G. CLUTHE.

DEVICE FOR REMOVING CHAR FROM BARRELS.

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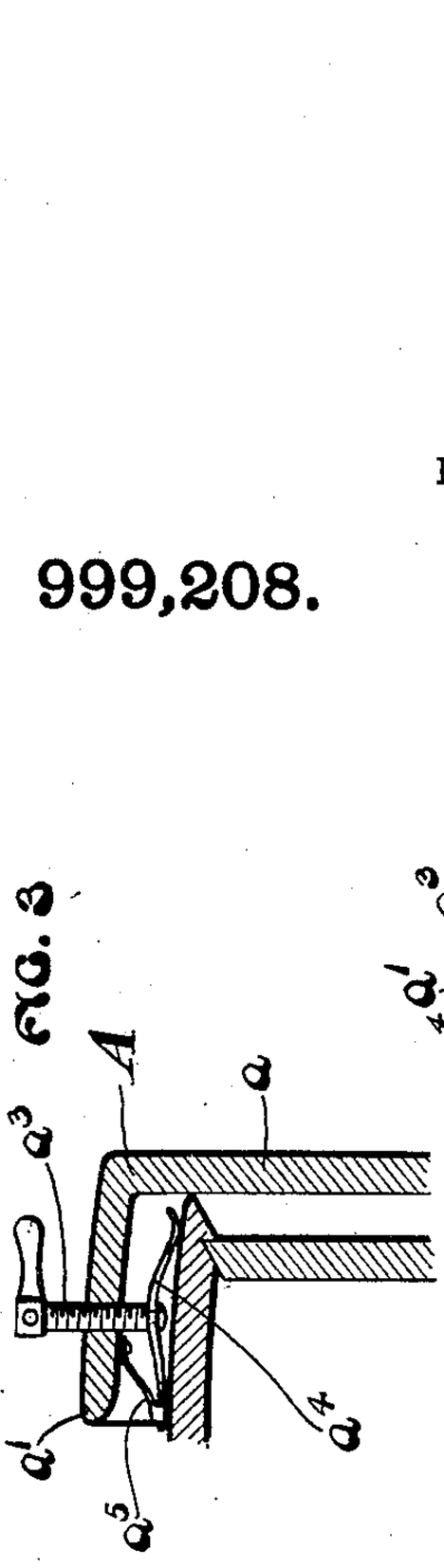
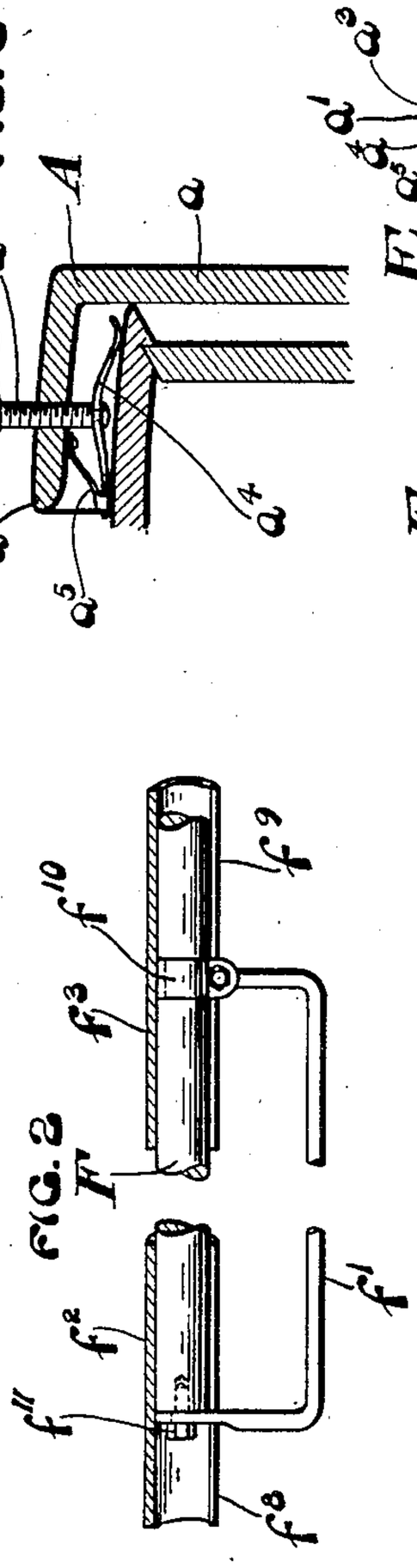
999,208.

Patented Aug. 1, 1911.





