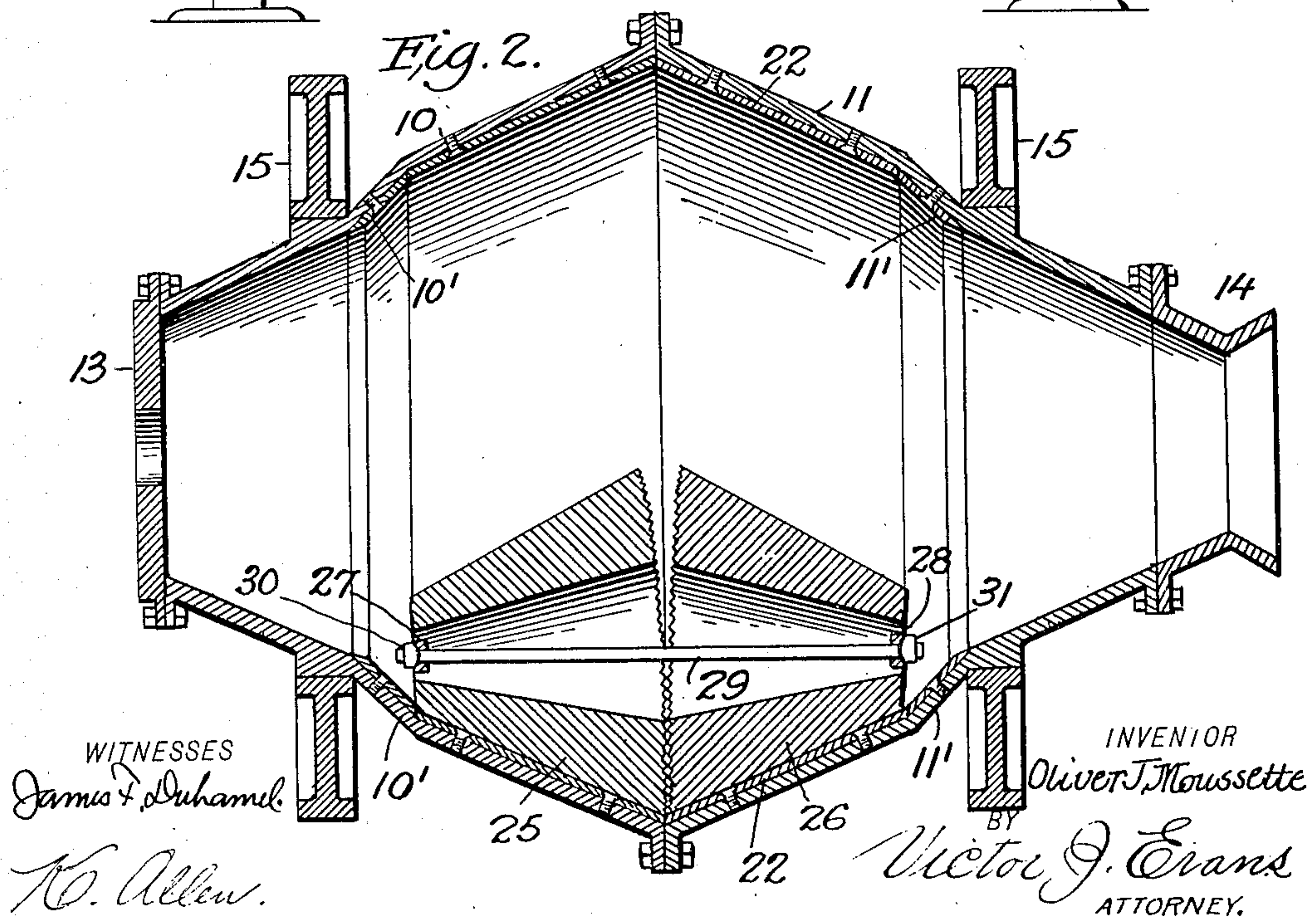
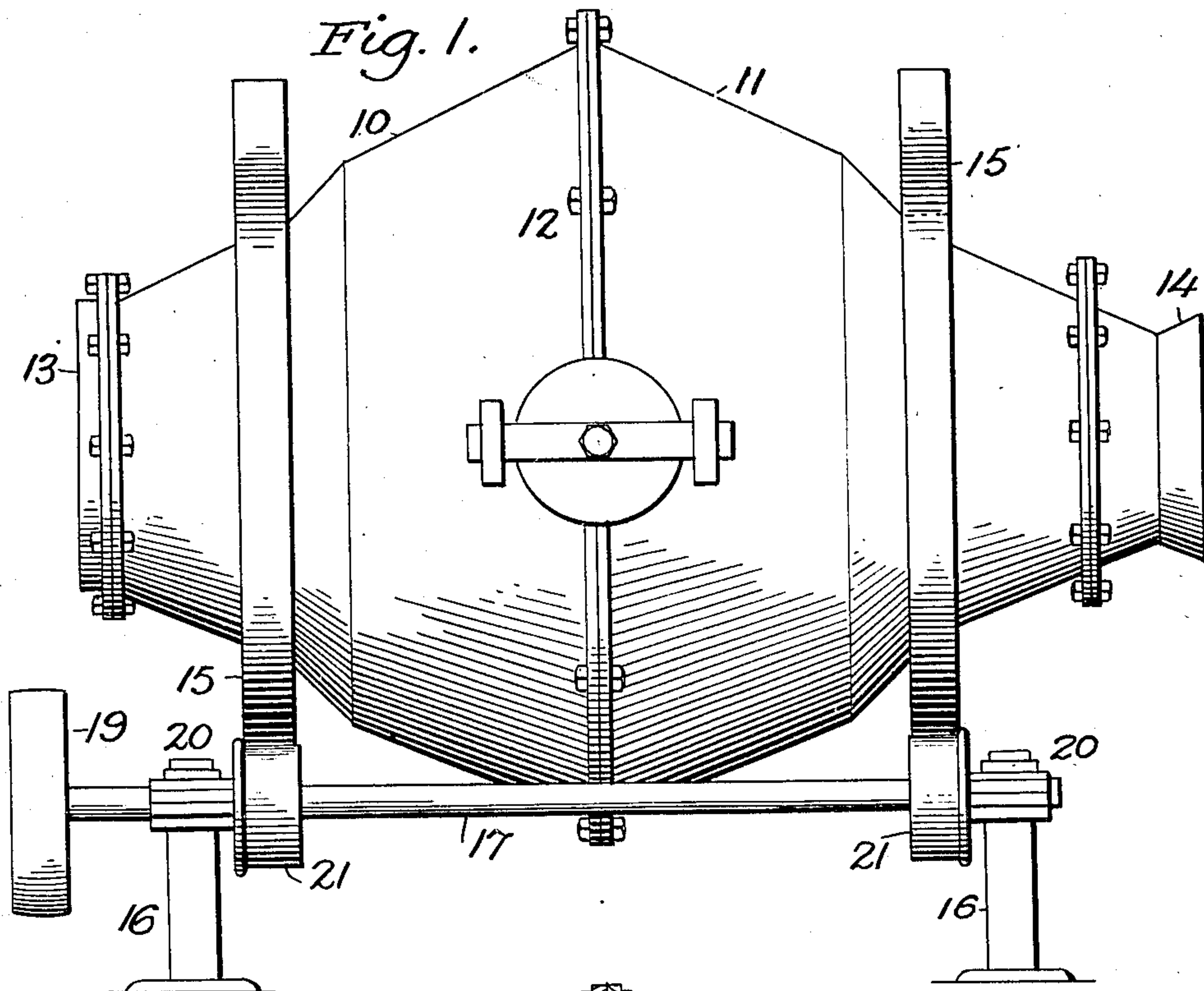


