

(No Model.)

2 Sheets—Sheet 1.

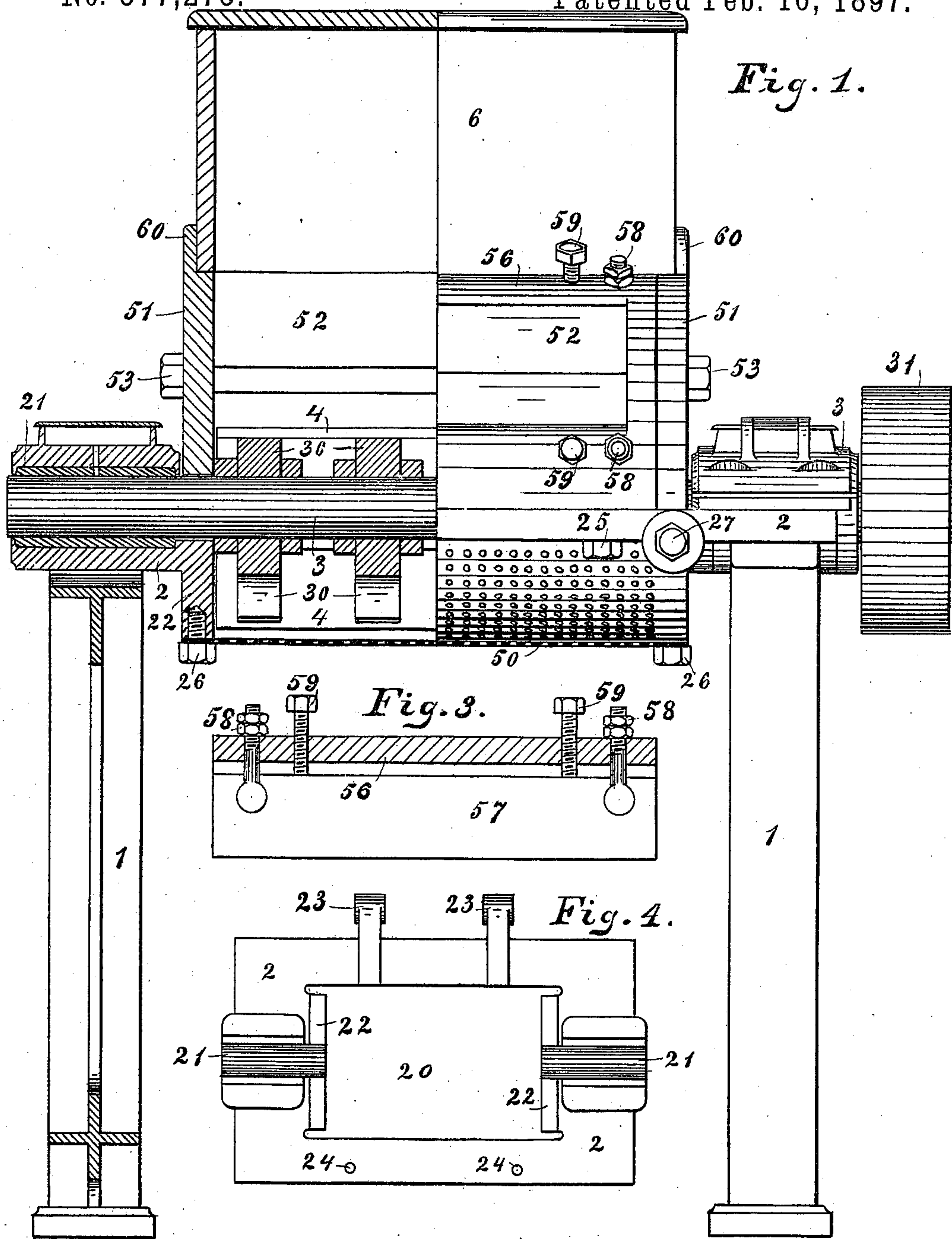
E. F. AUTENRIETH, Dec'd.

M. AUTENRIETH, Administratrix.

ROTARY CUTTING AND COMMUNUTING MACHINE.

No. 577,278.

Patented Feb. 16, 1897.



WITNESSES:  
Olm. H. Shaw  
Arthur F. Thompson.

INVENTOR  
Ernest F. Autenrieth  
BY  
D. A. Carpenter,  
ATTORNEY.

