

No. 768,808.

PATENTED AUG. 30, 1904.

H. J. KRÜMPELMANN.
BARREL HOIST.

APPLICATION FILED NOV. 2, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

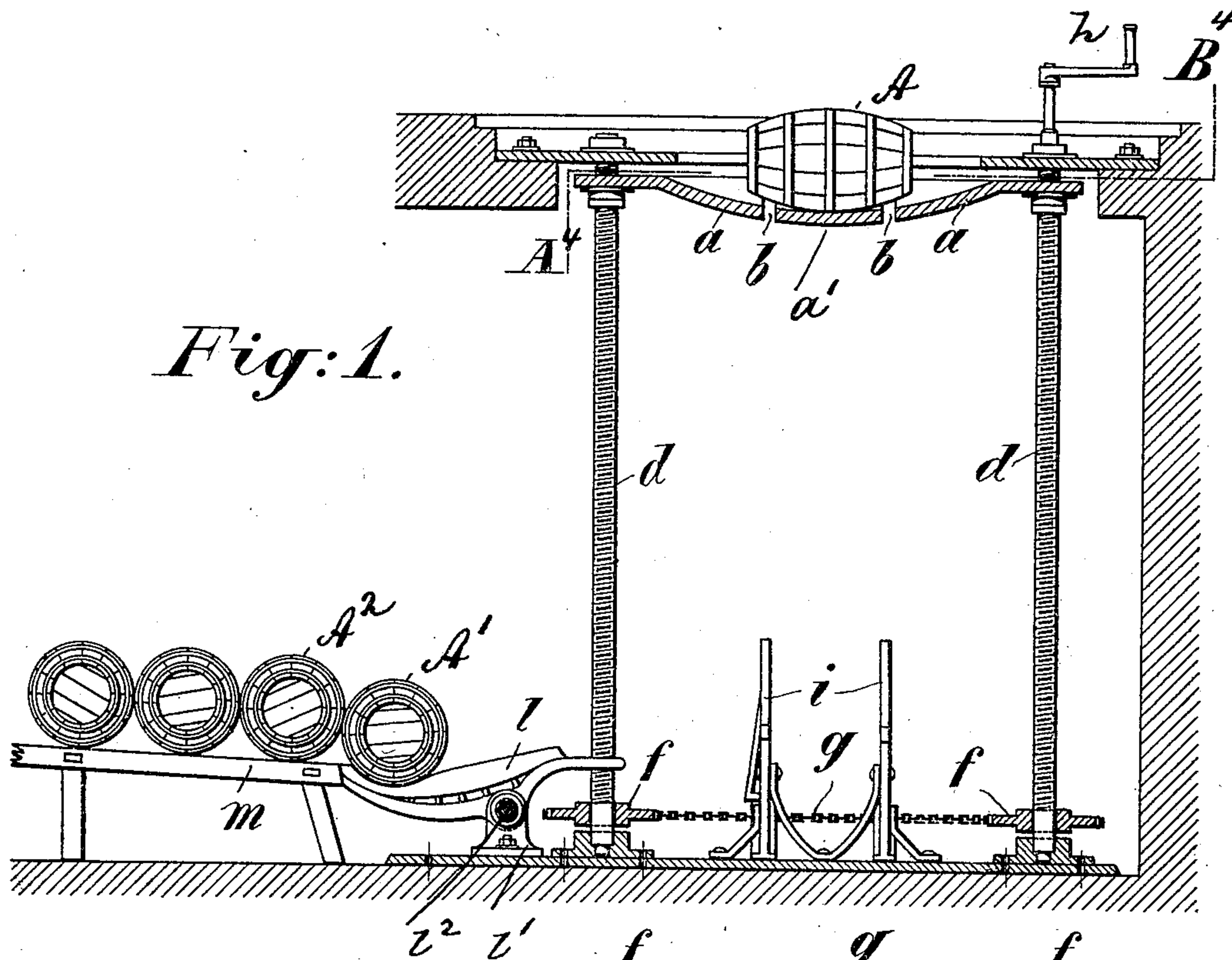


Fig: 1.

