

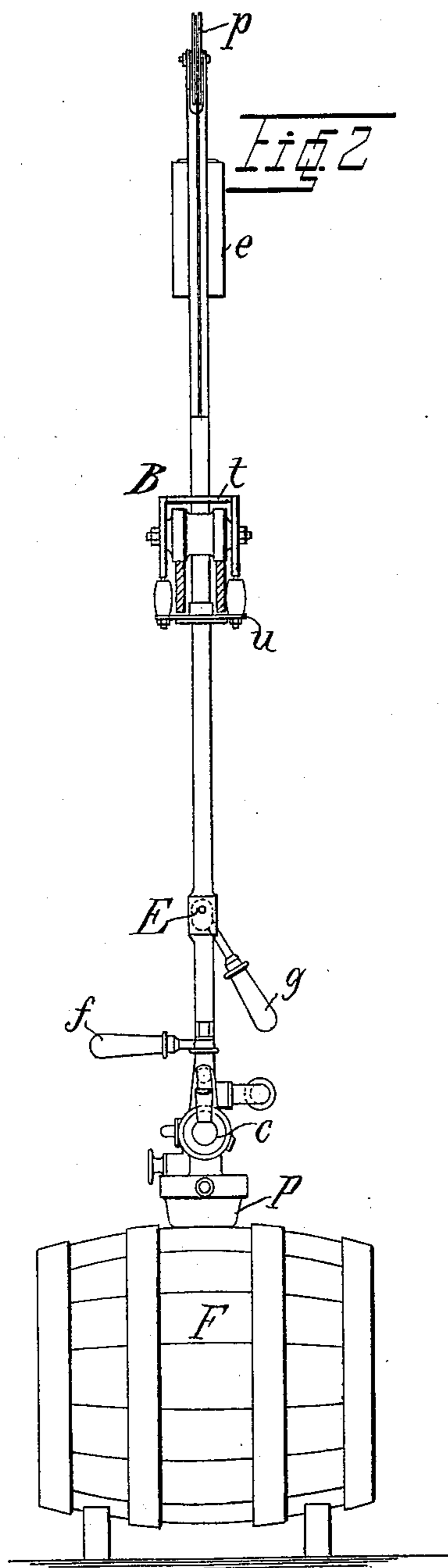
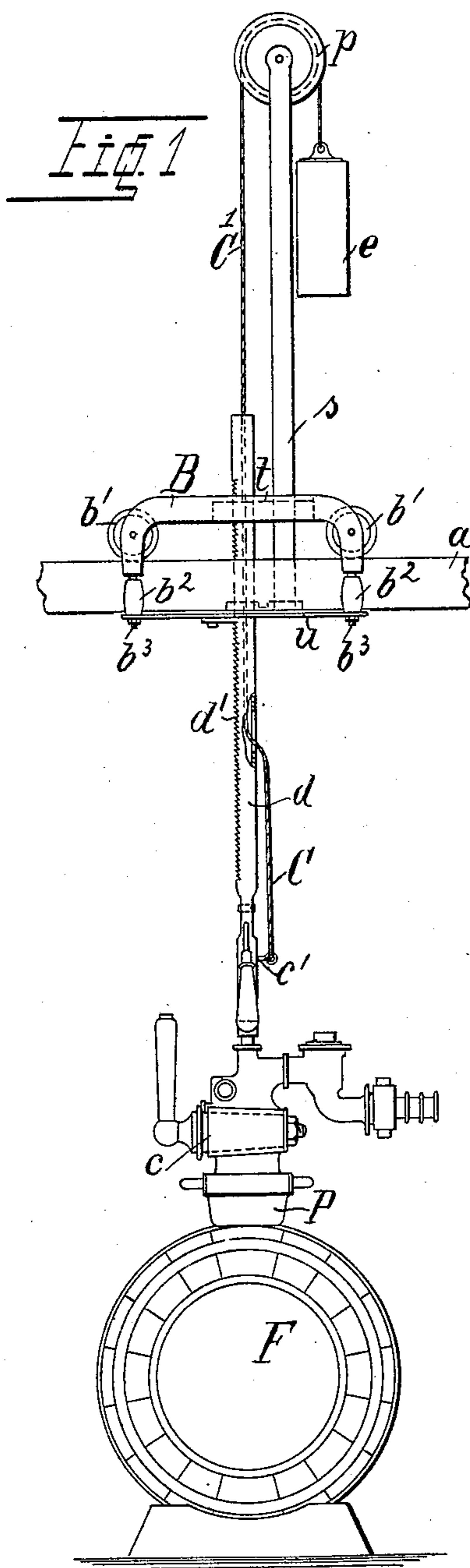
(No Model.)

