

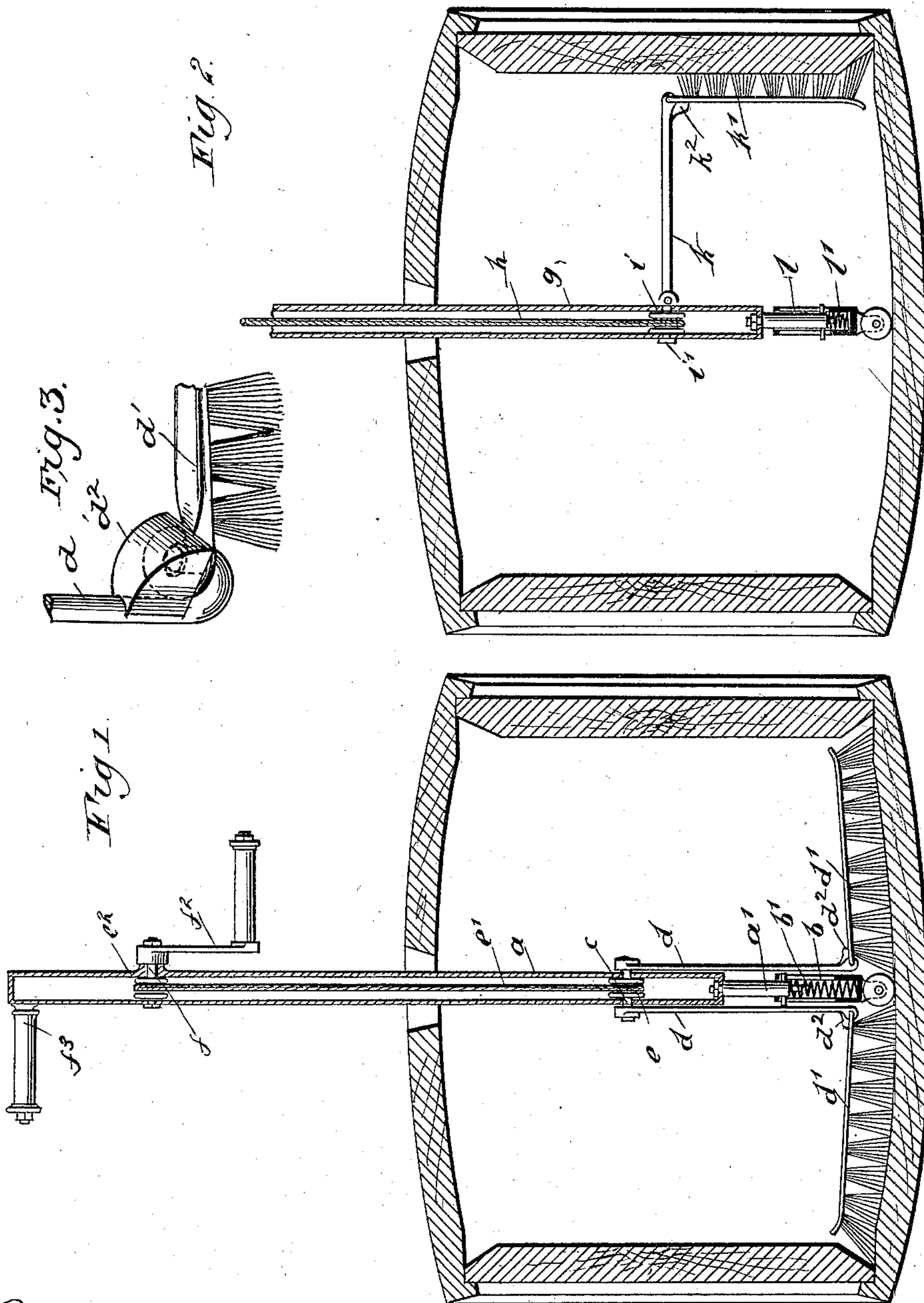
No. 612,450.

Patented Oct. 18, 1898.

A. ZINNEMANN.
BARREL CLEANER.

(Application filed Sept. 23, 1896.)

(No Model.)



WITNESSES:
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UNITED STATES PATENT OFFICE.

ADOLF ZINNEMANN, OF EINBECK, GERMANY.

BARREL-CLEANER.

SPECIFICATION forming part of Letters Patent No. 612,450, dated October 18, 1898.

Application filed September 23, 1896. Serial No. 606,765. (No model.) Patented in Germany January 1, 1896, No. 89,141, and December 19, 1896, No. 94,391; in England August 15, 1896, No. 18,135; in Belgium August 17, 1896, No. 123,046, and in Austria February 6, 1897, No. 47/384.

To all whom it may concern:

Be it known that I, ADOLF ZINNEMANN, of Einbeck, in the Kingdom of Prussia and German Empire, have invented a new and useful
5 Apparatus for Cleansing the Internal Surfaces of Casks, (for which I have obtained Letters Patent in Germany, No. 89,141, dated January 1, 1896, and No. 94,391, dated December 19, 1896; in Belgium, No. 123,046,
10 dated August 17, 1896; in Austria, No. 47/384, dated February 6, 1897, and in England, No. 18,135, dated August 15, 1896,) of which the following is a specification, reference being had therein to the accompanying drawings.

