

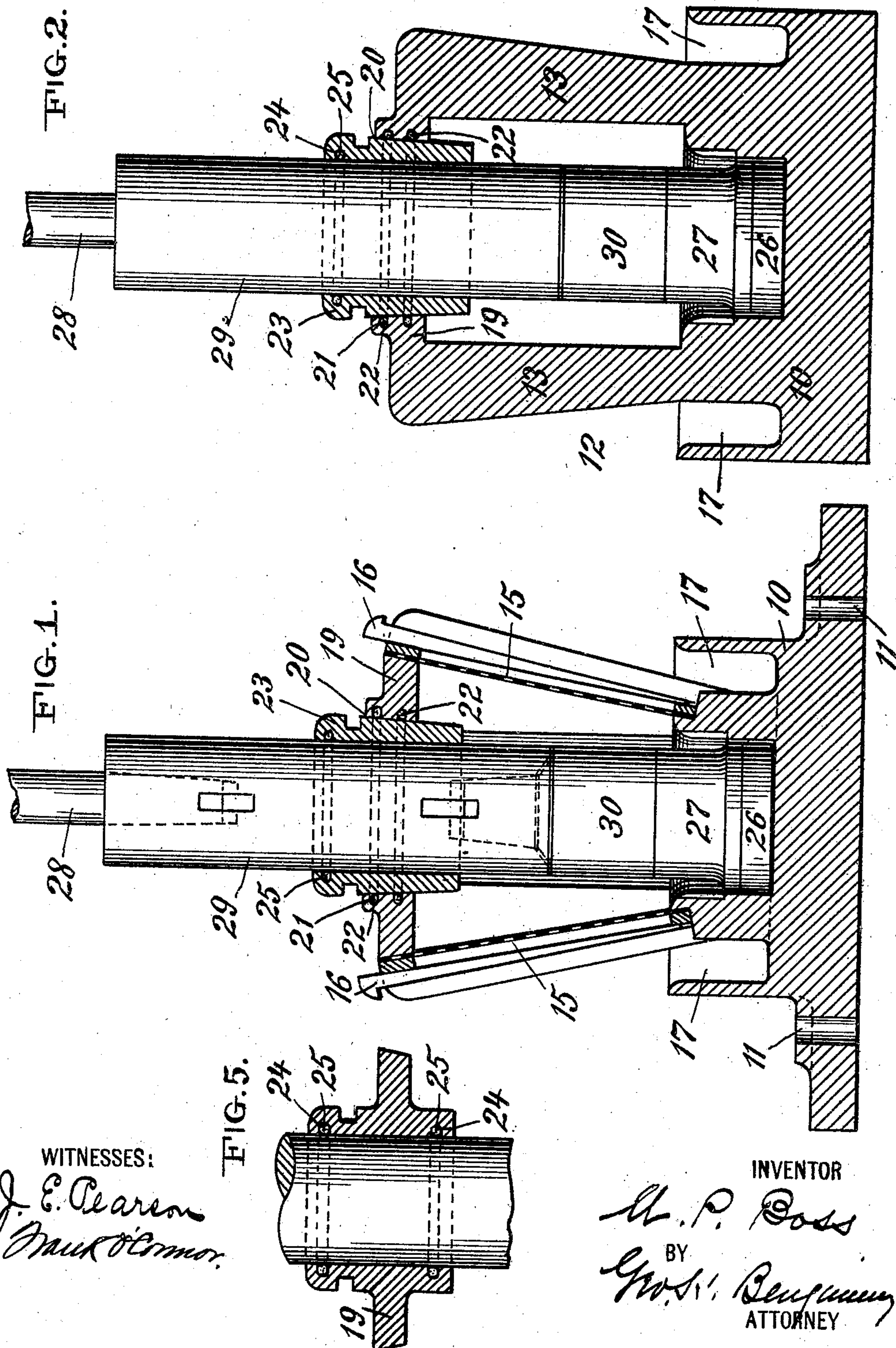
No. 815,937.

PATENTED MAR. 27. 1906.

M. P. BOSS.  
STAMP MILL.

APPLICATION FILED JAN. 14, 1903. RENEWED JAN. 13, 1905.

2 SHEETS—SHEET 1.



WITNESSES:  
*J. E. Pearson*  
*Mark O'Connor*

INVENTOR  
*M. P. Boss*  
BY  
*G. W. S. Benjamin*  
ATTORNEY

No. 815,937.

PATENTED MAR. 27, 1906.

M. P. BOSS.  
STAMP MILL.

APPLICATION FILED JAN. 14, 1903. RENEWED JAN. 13, 1905.

2 SHEETS--SHEET 2.

FIG. 4.