3 Sheets—Sheet 1.

W. HARTMANN.  
BARREL FILLING APPARATUS.

No. 601,960.

Patented Apr. 5, 1898.



Witnesses:  
J. S. Ober  
J. H. Sommer

Inventor  
Wilhelm Hartmann.  
By *[Signature]*  
Attorney.

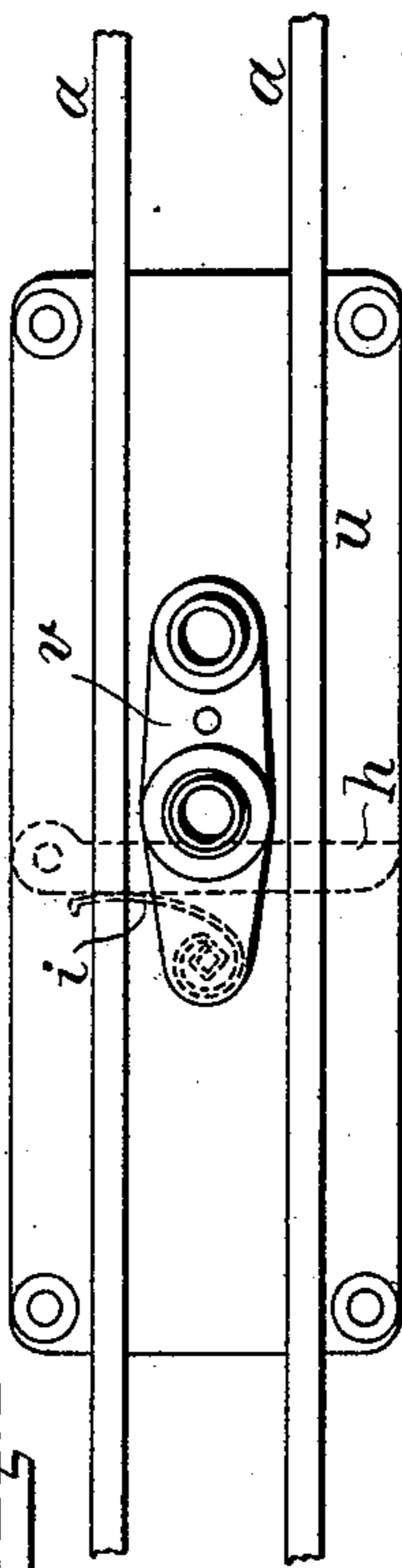
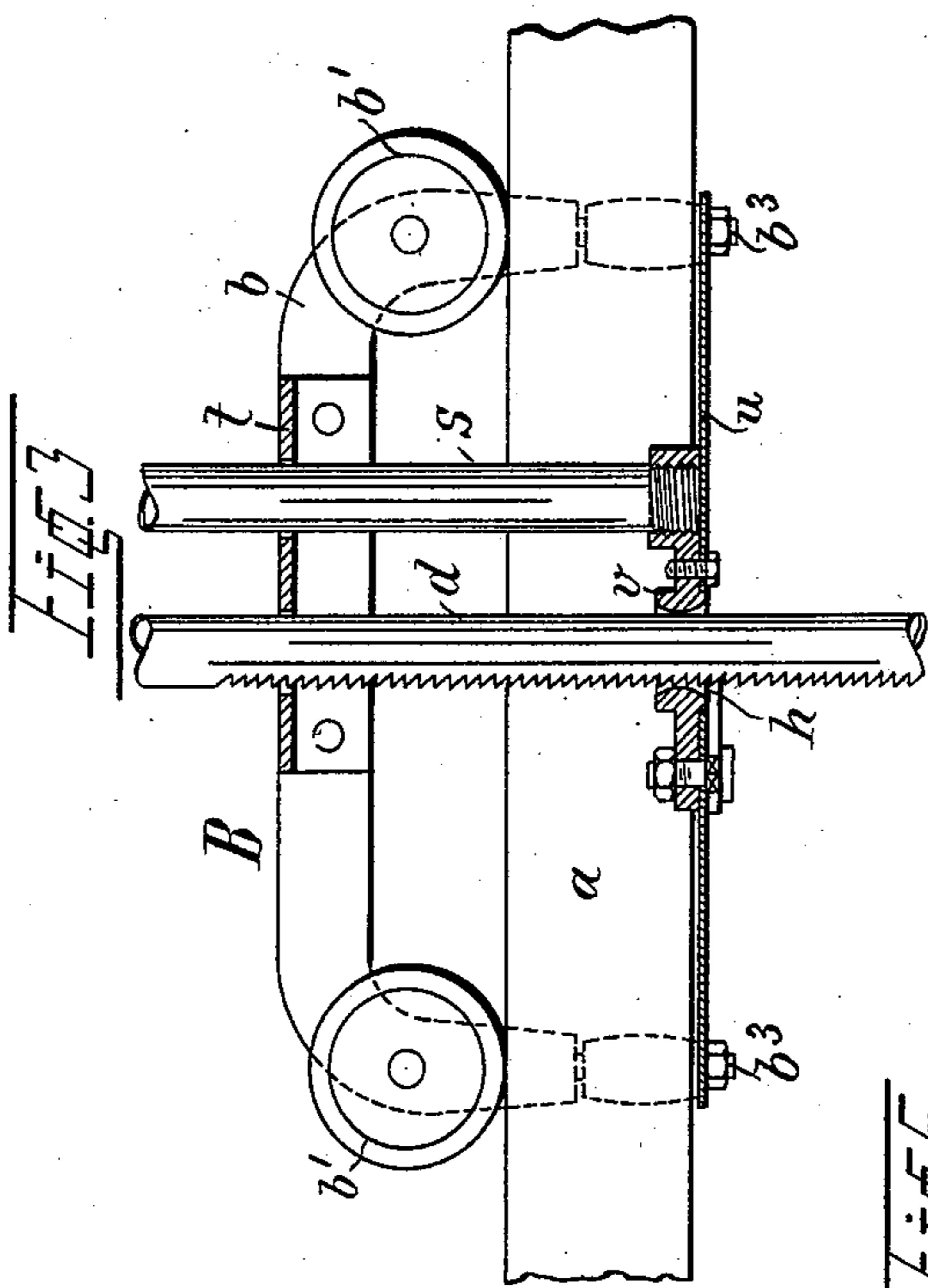
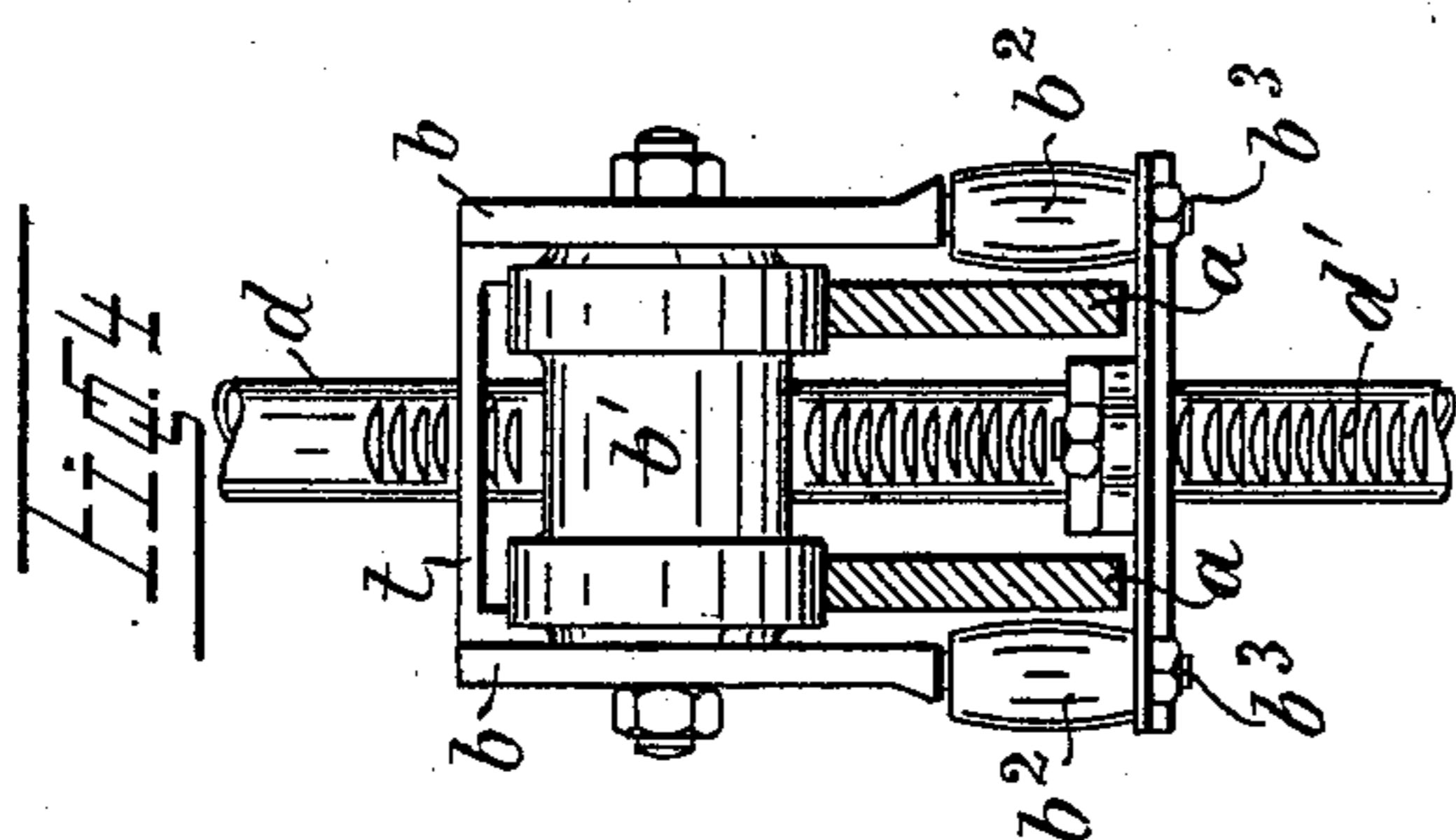
