

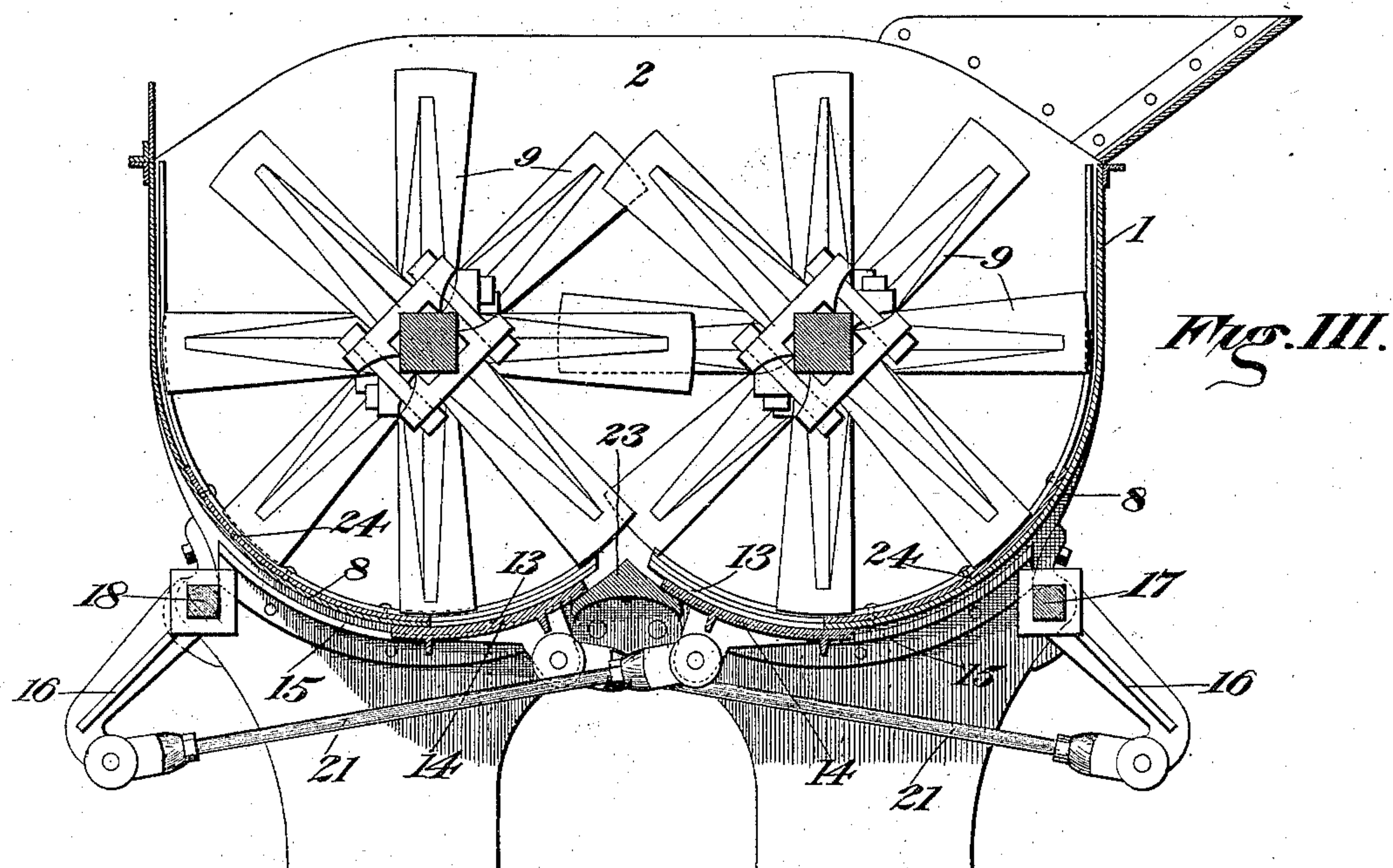
