

900,254.

Patented Oct. 6, 1908.

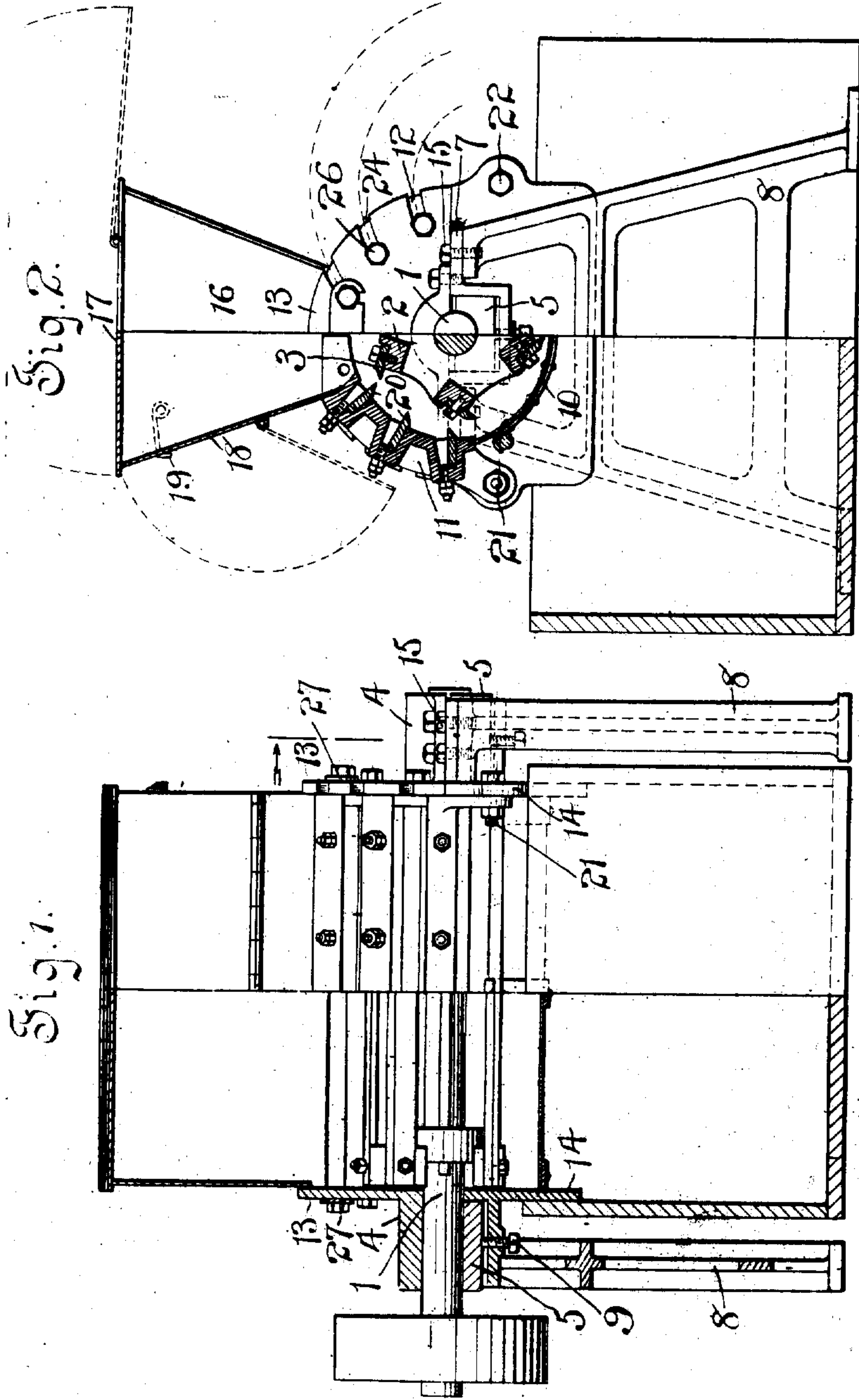


Fig. 1.

Fig. 2.