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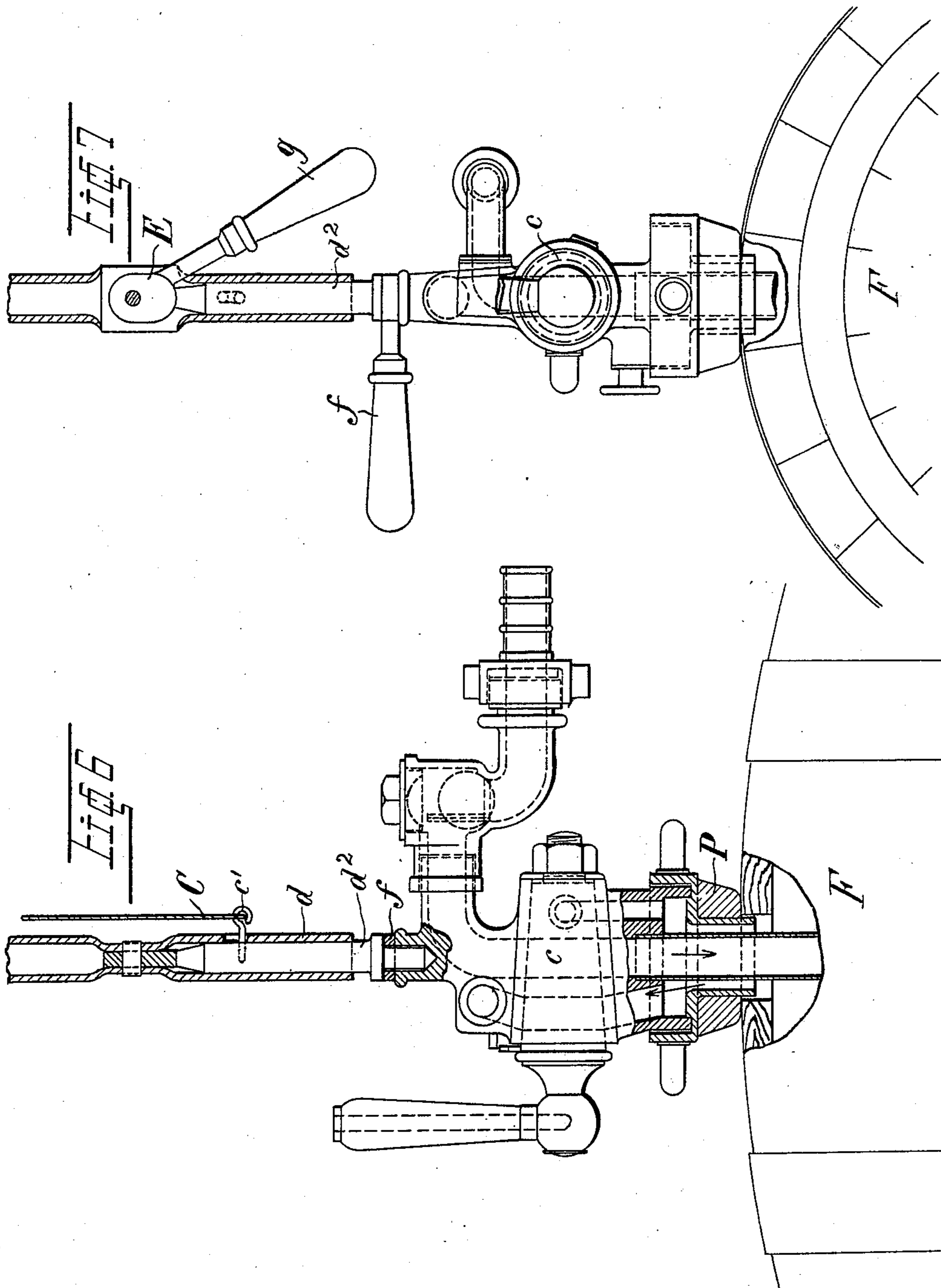
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3 Sheets—Sheet 3.