No. 860,404.

PATENTED JULY 16, 1907.

O. J. MOUSSETTE.  
CRUSHER AND PULVERIZER.  
APPLICATION FILED MAY 19, 1906.

3 SHEETS—SHEET 1.



WITNESSES  
James F. Duhamel.  
H. Allen.

INVENTOR  
Oliver J. Moussette  
BY  
Victor J. Evans  
ATTORNEY.

No. 860,404.

PATENTED JULY 16, 1907.

O. J. MOUSSETTE.  
CRUSHER AND PULVERIZER.  
APPLICATION FILED MAY 19, 1906.

3 SHEETS—SHEET 2.

Fig. 4.

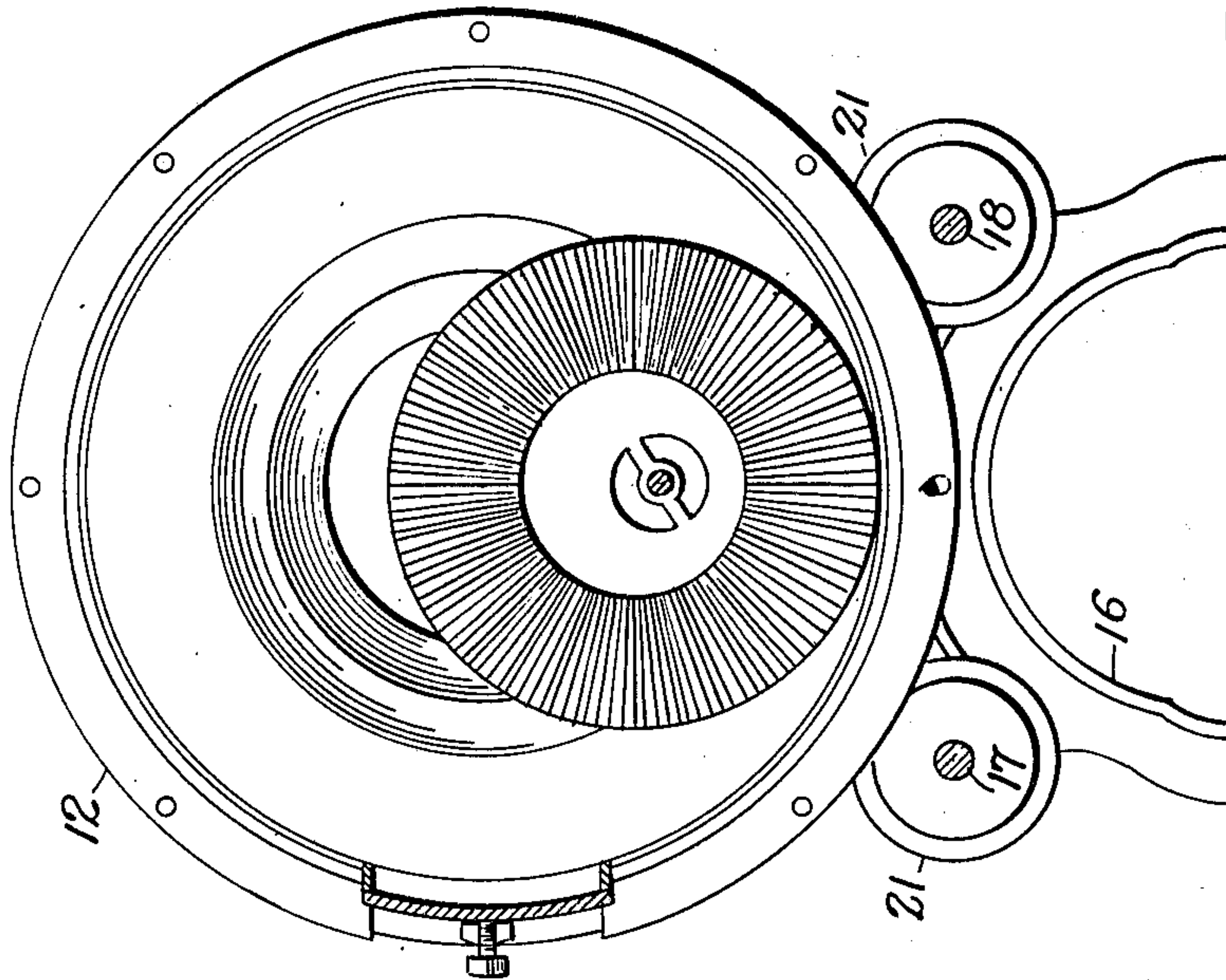
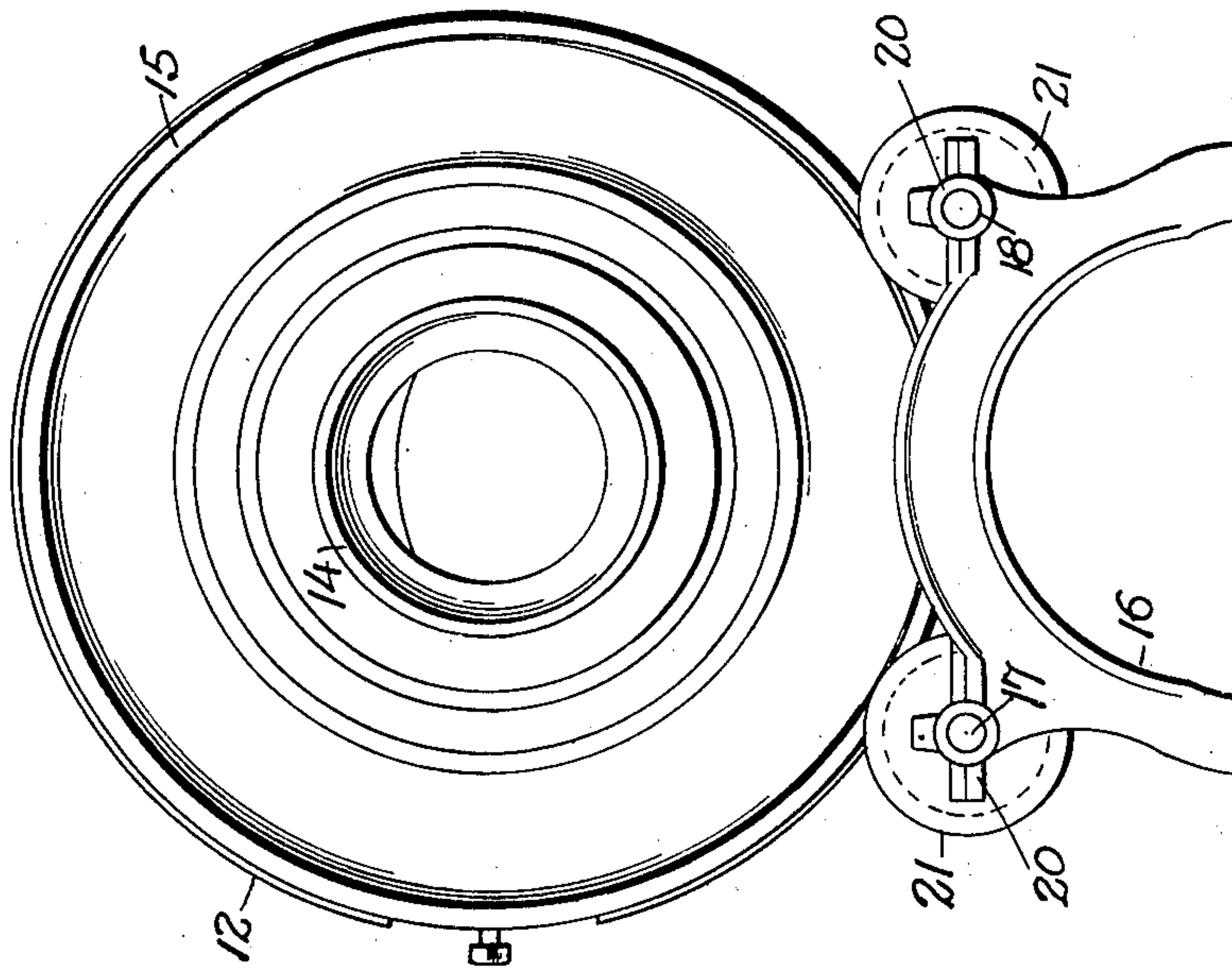