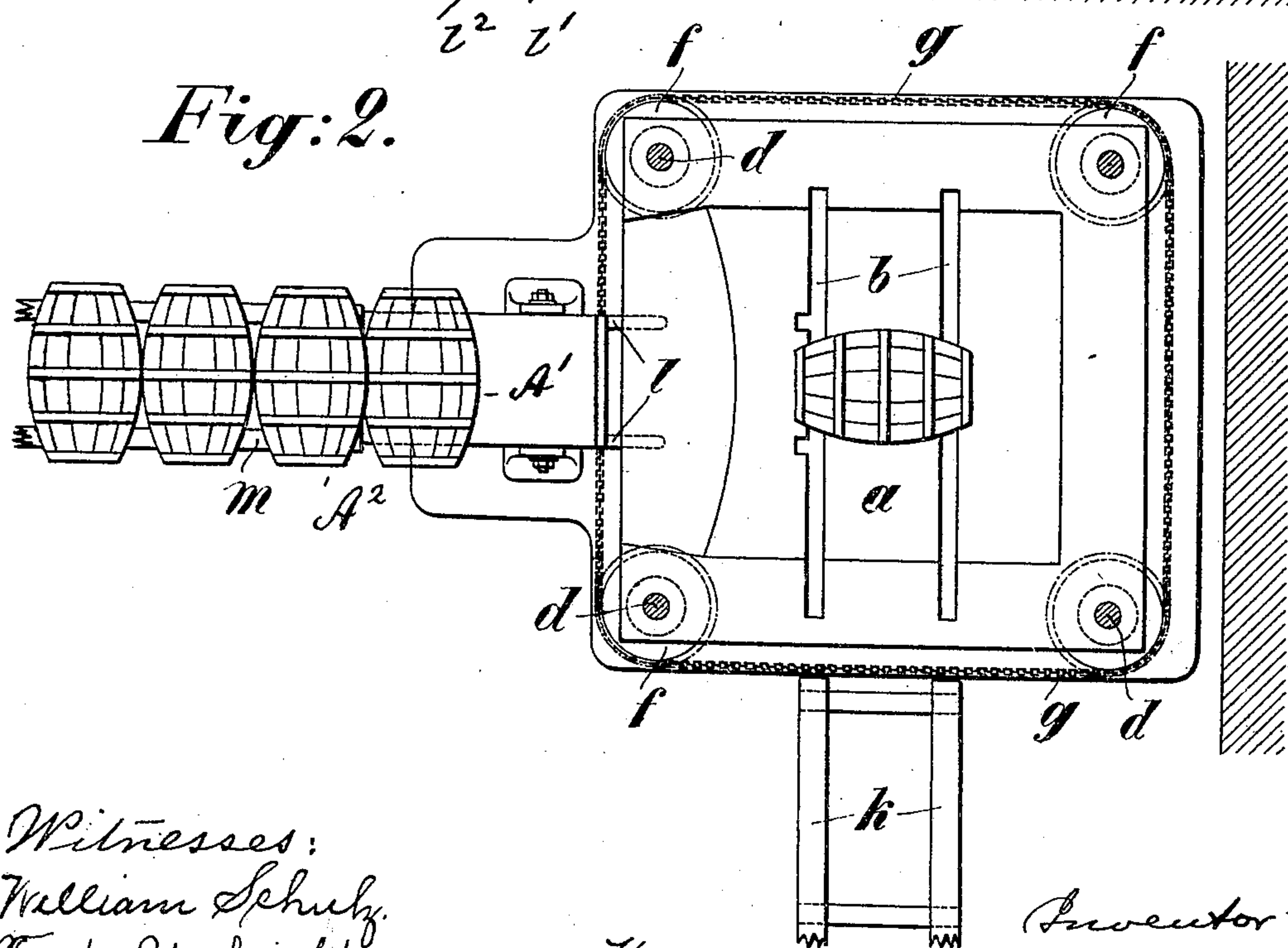


Fig: 2.

Witnesses:
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Fig: 3.

