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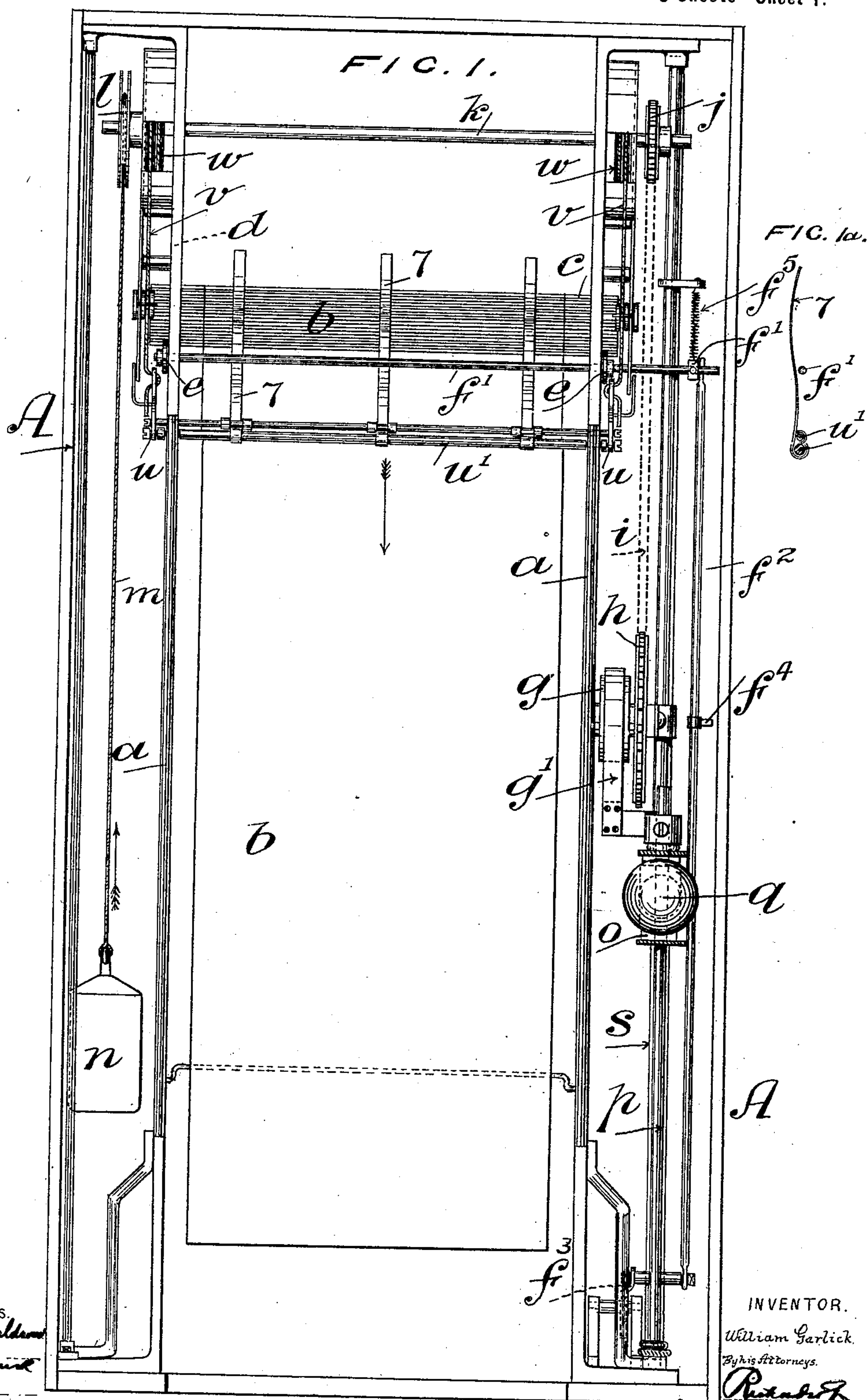
Patented Apr. 30, 1901.

W. GARLICK.  
TOWEL RACK OR STAND.

(No Model.)

(Application filed Aug. 29, 1900.)

