

(No Model.)

G. C. PRATT.
CLAY PULVERIZER.

No. 359,630.

Patented Mar. 22, 1887.

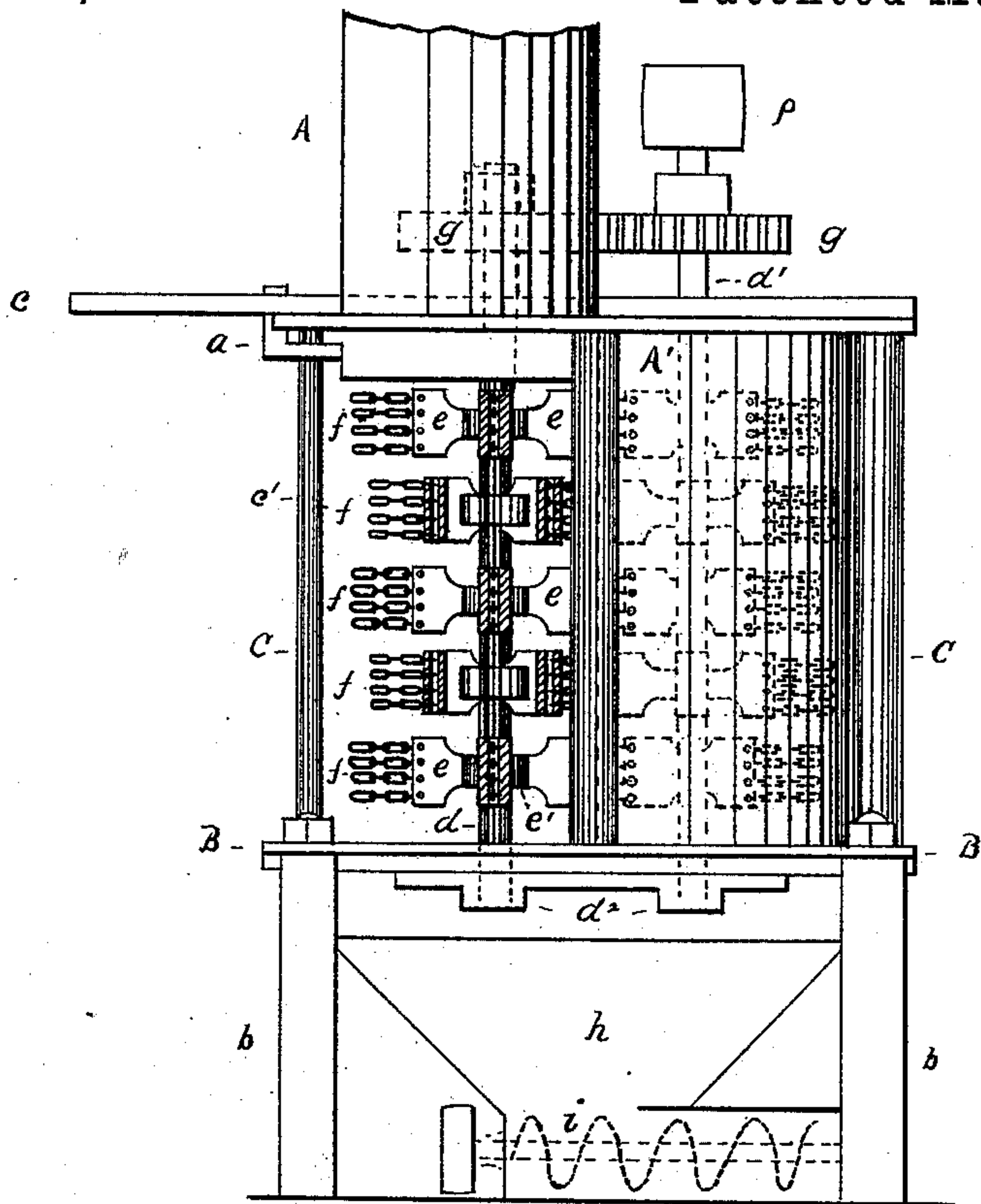


Fig. 1.