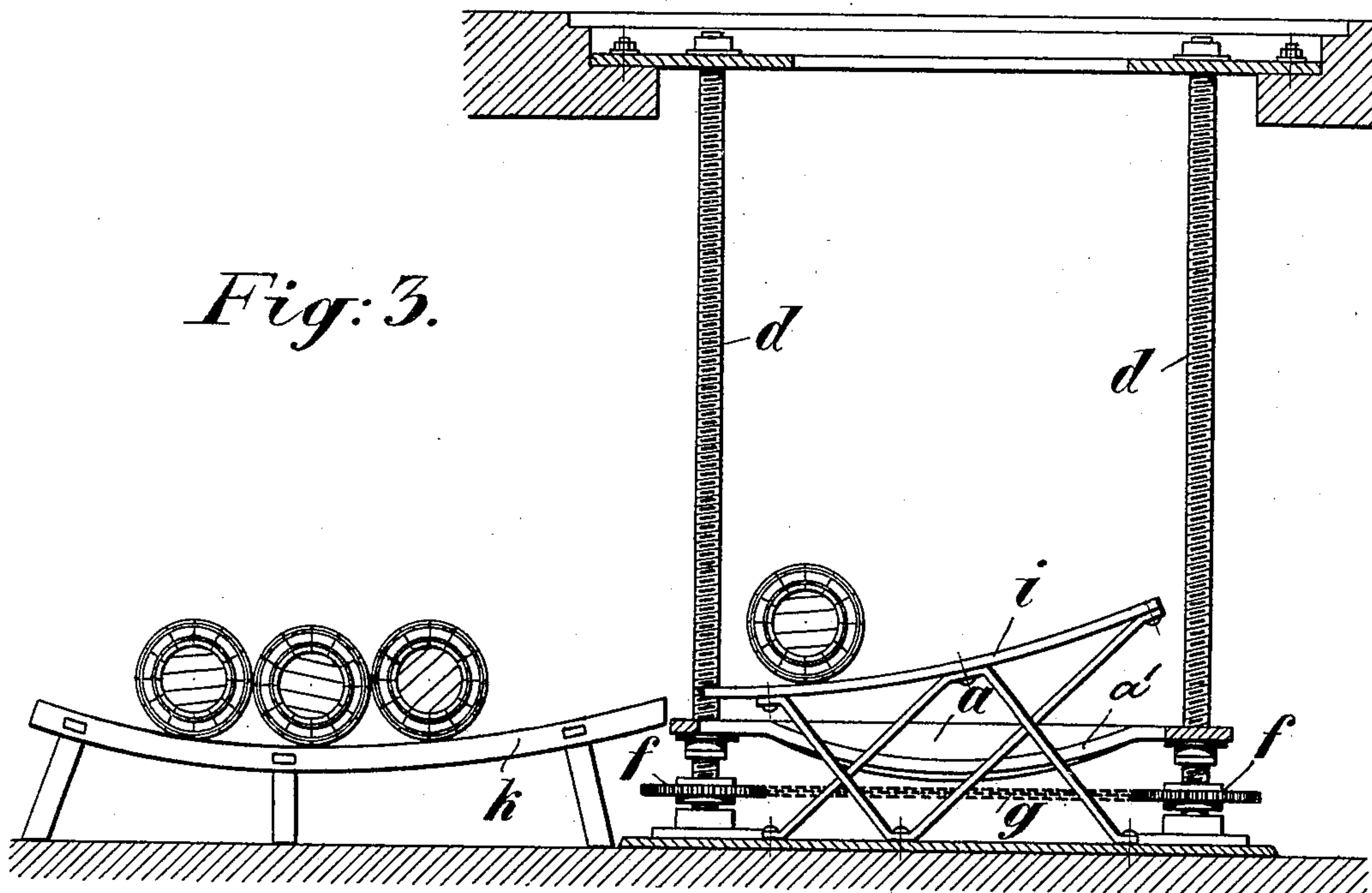
