

# UNITED STATES PATENT OFFICE.

MAX WOLF, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO JOSEPH HUBER, OF SAME PLACE.

## BARREL-BRANDER.

SPECIFICATION forming part of Letters Patent No. 411,561, dated September 24, 1889.

Application filed May 1, 1889. Serial No. 309,180. (No model.)

### *To all whom it may concern:*

Be it known that I, MAX WOLF, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Barrel-Branders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to those furnaces which perform the twofold duties of supplying a blast of hot air for heating casks and barrels preparatory to "pitching" them, and also of heating a burning-iron wherewith the ends of said vessels are branded; and my improvement consists in surrounding the sides of the iron or brand with a bonnet to which a pipe is attached. This pipe has a forced draft that draws the smoke away from the brand, and thus renders the "pitching-room" of a brewery a more comfortable place for the workmen, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a side elevation of an apparatus embodying my improvements, the furnace being provided with a pair of brands or burning-irons, and a barrel being seen in contact with one of them. Fig. 2 is a vertical section of one side of the apparatus, taken in the plane of the neck that communicates with said brands. Fig. 3 is an enlarged horizontal section through said neck, but showing a single brand applied thereto.

The furnace proper A is surrounded by a water-jacket B, and has at bottom a grate *a*, below which is situated the ash-pit *a'*, into which air is conducted by a pipe C, communicating with any desired form of "blower" capable of affording a pressure of from ten to fifteen pounds to the square inch.

D is a short neck projecting laterally from the furnace and leading into a pipe E, to whose outer end the brand F is attached, as seen in Fig. 3, the exposed surface of said brand being provided with raised letters, figures, or other characters *f*. Furthermore, this brand has a short cylindrical shell G, fitting snugly around the pipe E, said shell being pierced at *g g* to admit a pin H, which also passes through holes *e e* of said pipe.

I is a collar fitting closely around the pipe

E, and serving as a screen or fender to prevent the heads of bolts *d d* being burned off when the brand is in operation.

Surrounding the pipe E and its attachments is a bonnet J, having a circular opening *j* at its outer end, and at top a pipe for drawing the smoke and gases away from the brand. This pipe is seen in Figs. 1 and 2, which illustrations show a duplex branding attachment, the pipe E being provided with lateral branches, (indicated by the dotted lines K K',) and each branch being provided with a separate burning-iron *k k'*, which irons are secured to said branches in the same manner as the brand represented in Fig. 3. L L' are bonnets surrounding these branches, and *l l'* are pipes attached to the upper side of said bonnets and leading into a common discharge flue or exit M, a nozzle N being inserted in the lower end of said exit, which nozzle is attached to a pipe *n*, communicating with the air-pipe C.

O is a barrel or keg held in a proper position by any suitable means.

P is a cap fitting tightly over the end of pipe E when the latter has a pair of brands attached to it.

When the apparatus is in operation and a powerful blast of air is forced through the incandescent fuel in the furnace, the heat traverses the neck D and pipe E, and the brand F soon becomes red-hot, and is then capable of burning into the head of the barrel any characters projecting from said brand. It is evident this branding operation produces considerable smoke, and as the burning-iron is not fitted very closely to the pipe leading from the furnace there is a constant escape of gas and smoke, which noxious vapors would render the pitching-room unfit to work in unless they were speedily disposed of. Now, by referring to Fig. 3, it will be noticed that the opening *j* allows a current of air to enter the bonnet J, as indicated by the arrow, which current is induced by the blast of air discharged from nozzle N. Consequently this current draws the smoke and gases into the bonnet, and thence up the pipes *l l'* into the common exit M, which latter may discharge into a chimney.

