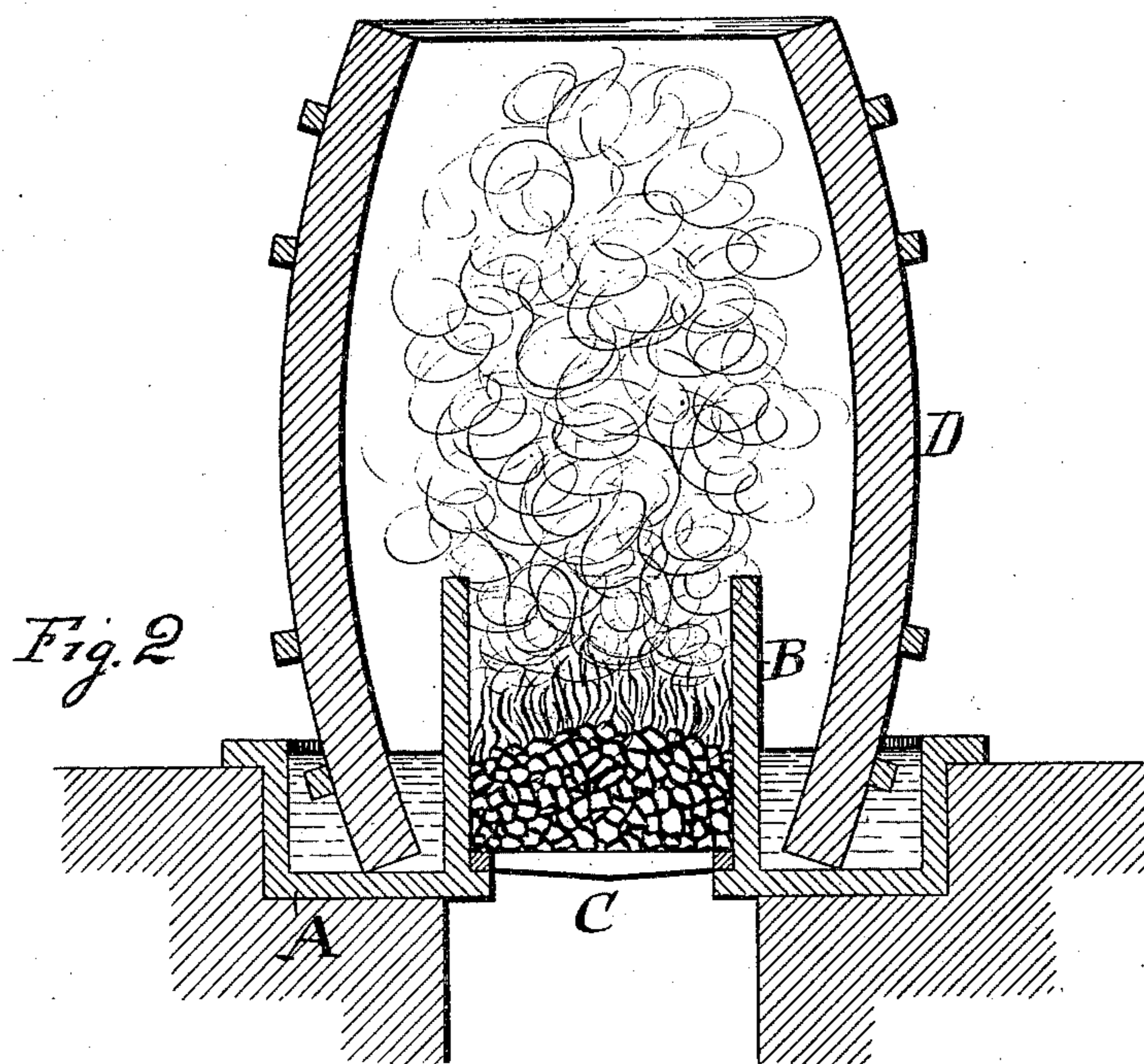
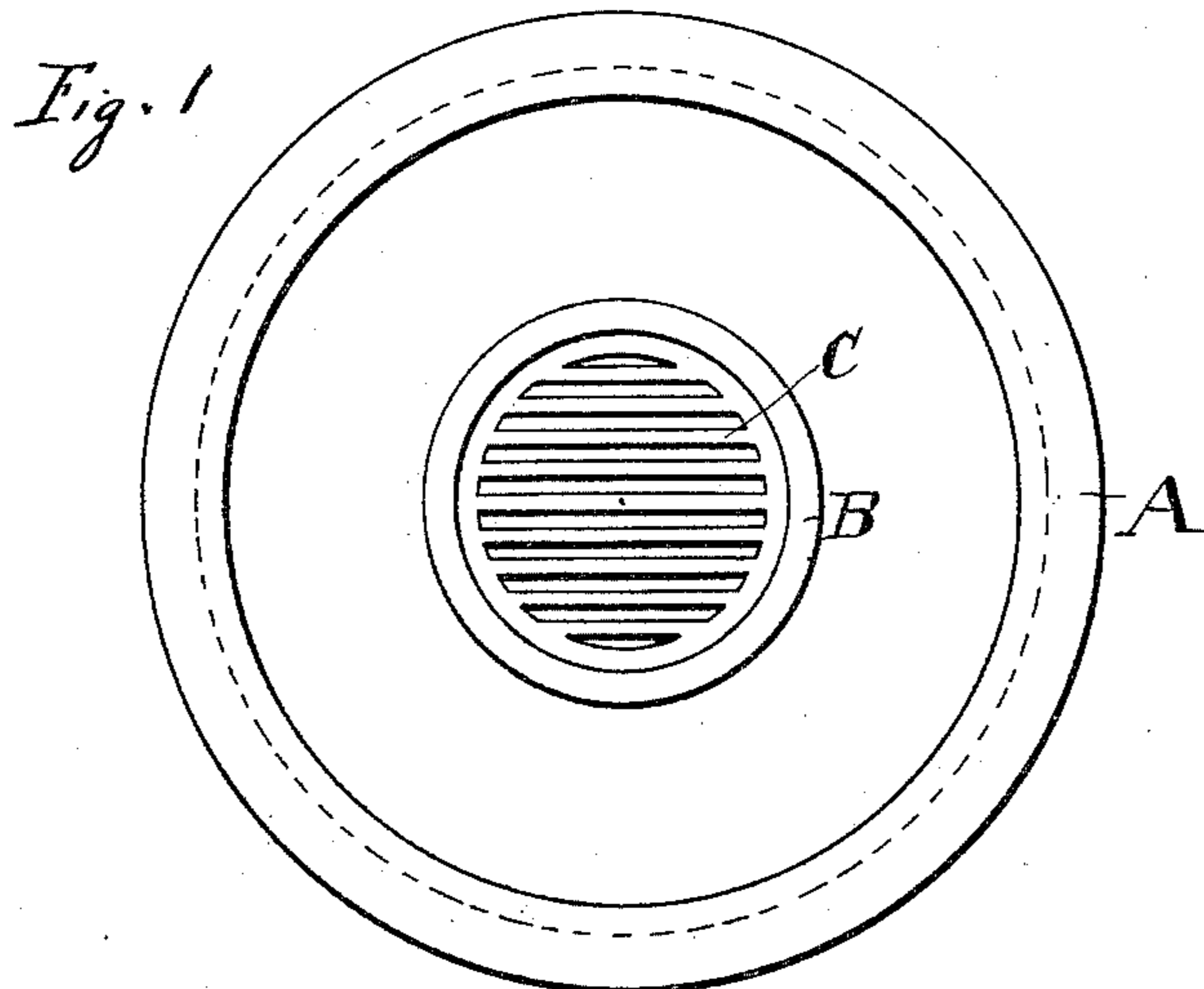