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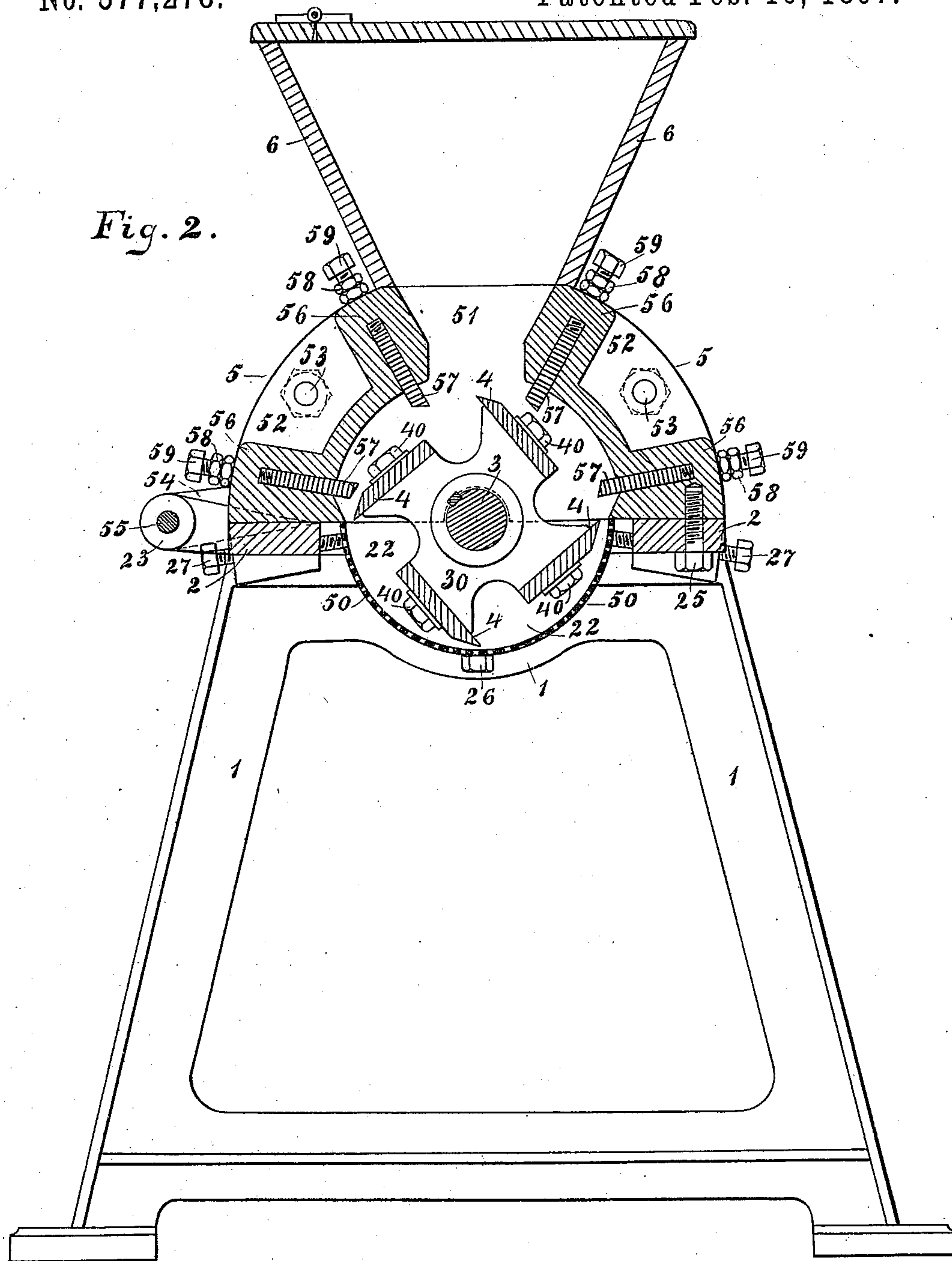
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ATTORNEY.



# UNITED STATES PATENT OFFICE.

ERNST F. AUTENRIETH, OF NEW YORK, N. Y.; MARIE AUTENRIETH ADMINISTRATRIX OF SAID ERNST F. AUTENRIETH, DECEASED.

## ROTARY CUTTING AND COMMINUTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 577,278, dated February 16, 1897.

Application filed March 20, 1896. Serial No. 584,165. (No model.)

*To all whom it may concern:*

Be it known that I, ERNST F. AUTENRIETH, of New York city, in the county and State of New York, have invented a certain new and useful Improvement in Rotary Cutting and Comminuting Machines, of which the following is a full, clear, and exact description, reference being made to the accompanying drawings, forming part of this specification.

This invention relates to improvements in machines by means of which cork, spices, and various other substances are reduced to fine particles, and which comprise a shaft mounted in horizontal bearings on a standard, knives secured on and adapted to be rotated by the shaft, a stationary casing in which the rotary knives are inclosed, other knives fixed in the casing and so arranged that the rotary knives coact therewith, and a screen constituting the lower side of the casing; and the invention consists of a machine comprising the particular groups of parts herein described and claimed.