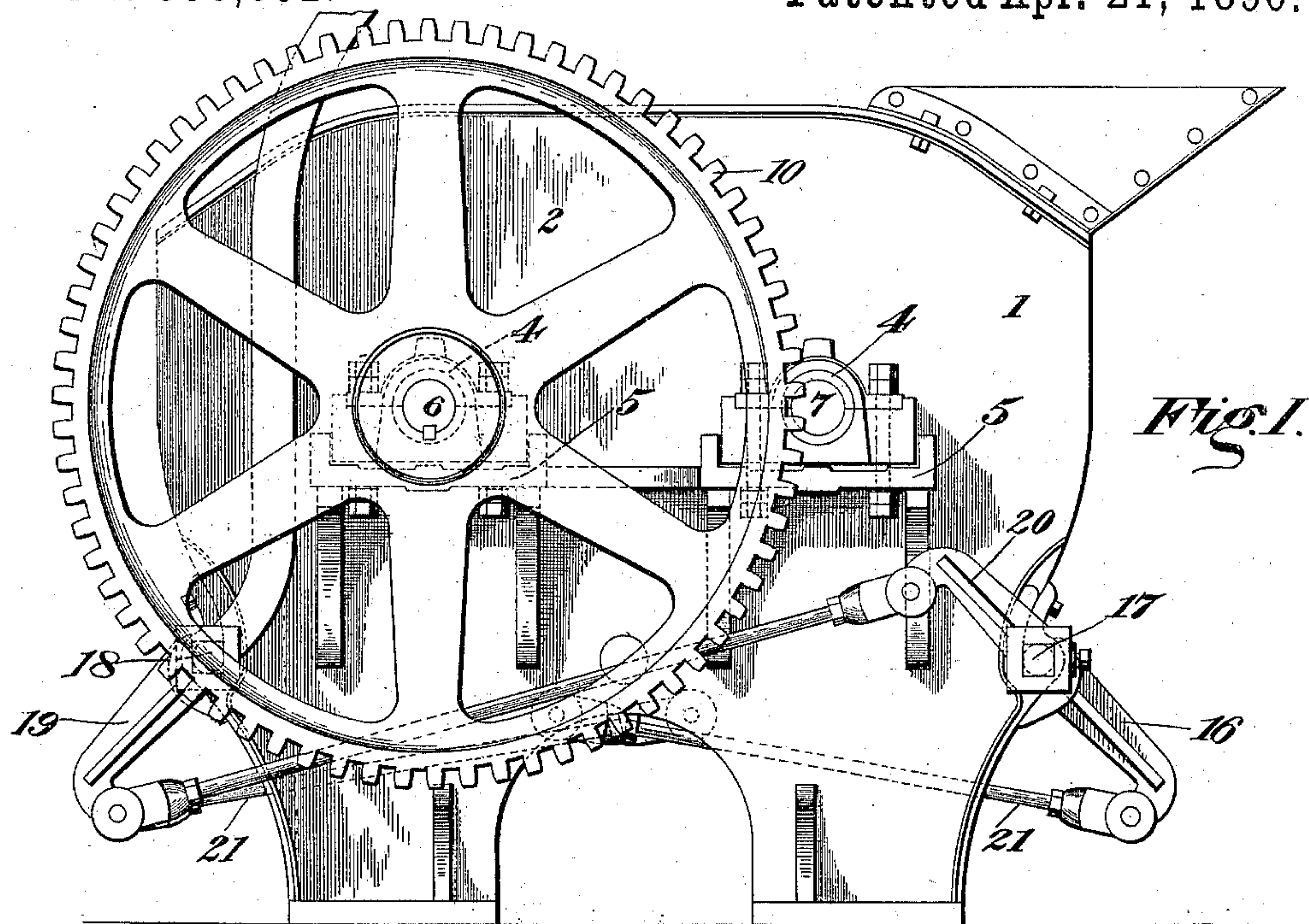
(No Model.)

