L. L. GILLILAND.

HEAD FOR BARRELS.

No. 48,168. Patented June 13, 1865.

Fig: 1.

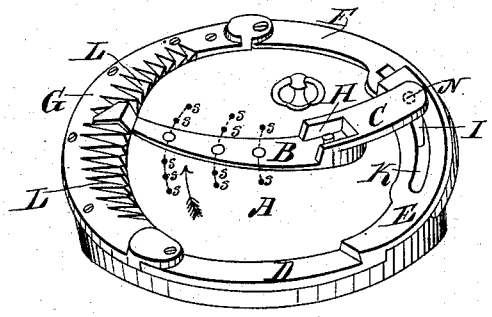


Fig: 3.

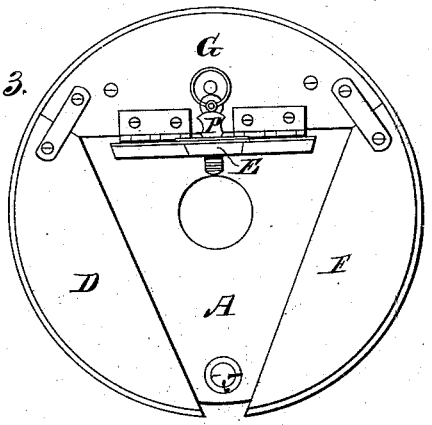


Fig: 2.

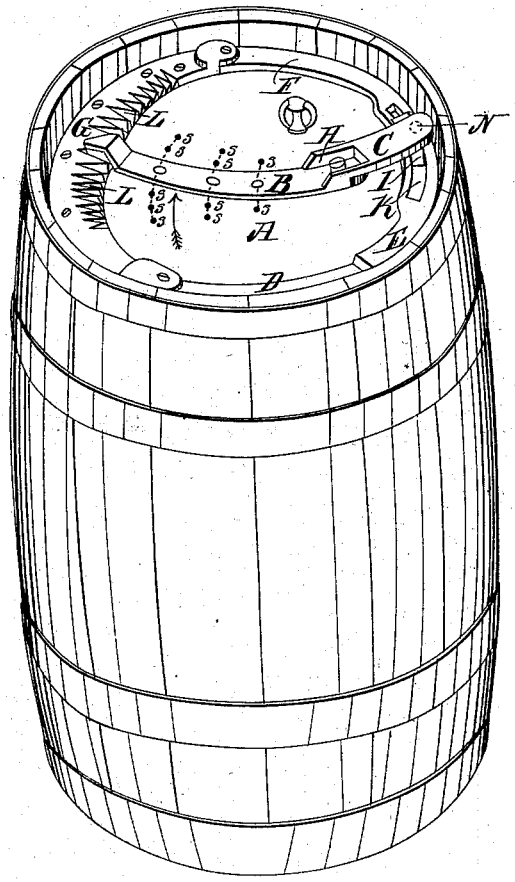
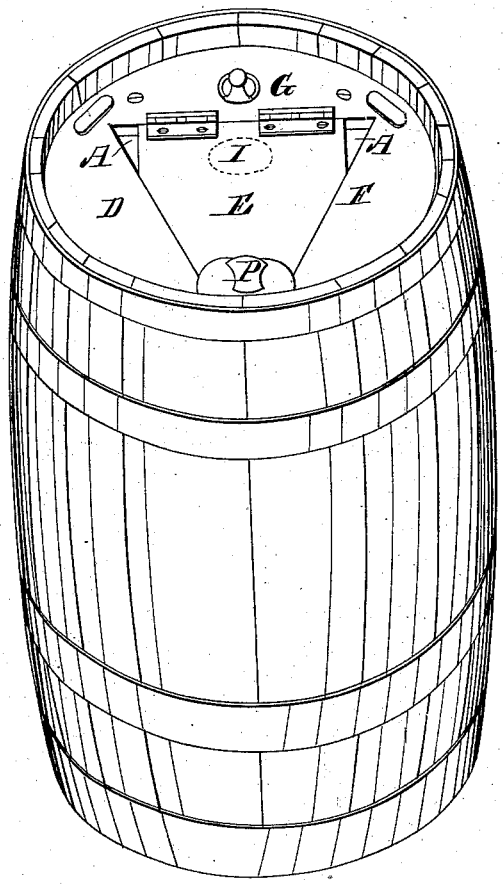


Fig: 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

LEWIS L. GILLILAND, OF DAYTON, OHIO.

IMPROVED HEAD FOR BARRELS.

Specification forming part of Letters Patent No. **48,168**, dated June 13, 1865.

