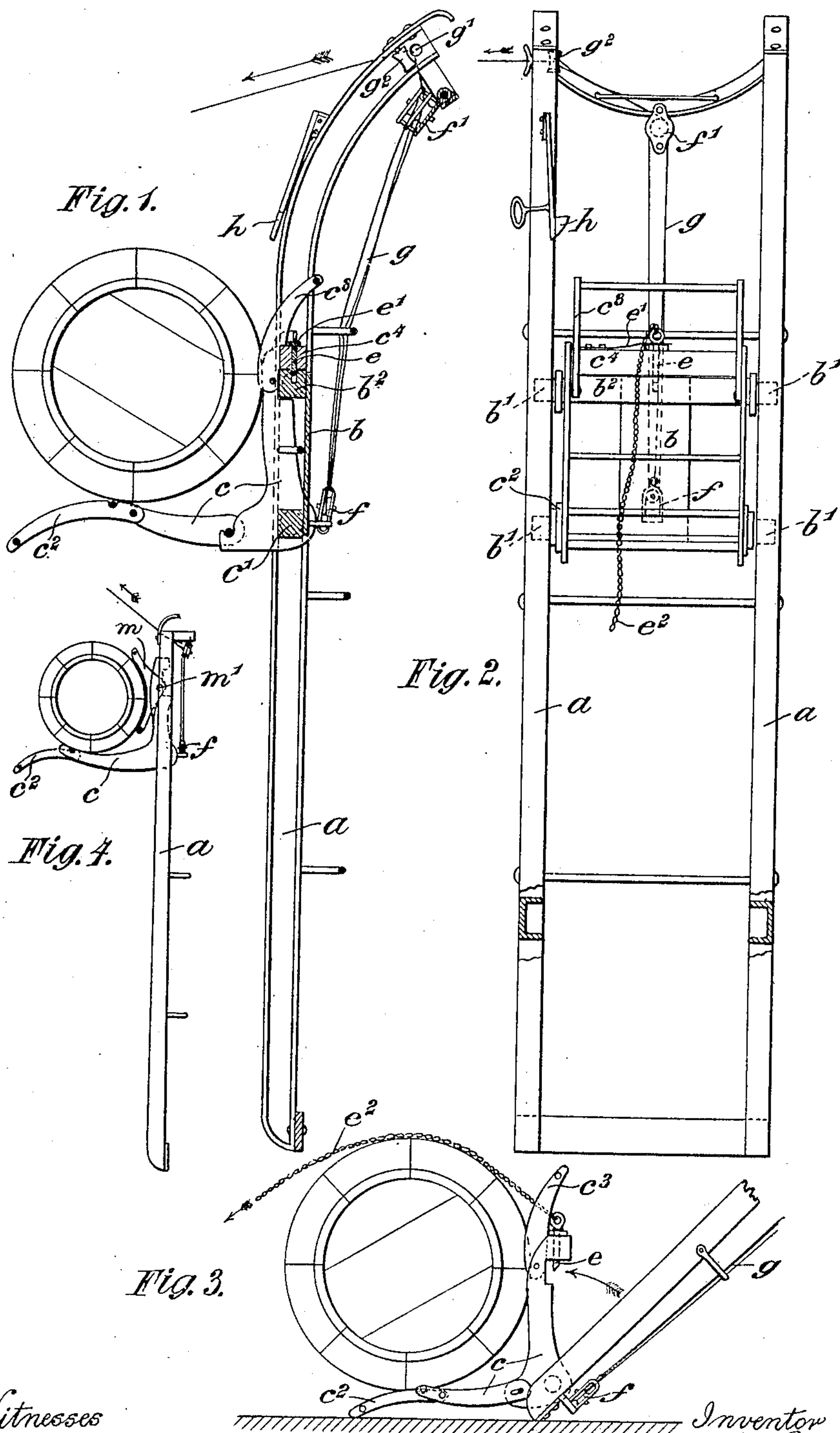


No. 876,373.

PATENTED JAN. 14., 1908.

J. MAX.  
PORTABLE LADDER OR INCLINED WAY FOR RAISING AND LOWERING  
BARRELS, &c.

APPLICATION FILED MAR. 2, 1906.



Witnesses  
Stanley Wood  
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# UNITED STATES PATENT OFFICE.

JOHN MAX, OF MILE END, LONDON, ENGLAND.

PORTABLE LADDER OR INCLINED WAY FOR RAISING AND LOWERING BARRELS, &c.

No. 876,373.

Specification of Letters Patent.

Patented Jan. 14, 1908.

Application filed March 2, 1906. Serial No. 303,863.

*To all whom it may concern:*

Be it known that I, JOHN MAX, a subject of the King of Great Britain and Ireland, residing at 13 Vallance road, Mile End, London, England, have invented certain new and useful Improvements in and Relating to Portable Ladders or Inclined Ways for Raising and Lowering Barrels, Casks, and other Goods, of which the following is a specification.

This invention relates to means for raising and lowering goods, and more especially barrels to and from cellars, the invention being more applicable to brewers' pulleys.

According to the invention I provide a ladder device or pulley of the form usually employed in sliding barrels from carts or from the ground floor into cellars, and I provide the parallel disposed and inclined members thereof of a U-shaped section in which the channel faces inwardly so as thus to form guides on each side in which rollers on a sliding carriage may run for the purpose of raising and lowering the casks, barrels, or the like thereon.