4 Sheets—Sheet 1.

C. GREENE.
MIXING MACHINE.

No. 558,802.

Patented Apr. 21, 1896.



Witnesses
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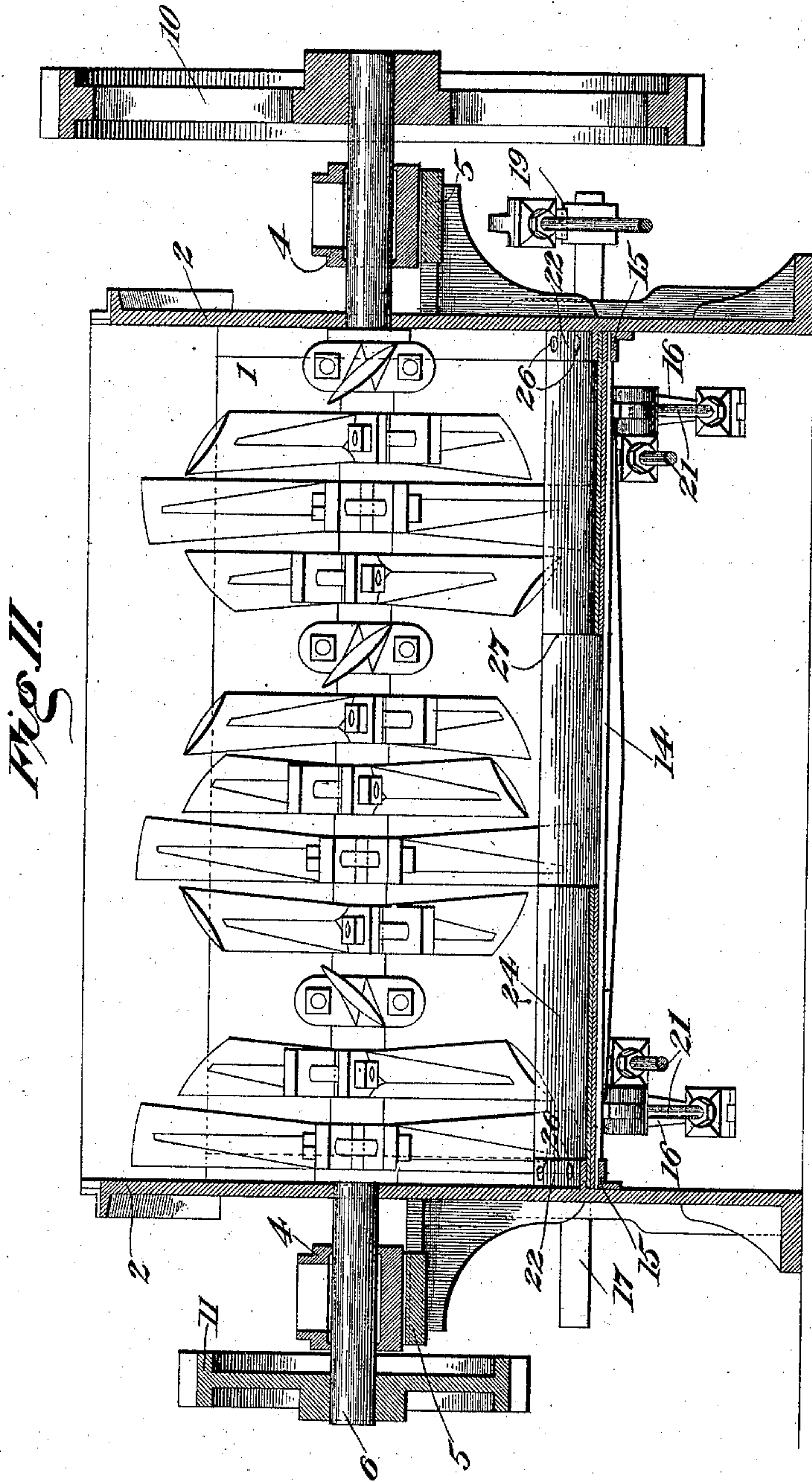
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Fig. IV.