On the accompanying sheets of drawings, Figure 1 is a half vertical section and half side elevation of the machine; Fig. 2, a vertical section at right angles to the shaft; Fig. 3, a detail of one of the fixed knives and means of fastening it in the casing, and Fig. 4 a plan of the frame of the machine on a smaller scale than that of the other figures.

Similar reference-numerals designate like parts in the different views.

The object of this invention is to so improve the construction of the casing of these machines that the entire upper part of the casing or that above the shaft may be conveniently separated from the lower part in such a way as to afford access to the knives and all parts of the interior of the casing and to allow the rotary knives and shaft to be removed separately or together from the casing.

The standard of the machine consists of the two upright castings 1, on which is bolted the top 2. The main part of the top is flat, a plan thereof being shown in Fig. 4 and an edge view and cross-section in Figs. 1 and 2, respectively. In the top is a large oblong opening 20, and at each end of the top is a bearing 21, in which the shaft 3 is journaled. At the ends of the opening 20 in the top are

sections 22, which extend downward from the main part of the top and whose lateral and under surfaces lie nearly in the surface of a cylinder whose axis coincides with that of the shaft 3. On the back part of the top are lugs 23, which project beyond the rear edge of the top.

Several cutter-heads 30, for example, four, are keyed on the shaft 3, and to these cutter-heads knives 4 are secured by bolts 40, each knife being fastened to all of the cutter-heads and extending from one end of the casing to the other.

The casing consists of the upper part 5 and the lower part comprising the sections 22 on the top 2 and the screen 50. The upper part 5 of the casing is composed of the end pieces 51 and two castings 52, to which the end pieces are bolted by bolts 53. The rear casting 52 is provided with lugs 54, by means of which the upper part of the casing is hinged by a rod 55 to the lugs 23 on the top 2. In the thick parts 56 of the castings 52 are fitted knives 57, which extend beyond the inner surfaces of the castings and which the knives 4 just clear when the shaft 3 revolves. These knives are adjustable by means of bolts 58 and 59, secured in and bearing upon the knives and extending therefrom beyond the outer surface of the casing, as is particularly shown in Fig. 3. The end pieces 51 and the sections 22 on the top 2 constitute the ends or heads of the casing.

In holes 24 in the front of the top 2 are bolts 25, which extend through the top into the front casting 52 of the casing, and these bolts and the hinge formed by the lugs 23 and 54 and the rod 55 hold the upper part of the casing in its proper position on the lower part.

The screen 50 is fastened near each end to the bottom of one of the sections 22 by a bolt 26, and is held in contact with the sections on opposite sides of the bolts 26 by bolts 27, inserted in the top 2 and abutting at their inner ends against the outer surface of the screen.

A hopper 6 is mounted on the casing, being held between flanges 60 on the end pieces 51.

Motion is imparted to the shaft 3 by means of a pulley 31 on one end of the shaft. The



substances that are to be cut fine are poured into the hopper 6 and pass down into the interior of the casing, where they are reduced to small particles by the knives 4 and 57, and then are sifted through the screen 50 into a receptacle placed under the casing.

Whenever it is desired to remove any of the knives or the shaft or to reach any part of the interior of the casing, the bolts 25 are unscrewed and the whole of the upper part of the casing is raised and turned backward on the hinge. Access is then afforded to the rotary and stationary knives and to the interior of both the upper and lower part of the casing, and the shaft, with the cutter-heads and rotary knives upon it, may be lifted out of its bearings.

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

1. A rotary cutting and comminuting machine comprising a standard, the top 2 mounted thereon and having the opening 20, sections 22, lugs 23 and bearings 21, a screen 50 on the sections 22, bolts 26 passing through the screen into the sections 22, bolts 27 in the top abutting at their inner ends against the screen, the sections 22 and screen 50 consti-

tuting the lower part of the casing, and the upper part of the casing separable from the lower part and hinged to the lugs 23 on the top 2, substantially as described.

2. A rotary cutting and comminuting machine comprising: the uprights 1 of the standard; the top 2 supported near each end by one of the uprights, the top consisting of the main portion in which is the opening 20 and of sections 22 extending downward between the uprights at the ends of the opening 20, and the top being provided with shaft-bearings between its ends and those of the opening; and a screen 50 secured to the curved edges of the sections 22; in combination with the upper part of the casing, hinged to the lower part and comprising the ends 51, adapted to rest on the sections 22 of the top, and castings 52, bolted to the ends 51 and containing knives 57; the shaft 3 with cutter-heads 30 secured thereon; and knives 4 secured to the cutter-heads; substantially as described.

ERNST F. AUTENRIETH.

In presence of—

WM. W. SHAW,  
ARTHUR F. THOMPSON.