

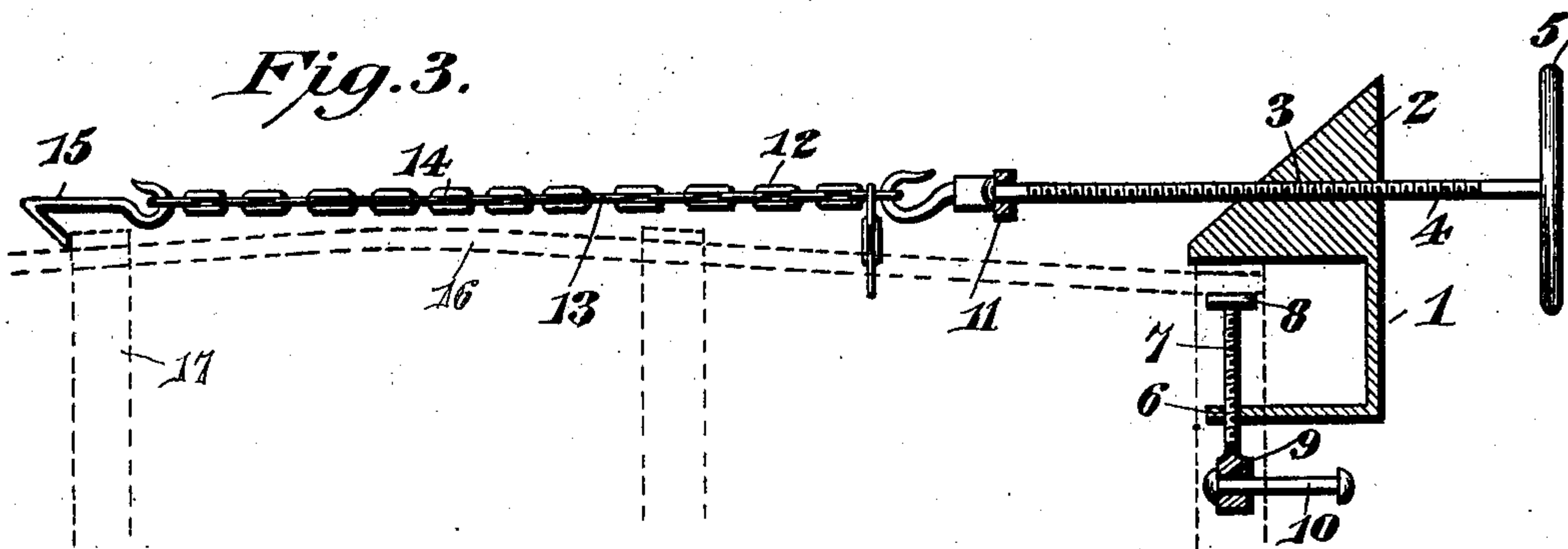
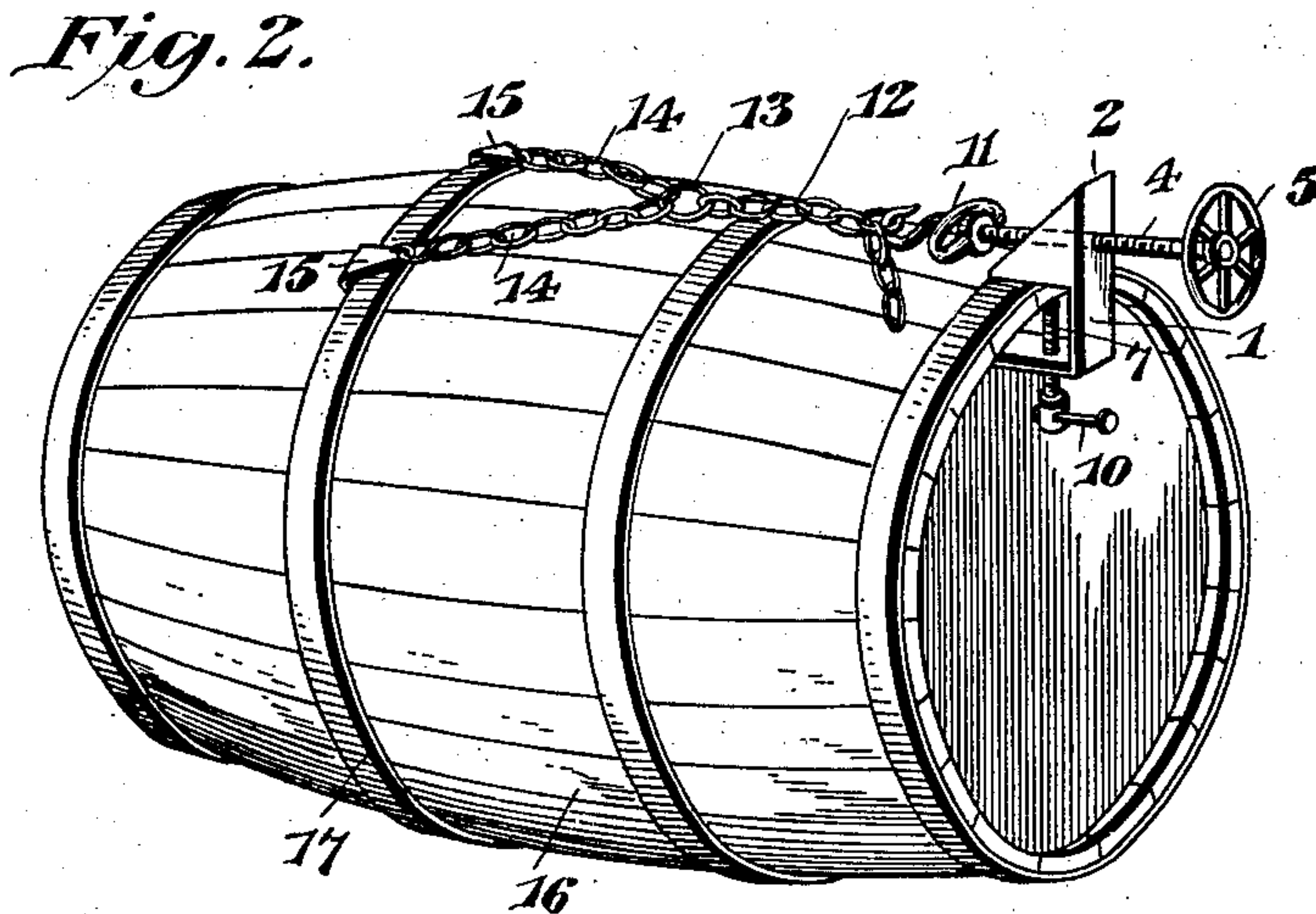