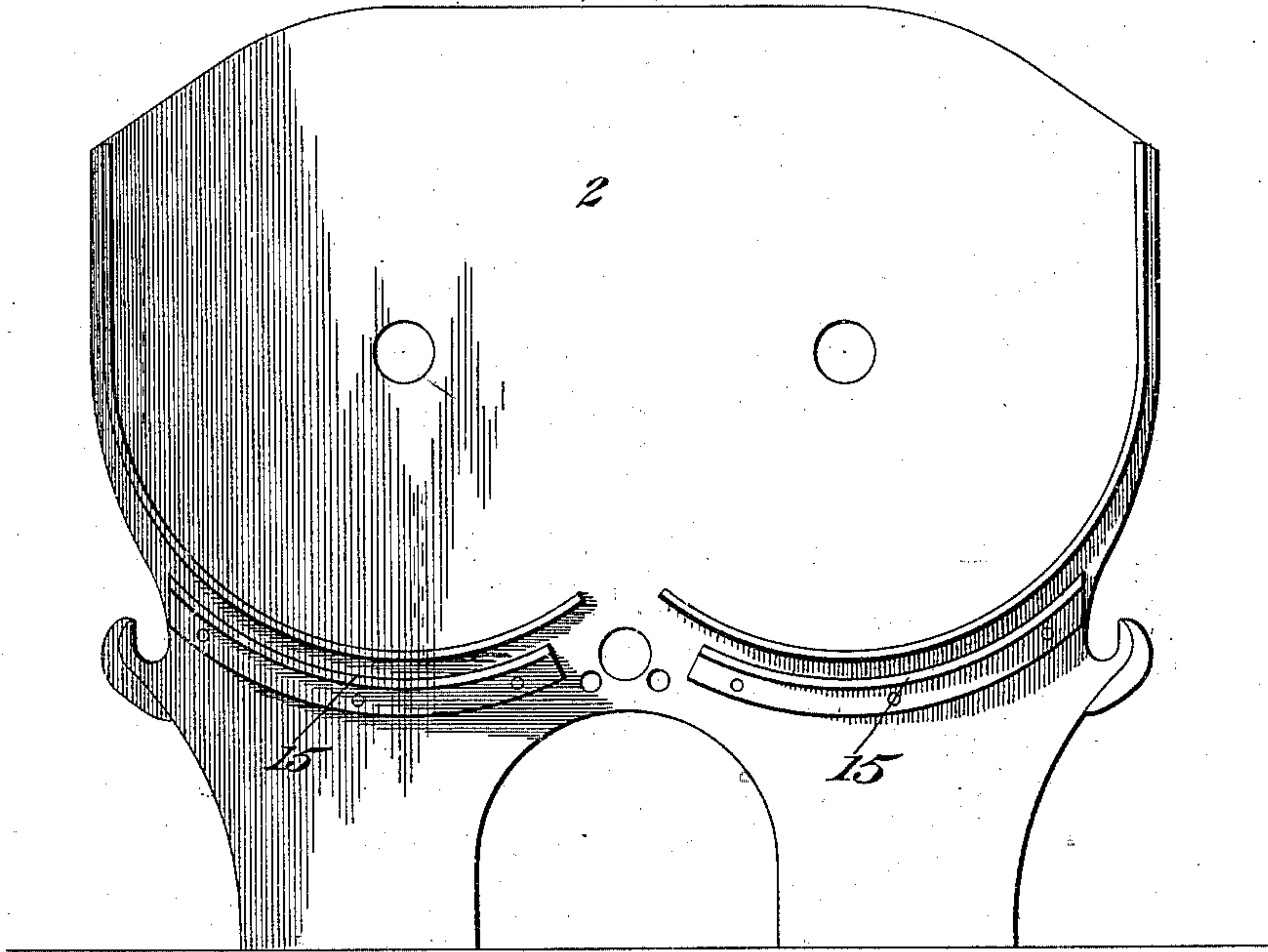


Fig. VI.