(No Model.)

J. RATH.
BARREL HEATER.

No. 409,301.

Patented Aug. 20, 1889.



Witnesses:
Otto Lubken
Harris W. Hurl

Inventor:
John Rath
By *Wm. Lutz*
attorney

UNITED STATES PATENT OFFICE.

JOHN RATH, OF CHICAGO, ILLINOIS.

BARREL-HEATER.

SPECIFICATION forming part of Letters Patent No. 409,301, dated August 20, 1889.

Application filed April 27, 1889. Serial No. 308,877. (No model.)

To all whom it may concern:

Be it known that I, JOHN RATH, a subject of the Emperor of Austria-Hungary, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in the Manufacture of Barrels and Kegs, of which the following is a specification, reference being had therein to the accompanying drawings.

Heretofore the staves of barrels and kegs frequently have shown breaks on their outer surface from the heavy tension given to the outer grains of the wood from bending, which breaks generally appear after such barrel or keg has been used a short time, and will then shorten the usefulness of the same considerably; and it is the object of this my invention to prevent such breaks by shrinking and hardening the inside grains of the staves, so as to reduce the tension of the outer grains; and with that object in view my invention consists in a device or apparatus for exposing the inside of the barrel to the strong heat of an open fire after the staves have been assembled and secured together by truss-hoops, at the same time immersing the ends of the barrel or keg into water, so as to keep the wood therein soft for the further operations of facing, crozing, and chamfering, all as will be hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 represents a plan of the apparatus, and Fig. 2 a vertical section through the center of the same with a barrel in position therein.

Corresponding letters in both figures of the drawings designate like parts.

A denotes a basin, preferably of cast-iron, and having in its middle a fire-pot B, with a grate C. This is built in the floor, with an air-channel provided below it for the admission of air to the grate C. The basin around the fire-pot is filled with water, and into this is set one of the barrels D. The heat from the gases rising from the fire-pot will heat and parch the inner surface of the staves, so as to shrink and harden the same. The barrel is reversed from time to time, so as to keep the ends wet and soft. After being thus exposed to the heat a sufficient time the barrel is removed for finishing.

A barrel or keg thus treated during its process of manufacture will not show breaks in the outer surface of the staves and will be of much longer duration.

What I claim is—

The apparatus herein shown and described, consisting of an annular basin for water and for receiving one end of the assembled staves of a barrel and of a central fire-pot for heating such barrel on its inward surface, substantially as and for the purpose set forth.

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

JOHN RATH.

Witnesses:

WILLIAM H. LOTZ,
OTTO LUBKERT.