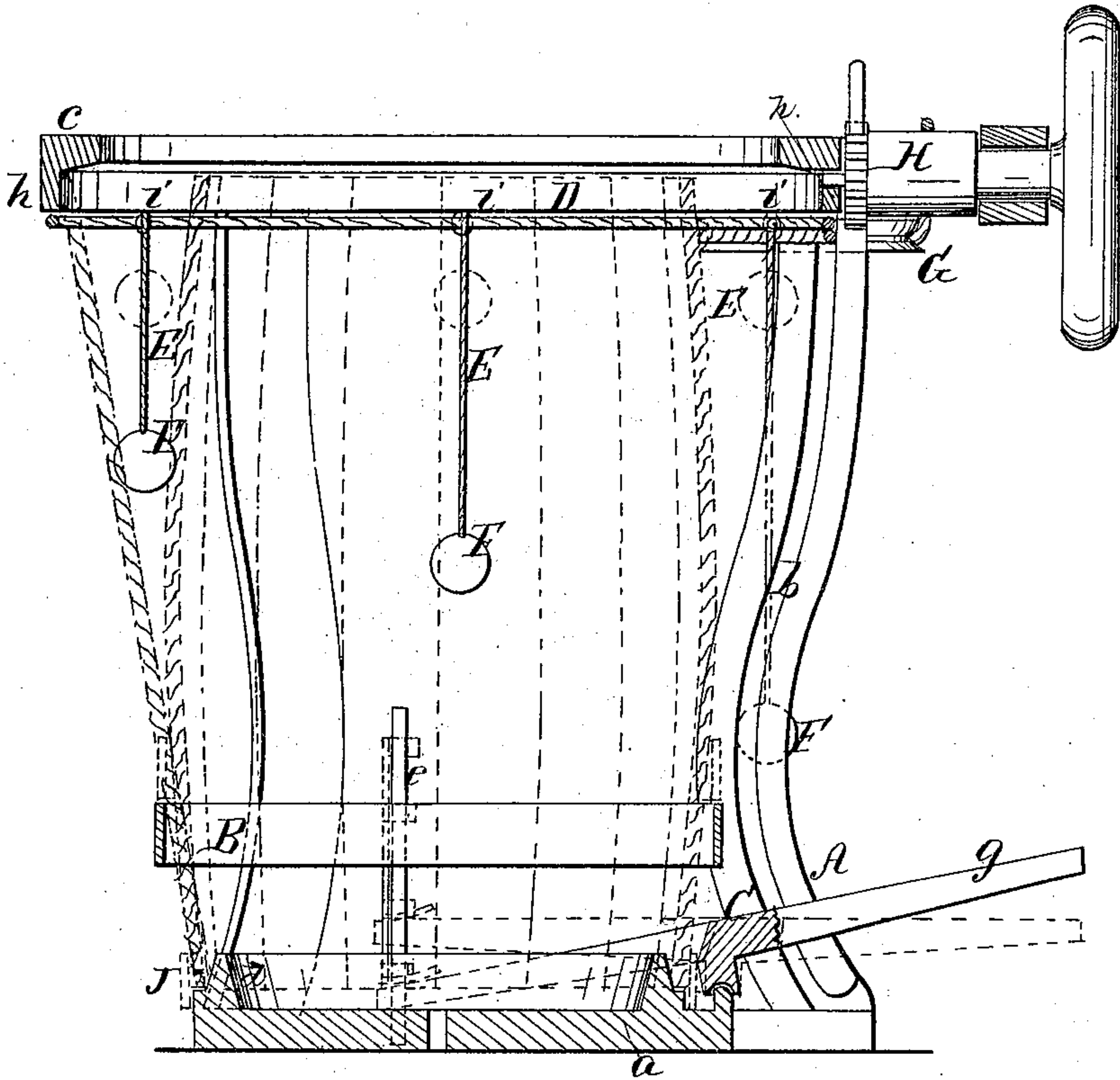


*A. G. Mack,*  
*Making Barrels.*

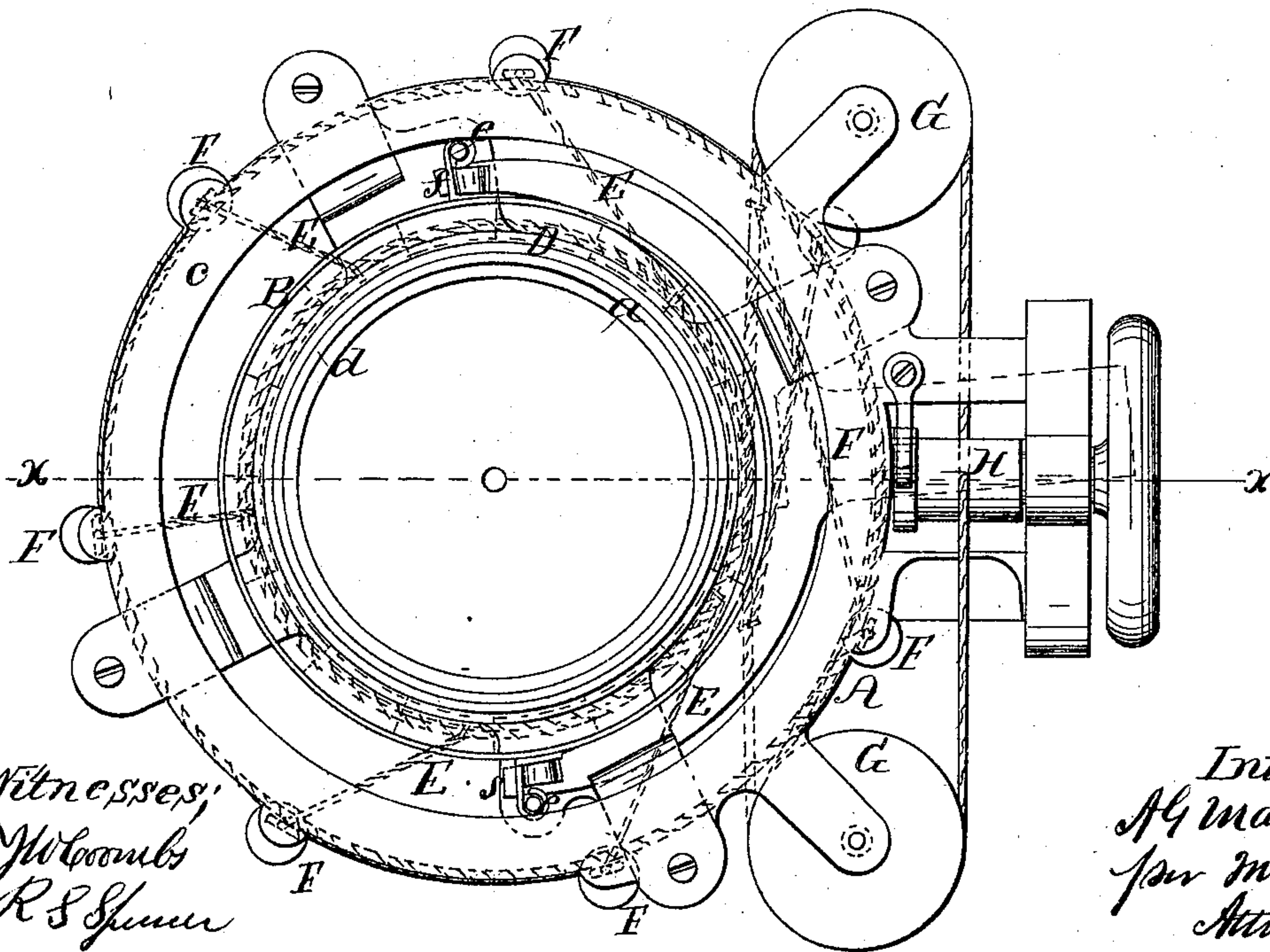
*N<sup>o</sup> 31,026.*

*Patented Jan. 1, 1861.*



*Fig: 1.*

*Fig: 2.*



*Witnesses;*  
*J. W. Coombs*  
*R. S. Spurr*

*Inventor;*  
*A. G. Mack*  
*per J. W. Coombs*  
*Attorneys*



# UNITED STATES PATENT OFFICE.

ALBERT G. MACK, OF ROCHESTER, NEW YORK.