Fig. 3.



WITNESSES

James T. Duhamel,  
W. Allen.

INVENTOR

Oliver J. Moussette  
BY  
Victor J. Evans  
ATTORNEYS



No. 860,404.

PATENTED JULY 16, 1907.

O. J. MOUSSETTE.  
CRUSHER AND PULVERIZER.  
APPLICATION FILED MAY 19, 1906.

3 SHEETS—SHEET 3.

Fig. 5.

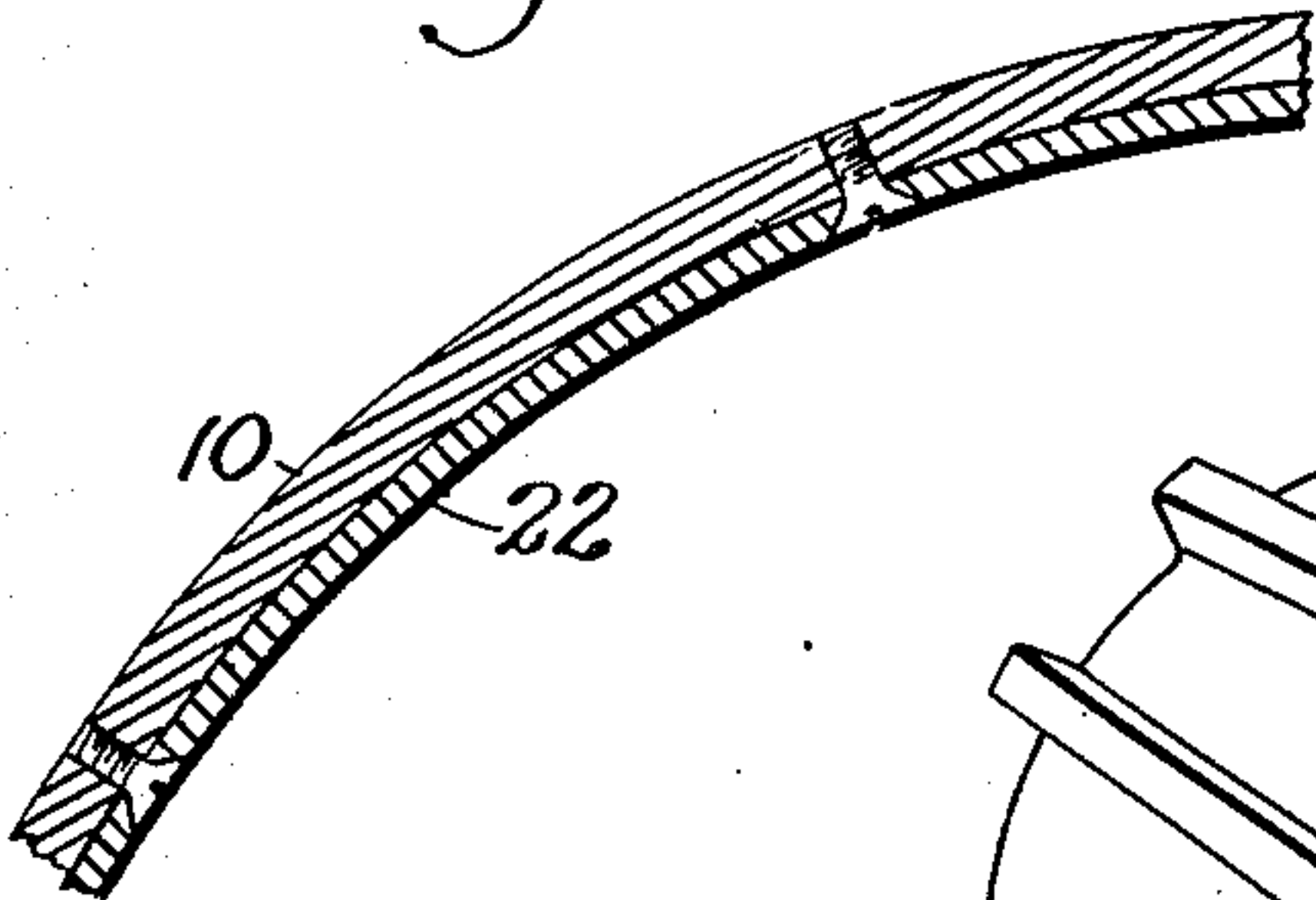


Fig. 6.

