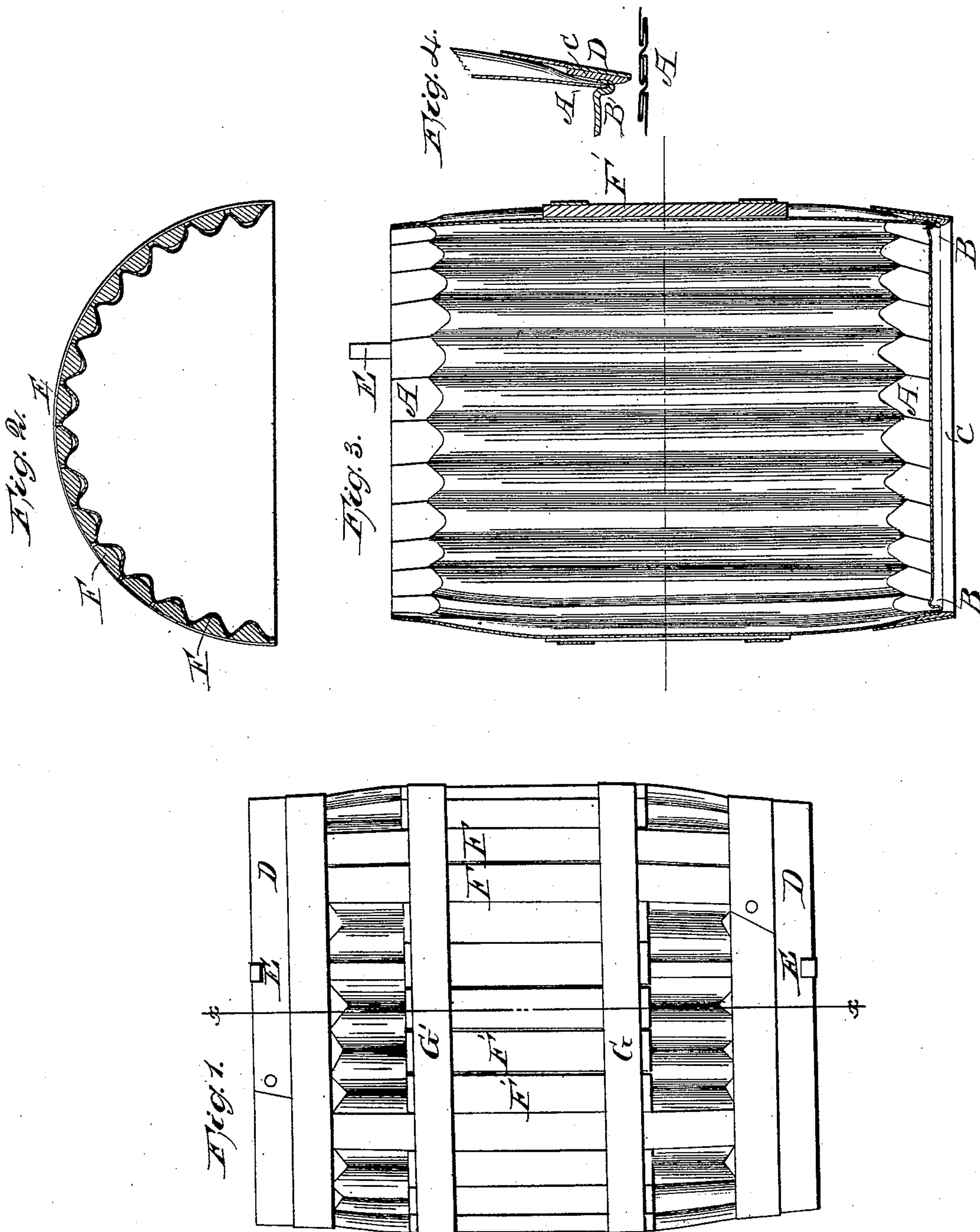


E. JOHNSON & G. W. ANSLEY.
BARREL.

No. 42,949.