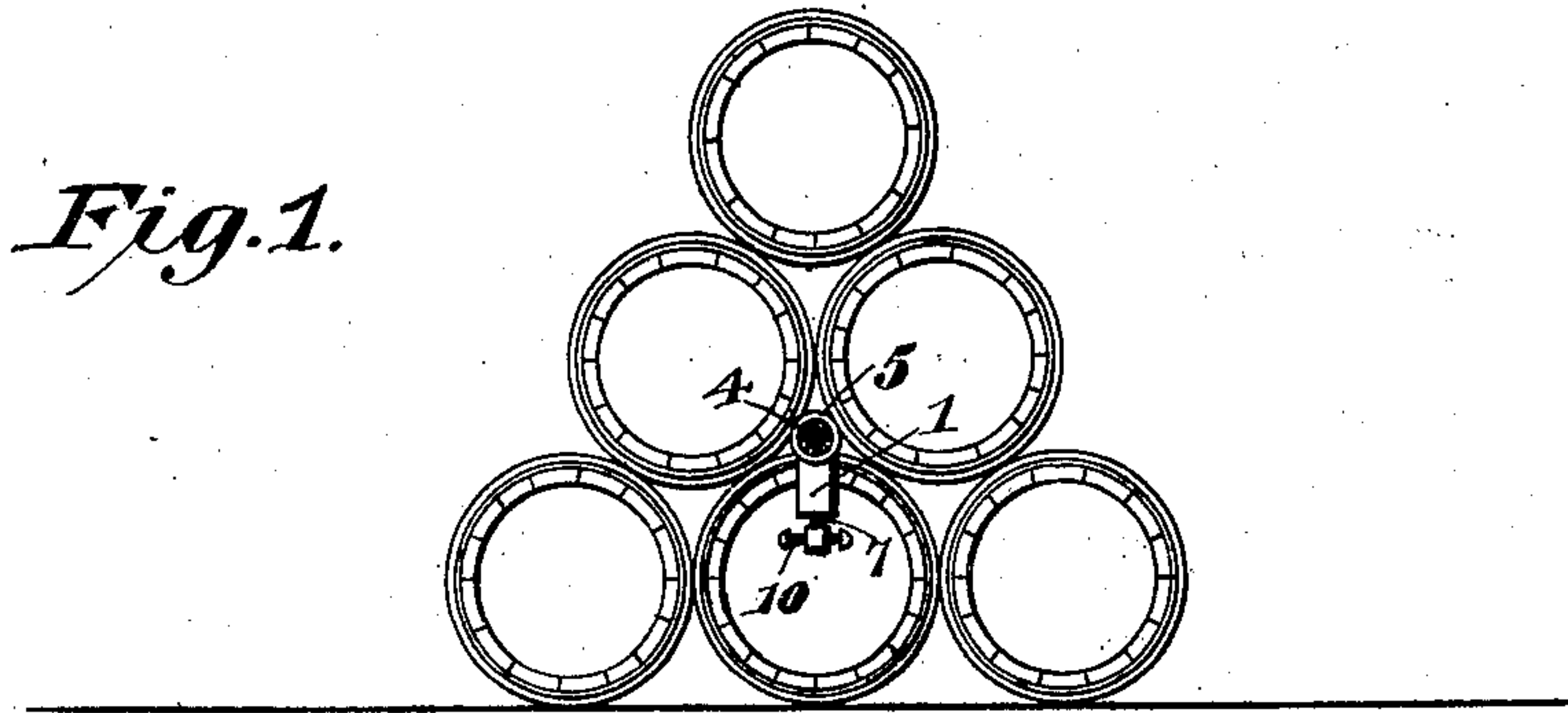
No. 691,769.