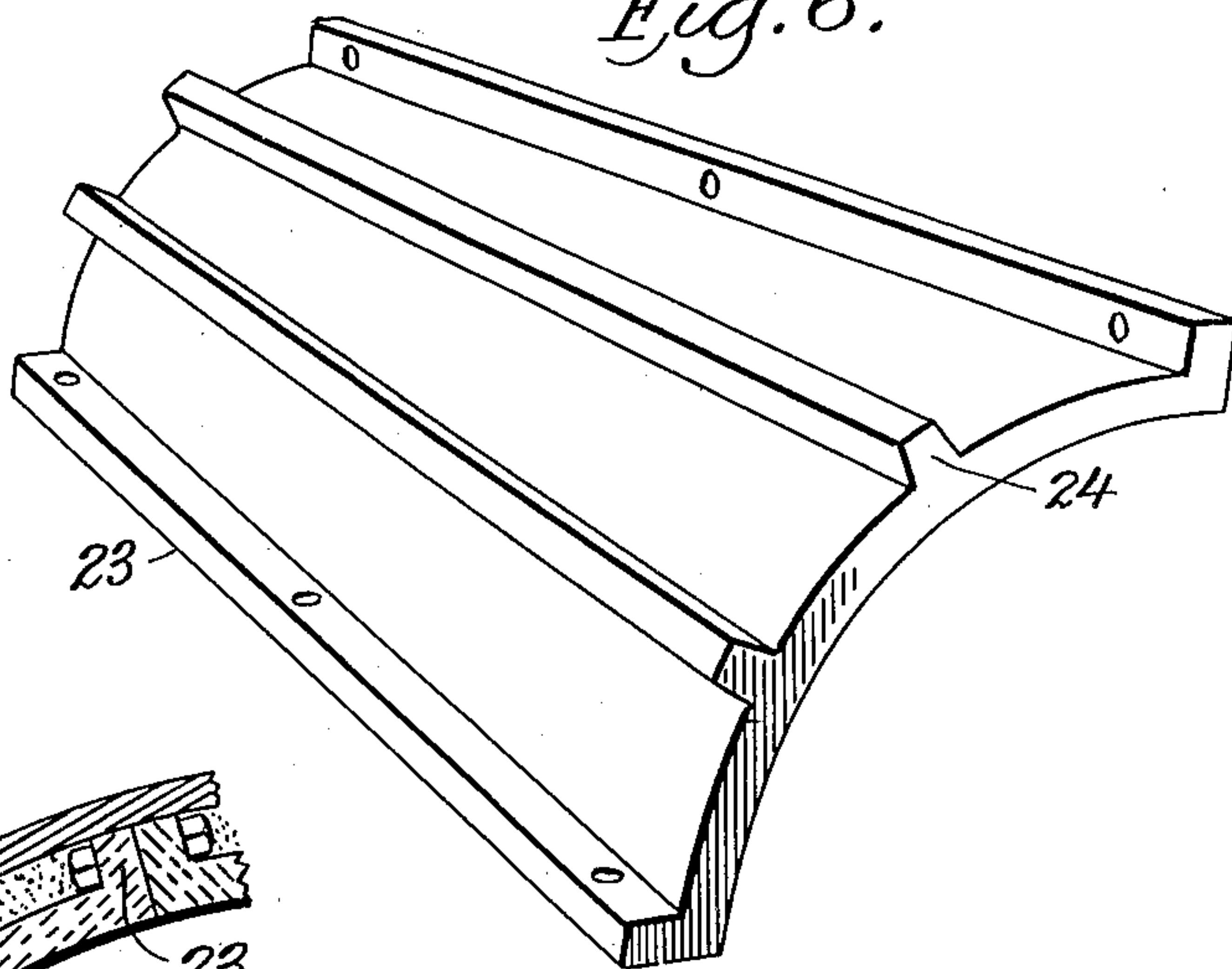


Fig. 7.

