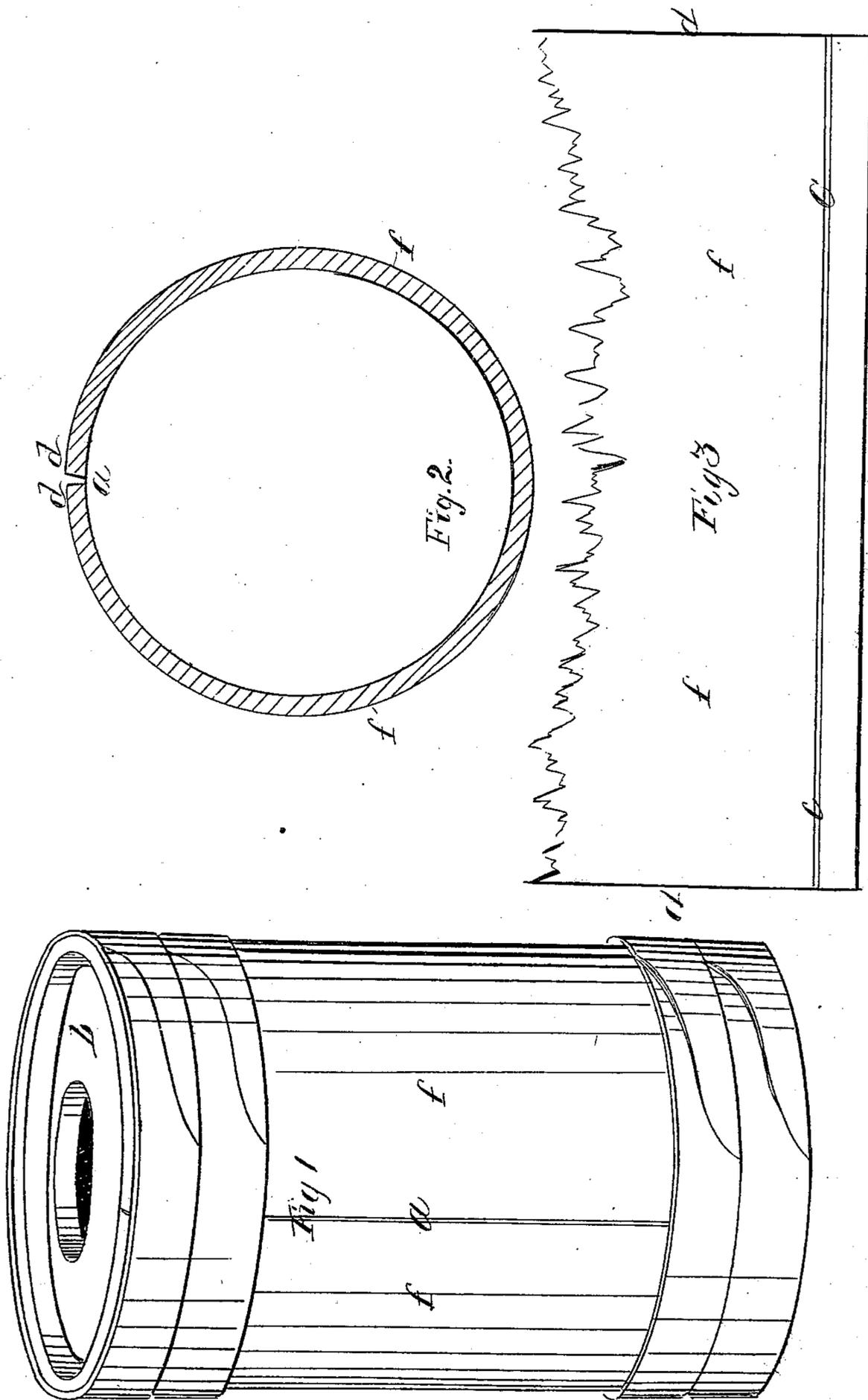


G. Fraumenberger,

Barrel.

No. 33,870.

Patented Aug. 17, 1869.



Witnesses

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GEORGE FRAUENBERGER, OF ROCHESTER, NEW YORK.

Letters Patent No. 93,870, dated August 17, 1869.

## IMPROVEMENT IN THE MANUFACTURE OF OYSTER-KEGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE FRAUENBERGER, of Rochester, in the county of Monroe, and State of New York, have invented certain new and useful Improvements in the Construction and Manufacture of Kegs, which I term the "Steamed-Bent Keg;" and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing of the same, making part of this specification, and in which—

Figure 1 represents a view in perspective of a keg made from a straight prepared slab, with the usual heads and hoops.

Figure 2 represents a sectional view of the slab when bent to form the keg, showing the manner in which the ends of the slab are brought together.