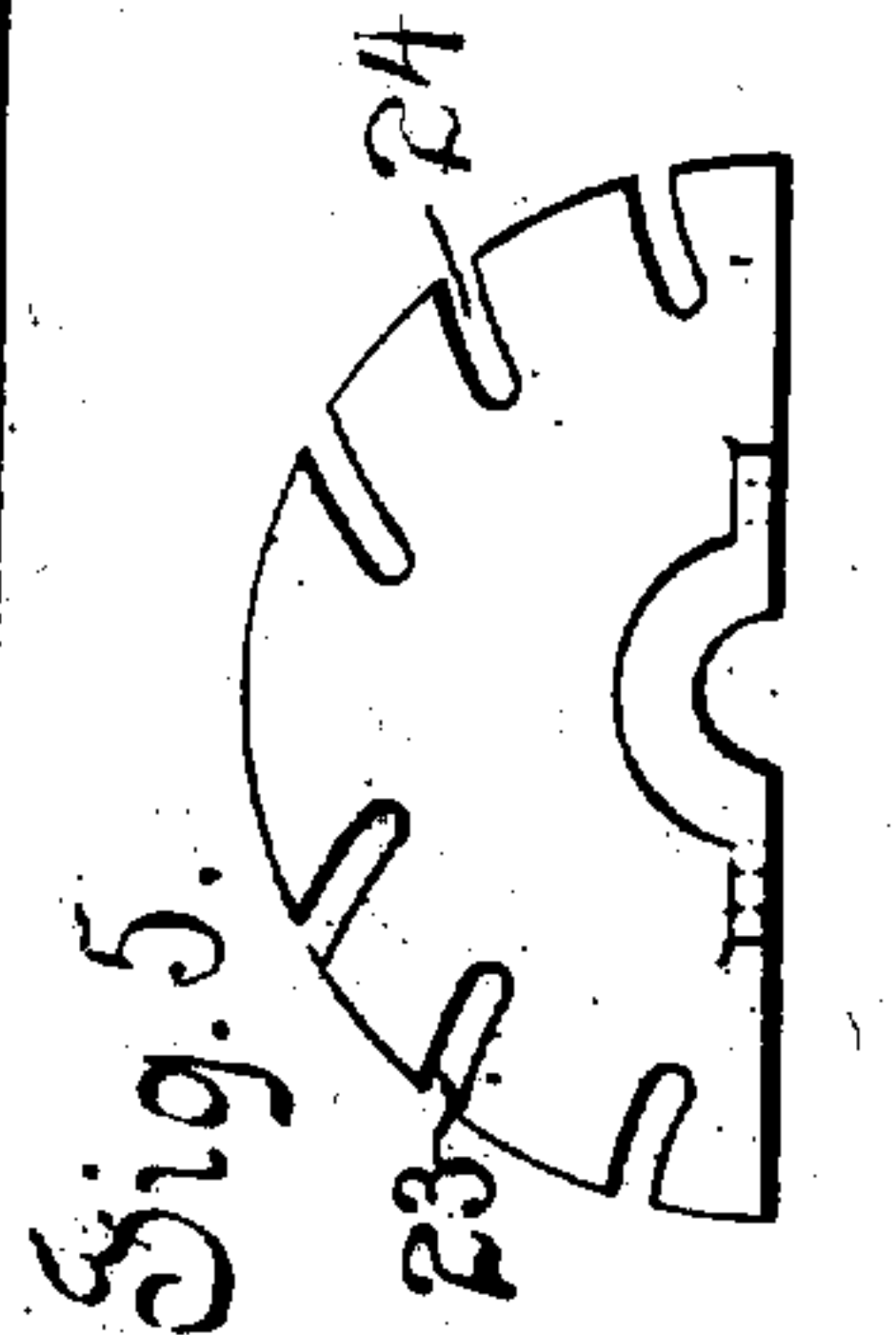


Fig. 5.

