(No Model.)

T. K. PARRISH.

HOOPING WOODEN VESSELS.

No. 448,990. Patented Mar. 24, 1891.

Fig. 1.

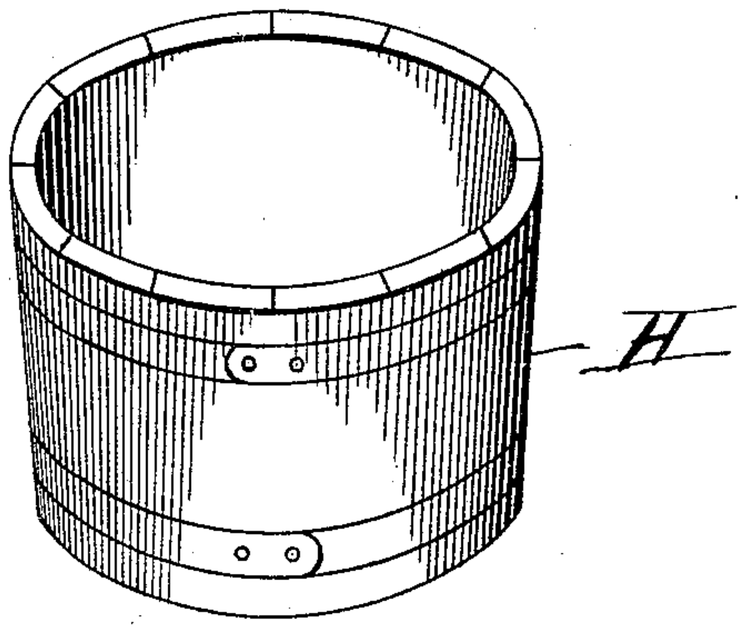


Fig. 2.