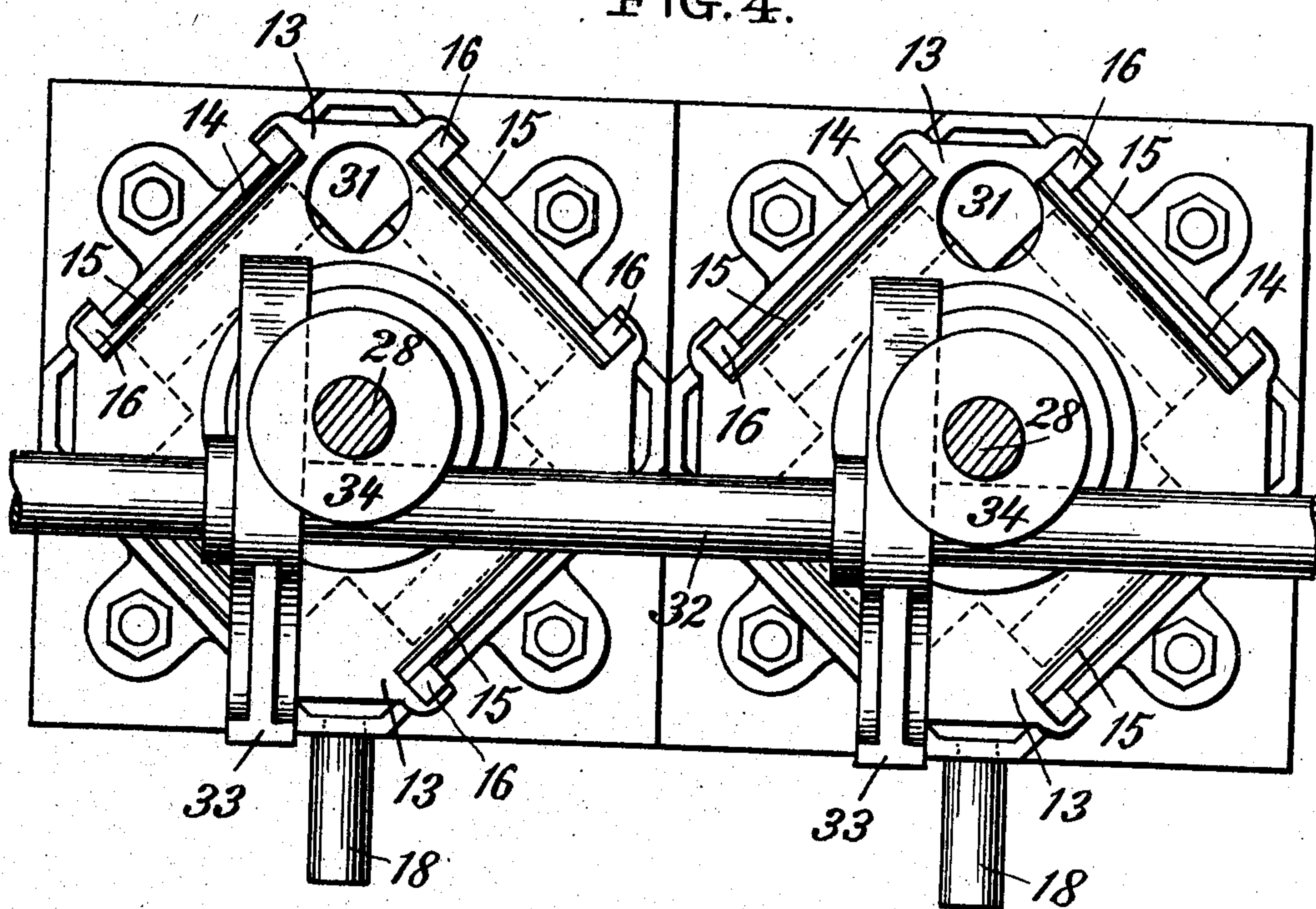