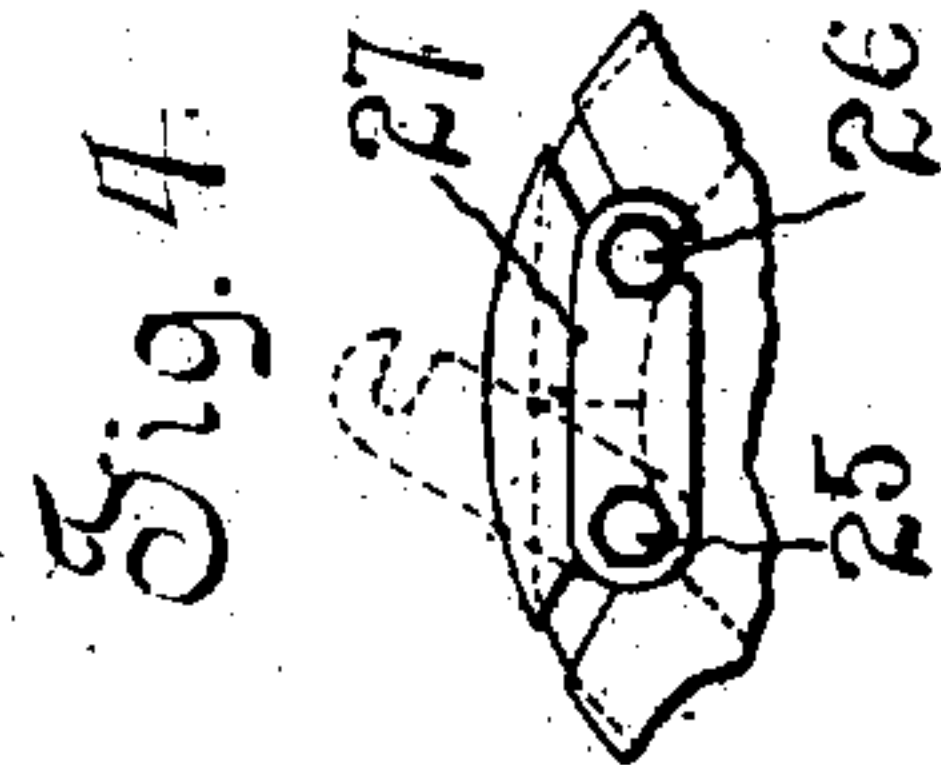


Fig. 4.

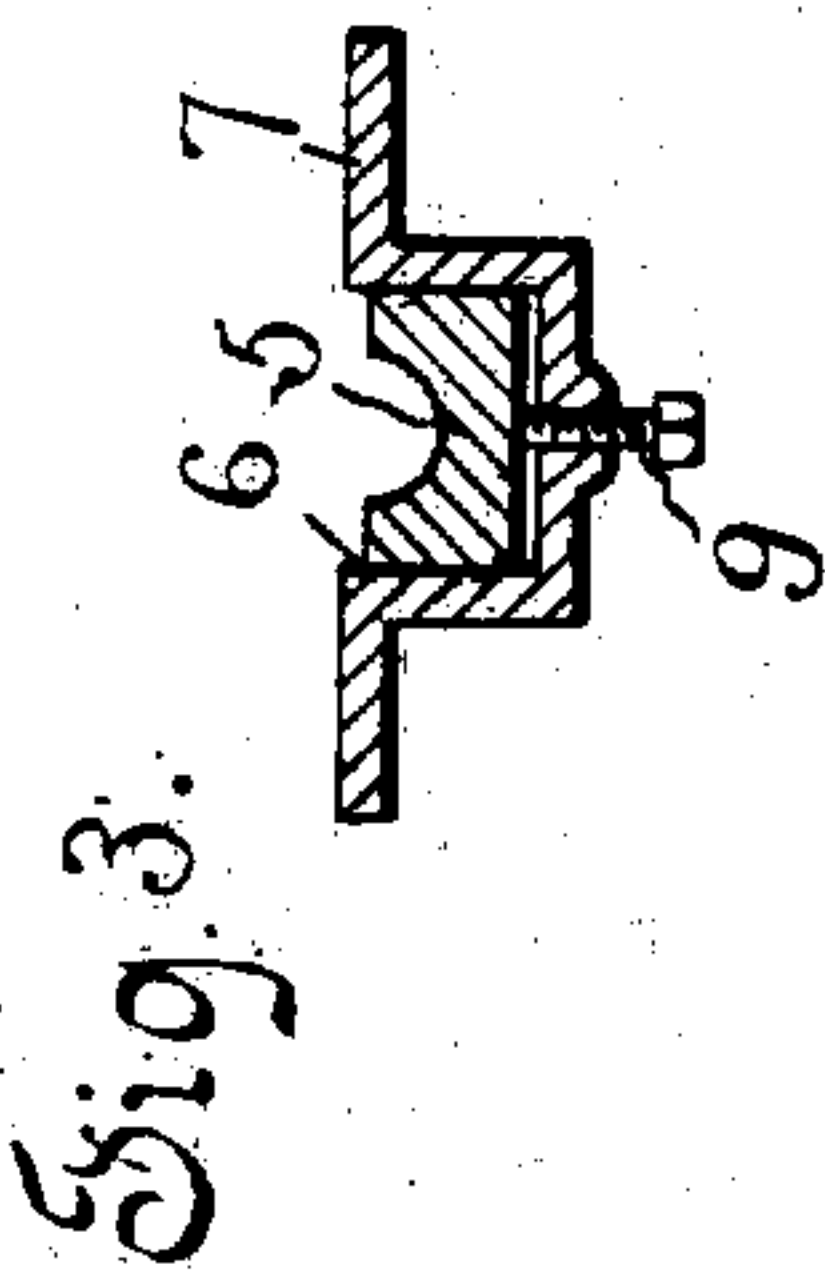


Fig. 3.