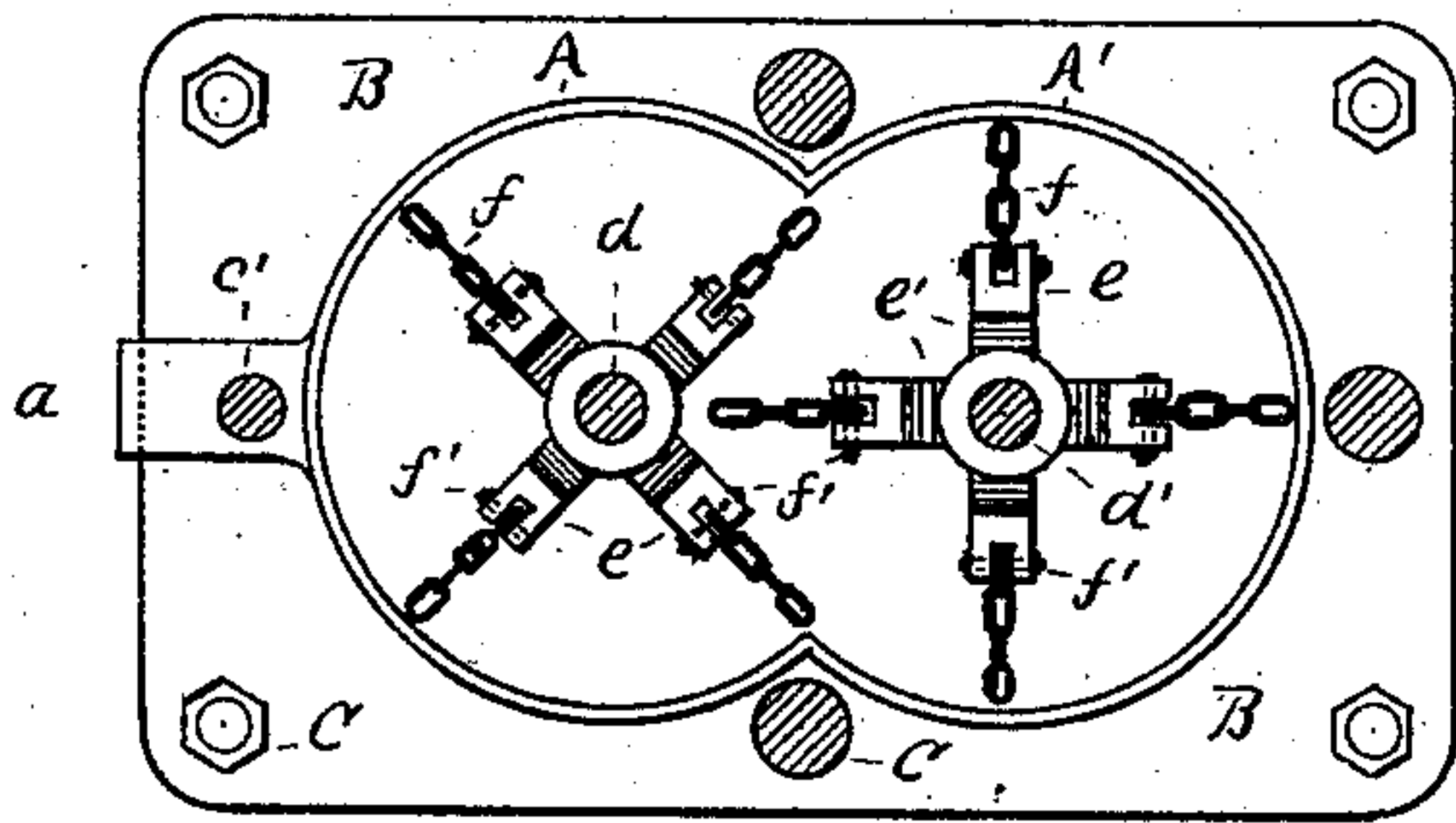


Fig. 2.