Patented Jan. 28, 1902.

C. HUMMEL.
HOOP TIGHTENING DEVICE.

(Application filed Nov. 14, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

CASPAR HUMMEL, OF JOHNSTOWN, PENNSYLVANIA.

HOOP-TIGHTENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 691,769, dated January 28, 1902.

Application filed November 14, 1901. Serial No. 82,246. (No model.)

To all whom it may concern:

Be it known that I, CASPAR HUMMEL, a citizen of the United States, residing at Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Hoop-Tightening Device, of which the following is a specification.

When barrels, casks, and the like are laid down on their sides and piled one upon the other, with their rear ends against a wall, the hoops at the rear ends of the cask are practically inaccessible for tightening by the means now commonly employed for tightening the hoops of casks before they are placed in a pile. In view of this difficulty it is the object of the present invention to provide improved hoop-tightening means which may be conveniently applied to the rear hoops of casks arranged in a pile, and also to arrange the tightening means so that it may be readily fitted to the outer or front end of the cask as an anchorage and conveniently manipulated to draw the hoop forwardly, so as to snugly embrace the enlarged intermediate portion of the barrel or cask.

The device also includes a bracket or clamp to be applied to the chime of a cask to form a support for the operating means, whereby power is applied to the hoop, so as to draw the same into snug engagement with the barrel.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is an end elevation of a plurality of casks or barrels piled one upon the other in the usual manner and showing the present device applied to one of the casks for tightening the rear hoop thereof. Fig. 2 is a perspective view of a cask having the present hoop-tightener applied thereto. Fig. 3 is a longitudinal sectional view of the hoop-tightener.

Like characters of reference designate cor-

responding parts in all the figures of the drawings.

In carrying out the present invention there is provided a bracket comprising a substantially U-shaped clip 1, having an extension 2, through which is provided a screw-threaded opening 3 for the reception of an adjusting screw-threaded stem 4, which is provided at its outer end with a suitable hand-wheel 5. The outer side of the clip is provided with a screw-threaded opening 6 for the reception of a screw-threaded stem 7, having its inner end provided with an enlarged head portion 8 and its outer end having an opening 9 for the slidable reception of a handle-bar 10. A hook 11 is swiveled to the inner end of the adjusting-screw 4, and to this hook is connected a chain or cable 12 by having one of its links engaged with the swiveled hook. The outer end of the chain or cable is provided with a link or ring 13, to which are connected the branch chains 14, each of which is provided at its outer end with a hook 15.