To all whom it may concern:

Be it known that I, LEWIS L. GILLILAND, of the city of Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Improvement on Barrels and other Forms of Cask-Heads; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view as it is made of metal. Fig. 2 is the same with the head in the cask. Figs. 3 and 4 are the same as it is made of wood, only showing a different mode of forcing and holding the segments into the croze of the cask.

The nature of my invention consists in making removable barrel or any kind of cask heads constructed with segments, hinged and operated so as to be lessened and enlarged in circumference, in order to be easily placed into and out of the croze of casks without moving the hoops or injuring the cask or head, thereby preserving the cask in good condition and adapting it to the use of but one hoop on the ends, and also allowing it to be easily opened for exhibiting or inspecting the contents.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In general I make the segments of metal; but to produce a cheaper head, and particularly for large casks—such as tierces and hogsheads—I prefer to make the segments of wood, which is virtually the same, but for which I choose to use a different mode of forcing and holding the segments in the croze of the cask; but this same mode of forcing and holding the segments may be used for metal segments, if desired.

I will first describe the head when the segment is made of metal.

I make a center piece of wood, (marked A,) of a size suitable for the grade of casks for which the head is intended. I then make of metal circular segments G D F, as shown in Figs. 1 and 2. I hang segments D and F to the ends of segment G by pivot hinges. I shape the outer edge of the segment to fit the croze of the cask. At the junction of segments D and F they are made double—that is, one laps over the other, through which laps I cut slots (marked K) correspondingly through both segments, for a purpose hereinafter explained.

On segment G, I cut ratchet-notches, (marked L,) for a purpose presently explained. I then form the head by placing the segments on the face of the center piece, with the outer edges projecting over the outer edge of the center piece. I nail or rivet segment G permanently to the center piece, allowing segments D and F to move on the hinge edgewise, so as to lessen and enlarge the circumference of the head. In order to operate it I attach a lever, (marked B,) which I put across the face of the head, extending from the slots in the segments to the ratchet-notches. The lever is held to the center piece by the fulcrum-pin H, which extends through the center piece and is fastened by means of a rivet or screw-nut. On the short arm of the lever there is a lip to project over the slots, and on the under side of the lip there is a pin (marked N) to fit and work in the slots. The long arm of the lever is made flat and thin, so as to give it a springing tendency, and on the under side, where it connects with the ratchet, there is a catch of the proper shape to work in the ratchet. The ring in the head is a mere handle with which to lift it in and out of the cask or barrel. Thus, then, by moving the long arm of the lever to its extreme in the opposite direction of the arrow the head will be reduced to its smallest circumference, and then by lifting the head within the chine of the cask, and holding it parallel with the croze, and by drawing the lever over the ratchet in the direction of the arrow the edge of the segment will be forced into the croze and held fast at any size required by means of the lever catching in the ratchet.

To take out the head I raise the end of the lever off the ratchet and turn it back in opposite direction of the arrow, which will let it out. This head will fit in any cask of a certain class, if they do vary in size, say, one inch. If the center piece is made of thin material, or in pieces, I put a cleat crosswise on the under side and under the fulcrum-pin, for the purpose of strengthening it.

To prevent unlawful opening of the barrels while under transportation, I make screw-holes S S S S through the lever and into the center

piece, in which screws may be inserted, necessitating the use of a screw-driver for opening it. Where I make the segments of wood the inner edge may be or may not be made circular. To spread and hold them I attach a piece which I call a "holder," (marked E, shown in Figs. 4 and 7,) which I hinge to segment G, and shape and bevel it so as to extend to and fit in between the points of segments D and F. Through the holder and center piece, between the points of the segments D and F, I put in a thumb-screw, marked P in Figs. 3 and 4. Thus, then, by raising the holder and holding the head within the chine of the cask and parallel with the croze, and by pressing down the holder and inserting the thumb-screw, the head will be substantially held in the cask. To remove the head draw the screw and raise the holder.

For the purpose of inspecting the contents that may be in this kind of casks, I make a hole (marked I) through the center piece, under the holder, so that an inspector's auger can be inserted merely by raising the holder, without lifting the head out.

What I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. The removable barrel-head with adjustable segments, arranged and operated so as to be lessened and enlarged in circumference, for the purpose of being placed into and out of the croze of barrels or casks without moving any of the hoops thereon, constructed as described.

2. The arrangement and use of either the lever and ratchet or the holder and thumb-screws, or their equivalent, for the purpose of forcing and holding the outer edge of the head into the croze of the cask, substantially as herein set forth.

3. As a new article of manufacture, the metallic segments G D F, with the lever B, the said article being adapted for attachment to and operation with a barrel-head, in the manner and for the purpose herein explained.

In testimony of which invention I hereunto set my hand.

LEWIS L. GILLILAND.

Witnesses:
H. H. WEAKLEY,
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