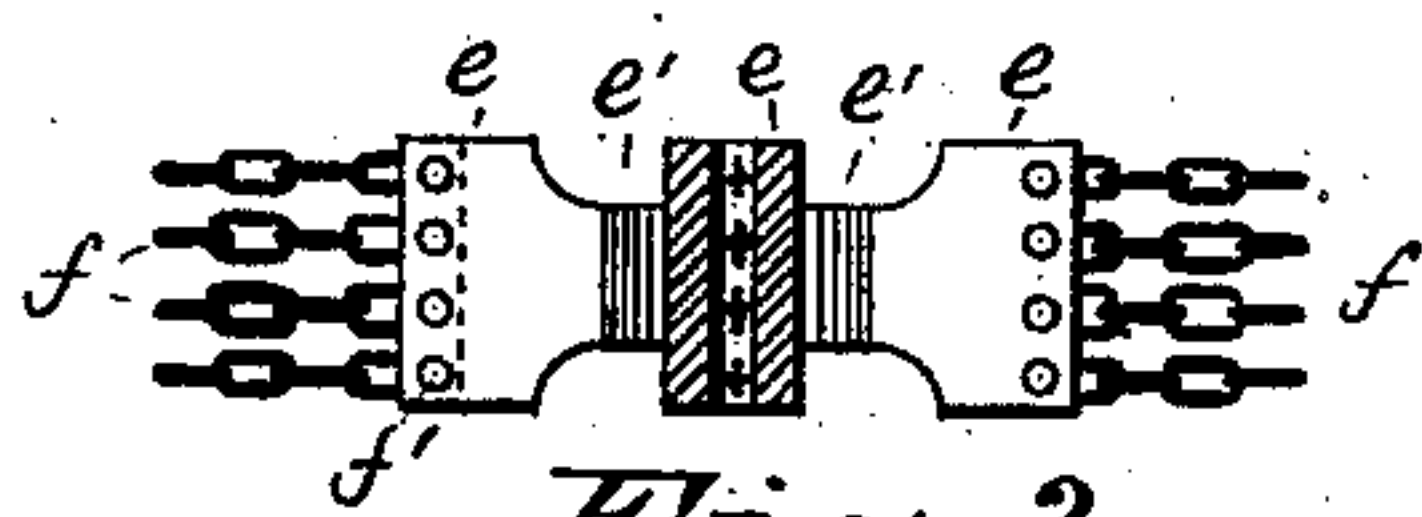


Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

GRANVILLE C. PRATT, OF ANOKA, MINNESOTA, ASSIGNOR OF ONE-HALF
TO PETER B. MORSE, OF SAME PLACE.

CLAY-PULVERIZER.

SPECIFICATION forming part of Letters Patent No. 359,630, dated March 22, 1887.

Application filed March 2, 1886. Serial No. 193,720. (No model.)

To all whom it may concern:

Be it known that I, GRANVILLE C. PRATT, a citizen of the United States, residing at Anoka, in the county of Anoka and State of Minnesota, have invented certain new and useful Improvements in Clay-Pulverizers, of which the following is a specification.

My invention relates to machines provided with rotary beaters for reducing and pulverizing clay for the manufacture of bricks and other purposes. The effective operation of machines of this class is frequently interfered with and machines damaged by stones and other hard substances introduced into the machine with the clay and which are caught between the beaters and the casing.

It is the principal object of my invention to obviate the difficulty arising from this source, and this object I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the machine; Fig. 2, a top view with the covering of the machine removed; and Fig. 3, a detail view of a side of the beaters.

A A' are adjoining cylindrical segments, forming the casing of the machine and resting upon the base B, which is supported on posts b.

A frame-work, C, is used to support and stiffen the machine. Over the portion A' of the casing may be provided a fixed covering; but for a cover of the part A it is preferable to have two lids, c, pivoted to the frame-work C, and capable of being swung out clear of the casing.

The part A of the casing is arranged to slide vertically within the frame, so that it can be raised to the position shown in Fig. 1, and its movements are guided by the projection a from its periphery near the bottom, fitted as a sleeve on the post c'. A notch is made in the projection a, into which one of the lids c may be made to slide when the half-casing is elevated to support the latter. By this arrangement ready access can be had to the interior of the machine for inspection or repairs.

d d' are vertical shafts pivoted in the step-boxes d², and should have boxes provided at the top of the frame. The shaft d may be

driven by a pulley, as p, and by means of the gear-wheels g g will drive the shaft d' in the opposite direction.

e e are the beater-arms secured on the shafts d d', preferably in spiral courses. They may be made in sets of four and attached to a sleeve, e', as shown, and fastened to the shaft in any well-known manner; or a greater or less number of arms may be made to project from each of the sleeves, as may be found desirable.

f f are chains connected by means of bolts f' in slots in the ends of the arms or beaters e, and hang loosely from these bolts when the machine is at rest; but when in operation they are held up to horizontal position by centrifugal force. They rotate close to the cylinders and overlap at the middle.

In operating the machine, the beaters being set in rapid rotation, clay is fed through a spout or otherwise into the center of the machine at the top, and is caught by both sets of beaters, and is thrown by centrifugal force toward the casing, to be taken up by the succeeding beaters and carried around again to the center of the machine. At this point the greater portion of the substance leaves the beater which first carried it, to be caught up by the next lower beater of the opposite series, and the operation thus continues until the material falls from the bottom of the machine. A hopper, h, is fitted to the bottom, and a conveyor, i, carries away the substance fed to it.

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

1. In a reducing and pulverizing machine, in combination with a suitable casing, a series of chain-beaters carried on a central shaft, substantially as set forth.

2. In combination, in a clay-pulverizer, a casing composed of two cylindrical segments, two oppositely-rotating shafts, radial arms thereon, and overlapping chain-beaters carried by said arms, substantially as set forth.

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Witnesses:

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