It will thus be seen that the above-described



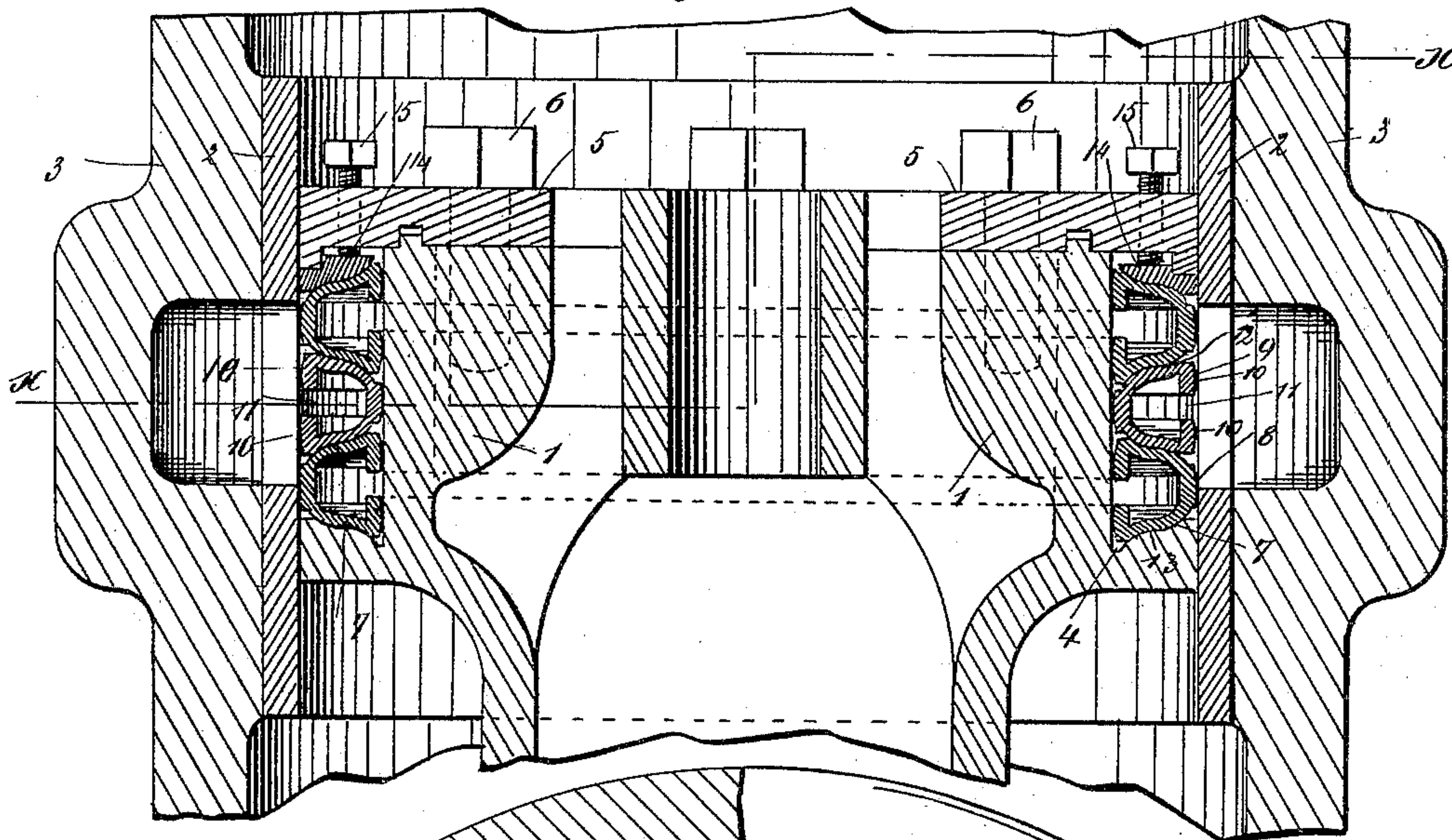
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