Witnesses:  
 Henry Thime.  
 J. George Barry.

Inventor  
 Charles F. Ball  
 by attorney  
 Brown & Wana



# UNITED STATES PATENT OFFICE.

CHARLES F. BALL, OF RICHMOND HILL, NEW YORK, ASSIGNOR TO BALL & JEWELL, OF  
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## ROTARY CUTTER.

No. 900,254.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed May 14, 1907. Serial No. 373,651.

*To all whom it may concern:*

Be it known that I, CHARLES F. BALL, a citizen of the United States, and resident of Richmond Hill, in the county of Queens and State of New York, have invented a new and useful Improvement in Rotary Cutters, of which the following is a specification.

This invention consists in improvements in rotary cutters of that type which are used for reducing various matters to fragments.

The object of this invention is to provide certain improvements in the construction, form and arrangement of the several parts of a rotary cutter whereby the operation of the machine will be facilitated.

A practical embodiment of my invention is represented in the accompanying drawings, in which

Figure 1 is a half front view and half vertical longitudinal section of the machine, Fig. 2 is a half end view and half transverse vertical section of the machine, Fig. 3 is a detail sectional view showing the adjustable lower half bearing for the rotary cutter shaft, Fig. 4 is a detail view showing one of the latches which are hinged to one cheek piece and which are arranged to engage the other cheek piece for locking the free ends of the cheek pieces against outward movement, and Fig. 5 is a detail view of the upper half of one of the end plates, which also includes the upper half bearing for the cutter shaft.

The rotary cutter shaft is denoted by 1 and it is provided with any suitable number of cutter heads 2, to which the rotary cutters 3 are secured. This rotary shaft is mounted between upper half bearings 4 and lower adjustable half bearings 5, the lower half bearings being guided in their vertical adjustments within recesses 6 in top plates 7 to which the legs 8 are secured. An adjusting screw 9 is provided for each lower half bearing 5, which adjusting screw passes through the top plate 7 and bears against the bottom of the said lower half bearing. A casing is formed around the rotary cutters, which casing comprises a bottom screen 10, cheek pieces 11, 12, and end plates consisting of upper half sections 13 and lower half sections 14. The upper half sections 13 of the end plates are formed integral with the upper half bearings 4 and the lower half sections 14 of the end plates are formed in-

tegral with the top plates 7. Bolts 15 serve to secure the upper half bearings, the top plates and the legs together, leaving the screws 9 free to adjust the lower half bearings thus forming a very simple and effective device for taking up wear in the bearings without disturbing any of the other parts of the machine. A feed opening is left between the free ends of the cheek pieces 11 and 12 and a hopper 16 is secured in position to direct the material to be disintegrated, to the cutters. This hopper is preferably made of sheet metal and is provided with a top hinged door 17 and a front hinged door 18. The front hinged door 18 is held closed by suitable latches 19.

The cheek pieces 11 and 12 are provided with the usual stationary adjustable cutters 20. The cheek pieces 11 and 12 of the casing are hinged at 21, 22, to the lower half sections of the end plates. To permit these cheek pieces to be readily swung outward without dismounting the parts, the upper half sections of the end plates are provided with elongated slots 23, 24, opening through the periphery of the upper half sections of the end plates and being concentric with the hinges 21, 22, of the cheek pieces. Bolts 25, 26, are located within the elongated slots 23, 24, and have their heads bearing against the outer faces of the upper half sections of the end plates so that when the bolts are screwed home the cheek pieces will be clamped rigidly to the end plates. To prevent the free ends of the cheek pieces from unintentionally spreading apart when subjected to great strain, I provide latches 27, each of which is hinged to a bolt 25 on one of the cheek pieces and is fitted to interlock with a bolt 26 on the other cheek piece as clearly shown in Fig. 4.

What I claim is:—

1. In a rotary cutter, a bottom screen, cheek pieces, end plates to which the cheek pieces are hinged having elongated slots concentric with the hinges and opening through the sides of the end plates, bolts in said slots for clamping and releasing the cheek pieces and means for absolutely locking the cheek pieces against outward movement.

2. In a rotary cutter, a bottom screen, cheek pieces, end plates to which the cheek pieces are hinged having elongated slots concentric with the hinges and opening through

the sides of the end plates, bolts in said slots for clamping and releasing the cheek pieces and means engaging certain of the bolts for absolutely locking the cheek pieces against outward movement.

In testimony, that I claim the foregoing as my invention, I have signed my name in

presence of two witnesses, this twenty-sixth day of April 1907.

CHARLES F. BALL.

Witnesses:

F. GEORGE BARRY,  
HENRY THIEME.