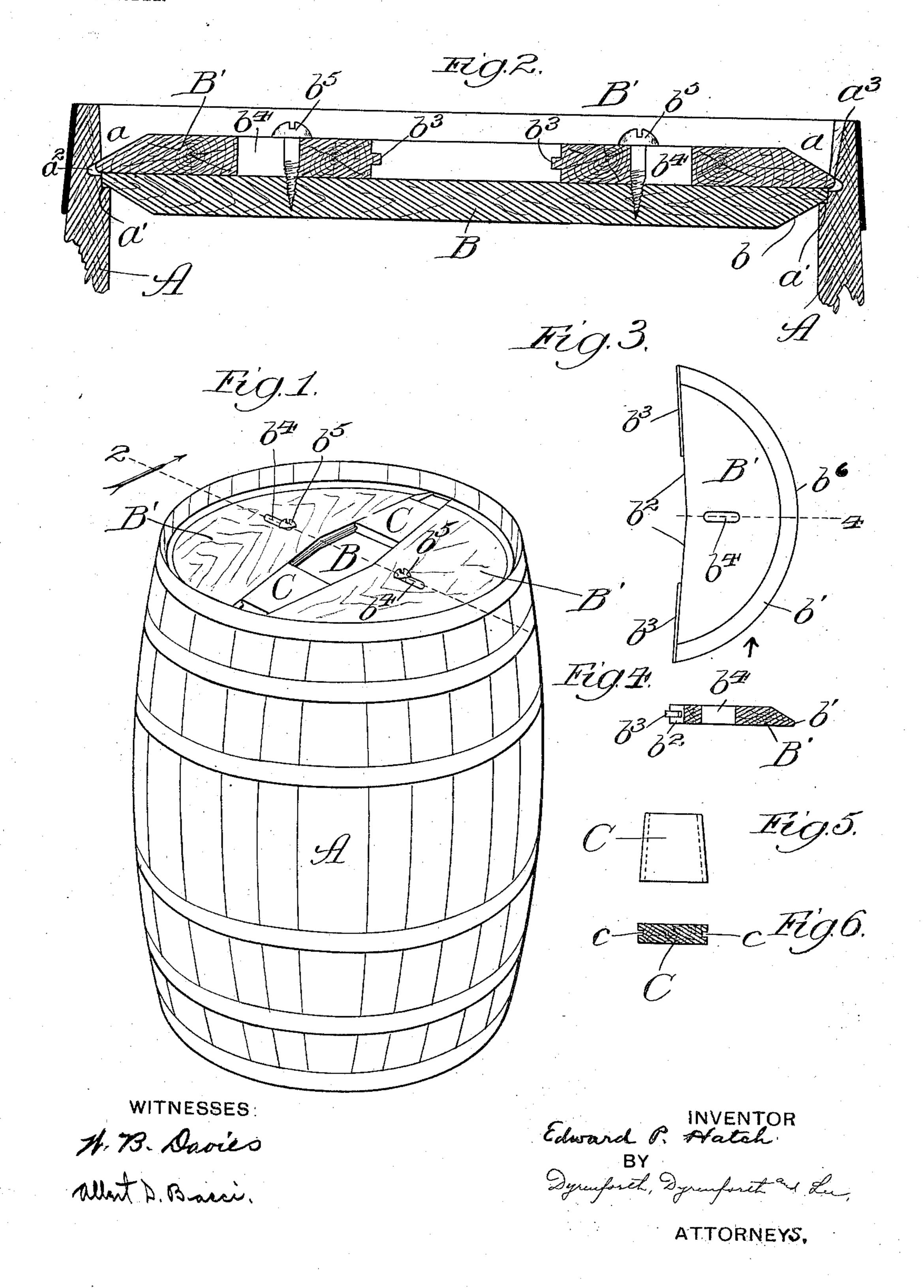
## E. P. HATCH. BARREL HEAD.

NO MODEL.

APPLICATION FILED DEC. 18, 1902.



## United States Patent Office.

EDWARD P. HATCH, OF LAGRANGE, ILLINOIS.

## BARREL-HEAD.

SPECIFICATION forming part of Letters Patent No. 741,332, dated October 13, 1903.

Application filed December 18, 1902. Serial No. 135,715. (No model.)

