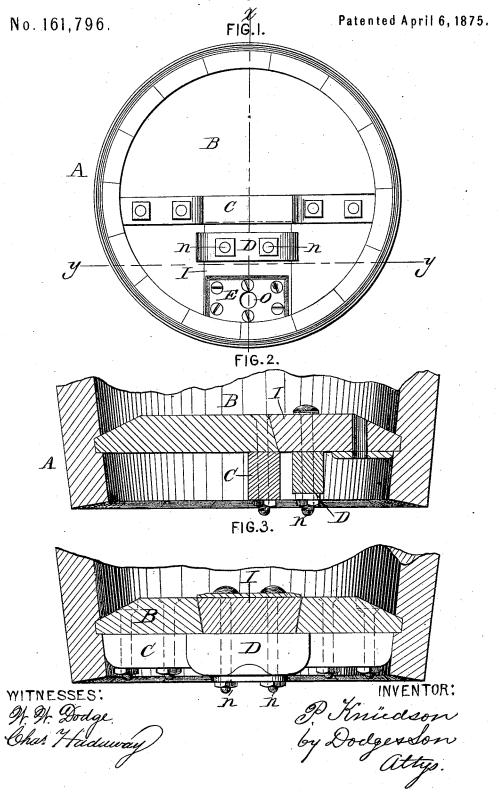
## P. KNUDSON.

Beer-Cask.



## UNITED STATES PATENT OFFICE.

PETER KNÜDSON, OF WEYAUWEGA, WISCONSIN.

## IMPROVEMENT IN BEER-CASKS.

Specification forming part of Letters Patent No. 161,796, dated April 6, 1875; application filed October 10, 1873.

To all whom it may concern:

Be it known that I, Peter Knudson, of Weyauwega, in the county of Waupaca and State of Wisconsin, have invented certain Improvements in Beer-Casks, of which the following is a specification:

My invention relates to beer-casks; and it consists in constructing the head with a sec-

consists in constructing the head with a section that can be removed without loosening the hoops for the purpose of affording access to the interior of the cask, as hereinafter explained.

Figure 1 is an end view of a cask, with my improvement applied. Fig. 2 is a sectional view on the line x x of Fig. 1; and Fig. 3 is a sectional view on the line y y of Fig. 1.

It is customary to use very large casks for storing beer, and it is necessary at times to give them a thorough cleaning out, to do which, as at present constructed, requires the removal of one of the heads by loosening the hoops and staves at one end, which is objectionable, as much time and labor are required to do this, and then replace it in such a manner as to render the cask perfectly tight again.

To obviate the necessity of removing the head is the object of my invention, and this I accomplish as follows: The cask is made in the usual manner, except that one of the heads B has a rectangular opening made in it, extending from the staves at one edge of the head for about one-third of the distance across it, more or less, into which I fit a separate piece, I, as represented in Fig. 1. The sides of this opening are inclined or beveled, as shown in Figs. 1 and 2, and the edges of the piece I are correspondingly beveled, so that when pressed outward it will be wedged into its seat, and thereby made to fit tight all around. Across this piece I, on its inner face, I fit an iron strap or plate, (though wood may be used, if desired,) and extend two or more bolts through to the outside, making them long enough to reach through a bar, D, on the outer face, this bar D being of such a length that its ends will reach past the joint and lap over on the face of the head B, as |

shown in Fig. 3, so that when nuts are applied to the end of the bolts n and screwed up they will draw the piece I into its seat, and as its upper end is inclined and is drawn against the inclined edge of B it will crowd the lower or chamfered edge firmly into its seat in the groove made for it in the staves. Below this bar D I secure across the face of the removable piece I a cleat, E, near its lower edge, which prevents it from becoming warped or distorted when removed, and which also serves as a re-enforce at the point where the hole is made for the faucet, as shown in Figs. 1 and 2. I also bolt a cleat or bar, C, firmly across the outer face of the head D, as shown in Fig. 1, for the purpose of strengthening it and holding it firm and true where the hole is cut in it for the piece I, the location of the bar C being shown in relation to the opening in Fig. 2.

When thus constructed it will be seen that it is only necessary to remove the bar D and shove the lid I inward, when it can be turned over and removed through the opening, when access is afforded to the interior. In the large casks the opening will be made big enough for a person to enter.

I am aware that it has been proposed to make a barrel with a circular opening in the head, and to fit therein a cover beveled so as to fit in upon the outside of the head; but such a device would be utterly useless for storing beer, as it would be almost or quite impossible to make the joint sufficiently tight and secure to resist the great pressure of the beer, and I do not claim such a device; but

Having described my invention, what I claim is—

A beer-cask, having the cross-bar C secured to the outside of the head for holding the parts securely in place, in combination with the beveled removable section I, having the bar D secured to its outer face, all constructed and arranged to operate substantially as and for the purpose set forth.

PETER KNÜDSON.

Witnesses:

SELAH CORNWELL, GEO. W. TAGGART.