Figure 3 represents a view of a portion of the straight-grooved blank of which the keg is made.

Barrels and kegs have been made from hollow cylinders, turned off or rounded from solid cylinders, and then slitted, and a piece taken from or added to, as may be required, to bring the body to the proper dimensions.

They have also been made by cutting from the surface of solid cylinders a scroll of proper thickness and size, said scroll having a concave surface inside, and the outer surface correspondingly convex.

I am also aware that barrels and kegs have been made of a volute piece or pieces, having gore or wedge-shaped pieces cut from each end, for the purpose of forming the proper bulge to the body of the barrel, but the method of construction embraced in these inventions is essentially different from that involved in the construction and manufacture of the improvements claimed as of my invention, which consists in producing a keg, as a new article of manufacture, from a slab or slabs, shaped, grooved, steamed, bent, and fitted with heads and hoops, in manner as hereinafter described.

In the accompanying drawings, the keg is represented as bent, and made from a single straight flat slab, *f*.

Fig. 3 represents one end of this slab, which is cut or sawed from a solid, flat block of wood, of proper thickness, having grooves *C* near either end, for the reception of the heads *b* of the barrel.

These grooves are cut entirely across the slab, parallel to the ends thereof, at the same operation by which the slabs are formed of the proper length and width, so that the grain of the wood shall be at right angles to the grooves, and lengthwise of the keg, and when bent, the strength of the wood will be in the direction of the length of the keg, thereby adding to it increased strength.

The ends *d* of the slab, which meet and form the

joint *a*, when bent into cylindrical shape to form the keg, are square, for a purpose to be presently described.

The slabs thus cut and grooved would not admit of being bent into the desired form, as they would split and crack under such an operation.

To remedy this, therefore, the slabs are subjected to a bath of hot water, or steam, until sufficiently seasoned and flexible to bend easily with the grain of the wood, thereby rendering it tough and elastic. The hot bath not only allows the slab to be bent, but serves the equally important purpose of extracting the sap from the material, so as to render it entirely tasteless, as well as inodorous, thereby producing a keg suitable for the preservation and transportation of raw oysters, fruits, &c., as articles of merchandise, without in the least degree imparting to such articles any unnatural flavor.

The material thus soaked, steamed, and seasoned for the purposes described, is ready to be bent into form, and in doing so, it will be seen that the pores of the wood are entirely closed on the inside surface by the act of bending, which readily compresses the fibres of the wood, imparts to it a hard, compact surface, and tends to prevent the contents of the keg from being absorbed by the sapless wood, which would be the case were it not for this solidity imparted to it by the act of bending.

This process also enables me to use porous wood, which could not be done if the material were not thus bent, because the pores of the wood, without such bending, would remain in their natural state.

In bending the slab to form the keg, it will be seen that the inner edges *d* of its square ends only are brought together, so as to form a V-shaped opening at their junction. The object of this is to allow the hoops to compress the two ends of the slab, so as to make them bite into one another, and close the joint completely from the inner side.

This cramped joint could not be obtained so well if the ends of said slab were bevelled instead of being square.

The slabs, as well as the heads *b*, may be placed in a steam-chest, or in any other manner soaked, steamed, and seasoned in a hot bath, being so placed as to expose their sides fully to the action of the steam or boiling water.

The bending of the slab to form the keg may be done by placing it between rollers, and holding it so that one revolution of the rollers will give it the desired form, or it may be done in any other manner.

The slab thus bent is removed, a truss hoop put on, the heads put in, and the keg hooped.

One of the heads *b* may be provided with a bung-hole, fitted with a bung in the usual manner.

As an article of manufacture, it is apparent that kegs made from straight slabs, steamed and bent, possess many advantages over, and are entirely different from anything cut from solid cylinders, either of cylindrical or of volute form, because the operation of forming kegs by the latter process is not only materially different, one being cut in the required form, while the other is cut straight and bent into form, but the results produced by the steam or hot bath have never before been attained in the manufacture of kegs.

For convenience and economy, I propose to use one or two slabs in the formation of a keg, and to make any size and kind of keg or barrel desired.

The grooved ends of the slabs are bevelled on the outside, so that the hoops are forced thereon, for the purpose of compressing said slab, thus forming a permanent seat for the hoops.

The slabs are about one-quarter of an inch in thickness, and are cut from a solid block of wood, in these thin layers until the block is entirely consumed.

It will be seen, therefore, that when these thin slabs are exposed to a bath of steam or boiling water, the sap is easily extracted, and the slabs rendered pure and seasoned.

Having thus described my improvement,

I claim a keg made from slabs, shaped, grooved, steamed, bent, and fitted with heads and hoops, substantially as herein shown and described, as a new article of manufacture.

GEORGE FRAUENBERGER.

Witnesses:

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