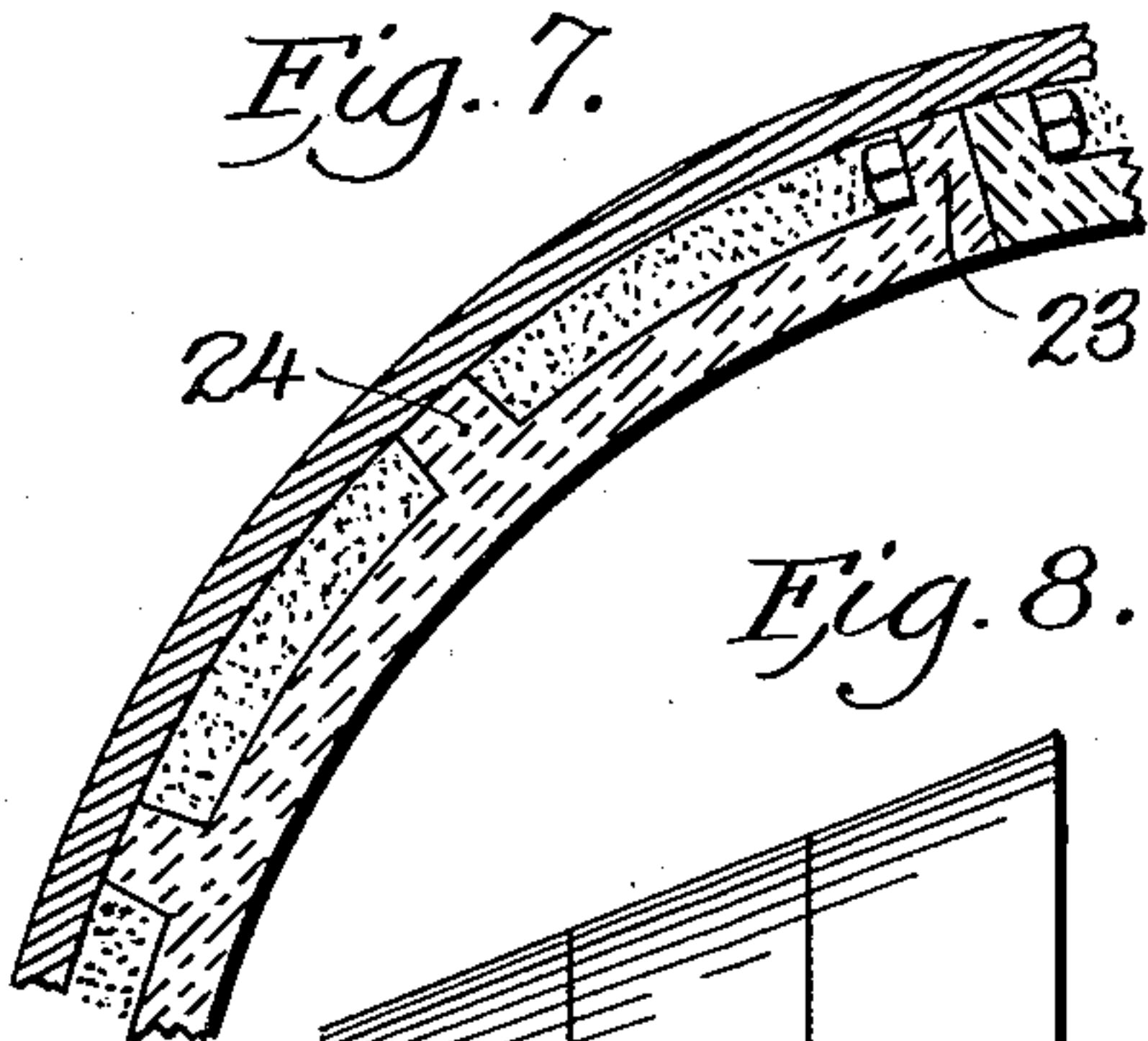


Fig. 8.