To all whom it may concern:

Be it known that I, EDWARD P. HATCH, a citizen of the United States, residing at Lagrange, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Barrel-Heads, of which the following is a specification.

The invention relates to improvements in removable and replaceable barrel-heads; and my primary object is to provide particularly efficient means for securing a removable and replaceable barrel-head in place, whereby a perfectly water-tight joint is insured between the inner sides of the barrel and the barrel-head.

The invention is illustrated in the accom-

panying drawings, in which-

Figure 1 is a view in perspective showing the barrel-head secured in place; Fig. 2, a view in sectional elevation taken on line 2 of Fig. 1 and viewed in the direction of the arrow; Fig. 3, a plan view of one of the clamping members; Fig. 4, a vertical sectional view on line 4 of Fig. 3 and viewed in the direction of the arrow; Fig. 5, a plan view of one of the keys or wedges, and Fig. 6 an end view of the wedge.

In the preferred construction illustrated, A represents a barrel or cask body, which may be of ordinary construction, having a flaring portion a, forming an annular shoulder or abutment a'. In the flaring part a near the shoulder a' is an annular groove  $a^2$ , having the upper side beveled, as shown at  $a^3$ .

The barrel-head B may be of the ordinary construction, but preferably cut away at such an angle along its circumferential edge to form an annular beveled seating portion b, so as to cause the upper surface of the head B when placed in position to be in a plane slightly above the plane of the lower surface of the groove  $a^2$ .

B' B' are companion clamping members, each having a curved side  $b^6$ , beveled along its edge to form the segmental wedge-shaped tongue b' and converging sides  $b^2$ , said converging sides being provided with tongues  $b^3$ , cut away near the point of convergence, as shown in Fig. 3. The clamping members may be further provided with slots or elon-

gated perforations  $b^4$ , through which may extend retaining-screws  $b^5$ , rigidly secured to the barrel-head. Thus the clamping members are held to the barrel-head to prevent the parts becoming detached and lost, the slots serving 55 to allow the clamping members to be given the range of movement required. Wedges or keys C, provided on opposite sides with grooves c and having converging sides corresponding with the opposed converging sides of the 60 clamping members, are insertible into and removable from the space between the clamping members, so that the grooves c register

with the tongues  $b^3$ .

The use of the invention is simple. In at- 65 taching the cover to the barrel the wedges or keys are drawn toward each other to permit the clamping members to be also moved toward each other to draw the outer curved edges of the clamping members within the 70 outer edge of the barrel-head. The head carrying the clamping members is lowered into the barrel until its bevel seating-surface b rests on the shoulder or abutment a'. The wedges or keys C are then with any suitable 75 device, such as a hammer, forced along the sides of the clamping members in a direction opposite to each other, thus giving a corresponding movement to the clamping members. This movement of separation of the 80 clamping member advances the segmental wedges or tongues b' into the bevel-groove  $a^2$ , the bevel-surface of the clamping members engaging the corresponding bevel-surface  $a^3$ of the annular groove, causing the clamping 85 members to exert a downward pressure on the barrel-head. This downward pressure causes the seating-face b of the head to impinge against the annular abutment or shoulder a'. Thus the head may be forced against 90 the shoulder a' as firmly as desired to insure a perfect joint. In fact, the corner presented by the shoulder a' would indent itself slightly. in the seating-face b. The wedges thus separated are held in position by the pressure of 95 the clamping members against their sides.

If desired, the slots  $b^4$  and retaining-screw  $b^5$  may be dispensed with and various changes in minor details of construction may be made without departing from the spirit of the in-

vention as defined by the claim. Hence no undue limitation is to be understood from the foregoing detailed description.

What I claim as new, and desire to secure

5 by Letters Patent, is—

In a barrel, the combination of a body portion provided near one end with a recess presenting a sharp annular shoulder, a groove beyond said recess having an inclined outer side, a barrel-head having an annular beveled circumferential face resting upon said shoulder, spreading clamping members upon said head having wedge-shaped edges to engage said groove, and wedging means for

spreading said clamping members, the peripheral edge of the barrel-head being thicker than the distance between said sharp shoulder and said groove, whereby as the clamping members are spread apart their wedgeshaped edges enter said groove and press the 20 barrel-head upon said sharp shoulder to be indented thereby, substantially as and for the purpose set forth.

EDWARD P. HATCH.

In presence of— W. B. DAVIES, ALBERT D. BACCI.