15 This invention is a brush for cleaning the interiors of casks and barrels, and particularly those used for beer. The apparatus is in general characterized by a frame carrying a swinging brush and means on the frame for
20 moving the brush.

This specification is the disclosure of two forms of my invention, while the claims define the actual scope of the conception.

Reference is to be had to the accompanying
25 drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical section of one form of the invention, and Fig. 2 is a similar view
30 of a second form of the invention. Fig. 3 is a detail view of the hinge.

The form of the invention shown in Fig. 1 is exclusively designed to clean the inner sides of the cask and has a body portion *a*,
35 capable of being inserted through the bung-hole of the cask. The lower portion of the body *a* has a downwardly-projecting pin *a'*, on which a sleeve *b* is slidable. A spring *b'* is contained within the sleeve *b* and presses
40 the pin *a'* to throw downward the sleeve *b*. The lower end of the sleeve *b* may have any suitable device to engage the interior of the cask. A shaft *c* is revolvably mounted in the lower portion of the body *a*. The ends of the
45 shaft *c* project beyond the body *a* and respectively carry fixed arms *d*. The arms *d* extend at right angles to the shaft *c* and swing in a plane parallel with the longitudinal disposition of the body *a*. The free end
50 of each arm *d* has a brush *d'* hinged thereto,

so as to swing within an angle of ninety degrees downward from the horizontal. The arm *d* has a stop-lug *d*², which prevents the brush from moving upward from the position shown in Fig. 1. Fig. 3 is a detail view of
55 these devices. Fixed to the shaft *c*, at a point within the body portion *a*, is a pulley *e*, over which a belt *e'* passes. The belt *e'* extends upward over a second pulley *e*², fixed on a shaft *f*, revolvably mounted in the upper
60 portion of the body *a*. One end of the shaft *f* projects beyond the body portion *a* and carries a hand-crank *f*². The upper portion of the body carries a rigidly-attached handle *f*³.
65 By holding the body steady through the medium of the handle *f*³ the crank *f*² may be manually turned. This imparts movement to the belt *e'*, and the shaft *c* is thereby driven. As the shaft *c* turns the brushes *d'*
70 are swung around the interior sides of the cask and are pressed against the same by centrifugal force. The device may be introduced into the cask through the bung-hole by moving the brushes *d'* to a position approximately longitudinal with the arms *d*.
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The form of the invention shown in Fig. 2 is adapted for cleaning the interior surfaces of the heads of barrels or casks. This form of the invention has a body portion *g* substantially the same as the body portion *a*. A belt
80 *h* runs through the body portion *g* and is driven by the same devices as those shown in Fig. 1. The belt *h* passes around a pulley *i*, carried on a short shaft *i'*, mounted in the body portion *g*. Hinged to the shaft *i'* is an
85 arm *k*. To the free end of the arm *k* a brush *k'* is pivoted. The hinge between the shaft *i* and arm *k* allows the arm to swing within an angle of ninety degrees rightward from the perpendicular position shown in Fig. 2.
90 The brush *k'* cannot have movement leftward in Fig. 2 because of a stop-lug *k*², similar to the lug *d*². The lower or inner end of the body portion *g* has a pin *l*, similar to the pin *a'*, which pin *l* carries a sleeve *l'*. The sleeve
95 *l'* has a device for engaging the interior of the barrel, as before described with reference to Fig. 1.

The form of the invention shown in Fig. 2 is employed the same as the form of the in-
100

vention shown in Fig. 1. By swinging the brush k' on the arm k the apparatus may be introduced into the bung-hole of the cask and upon releasing the parts they will assume the proper position. The device is pressed
5 against the side of the barrel, so as to hold the device portion steady during the operation. The brush is held to its work by centrifugal force.

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

1. The combination of a body portion, a shaft revolubly mounted in the body portion,
15 an arm carried and driven by the shaft, a brush pivotally mounted on the arm, means for turning the rotary shaft, a pin carried by the body portion, a sleeve slidable on the pin, and a spring contained within the sleeve

and engaging the pin to throw the sleeve out- 20 ward.

2. The combination of a body portion, driven brushes carried thereon, a pin carried by the body portion, a sleeve sliding on the pin, and a spring contained within the sleeve and en- 25 gaging the pin.

3. The combination of a body portion, two shafts revolubly mounted therein, a crank-arm fixed to the one shaft, a belt transmitting movement from the one shaft to the sec- 30 ond shaft, an arm fixed to the said second shaft, and a brush pivoted to the arm.

In witness whereof I hereunto set my hand in presence of two witnesses.

ADOLF ZINNEMANN.

Witnesses:

CAROLINE KEFERSTEIN,
GERTRUD BÖKEL.