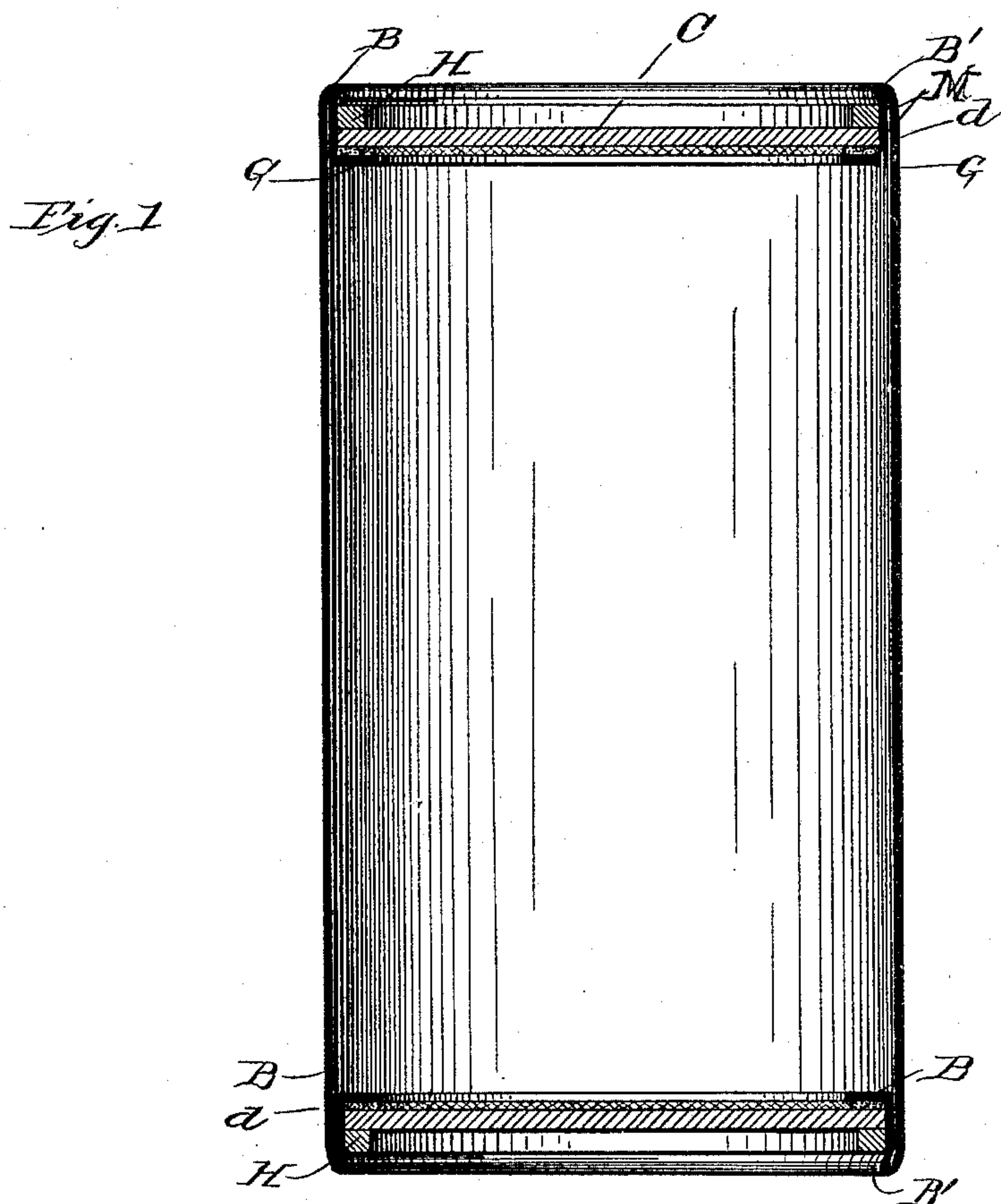
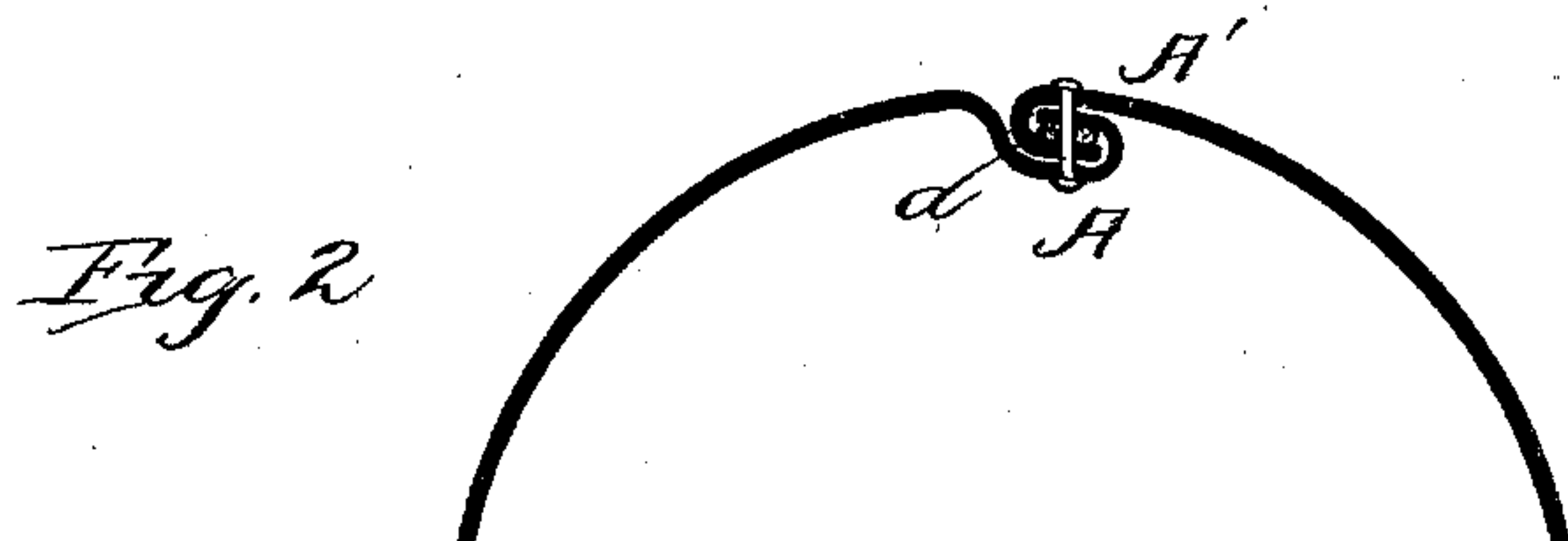