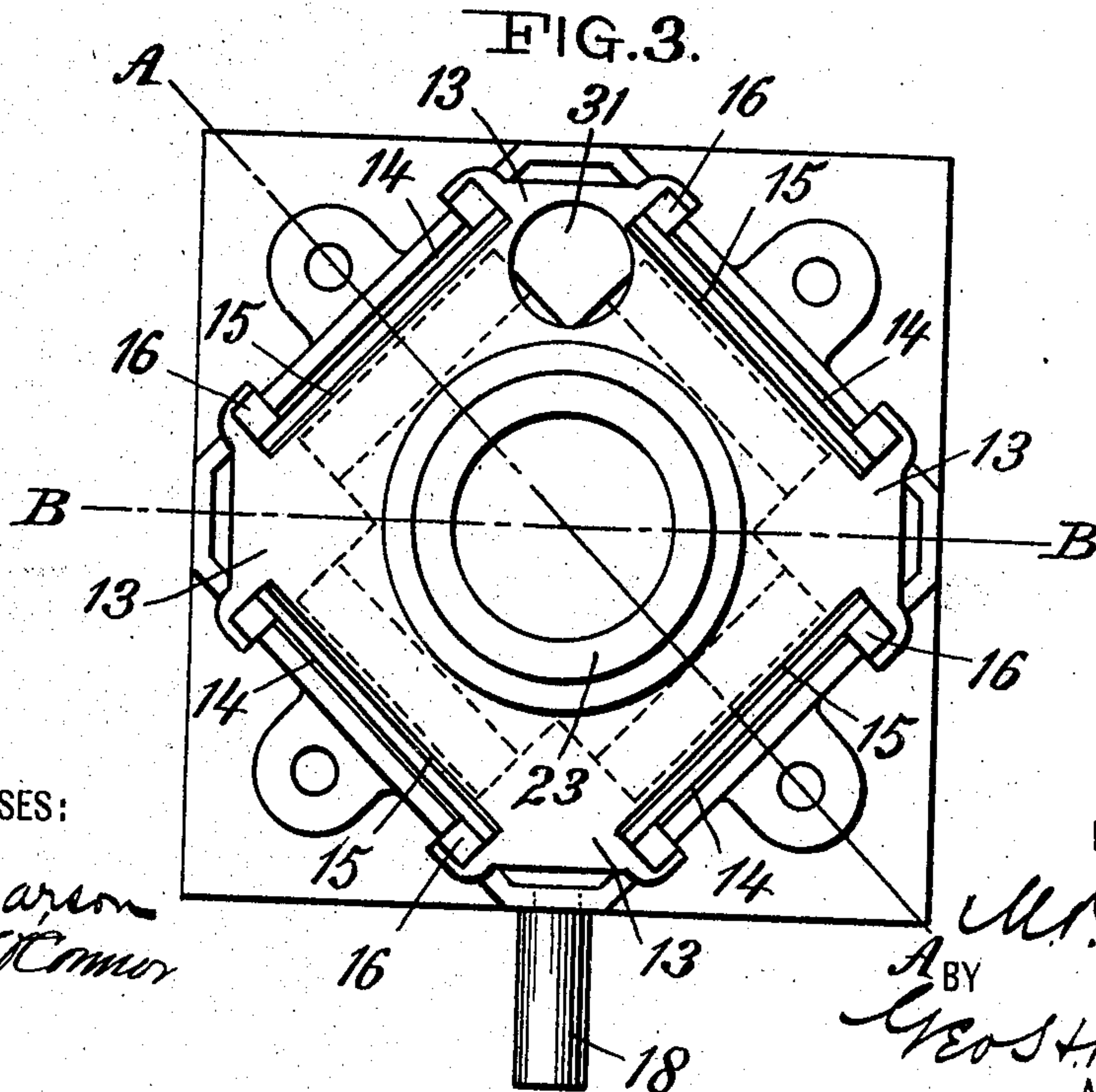