## MACHINE FOR SETTING UP BARRELS.

Specification of Letters Patent No. 31,026, dated January 1, 1861.

*To all whom it may concern:*

Be it known that I, A. G. MACK, of Rochester, in the county of Monroe and State of New York, have invented a new and Improved Machine for Setting Up the Staves of Barrels and all Kinds of Casks Preparatory to Hooping Them; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, forming part of this specification, in which—

Figure 1 is a vertical central section of my invention. Fig. 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to obtain a simple machine that may be economically constructed and manipulated with great facility for setting up the staves of barrels, and all kinds of casks, preparatory to hooping them so that the work may be done much more expeditiously than by the usual process.

The invention consists in the employment or use of an adjustable or sliding hoop in connection with a flexible adjustable band or rope, the above parts being placed within a suitable frame and arranged substantially as hereinafter described, whereby the desired result is obtained.

To enable those skilled in the art to make and use my invention I will proceed to describe its construction and operation.

A represents a frame which is formed of a base or bottom plate *a*, having uprights *b*, attached, which support an annular plate or ring *c*, the latter being concentric with a ring or annular ledge *d*, on the base *a*, which ring or ledge is of V-shape in its transverse section, the smaller edge being uppermost, as shown clearly in Fig. 1.

To the base and at opposite sides of the ring or ledge *d*, there are attached vertical rods *e*, *e*, which serve as guides for a hoop or band *B*, said hoop or band having two vertical bars *f*, *f*, attached to it which bars are provided with eyes that are fitted on the rods *e*, *e*, and allowed to slide freely up and down thereon.

C is a treadle frame, the fulcrum of which is on the base *a*; and the inner ends project under the bars *f*, *f*, the foot-piece *g*, of the treadle frame projecting out beyond the side of the frame C, as shown clearly in Fig. 1.

The annular plate or ring *c*, is provided with a flanch *h*, which projects down from its under side as shown clearly in Fig. 1, and D is a rope to which cords *E*, are attached, said cords *E*, passing through eyes or sheaves *i*, attached to the lower edge of the flanch *h*. The cords *E*, have each a weight *F*, attached and the rope *D*, passes around pulleys *G*, *G*, and also around a windlass *H*, at the side of the ring or plate *c*, as shown clearly in Fig. 2.

The operation of the machine is as follows:—The staves (shown in red) are placed in the frame *A*, their lower edges resting on the base *a*, around the annular ledge *d*, between it and a truss-hoop *j*, which is placed on the base *a*. The staves are, of course, placed within the hoop or band *B*, which is at the lowest point of its descent; the upper ends of the staves *A*, rest against the ring or annular plate *c*. When the staves are thus adjusted, the operator depresses with his foot the outer end of the lever frame C, and thereby gently raises the hoop or band *B*, which prevents the thin staves, if there be any, from slipping past the thick ones, and the collapsing of the barrel or cask is thereby prevented. The operator while depressing the outer end of the frame C, turns the windlass *H*, and the rope *D*, is contracted or drawn in all around the staves, the weights *F*, of the cords *E*, being raised and the rope *D*, made to gather in the staves so that the upper truss hoop may be adjusted on them. When the treadle frame C, is relieved of the foot of the operator the band *B*, falls by its own gravity, and the rope is brought back to its original position by the weights *F*.

This machine has been practically tested and operates well. By its use 400 barrels can be set up in a day with a single hand, just double the quantity that is usually set up by an ordinary workman in the old way.

Having thus described my invention, what

I claim as new and desire to secure by Letters Patent, is:—

The adjustable or rising and falling band B, in connection with the adjustable and  
5 flexible loaded band or rope D, applied to a frame A, which is provided with an annular ledge *a*, at its base *a*, an annular plate *c*,

at its top, and a winch or windlass H; all arranged substantially as and for the purpose herein set forth.

ALBERT G. MACK.

Witnesses:

DELOS WENTWORTH,  
W. H. LAROTON.