In using the present device the bracket is fitted to the outer end of a cask or barrel by having the clip embrace the chime at the outer end of the cask or barrel, the clamping-screw 7 being manipulated by the handle-bar 10 so as to set the enlarged head of the screw against the inner side of the chime, thereby to firmly connect the clamp to the cask. After the bracket has been fitted in place the hooks 15 are engaged with the rear edge of the rear hoop 17, the hooks being bowed transversely or shaped to fit the barrel, and then the hand-wheel 5 is operated to feed the screw 4 outwardly, and thereby draw the hoop into snug engagement with the larger portion of the barrel. It will here be noted that the handle-bar 10 is slidable through an opening in the screw 7 in order that the latter may be conveniently turned by operating the handle-bar as far as it will go and then sliding it endwise through the opening in the screw, so that the latter may again be turned. After one portion of the hoop has been drawn forward into snug engagement with the cask the tightening device is transferred to the opposite side of the cask, so as to draw the opposite loose portion of the hoop into engagement with the cask,

or two or more of the devices may be applied to a single cask, so as to simultaneously draw all parts of the hoop into snug engagement with the cask.

5 From the foregoing description it will be apparent that the present invention provides an exceedingly simple and effective hoop-tightener for casks and the like, which is arranged to be conveniently fitted upon any
10 cask regardless of the size thereof, and by engaging any of the links of the chain 12 with the swiveled hook 11 the device may be conveniently adjusted so as to properly engage the rear hoop of casks of different sizes.

15 What I claim is—

1. A hoop-tightener for casks and the like, comprising a clamp or bracket constructed for application to one end of a cask, and carrying means for forcing a hoop into snug engagement with the enlarged intermediate portion of a cask.

2. A hoop-tightener for casks and the like, comprising a clamp or bracket constructed for application to one end of a cask, and means
25 carried by the bracket for engagement with a hoop to draw the same toward the bracket.

3. A hoop-tightener for casks and the like, comprising a clamp or bracket constructed for application to one end of a cask, means
30 for connection with a hoop, and a tension device carried by the bracket and connected to the hoop-engaging means.

4. A hoop-tightener for casks and the like, comprising a clamp or bracket constructed
35 for application to one end of a cask, hoop-engaging means, and a tension-screw carried by the clamp or bracket and connected to the hoop-engaging means.

5. A hoop-tightening device for casks and
40 the like, comprising a clamp or bracket constructed for application to one end of a cask, a tension-screw carried by the clamp or bracket, a pair of hoop-engaging hooks, and a swiveled connection between the hooks and
45 the tension-screw.

6. A hoop-tightening device for casks and the like, comprising a clamp or bracket which is constructed for application to a barrel or cask, a tension-screw carried by the clamp
50 or bracket, a swiveled hook carried at the

inner end of the tension-screw, and a chain having one of its links detachably connected to the hook and provided at its outer end with a hoop-engaging hook.

7. A hoop-tightening device for casks and
55 the like, comprising a clamp or bracket constructed for application to one end of a cask, a tension-screw carried by the bracket, a hook swiveled upon the inner end of the tension-screw, a chain having one of its links
60 detachably engaged with the hook, branch chains connected to the outer end of the main chain, and hoop-engaging hooks carried by the branch chains.

8. A hoop-tightening device for casks and
65 the like, comprising a clamp or bracket having a U-shaped clip and a set-screw piercing one side of the clip, a tension device carried by the bracket, and hoop-engaging means connected to the tension device.

9. A hoop-tightening device for casks and the like, comprising a bracket having a U-shaped clip, and a set-screw piercing one side of the clip and provided with a handle-bar which is slidable endwise through an opening in the set-screw, a tension device carried
75 by the bracket, and hoop-engaging means connected to the tension device.

10. In a hoop-tightening device for casks and the like, the combination of a bracket
80 comprising a U-shaped clip having a lateral extension, a set-screw piercing that side of the clip which is opposite the extension, and provided with a handle which is slidable endwise through an opening in the set-screw, a
85 tension-screw piercing the extension of the bracket and provided upon its outer end with an operating device, a hook swiveled upon the inner end of the tension-screw, a chain having one of its links detachably engaged
90 with the hook, and a pair of hoop-engaging hooks connected to the outer end of the chain.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CASPAR HUMMEL.

Witnesses:

J. P. KOLLAR,

SEBASTIAN BRANDSTETTER.