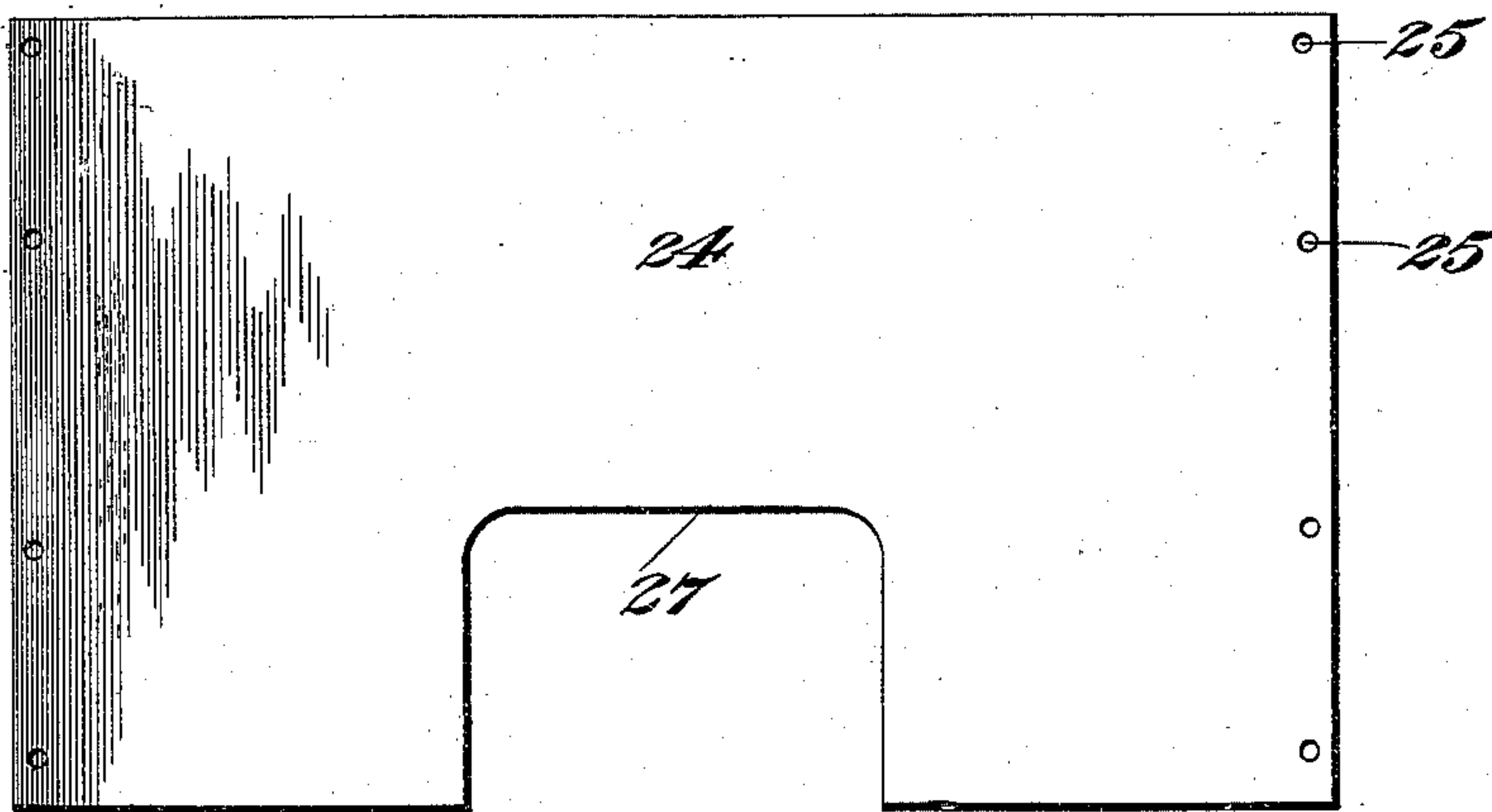


Fig. VII.