FIG. 3.



WITNESSES:

J. E. Pearson  
J. Mack Connor

INVENTOR

U.P. Ross  
A BY  
Geo. H. Benjamin  
ATTORNEY



# UNITED STATES PATENT OFFICE.

MARTIN PRIOR BOSS, OF SAN FRANCISCO, CALIFORNIA.

## STAMP-MILL.

No. 815,937.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed January 14, 1903. Renewed January 13, 1905. Serial No. 240,862.

*To all whom it may concern:*

Be it known that I, MARTIN PRIOR BOSS, a citizen of the United States, residing at San Francisco, county of San Francisco, State of California, have invented certain new and useful Improvements in Stamp-Mills, of which the following is a specification.

My invention relates to stamp-mills of the type used for reducing or crushing ores, rock, or the like; and it consists in certain features of construction of the mortar with the "housing" or packing around the stamp, which features will be set forth in detail in the specification.

The object of my invention is to give maximum area of screen-opening and at the same time have the screens easy of access when the mortars are set in battery; also, to make the packing around the stamp effective and at the same time easily removable.

The accompanying drawings will serve to illustrate my invention, and in which similar numerals indicate like parts.

Figure 1 is a vertical section through the body of the mortar and its supporting-base with the stamp-stem, stamp-head, stamp-shoe, die, and wearing-block in elevation. The section through the mortar-box is taken on line A A of Fig. 3. Fig. 2 is a vertical section with stamp-stem, stamp-head, &c., in elevation, the section of the mortar-box being taken on the line B B of Fig. 3. Fig. 3 is a plan view of the mortar-box. Fig. 4 is a plan view showing two mortar-boxes in the position which they would occupy in a stamp-battery and also showing the stamp-stem, tappets, cam-shaft, and cams and their relation to the mortar-boxes. Fig. 5 is a section through the cover and elevation of the stamp-head, showing a modification of the cover and packing-rings.

In the drawings, 10 indicates the supporting-base, having openings 11, through which it may be attached, through suitable bolts, to a concrete foundation or to a mortar-block, as is common. Formed integrally with the supporting-base is the body or screen-frame 12 of the mortar. This body or screen-frame is shown as rectangular in shape, but it may be made round, and is formed of four pillars or columns 13, which hold the top and define the screen-openings 14. The pillars 13 are slotted to receive the screens 15, which are held in place by keys 16. The screens 15, it will be observed, are inclined at an angle to the base.

Formed in the supporting-base 10 below the screen-openings is a channel 17, which has an inclined bottom and is connected to the delivery-pipe 18.

The body of the mortar 12 is closed at the top by a cover 19, which may be cast integrally with the body of the mortar, as shown at Fig. 2, or formed as a separate piece, as shown in Fig. 1. The top 19 is perforated by a circular opening 20, and in this opening are disposed the circumferential slots 21, Figs. 1 and 2, adapted to hold packing material 22. Situated in the opening 20 is a sleeve 23. This sleeve may be a separate sleeve, as shown in Figs. 1 and 2, or formed integrally with the cover 19, as shown in Fig. 5. The construction shown in Fig. 5 is specially adapted for use when two or more stamps are worked in one and the same mortar. The sleeve 23 is provided with a circumferential slot or slots 24, in which is packing material 25. The sleeve 23 has for its sole object the prevention of splashing of the pulp out of the metal when the stamp is in operation and may, if desired, be made long enough to accomplish the above object without the use of the packing material 25; but I prefer to have the sleeve long and also use the packing material 25 in order to close as much as possible the open space which necessarily exists between the stamp and the sleeve.

When a stamp is to be removed for repairs, it is essential that the sleeve in the construction shown in Figs. 1 and 2 be first lifted from its position, and for this reason I prefer to taper the outer periphery of the sleeve, which also serves to self-seat the packing material in the cover 19 to form a splash-tight joint.

Located within the mortar is the wearing-block 26 and over this block the usual die 27.

28 indicates a stamp-stem, 29 a stamp-head, and 30 stamp-shoe. The stamp stem, head, and shoe are connected together in the usual manner.

31 indicates an opening in the top of the mortar, through which the material to be stamped is introduced into the mortar.

In Fig. 4 I have shown two mortars located in the position which they would occupy relative to each other in a stamp-battery and have also shown the position of the cam-shaft 32, cams 33, and tappets 34 on stem 28. It will be seen from this figure that the screen-openings 14 are all disposed at an angle to the axis of the cam-shaft, or other-



wise two of the pillars of each mortar are in the line of the cam-shaft and two at right angles to the line of the cam-shaft, and that by such arrangement of screen-openings a maximum area of screen-opening is obtained, and access to the screen-opening is materially facilitated over previous constructions.

I make no claim in this application for the mechanism employed for reciprocating the stamp-stem or for supporting the stamps, as the same has been made the subject of another application, Serial No. 139,007, filed January 14, 1903.

Having thus described my invention, I claim—

1. A mortar comprising a supporting-base, a body portion, a top portion provided with a tapered opening, and a taper packing-sleeve in said opening.
2. A mortar comprising a body portion, columns formed integrally of said body portion and projecting vertically upward therefrom, removable screens between said columns, and a removable cover carried by said columns and having a tapered opening therein, and a packing-sleeve in the opening in said cover.

3. A mortar comprising a supporting-base, columns projecting upwardly and outwardly from said base, screens between said columns, a removable cover carried by said column, and a tapered packing-sleeve carried by said cover.

4. A mortar comprising a supporting-base, a body portion, a top portion provided with a tapered opening, and a packing-sleeve tapered externally and having a bore of uniform diameter throughout.

5. A mortar comprising a supporting-base, a body portion, a top portion provided with a tapered opening, a taper packing-sleeve in said opening and packing-rings encircling the sleeve.

6. A mortar comprising a supporting-base, a body portion, a top portion provided with a tapered opening, a taper packing-sleeve in said opening, and packing-rings arranged internally and externally of said sleeve.

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

MARTIN PRIOR BOSS.

Witnesses:

D. C. KELLEY,  
ALLEN HILL.