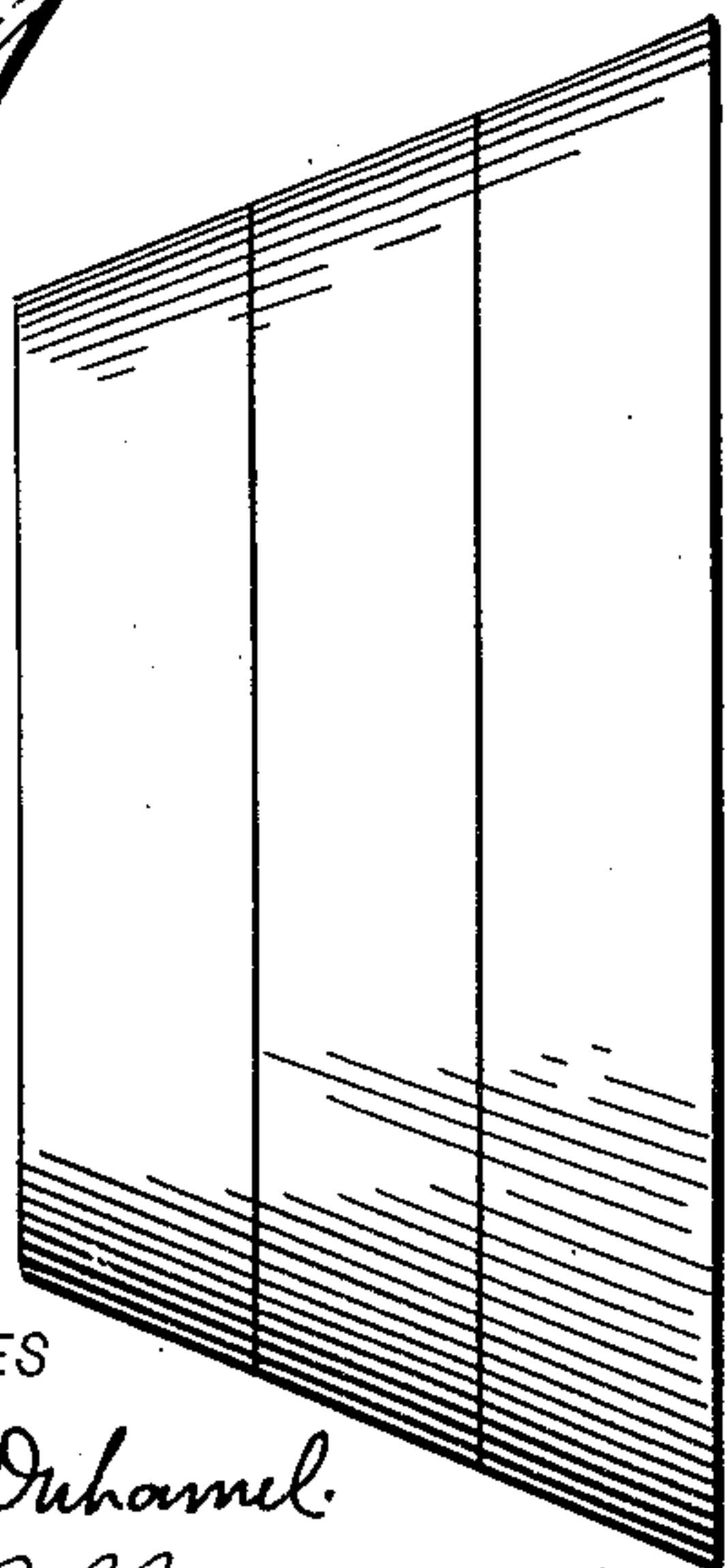
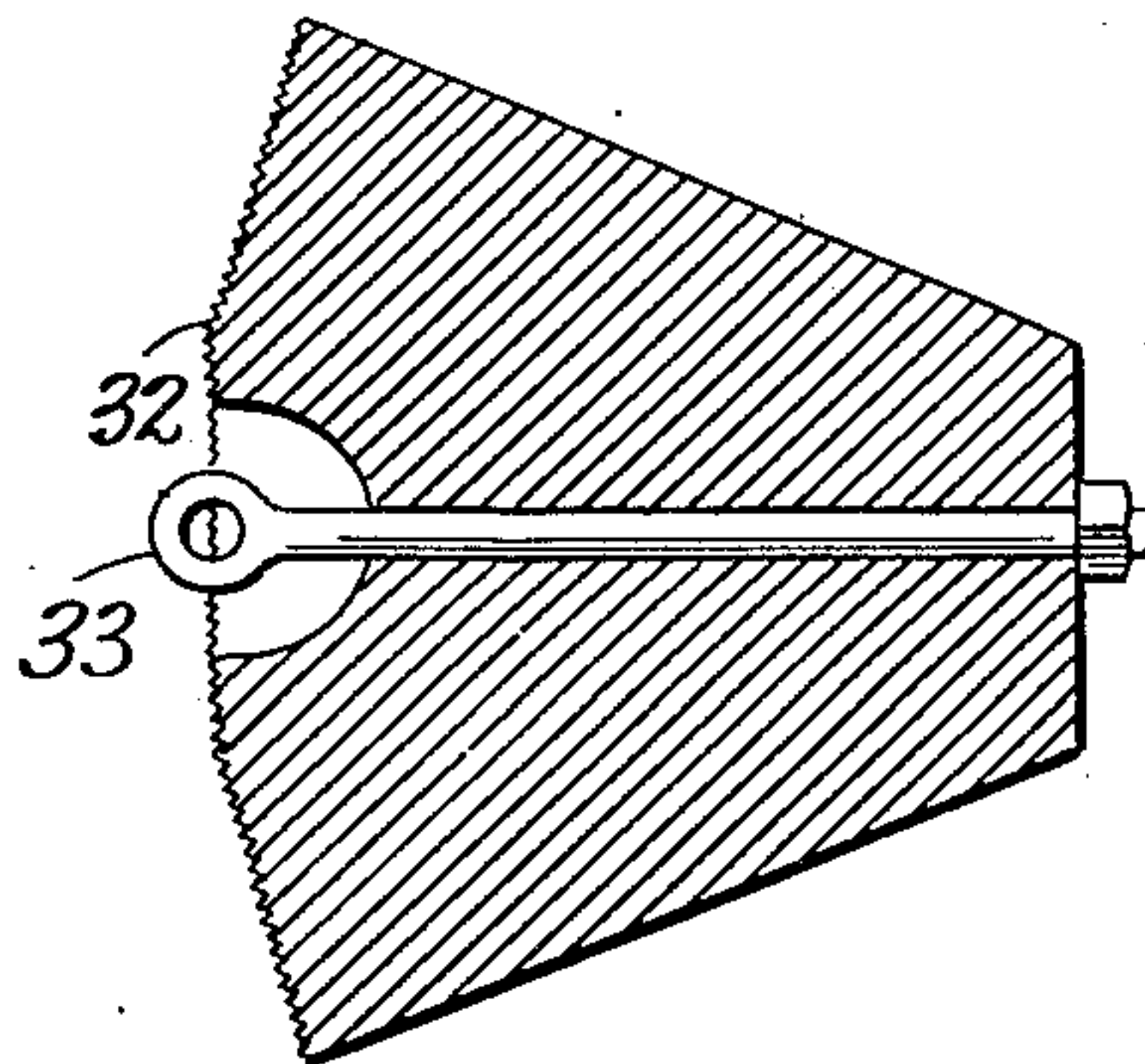


Fig. 9.