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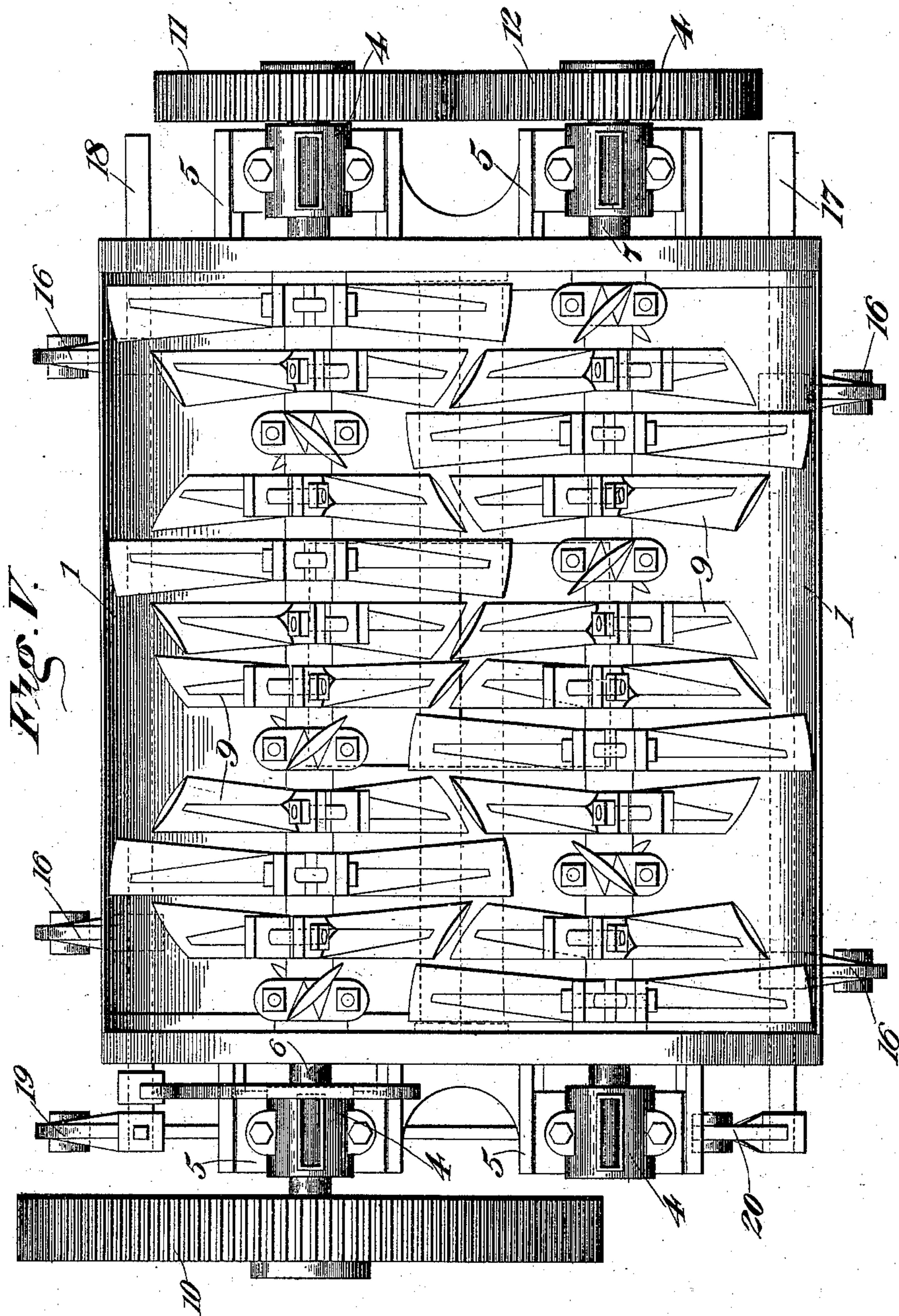
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UNITED STATES PATENT OFFICE.

CARLETON GREENE, OF BUFFALO, NEW YORK, ASSIGNOR TO THE BARBER ASPHALT PAVING COMPANY, OF NEW YORK, N. Y.

MIXING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 558,802, dated April 21, 1896.

Application filed April 26, 1895. Serial No. 547,253. (No model.)

To all whom it may concern:

Be it known that I, CARLETON GREENE, of Buffalo, county of Erie, State of New York, have invented certain new and useful Improvements in Mixing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce an improved lining for mixing-machines of that class shown, for example, in United States Patent No. 196,882, issued November 6, 1877, to Augustus Dietz, whereby that part of the shell of the mixer in which occurs the greatest wear in use may be readily renewed when required without constructing an entirely new frame and at comparatively small expense.