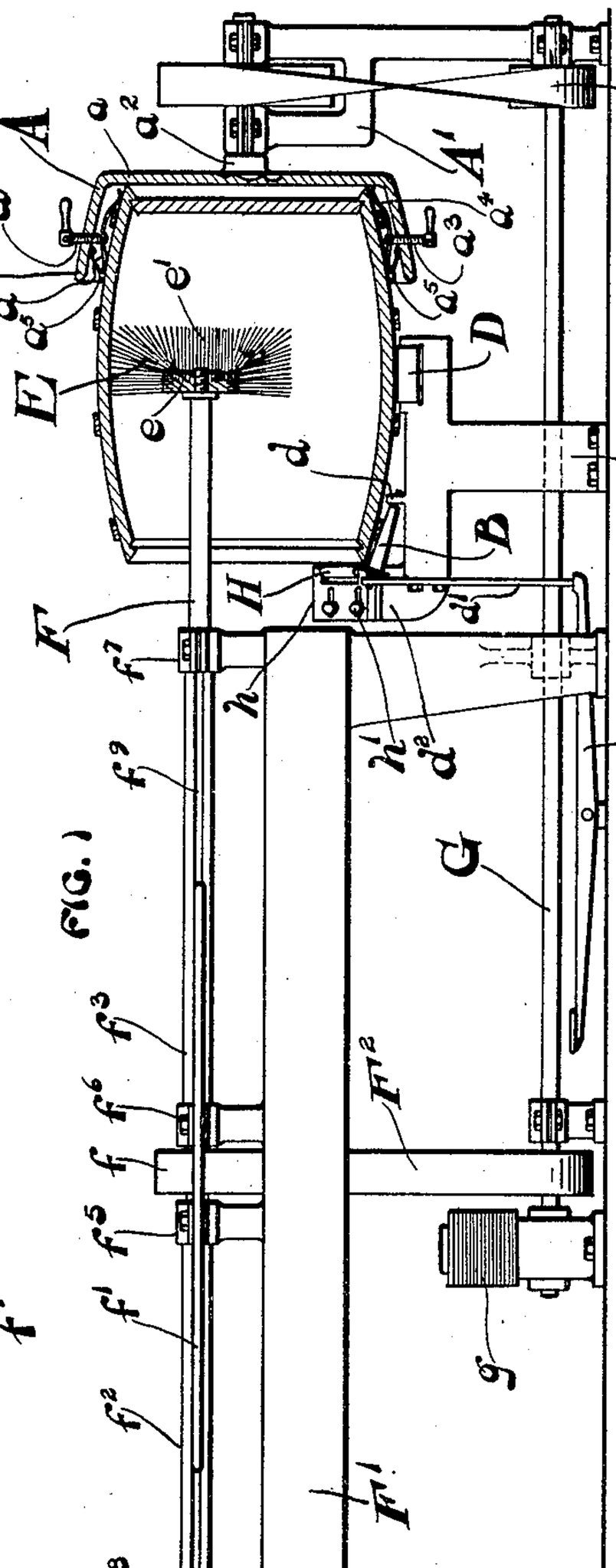
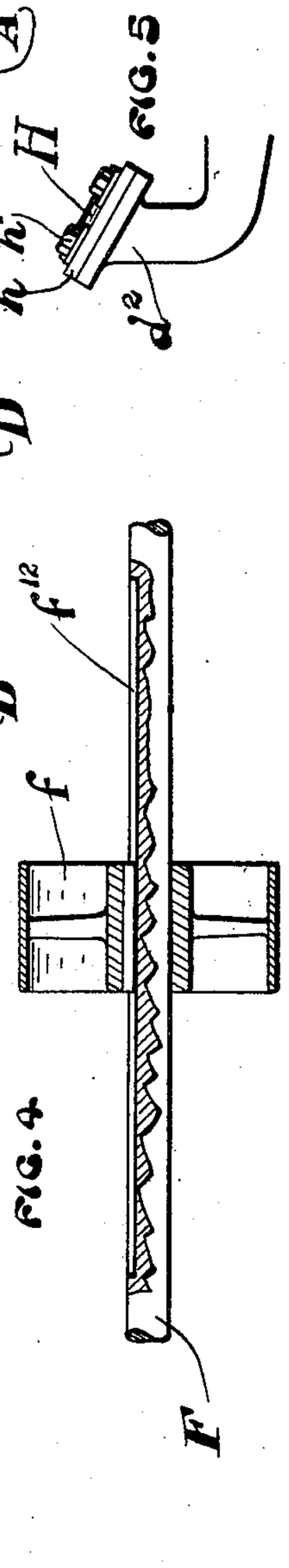


FIG. 1



Witnesses

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DEVICE FOR REMOVING CHAR FROM BARRELS.

999,208. Specification of Letters Patent. **Patented Aug. 1, 1911.**

Application filed January 19, 1911. Serial No. 603,427.

To all whom it may concern:

Be it known that I, GUSTAVE CLUTHE, a citizen of the United States of America, and resident of Cincinnati, county of Hamilton, and State of Ohio, have invented certain new and useful Improvements in Devices for Removing Char from Barrels, of which the following is a specification.

