J. F. BUDKE.

CONSTRUCTION OF BARRELS, CASKS, &c.

No. 192,358. Patented June 26, 1877.

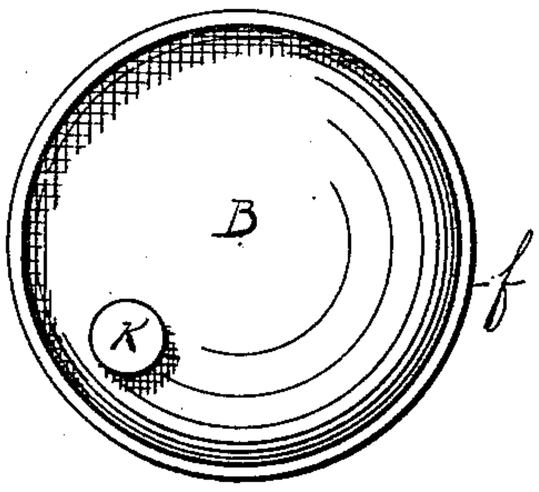


FIG. 1

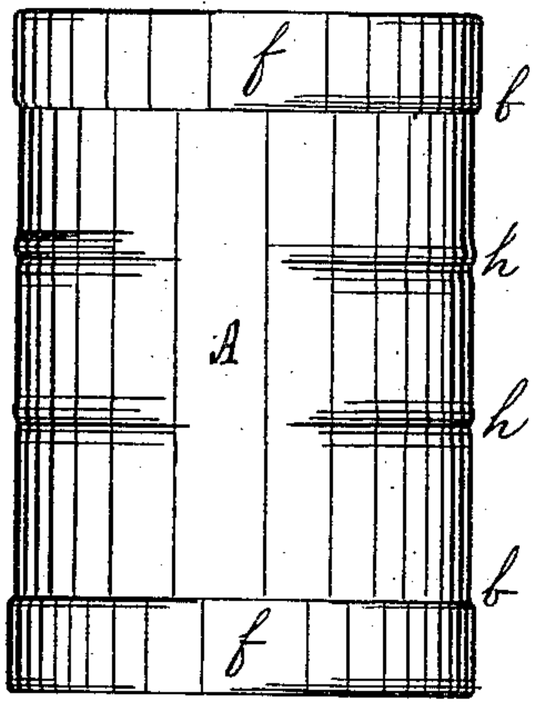


FIG. 2.