Patented May 31, 1864.



UNITED STATES PATENT OFFICE.

EDER JOHNSON, JR., AND GEO. W. ANSLEY, OF CLEVELAND, OHIO.

IMPROVEMENT IN BARRELS AND KEGS.

Specification forming part of Letters Patent No. 42,949, dated May 31, 1864.

To all whom it may concern:

Be it known that we, E. JOHNSON, Jr., and G. W. ANSLEY, of Cleveland, in the county of Cuyahoga and State of Ohio, have made new and useful Improvements in Barrels, Kegs, &c., the same being a new article of manufacture; and we do hereby declare that the following is a complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side view. Fig. 2 is a transverse section. Fig. 3 is a vertical section, and Fig. 4 is an enlarged section showing the manner of forming and securing the head.

Our invention relates to the formation of barrels and similar vessels of corrugated sheet metal, the corrugations being such that the barrel has the usual form of these vessels, the same being covered in whole or in part with lags or staves and secured by hoops, to give strength to the several parts.

Our invention also relates to the formation of the head and the manner of securing the same to the body of the barrel.

In making this barrel we first cut a sheet of suitable metal (galvanized sheet-iron, for example) into the proper form and size for the body of the barrel. Now, by the use of a pair of rollers or other means this sheet of metal is corrugated from end to end, and producing by this operation the swell or bulge of the barrel. This operation brings the two ends of the sheet together, the concavity of the inner surface being such that it cannot spread out like a flat sheet. The two edges are then united by soldering, or riveting and soldering. The corrugations at each end of the body of the barrel to about an inch in length are closed or folded upon each other, as shown at A in Figs. 3 and 4, and firmly hammered together, and then soldered. The heads are formed each of a disk of sheet metal, the edge of which is formed into a circular groove, a section of which is shown at B in Figs. 3 and 4. One of these heads has a bung or tap hole near one edge, into which a metallic bung or faucet is subsequently introduced. This head is secured to the body of the barrel by inserting the end of the body into the circular groove B of the head, as clearly shown in Fig. 4, and securing it by soldering upon the inside. By this means a perfectly-tight joint is obtained. The other head is put on in the same manner, and the soldering is accomplished upon the

inside by introducing a soldering-copper with a long handle through the bung-hole in the opposite head.

For the purpose of forming a chine both for the protection of the head and for convenience of handling, we place upon each end of the barrel a wide hoop of wood, which is shown at C in Figs. 3 and 4. This hoop projects about an inch beyond the circular groove B of the head, and upon the body of the barrel a sufficient distance to make it secure. An iron hoop, D, is placed upon the outside of the hoop C, to give additional strength. These end hoops are further secured from coming off by straps of metal E, which run the whole length of the barrel, and are clasped over the hoop, as shown in Fig. 1.

In order to protect the body of the barrel from injury in handling or transportation, we cover the outside, in whole or in part, with lags, as shown at F, Figs. 1 and 2. These lags are made of wood and fit loosely into the corrugations of the outside of the body of the barrel. They may extend over the middle third of the barrel, as seen at F' in Figs. 1 and 3, and secured by hoops G G; or they may extend the whole length, in which case additional hoops G' G' are required. In this mode of structure the folding down of the corrugations and subsequently soldering them together for the distance of an inch, or thereabout, from the end, by presenting three thicknesses of metal, gives great strength to the structure, while at the same time a plain and even surface is presented for uniting the body to the heads.

What we claim as our improvement, and desire to secure by Letters Patent, is—

1. Forming the body of the barrel of corrugated sheet metal, the corrugations being such as to give the barrel the desired bulge in the middle, and enfolding the corrugations upon each other at each end, as described, and securing them in such position by soldering, as and for the purpose specified.

2. The chine-hoop C D, when constructed as described, and securing the same in place by means of the metallic straps E, as and for the purpose herein set forth.

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Witnesses:

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