Barrels in which it is proposed to store whisky are charred interiorly before placing the whisky therein. When it is desired to reuse the barrel for storing a fresh supply of whisky, it is necessary to remove the old char completely.

My invention relates to a device for performing this operation.

The object of my invention is a machine for cutting the char from the interior of whisky barrels, quickly and efficiently.

Another object of my invention is a device of the character described in which the barrel may be readily inserted and removed.

These and other objects I attain by the means described in the specification and illustrated in the drawings, in which,

Figure 1 is a view partly in elevation and partly in section of the device embodying my invention. Fig. 2 is a sectional view upon an enlarged scale of the shaft which carries the brush and of the sleeves in which the shaft is mounted, the parts being broken out at the center and the ends being brought together to economize space. Fig. 3 is a detail sectional view of the means of mounting the barrel at one of its ends. Fig. 4 is a detail view of the shaft and its pulley. Fig. 5 is a detail view of the means of holding the barrel upon its support.

The barrel to be operated upon is supported at its closed end by a revolving clamp A, at its open end rests upon a roller B, and at its center is supported upon a roller D. Wire brush E is secured upon the end of a shaft F, which is rotated by a pulley f, which is splined in said pulley, so that it is capable of having a reciprocation imparted manually to it, by the operator's grasping the handle f', which is secured rotatably upon shaft F. The barrel and the brush are rotated in opposite directions.

I will now describe the device more in detail.

Shaft F is mounted in sleeves f^2 f^3, which are secured between bearings f^4 f^5 f^6 f^7, mounted upon the table F'. Sleeves f^2 f^3 are slotted at f^8 f^9 to pass the handle f', which, at one end engages a collar f^{10}, mounted rotatably upon the shaft F, and at the other end carries a journal pin f^{11}, upon which the outer end of the shaft F is journaled. Shaft F has a slot f^{12}, which permits the shaft to reciprocate through the pulley f, while being rotated thereby. Pulley f is connected by belt F^2 with the main driving shaft G, which may be driven by motor g. The brush E consists of a block e into which are driven flattened stiff steel rods e'.

Clamp, A, consists of a plate, a, having an annular flange a' and a rearwardly projecting shaft a^2. Shaft a^2 is mounted in bearings carried by a standard A', and has secured upon it a pulley, to which rotation opposite to the direction of the rotation of pulley f is imparted by a cross belt A^2 connected to the main shaft G. Flange a' has a series of hand screws a^3 projecting through it. Screws a^3 have secured to their inner ends leaf-springs a^4, whose outer ends carry springs a^5, which are secured to the flange a' and tend normally to draw the outer ends of the springs a^4 toward the flange a', thereby to facilitate the placing of the barrel in the clamp A.

Roller B at one end is swiveled in a lug d of the standard D', and at the opposite end is swiveled in a rod d', whose lower end is connected to a foot lever D^2. A roller H holds the barrel against the clamp A. Roller H is mounted upon a plate h, which is slotted to pass bolts h', which lock the plate h upon a bracket d^2 of the standard D'.

In operation:—A barrel being clamped in the holder, rotation is imparted to it in one direction, from the main shaft G, and rotation is imparted to the brush E in the opposite direction. The operator grasping the handle f', inserts the brush into the open end of the barrel and gradually advances it into the barrel as the chars are removed by the contact of the rods e' with the interior of the barrel, a contact which is increased in force by reason of the opposite rotation of the barrel and the brush. At the time of entering the brush into the barrel, the operator, by placing his foot upon the lever D^2, raises the end of the barrel, and, as the brush advances into the barrel, the proper contact of the brush with the interior of the barrel is had by regulating the pressure upon the lever D^2, which raises and lowers the barrel according to

the circumstances. When it is desired to remove the barrel, roller H is withdrawn from contact with the end of the barrel, by loosening bolts h', to permit the plate h to be moved backward; then the brush being moved to carry it out of the barrel, the barrel may be readily lifted out of the clamp A. In inserting a fresh barrel into the clamp, since the springs a^5 hold the outer end of the springs a^4 adjacent to the flange a', it is seen that the springs do not interfere with the operator's inserting the closed end of the barrel into the clamp. By means of the hand screws a^3, the clamp may be adjusted, so as to fit the end of the barrel snugly.

What I claim is:—

1. In a device of the character described, the combination of a support for the barrel to be cleaned, a clamp engaging the barrel and adapted to impart rotation to it, a movable support for the end of the barrel opposite the clamp, means for regulating the position of the support, a shaft capable of reciprocation, means for rotating the shaft, and a brush mounted upon the shaft and adapted to engage the interior of a barrel to be operated upon.

2. In combination with a device of the character described, a support for a barrel to be operated upon consisting of a rotatable clamp for engaging the closed end of the barrel, a roller adapted to support the open end of the barrel, a fixed support for one end of the roller, a movable support for the opposite end of the roller, and a lever for regulating the position of the movable end of the roller.

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Witnesses:
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