In the accompanying drawings, Figure I is an end elevation of a mixing-machine embodying my invention. Fig. II is a longitudinal section of the same. Fig. III is a transverse section thereof. Fig. IV is a view similar to Fig. III, showing the frame stripped of the mixing mechanism. Fig. V is a plan view of the machine complete. Fig. VI is a plan view of the liner detached. Fig. VII is an end view thereof, showing the liner bent ready for use.

Referring to the figures on the drawings, 1 indicates the outside shell of a mixer that is secured by any suitable means—as, for instance, angle-iron braces, as shown in Fig. III—to the end frame-pieces 2, which support it. The shell 1 and the end pieces 2 constitute the frame of my machine. (See Fig. IV.) The end pieces are designed to support, as in boxes 4, carried on brackets 5 on the end pieces, shafts 6 and 7, two being shown in the drawings, and the bottom of the shell being curved, as indicated at 8, to provide suitably-shaped basins for the paddles 9 to revolve in. The paddles are suitably shaped, constructed, and arranged upon the shafts to produce the best results, and the shafts are preferably made square in cross-section (see Fig. III) as affording convenient means for holding the paddles. One end of the shaft 6 carries a driving-gear 10 and the other end a gear-wheel 11, which meshes with and drives a similar gear 12, secured to the shaft 7.

13 indicates the discharge-ports located in

the bottom of the shell 1 and which are closed by slides 14, that are confined between the bottom and curved angle-irons 15, secured to the end pieces. Both slides may be operated by a single lever secured to one of the pair of shafts 17 and 18, provided with depending levers 16, connected, respectively, to the slides by means of pitmen 21. The shafts 17 and 18 are interdependently connected by means of a lever-and-pitman connection 19 20, as illustrated.

The foregoing description explains briefly features of mechanism which are well understood in the art and which, constituting no part of my invention, do not appear to require exact specification, but such as I deem necessary to clearly illustrate the applicability of my invention proper to the machine, and consequently the utility of the invention.

Having premised so much, I shall now proceed to describe the details of that which properly constitutes my invention.

The end pieces 2 are provided with flanges 22, projecting from their inner faces at a proper distance from the shell. A center bar 23 supports the interior ends of the two sides of the shell in such position as to form guideways between the shell and flanges 22 for the reception of my liner or reinforcing-plate, which is first made of flat sheet metal of suitable dimensions to fit within the interior of the frame upon opposite sides of the center bar and is forced into place by inserting it edgewise into guideways between the shell and the flanges 22. The liner may be secured to the flanges by bolts or rivets 26, inserted through bolt-holes 25.

It will be observed that the shell is not pierced by bolt or rivet holes at any point within the mixing-chamber, but is held between the angle-brace and the center bar 23.

The guideways for the liner extend entirely to the top of the shell in order that the liner may be inserted or withdrawn without removing the mixing shaft and blades. It is apparent that when force is applied to its upper edge it will be forced to conform to the contour of the shell by being confined within the guideways.

A cut-away portion 27 is provided in the liner to fit and define the discharge-port 13

in each half of the shell. Previous to its insertion in place the liner is accurately bent to fit the bottom of the shell and when placed in position is secured by the bolts or rivets provided for the purpose. By the use of this liner the life of the machine is not only materially increased, but when the liner becomes worn it may be readily removed and its place supplied by a new one without great expense or considerable loss of time.

What I claim is—

In a mixing-machine, the combination with the end pieces, center bar 23 and angle-iron braces connecting the upper corners of the end pieces, of a shell consisting of two sides secured respectively, at their bottom edges to

the center bar 23 and at their upper edges to the angle-iron braces, flanges 22 and 15 projecting from the end pieces upon the opposite sides of and at suitable distances from the shell and conforming to its contour, flexible resilient liners detachably secured between the flanges 22 and the shell, and slides movable between the flanges 15 and the shell, substantially as specified.

In testimony of all which I have hereunto subscribed my name.

CARLETON GREENE.

Witnesses:

WM. Y. WARREN,
L. A. BEEBE.