United States, and a resident of Hawkinsville, in the county of Pulaski and State of Georgia, have invented a new and Improved Cane Cutter and Crusher, of which the following is a full, clear, and exact description.

My invention relates to cutters and crushers for sugar cane and the like, my more particular object being to produce a simple machine of this type, operated by hand, and exceedingly simple in its construction and operation.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the 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, and in which

Figure 1 is a front elevation of my improved cutter and crusher, complete, showing the circular cutting knives, and the rolls mounted upon the same shafts as the cutting knives; and Fig. 2 is a central, vertical section on the line 2—2 of Fig. 1, looking in the direction of the arrow.

Secured upon a table 3, or similar support, is a clamp 4 provided with a thumb-screw 5 whereby it is held in position. A substantially U-shaped frame 6 is integrally mounted upon the clamp 4. Rolls are shown at 7, 8, and are mounted upon shafts 9, 10. Both the rolls and shafts are of metal. Gears 11, 12 are mounted upon the shafts 9, 10 and mesh together so as to render positive the motion of the rolls. These gears are provided with hubs 13, 14. Mounted upon the shaft 10 is a crank 15 provided with a handle 16 whereby the shaft 10 may be rotated. A catch pan is shown at 17 and rests upon a block 18 mounted within the U-shaped frame. The catch pan is engaged by lugs 19 which are integral with the U-shaped frame and extend upwardly therefrom. By this means the catch pan is held removably in position and when in position is secured with sufficient firmness to prevent its tipping over.

Mounted upon the shafts 9, 10 and secured by spacing blocks 9^a, 10^a, are knives 20, 21, each having a sharp circumference and made of disk form. Nut 9^b, 10^b and nut locks 9^c,

10^c clamp the spacing blocks and knives together. The knives upon the shaft 9 are staggered relatively to those upon the shaft 10, and the knives upon each shaft reach approximately to the other shaft. The shafts 9, 10 are supported by bearings 22, 23, disposed intermediate the rolls 7, 8, and the knives 20, 21 and are further supported by bearings 24, 25, the latter being intermediate the rolls 7, 8 and the hubs 13, 14.

My device is used as follows: The operator takes in his hand a stalk of sugar-cane and feeds it in between the knives 20, 21, meanwhile turning the hand-crank. The knives thus effectively split the stalk into a number of separate lath-like strips; these are gathered up by the operator and passed, one or more at a time, intermediate of the rolls, the hand-crank now being turned in the reverse direction. This squeezes the juice into the catch pan 17 and causes the residual fibrous matter from the stalks to be delivered upon the same side where it entered the machine. The catch pan can now be detached and its contents poured into a pitcher or glass.

I find that many people are fond of sugar-cane juice but dislike to chew the cane. Such people can obtain the juice ready for drinking, by aid of the machine above described, and can have it fresh all the season.

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

In a device of the character described, the combination of a substantially U-shaped frame, a catch pan detachably mounted within the base of said frame, a pair of shafts extending directly through said frame and projecting a little distance beyond the same, gears mounted upon said shafts and meshing together so as to render the rotation of said shafts positive relatively to each other, rolls mounted rigidly upon the respective shafts extending practically from one side of said frame to the other, knives mounted upon portions of said shafts extending beyond said frame, said knives being staggered, and a handle connected with one of said shafts for the purpose of turning the same.

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

CHARLES WILLIAM HARRIS.

Witnesses:

E. M. COLEMAN,

JESSE ANTHONY.