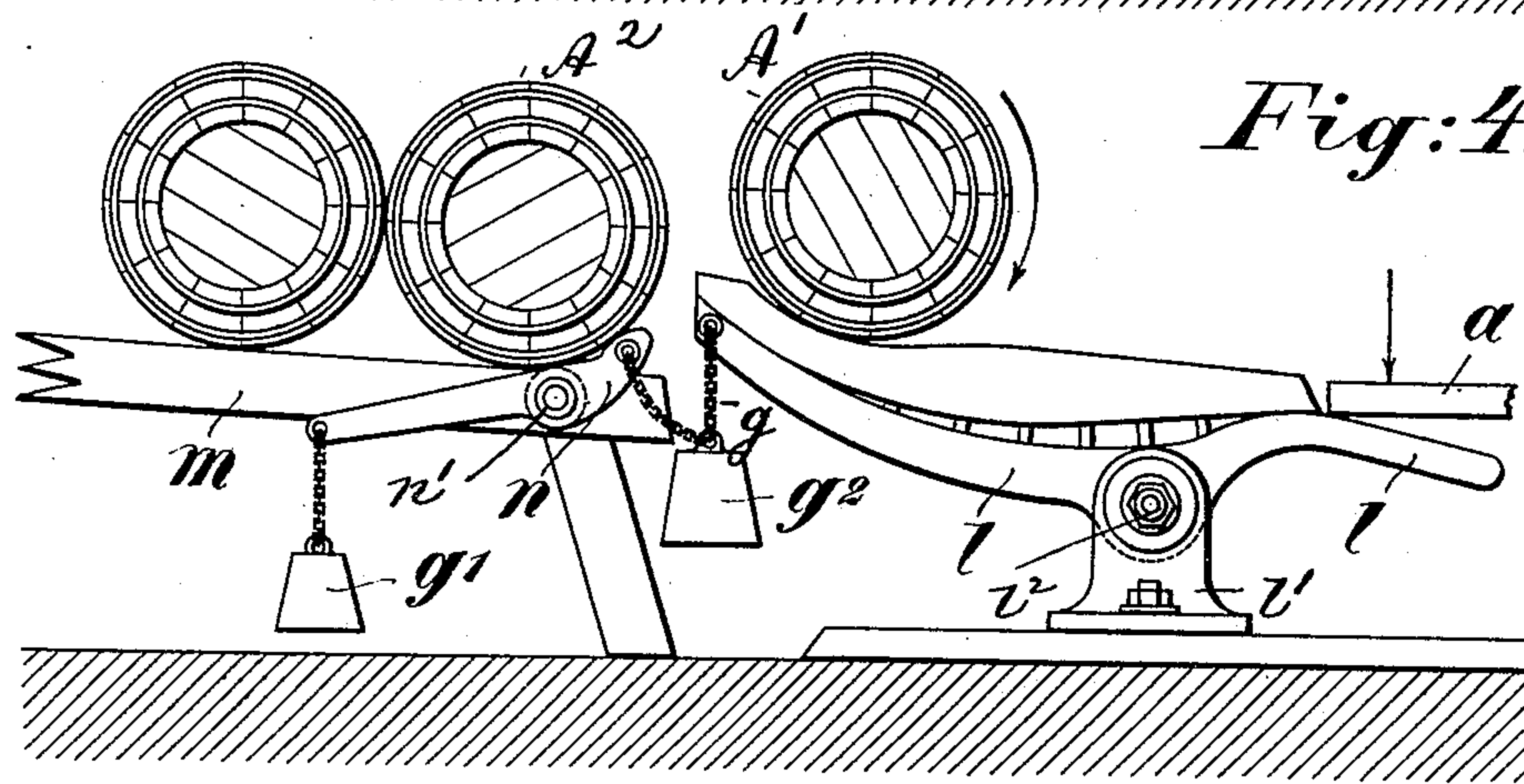