(No Model.)

A. PATERNOSTER.  
CASK OR BARREL.

No. 460,026.

Patented Sept. 22, 1891.



Attest

Jesse Keller  
George E. Cress.

Inventor

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By Irish Bros.

Attys.

# UNITED STATES PATENT OFFICE.

ALEXANDRE PATERNOSTER, OF ANTOING, BELGIUM.

## CASK OR BARREL.

SPECIFICATION forming part of Letters Patent No. 460,026, dated September 22, 1891.

Application filed October 27, 1890. Serial No. 369,480. (No model.) Patented in Belgium December 31, 1888, No. 84,499; in France January 5, 1889, No. 195,160, and in England January 19, 1889, No. 1,040.

*To all whom it may concern:*

Be it known that I, ALEXANDRE PATERNOSTER, a subject of the King of Belgium, residing at Antoin, in the Kingdom of Belgium, have invented certain new and useful Improvements in Casks or Barrels, (for which no patent has been obtained in any country except in Belgium, on December 31, 1888, No. 84,499; in France, on January 5, 1889, No. 195,160, and in Great Britain, on January 19, 1889, No. 1,040,) of which the following is a specification.

According to this invention a cask or barrel is made, as will be described with reference to the accompanying drawings.

Figure 1 is a vertical section of the cask completed, and Fig. 2 is a transverse section through the side joint.

A metal plate is bent round to form a cylinder, its edges being jointed together by a hook-joint A, secured, if necessary, by rivets A'. A strip *a*, of caoutchouc or other suitable packing material, may be engaged in the joint when the cask is intended to contain liquid. The ends of the cylinder are folded inward parallel with the sides of the cask, forming cylindrical walls M, which are inwardly flanged, as shown at B and G, the flanges G forming seatings for wooden ends C. These ends are fixed in position by metal rings H, driven in over them and firmly secured by hammering in the rounded edges at B', so as to swell inward over the rings H. When the cask has to contain liquid, a washer *d*, of caoutchouc or other suitable packing, is introduced between the wooden ends C and the flanges B G. By constructing casks or barrels in this manner they are made of great strength at less cost than wooden casks of equivalent capacity. They are more convenient and stable for stowage and not liable to

shrinking and leakage under the influence of heat and drought. The wooden ends give great stiffness, so that the cask is not liable to the deformation to which casks entirely of metal are subject, and when the casks are taken to pieces after transport the sheet metal is available for other uses.

In certain cases it may be preferable to use metal disks in place of the wooden ends, so that they will be fixed on the inside annular flange in the same way as the wooden covers are attached, this use of metal ends of any thickness causing thus no difference in the manufacture of barrels and the method of attachment.

Having thus described my said invention and in what manner the same has to be performed, what I claim is—

1. In a metallic vessel, the combination, with the hook-joint securing the longitudinal edges of the metal together, of a packing-strip *a*, located between the laps of the joint, and rivets passing through said laps and packing, substantially as set forth.

2. The combination of the body having its ends turned inward, forming parallel cylindrical walls M and flat right-angle flanges B G, flat wooden heads having cylindrical edges resting against said flanges, and rigid metallic rings, square in cross-section, fitting against the said heads, whereby the walls M may be readily bent inward over the said rings, substantially as set forth.

In testimony whereof I have hereunto set my hand this 30th day of September, 1890.

ALEXANDRE PATERNOSTER.

Witnesses:

AUG. JOERISSEN,  
JOSEPH GOFFIN.