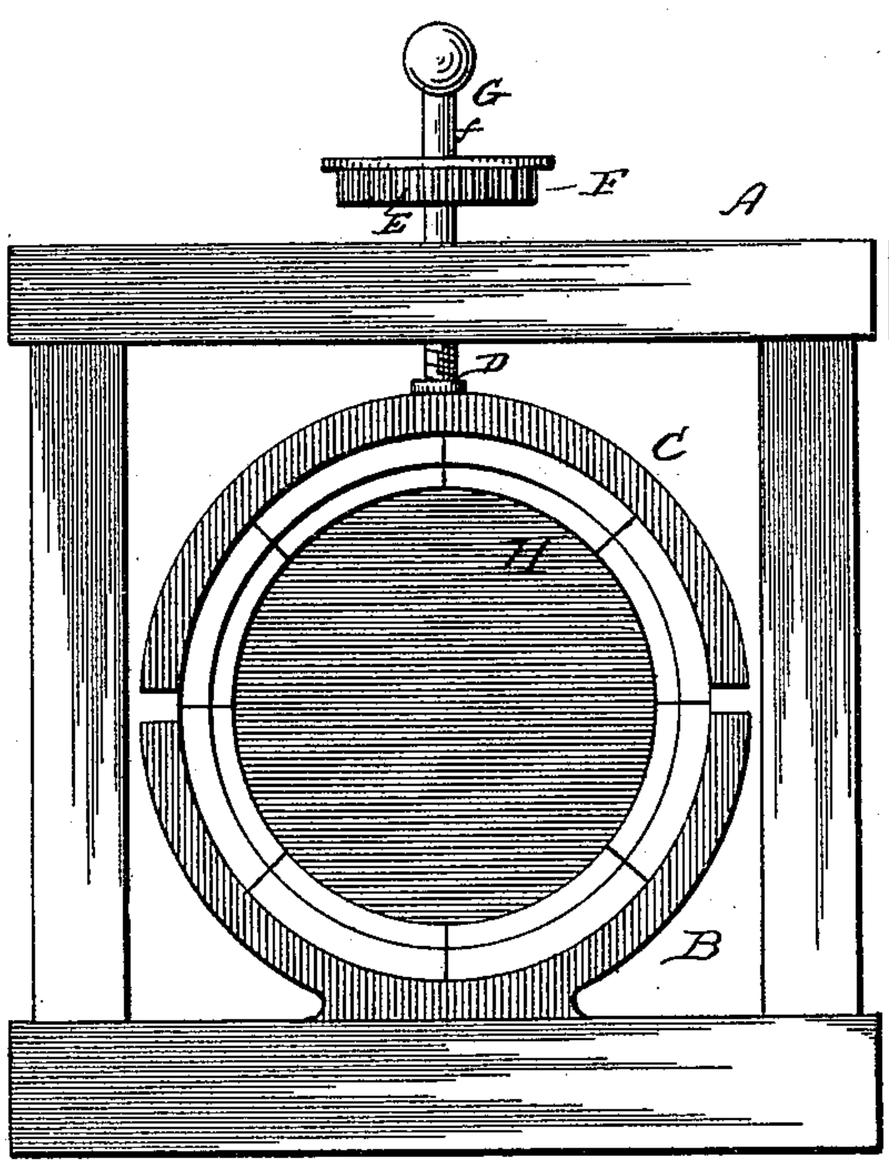
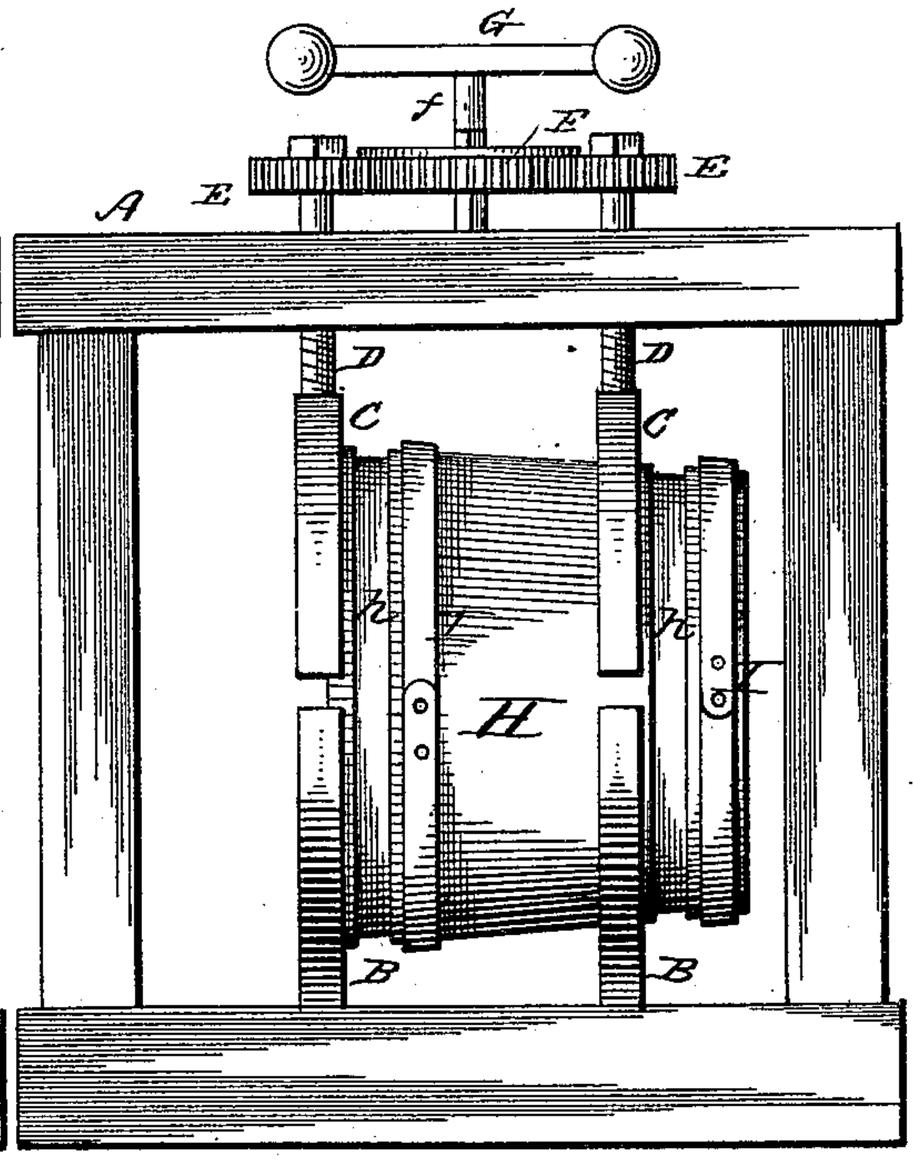


Fig. 3.