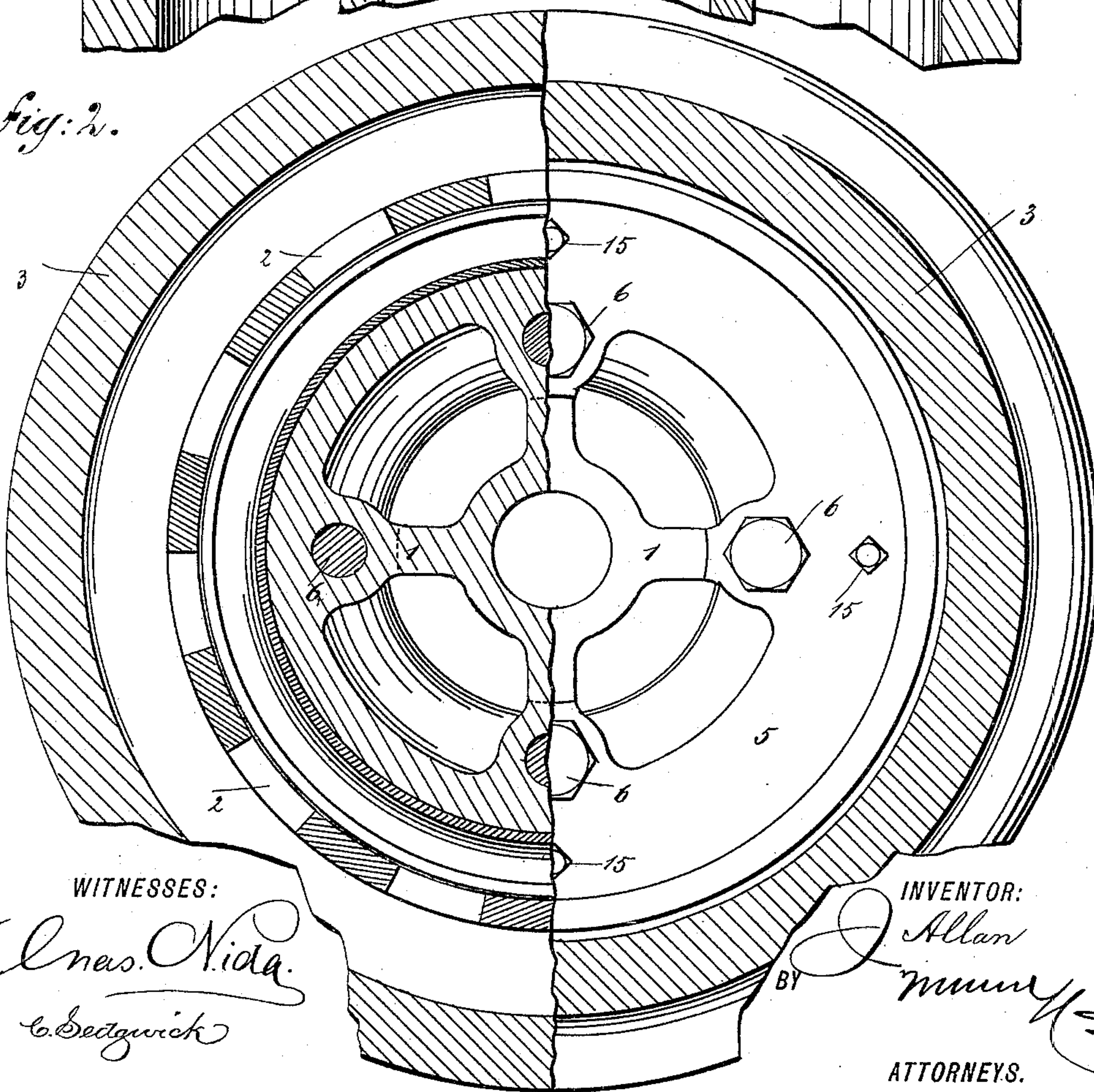
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*Fig: 1.*



*Fig: 2.*



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