Fig: 4.



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Inventor:
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UNITED STATES PATENT OFFICE.

HERMANN JULIUS KRÜMPPELMANN, OF DATTELN, GERMANY.

BARREL-HOIST.

SPECIFICATION forming part of Letters Patent No. 768,808, dated August 30, 1904.

Application filed November 2, 1903. Serial No. 179,476. (No model.)

To all whom it may concern:

Be it known that I, HERMANN JULIUS KRÜMPPELMANN, a citizen of Germany, residing at Datteln, Westphalia, Germany, have invented new and useful Improvements in Barrel-Hoists, of which the following is a specification.

This invention relates to an apparatus for raising and lowering barrels, the invention being particularly designed for transferring barrels from the street or yard to the cellar.

By my invention the barrels are not liable to become injured while being hoisted and the men manipulating the hoist are not exposed to danger from the barrels in motion.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of my improved barrel-hoist; Fig. 2, a horizontal section on line A¹ B¹, Fig. 1; Fig. 3, a side elevation, partly in section, taken at right angles to Fig. 1; and Fig. 4, a detail of the barrel-delivering gauntree.

The letter *a* represents a vertically-movable or reciprocating platform adapted to travel between the street-level and the pit or cellar. The platform *a* is concaved, as at *a'*, to readily seat a barrel *A* and is here provided with a pair of slits or openings *b*. Screw-shafts *d*, one of which carries a crank-handle *h*, engage tapped openings or nuts of the platform. These shafts carry sprocket-wheels *f*, connected by a chain *g*, so that the platform will be raised or lowered by turning the handle *h*, as will be readily understood. If it is desired to increase the speed of the hoist, a multiple gear may be introduced.

Within the pit or cellar are mounted a pair of stationary upright arms *i*, arranged in vertical alinement with the openings *b*, so that as the platform is lowered to a level below the upper ends of the arms the latter will be projected through the platform and lift the barrel *A*. The arms *i* have an inclined upper surface or run, Fig. 3, along which the displaced barrel will roll upon a receiving-gauntree *k*, placed in the pit opposite the lower ends of the arms. At right angles to the gauntree *k* is mounted in the pit a two-armed lever *l*, fulcrumed to a support *l'* at *l''* and projecting with one of its arms beneath the platform

a. The vertical elevation of the arms *i* is greater than that of the lever *l*, so that the descending platform *a* will encounter the arms before tilting the lever. Opposite the lever *l* there is arranged in the pit a delivery-gauntree *m*, set at right angles to the receiving-gauntree *k*. Between the gauntree *m* and the lever *l* may be arranged a suitable abutment for liberating but one barrel at a time at each tilting movement of the lever. This abutment is shown to consist of a curved stop *n*, fulcrumed to gauntree *m* at *n'* and carrying at one end a light weight *g'*. The other end of the stop *n* is connected to lever *l* by a chain *g*, carrying a heavy weight *g''*.

As the lever *l* is tilted by the descending platform *a* the barrel *A'* on the lever will roll upon the platform ready to be hoisted. By the tilting of lever *l* the weight *g''* will be raised, Fig. 4, to permit the descent of the weight *g'*. The weight *g'* will thus swing the curved stop *n* up against the last barrel *A''* of gauntree *m*, and thereby hold the row of barrels in position. As the platform *a* ascends the lever *l* is released and the weight *g''* will pull the stop down, so that the barrel *A''* may roll upon lever *l*.

It will be seen that by my invention a barrel rolled from the street-level upon the hoist *a* is first lowered and delivered to the receiving-gauntree and that then a barrel from the delivery-gauntree is automatically deposited upon the platform ready to be elevated. In this way the hoisting of the barrels is facilitated and accelerated, while injury to the workmen from the barrels in motion is avoided.

What I claim is—

1. A barrel-hoist provided with a vertically-reciprocating concaved slitted platform, a pair of stationary arms below the platform and having inclined runs adapted to be projected through the same, and a receiving-gauntree opposite the arms, substantially as specified.
2. A barrel-hoist provided with a vertically-reciprocating platform, a receiving-gauntree, means for automatically discharging a barrel from the platform to the receiving-gauntree, a delivery-gauntree mounted at right angles to the receiving-gauntree, and means for automatically delivering a barrel from the deliv-

ery-gauntree to the platform, substantially as specified.

3. A barrel-hoist provided with a vertically-reciprocating slitted platform, a pair of stationary arms having inclined runs and adapted to be projected through the platform-slits, a receiving-gauntree opposite the arms, a delivery-gauntree placed at right angles to the receiving-gauntree, and means for delivering a barrel therefrom to the platform, substantially as specified.

4. A barrel-hoist provided with a vertically-

reciprocating platform, a delivery-gauntree, a two-arm lever opposite the delivery-gauntree and projecting beneath the platform, a curved weighted stop pivoted to the delivery-gauntree, and a weighted chain connecting the stop to the lever, substantially as specified. 15

Signed by me at Düsseldorf, Germany, this 19th day of October, 1903.

HERMANN JULIUS KRÜMPELMANN.

Witnesses:

PETER LIEBER,

WILLIAM ESSENWEIN.