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BARREL FILLING APPARATUS.

No. 601,960.

Patented Apr. 5, 1898.



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# UNITED STATES PATENT OFFICE.

WILHELM HARTMANN, OF OFFENBACH-ON-THE-MAIN, GERMANY.

## BARREL-FILLING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 601,960, dated April 5, 1898.

Application filed March 13, 1897. Serial No. 627,369. (No model.)

*To all whom it may concern:*

Be it known that I, WILHELM HARTMANN, engineer and manufacturer, of Offenbach-on-the-Main, Germany, have invented certain new and useful Improvements in Barrel-Filling Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention has relation to barrel-filling apparatus, and has for its object the provision of means for connecting the filling appliance or cock fluid-tight with the barrel to be filled and for shifting said apparatus from one barrel to another, as will now be fully described, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation, and Fig. 2 a front elevation, of barrel-filling appliances embodying my invention. Fig. 3 is a vertical longitudinal section; Fig. 4, a transverse section; Fig. 5, a top plan view of the carrier or carriage for the filling appliances. Figs. 6 and 7 are a sectional side elevation and an end elevation, at a greater scale, of the cock and its connections.

Referring to Figs. 1 and 2, F indicates a barrel to be filled; c, the filling appliance or cock, having of course flexible connections with the storage or stand cask, the air-pump, &c., and adapted to be seated fluid-tight in a rubber packing-sleeve P, as usual.

The filling appliance or cock c is connected with a cylindrical support d in such manner as to have sufficient endwise motion independently of said support to be tightly pressed to its seat in and on the aforesaid packing P by means of an eccentric or cam E, operated by a lever g in a well-known manner. The support d is preferably of tubular form for the purpose of reducing its weight, is provided with ratchet-teeth d', and is suspended from a pulley p by a cable C or a chain or the like, to the free end of which is attached a counterpoise e, that balances the weight of said support d. The suspension-rod d<sup>2</sup> is connected with the cable C by means of a screw c', passing through a slot in the lower end of

the support d, the lower end of the suspension-rod d<sup>2</sup> entering a seat in the filling device c. The pulley p is journaled in bearings at the upper end of an upright or standard s, preferably also of tubular form, said upright or standard being stepped on a bottom plate or bridge u of an overhead carriage B and supported in a top plate or bridge t of said carriage, which is adapted to travel along an overhead track, as more plainly shown in Figs. 3 to 5.

The carriage B comprises two side pieces or bars b, united by the angle top plate or bridge t, said side bars having their ends turned down and extended below the bearings for the journals of the carriage-wheels b', the lower portion of said downturned ends forming spindles or journals b<sup>3</sup>, on which are mounted antifriction-rollers b<sup>2</sup>, that bear against the outer sides of the rails a to prevent the carriage B from tipping or tilting over. The lower ends of the journals b<sup>3</sup> are screw-threaded to receive nuts by means of which the bottom plate or bridge u is secured to the side bars of the carriage below the rails a to further steady such carriage on its said rails, and in said bottom plate u is formed a bearing v, through which the pendant support d passes freely, as well as through an opening in the top plate t.