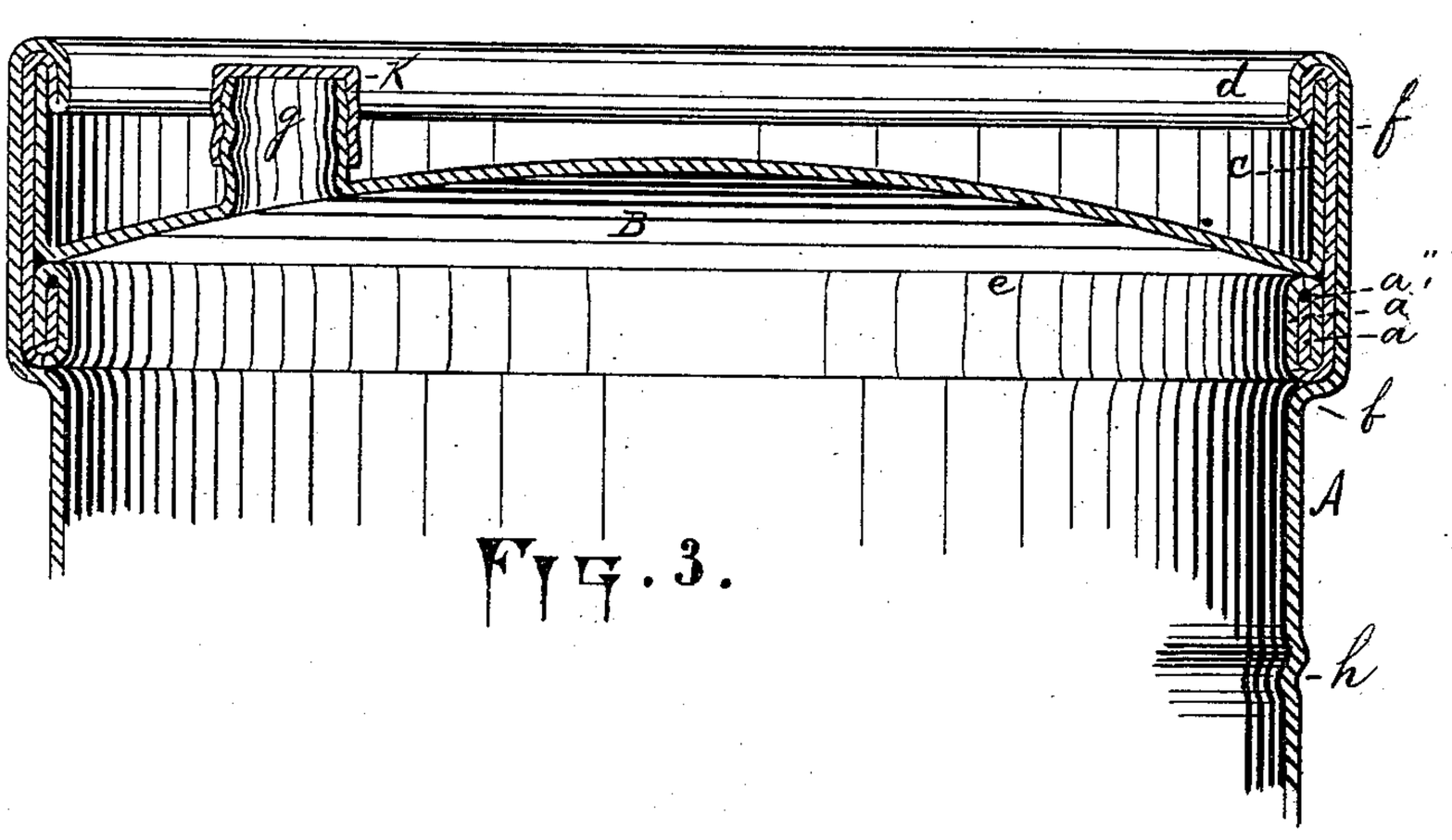


FIG. 3.

Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN F. BUDKE, OF WHEELING, WEST VIRGINIA.

## IMPROVEMENT IN CONSTRUCTION OF BARRELS, CASKS, &c.

Specification forming part of Letters Patent No. **192,358**, dated June 26, 1877; application filed May 9, 1877.

*To all whom it may concern:*

Be it known that I, JOHN F. BUDKE, of the city of Wheeling, county of Ohio, State of West Virginia, have invented certain new and useful Improvements in the Construction of Barrels, Casks, and other like Vessels; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification.

My invention relates in general to metallic or sheet-iron barrels, casks, milk-cans, and other like vessels, and is specially adapted to metallic kegs used for the storage and transportation of gunpowder; and to this end it consists of a peculiar mode of construction, which will be hereinafter fully described in detail, whereby a chine is obtained on the end of the keg for the protection of the bottom or heading, and for convenience in handling; and also consists of a raised or concavo-convex heading, which is secured to the end of the barrel or keg in a simple and durable manner, by means of which raised head the barrel is readily and entirely discharged of its contents by reason of the concave surface on the inside of the barrel, causing the contents to gravitate to the bung-hole, and not gather in the corner and around the opening, as the case with kegs in present use, the practice being, in many cases, to cut open the head in order to get out all the contents. The mode of construction, also, is such that strength and durability are obtained, combined with economy in labor and material in the manufacture.

In order that those who are versed in the art to which my invention appertains may make and use the same, I will now proceed to more fully describe the mode of construction, reference being had to the drawing, in which—

Figure 1 is an end view or plan of a barrel or keg; Fig. 2, a side view or elevation; Fig. 3, a central longitudinal section.

In the drawings, the letter A represents the body of the barrel; B, the raised or concavo-convex head; *e*, a shoulder formed by a series of folds or overlaps, *a a' a''*; *b*, countersink; *c*, rim formed on the head; *d*, overlap, to secure head and strengthen the chine; *f*, chine; *g*, opening for removal of contents; *k* screw-cap; *h h'*, corrugations to stiffen the body of the barrel.

The mode of construction is as follows:

A shoulder, *e*, to sustain the head, is first formed on the sheet-metal blank by folding or overlapping the edge *a a' a''*, the size of lap to be determined by the size of barrel and thickness of the sheet metal. Then the blank is turned over, inside up, and the shoulder thus formed is folded back on the sheet the required distance to place the head and to form a suitable width chine. The sheet blank is then countersunk at *b* sufficient to bring the inner face flush or on a line with the face of the shoulder *e*. The sheet is then joined together longitudinally, by riveting or by seaming, into a cylindrical form, thus forming the body of the barrel, after which operation it is ready for the ends or heading. The head is made concavo-convex, with the concave side inward, and has a rim, *c*, turned up around the edge on the convex side, the width of the rim to be the width intended for the chine less the thickness of the sheets forming the overlap *d* on the chine. The head thus previously prepared is then placed in the end of the cylinder against the shoulder *e*, the concave side inward. The edge of the cylinder is then turned over the rim *c* or *d*, thus fastening the head securely in its place, and, with the addition of the rim *c*, making a strong chine for the protection of the heading, and for convenience in handling.

It is obvious that a flat head can be secured to the barrel in the same manner, and also a plain wooden head can be fastened in the end of the barrel by simply turning the lap *d* down against the head, all of which I claim to be within the scope of my invention.

When the barrel is designed to hold fatty substance, such as butter and lard, I deem it best to solder the joints smooth on the inside of the head, so that the barrel may be readily cleansed; but for other purposes this is not necessary.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As an improvement in metallic barrels, casks, cans, and other like vessels, the shoulder

*e*, chine *f*, formed on the edge or end of the barrel by a series of folds or overlaps, *a a' a''* and countersink *b*, substantially as herein shown, and for the purpose set forth.

2. The combination, with the metallic cask A, constructed by means of a series of overlaps or double folds, *a a' a''*, with shoulder *e*, chine *f*, overlap *d*, and countersink *b*, of concavo-convex head B, constructed with rim *c*, outlet *g*, and screw-cap *k*, all substantially as and for the purpose described.

JOHN F. BUDKE.

Witnesses:
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