Witnesses—
Albert B. Blackwood
L. Paul

Inventor—
by Connolly Bro
Attys.

UNITED STATES PATENT OFFICE.

THOMAS K. PARRISH, OF RICHMOND, VIRGINIA.

HOOPING WOODEN VESSELS.

SPECIFICATION forming part of Letters Patent No. 448,990, dated March 24, 1891.

Application filed June 12, 1888. Serial No. 276,807. (No model.)

To all whom it may concern:

Be it known that I, THOMAS K. PARRISH, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Methods of Hooping Wooden Vessels; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form part of this specification.

My invention has relation to methods of hooping wooden vessels, and has for its object the provision of a novel process for applying hoops to wooden vessels previously grooved for the reception of such hoops.

My improved method consists in compressing a grooved wooden vessel to such extent that a hoop of less circumference than the normal circumference of the body of the vessel in the immediate vicinity of the groove may be passed over such part of the vessel and into the groove, and then allowing the vessel to expand to its normal size.

My invention is applicable to all descriptions of vessels made of wood or other elastic substance, but is particularly adapted and designed to be employed in the manufacture of wooden vessels of cylindrical or approximately cylindrical form made up of a number of staves.

In the accompanying drawings, Figure 1 is a perspective view of a wooden vessel constructed according to my improved method. Fig. 2 is an end view of an apparatus adapted to carry my method into effect; and Fig. 3 is a side elevation of the same, a wooden vessel being shown in position in the apparatus.

The said apparatus comprises a frame A, within which are a number of fixed semicircular jaws B B and an equal number of movable semicircular jaws C C, the fixed and movable jaws being arranged opposite to one another and the number of pairs of jaws being dependent upon the number of hoops which are to be applied to the vessel. The movable jaws C C are attached to the lower ends of screws D D, which screw through suitable sockets in the frame A, and to the upper ends of screws D D are secured cog-wheels E E, gearing with a main gear-wheel F, to which motion is imparted by a lever G attached to the shaft *f* of said main gear-wheel, or by other suitable means. The shaft *f* is squared for a portion of its length, so that the main gear-wheel F may travel vertically with the gear-wheels E E.

H designates the body of the vessel to be hooped, and *h h* grooves which are formed upon the outside of said vessel at the point which the hoops are to occupy, and which are of a depth equal to the thickness of the hoops, so that when the latter are in position their outer surfaces will be flush with the surface of the vessel, as shown in Fig. 1. The grooves *h h* may be conveniently formed by means of a suitable cutting-tool while the vessel is turned upon a lathe, being held together during this operation by means of a trussing-hoop.

I I designate the hoops, which consist each of a band of metal having its ends firmly riveted together or otherwise secured, the hoops being of a size corresponding to the size of the bottom of the slot in the body of the vessel, and being finished complete before being placed thereon.

The vessel to be hooped having been grooved, as before described, the hoops are slipped on over the body of the same, and it is then placed in position in the apparatus shown in Figs. 2 and 3. Motion is then imparted to the main gear-wheel F and through the gear-wheels E and screws D D to the movable jaws C C, which being brought toward stationary jaws B B compress the vessel to such an extent as will allow of the hoops being passed along until they enter the slots *h h*. The motion of the main gear-wheel F is then reversed and the vessel allowed to expand to its normal circumference. The hoops, being set in the slots, are held firmly in position and no amount of expansion or contraction resulting from the ordinary usage to which such vessels are subjected will be sufficient to dislodge them. The vessels when completed according to my method present a neat and attractive appearance, are more durable than those having hoops applied in the ordinary way, and the hoops being flush with the surface of the vessel there are no crevices or corners for the lodgment of dirt.

Having described my invention, I claim—

The method of hooping coopered or staved

vessels, consisting in the forming a groove in the vessel for the reception of the hoop, compressing the vessel in the vicinity of said groove, passing a hoop over the body of the vessel and into said groove, and finally allowing the vessel to expand and tighten the hoop, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of May, 1888.

THOMAS K. PARRISH.

Witnesses:
CHARLES A. ROSE,
SPENCER CORNICK.