To the bottom plate or bridge u is pivoted a locking dog or pawl h, adapted to engage the teeth d' on the cylindrical support d under the stress of a spring i, acting on said pawl, and to the suspension-rod d<sup>2</sup> is connected a handle f, by means of which the said pipe d can be revolved.

It will be observed that the rack-teeth d' on the support d do not extend over the entire periphery, but only over a portion thereof, so that when the support is revolved in its bearings its teeth will be moved out of engagement with the aforesaid locking-dog.

The described appliances operate as follows: It being supposed that the barrels F to be filled are placed in a row below the overhead track, the carriage B is now moved over the first barrel to be filled, so that the filling appliance c can be lowered to its seat in the packing P. The pipe d is then revolved by means of the handle f to move its teeth out of engagement with its locking-dog h, when the

said pipe can be lowered to seat the filling appliance and the latter can be held fluid-tight to its seat by moving down the lever *g* of the eccentric *E*, acting upon the suspension-rod *d*<sup>2</sup>, when the pipe *d* is again turned by handle *f* to move its teeth into engagement with the dog *h*, the parts being thus rigidly locked against displacement. When the barrel has been filled, the lever *g* is thrown up, the pipe *d* is disengaged from its dog, and the filling appliance lifted out of its seating *P*. Inasmuch as these parts are counterbalanced by the weight *e*, the lifting of the same can be readily effected, after which the carriage *B* is shifted over another barrel, and so on.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. In a barrel-filling apparatus, the combination with a filling appliance, a carrier therefor from which it is suspended to have free up-and-down motion, a counterpoise for said appliance and means for rigidly connecting the same with its carrier, of an overhead track along which the carrier is adapted to travel, for the purpose set forth.

2. In a barrel-filling apparatus, the combination of an overhead track, a carriage adapted to travel thereon, a support displaceable vertically in said carriage, and a locking device for locking said support to said carriage, with a filling appliance connected and having vertical motion with and independently of said support and means for imparting such motion to the filling appliance independently of its support, for the purpose set forth.

3. A barrel-filling apparatus comprising an overhead track, a carriage adapted to travel thereon, a support displaceable vertically in bearings in said carriage, a filling appliance connected and displaceable vertically with and independently of said support a counterpoise for said support and a filling appliance, a locking device for locking the support to its carriage, and means for displacing the filling appliance in a vertical plane independently of its support, for the purpose set forth.

4. In a barrel-filling apparatus, the combination of an overhead track, a carriage adapted to travel thereon and provided with an upright and a pulley journaled thereon, with a support movable vertically in bearings in said carriage, a filling appliance connected and movable with and independently of said support, said parts counterbalanced on the aforesaid pulley, a locking device for locking the

support to its carriage, and means for imparting motion to the filling appliance in a vertical plane independently of its support, for the purpose set forth.

5. In a barrel-filling apparatus, the combination of an overhead track, a carriage adapted to travel thereon, rolling bearings connected with the outer vertical faces of the track-rails, and an upright carrying a pulley rising from said carriage, with a support movable vertically in bearings in the carriage, a filling appliance connected and movable with and independently of said support, said parts counterbalanced on the aforesaid pulley, a locking device for locking the support to its carriage, and means for imparting motion to the filling appliance in a vertical plane independently of its support, for the purpose set forth.

6. In a barrel-filling apparatus, the combination of an overhead track, a carriage adapted to travel thereon and a spring-actuated locking-dog pivoted to said carriage, with a filling appliance or cock, a cylindrical support therefor provided with teeth extending over a portion of its periphery only, adapted to be engaged by the aforesaid locking-dog, said support counterbalanced on the carriage and having endwise and rotary motion in bearings in said carriage, substantially as and for the purpose set forth.

7. In a barrel-filling apparatus, the combination of an overhead track, a carriage adapted to travel thereon and comprising two side bars having turned-down ends terminating in a journal, an antifriction-roller on said journal in contact with the outer vertical face of the track-rails, a bridge connecting the side bars of the carriage above the rails, a bridge secured to the aforesaid journals below said rails, and a spring-actuated locking-dog pivoted to said bridge, with a filling appliance, a cylindrical support therefor provided with teeth extending over a portion of its periphery only, adapted to be engaged by the aforesaid locking-dog, said support being counterbalanced on the carriage and having vertical as well as rotary motion in bearings in the carriage-bridges, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

WILHELM HARTMANN.

Witnesses:

JEAN GRUND,  
FRANK H. MASON.