According to the invention I provide a carriage frame having mounted upon each side thereof wheels or runners for rolling or sliding within the grooves formed within the respective members of the ladder device or pulley, and I form a pivoted cradle on the said sliding frame upon which the barrel may rest, and I provide a fastening device, lock, or catch for the purpose of retaining the pivoted cradle in position firmly and securely connected to the carriage so as thus to hold the barrel in position in lowering or raising it, the lock, catch, or fastening device permitting of the pivoted cradle being released so that the barrel may be rolled upon the floor without the necessity of being lifted from the cradle.

According to the invention moreover, I provide the cradle with pivoted or hinged extensions, the cradle being provided as an angular frame, within the angle of which the barrel is carried, the hinged or pivoted extensions being secured at the respective extremities of the cradle, so that thus they may be turned down respectively for rolling the barrel off on one side or the other.

According to the invention moreover, I provide means for retaining the carriage in its uplifted position upon the ladder device or pulley, so that when once it has been drawn

into that position, its return may be prevented, and for this purpose I provide a spring bolt or bolts, which, on the carriage for example coming into its uppermost position, are depressed and spring outwardly under the rearward edge of the carriage, and thus effectively serve to prevent its downward movement.

I advantageously provide a rope and pulley device for raising the carriage or slide, that is to say, I secure a pulley block to the carriage or slide and pass a rope around a pulley block at the upper end of the ladder device or pulley, and I advantageously pass the rope through a hole or over a roller secured at the upper end of the ladder device or pulley.

In the accompanying drawings, Figure 1 is a sectional side elevation of a brewers' pulley according to the invention, Fig. 2 is a front elevation of same, Fig. 3 is a side elevation of the cradle in position to receive or discharge a barrel, and Fig. 4 shows a modification of the cradle employed when the guide members of the device are straight at their upper ends.

*a, a* are the parallel disposed and inclined members of the ladder device and of U-shaped section which form guides within which run the rollers *b'* of the sliding carriage *b*. A cradle *c* upon which the barrel may rest is pivoted at *c'* to the carriage *b* and is provided with hinged or pivoted extensions *c<sup>2</sup>*, *c<sup>3</sup>* at its respective extremities, which may be turned down respectively for rolling the barrel off on one side or the other. In order to firmly secure the cradle *c* to the carriage *b* in position for holding the barrel so that it may be raised or lowered a suitable catch or lock is provided which may consist, as shown, of a pin *e* passing through transverse members *c<sup>4</sup>* and *b<sup>2</sup>* of the cradle *c* and carriage *b* respectively. The pin *e* is normally pressed inwards by the action of a spring *e'* secured thereto and to the cradle *c*, and is provided with a beveled end, so that when the cradle *c* is turned back on to the carriage *b* as shown in Fig. 1, the pin *e* will be forced into position so as to lock the cradle and carriage securely together.

In order to release the cradle *c* so that the barrel may be rolled upon the floor without the necessity of being lifted from the cradle, the spring pin *e* is withdrawn from engagement with the transverse member *b<sup>2</sup>* of the carriage *b*, for instance by means of a chain



$e^2$ , whereupon the cradle  $c$  carrying the barrel falls outwardly to the position shown in Fig. 3.

For raising and lowering the carriage  $b$  pulley blocks  $f f'$  are provided on the carriage  $b$  and upper end of the ladder device respectively, over which passes a rope  $g$  which may advantageously pass through a hole  $g'$  and over a roller  $g^2$  secured at the upper end of the ladder device.

In order to maintain the carriage in its uplifted position upon the ladder device or pulley and prevent its return after it has been drawn into that position, a spring catch or catches  $h$  may be provided, which, on the carriage for example coming into its uppermost position, are depressed and spring under the rearward edge of the carriage.

In Fig. 4 the channel-shaped side members  $a, a$  of the ladder device are shown straight at their upper ends and in order to remove the barrel when it reaches the top, a second angular shaped cradle  $m$  is pivoted at  $m'$  to the cradle  $c$  so that when the barrel is pulled it will rest in the cradle  $m$  which will turn on the pivot  $m'$  and thus bring the barrel into proper position for discharging.

What I claim as my invention and desire to secure by Letters Patent is:—

1. Apparatus for raising and lowering goods such as barrels and the like, consisting of a portable ladder or inclined way, a wheeled table adapted to move upon said ladder or inclined way, a supporting cradle pivoted to said table, and a catch for fixedly securing the supporting cradle to said table,

said catch being capable of disengaging said supporting cradle so that it may pivot upon the said table, substantially as described.

2. Apparatus for raising and lowering goods such as barrels and the like, consisting of a portable ladder or inclined way, a wheeled table adapted to move upon said ladder or inclined way, a supporting cradle pivoted to said table, a catch for fixedly securing the supporting cradle to said table, said catch being capable of disengaging said supporting cradle so that it may pivot upon the said table, said supporting cradle being provided of angular form and having extensions pivoted to its respective extremities, capable of being respectively turned down, substantially as described.

3. Apparatus for raising and lowering goods such as barrels and the like, consisting of a portable ladder or inclined way, a wheeled table adapted to move upon said ladder or inclined way, a supporting cradle pivoted to said table, and a catch for fixedly securing the supporting cradle to said table, said catch being capable of disengaging said supporting cradle so that it may pivot upon the said table, and a spring catch for automatically securing the table on reaching its uppermost position.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

JOHN MAX.

Witnesses:

WILLIAM EDWARD EVANS,  
EVAN T. EVANS.