WITNESSES

James F. Duhamel.  
H. Allen.

INVENTOR,

Oliver J. Moussette,

BY

Victor J. Evans  
ATTORNEY.



# UNITED STATES PATENT OFFICE.

OLIVER J. MOUSSETTE, OF BROOKLYN, NEW YORK.

CRUSHER AND PULVERIZER.

No. 860,404.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed May 19, 1906. Serial No. 317,783.

*To all whom it may concern:*

Be it known that I, OLIVER J. MOUSSETTE, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented 5 new and useful Improvements in Crushers and Pulverizers, of which the following is a specification.

This invention relates to crushers and pulverizers, and one of the principal objects of the same is to provide improved means for crushing and grinding the 10 material within a rotating casing.

Another object of the invention is to provide an improved construction of lining for rotatable crushers and pulverizers.

These and other objects may be attained by means 15 of the construction illustrated in the accompanying drawing, in which:

Figure 1 is a side elevation of my improved crusher. Fig. 2 is a longitudinal sectional view of same. Fig. 3 is an end view. Fig. 4 is a cross section of the same. 20 Fig. 5 is a detailed view of a portion of the lining which I used. Fig. 6 is a perspective view of one of the lining sections detached. Fig. 7 is a view of the modified form of the lining. Fig. 8 illustrates another modified form of the lining. Fig. 9 is a detail view of a modified 25 form of one of the crushing cones.

Referring to the drawings for a more particular description of my invention, the numerals 10 and 11 designate the frusto-conical hollow sections of the casing, said sections being provided at their inner ends with 30 flanges 12 through which the securing bolts pass to hold said sections firmly together. The section 10 is provided with a head 13, and the section 11 is provided with a mouth or nozzle 14 for the introduction of material to be treated. Each section is provided with a 35 supporting ring 15 which may be formed separately from the sections 10 and 11 and secured upon said sections by any suitable means. Brackets 16 to which a shaft 17 is journaled, are suitably supported adjacent to the rings 15 and the shaft 17 is provided with flanged 40 rollers 21 for engaging the rings 15 and rotating the casing. A pulley 19 is secured to the shaft 17 for a belt leading to any suitable source of power, and the shaft 17 is mounted in suitable journal boxes 20 on the brackets 16.

45 The sections 10 and 11 are each provided with angular off-set portions 10', 11' designed to confine the liquid and material to be treated to the center of the casing and to prevent the same from splashing out at

the mouth 14. Each section of the casing is provided with a hard metal lining 22 which may be made in sections and secured to the casing, as shown in Fig. 5. This lining may be made of porcelain or earthenware in sections, as shown in Figs. 6 and 7, said sections provided with flanges 23 secured together by suitable 55 bolts. Ribs 24 extend longitudinally of the sections 23, and between the ribs and between said ribs and flanges 23, a filling material is inserted to give greater strength to the lining.

As shown in Fig. 8 this lining may consist of a series of rings composed of glass, porcelain or earthenware 60 and disposed edge to edge, and secured in any suitable manner.

In a device of this character there is considerable wear on the lining and to provide a lining which may be removed when worn is one of the objects of this in- 65 vention.

The crushing and pulverizing is accomplished by means of the hollow frusto-conical crusher members 25 and 26, each provided at the smaller end with a cross piece 27 and 28, which are perforated to accommodate 70 a rod 29 having a head 30 at one end, and the opposite end being threaded to receive a nut 31, the rod serving to hold the two members of the crusher together at their lower edges and their upper edges being slightly separated to receive the material to be ground and 75 crushed. As shown in Fig. 9, the crushing faces 32 of the grinding members extend at an inclination from the central portion, and a rod or bar extends centrally through the section and is provided with an eye 33 by means of which the two sections may be connected by 80 a suitable link.

Having thus described the invention, what I claim is:

1. A grinding and pulverizing mill comprising hollow frusto-conical sections, each provided with an off-set portion for the purpose described, conical crusher members 85 mounted within said hollow sections, and means for rotating said sections and crusher members.

2. In a grinding and pulverizing mill, the combination of hollow frusto-conical casing members provided with a lining, off-sets in said sections, conical crusher members 90 within the casing, said crusher members being connected by a rod secured at the ends of the members, and inclined faces on said members, substantially as described.

In testimony whereof, I affix my signature in presence of two witnesses.

OLIVER J. MOUSSETTE.

Witnesses:

JAMES F. DUHAMEL,  
DAVID GORDON.