3 Sheets—Sheet 1.



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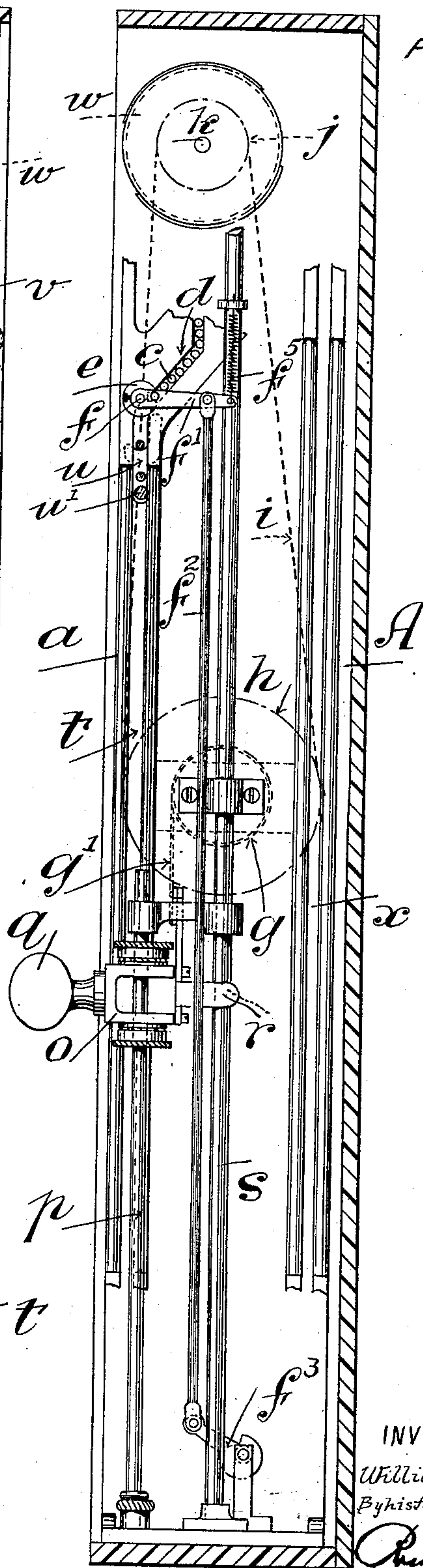
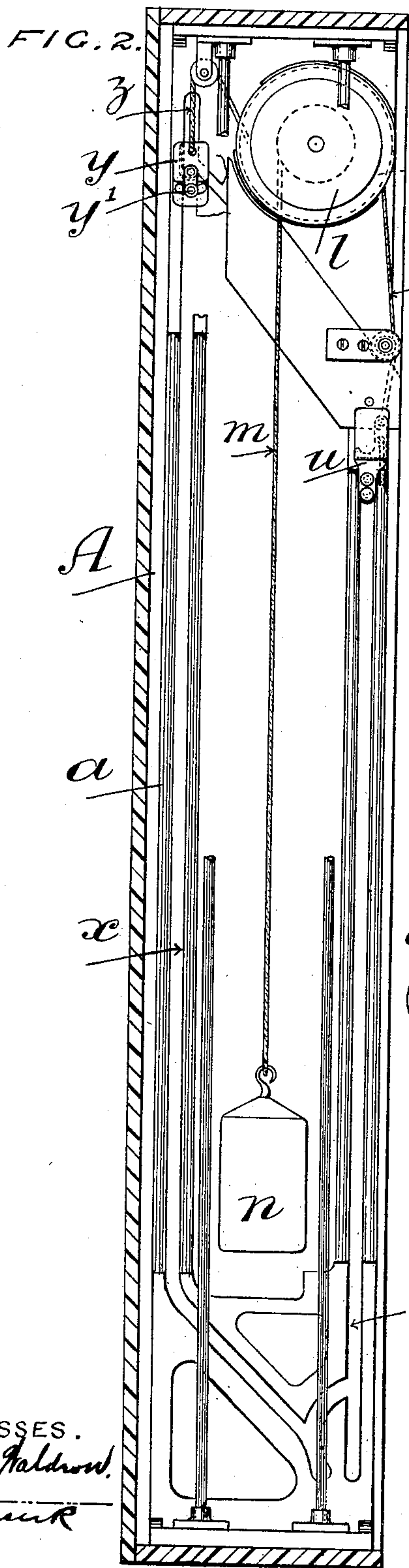
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(No Model.)

(Application filed Aug. 29, 1900.)

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WITNESSES.  
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INVENTOR.  
*William Garlick*  
By his Attorneys,  
*Richardson*

No. 672,896.

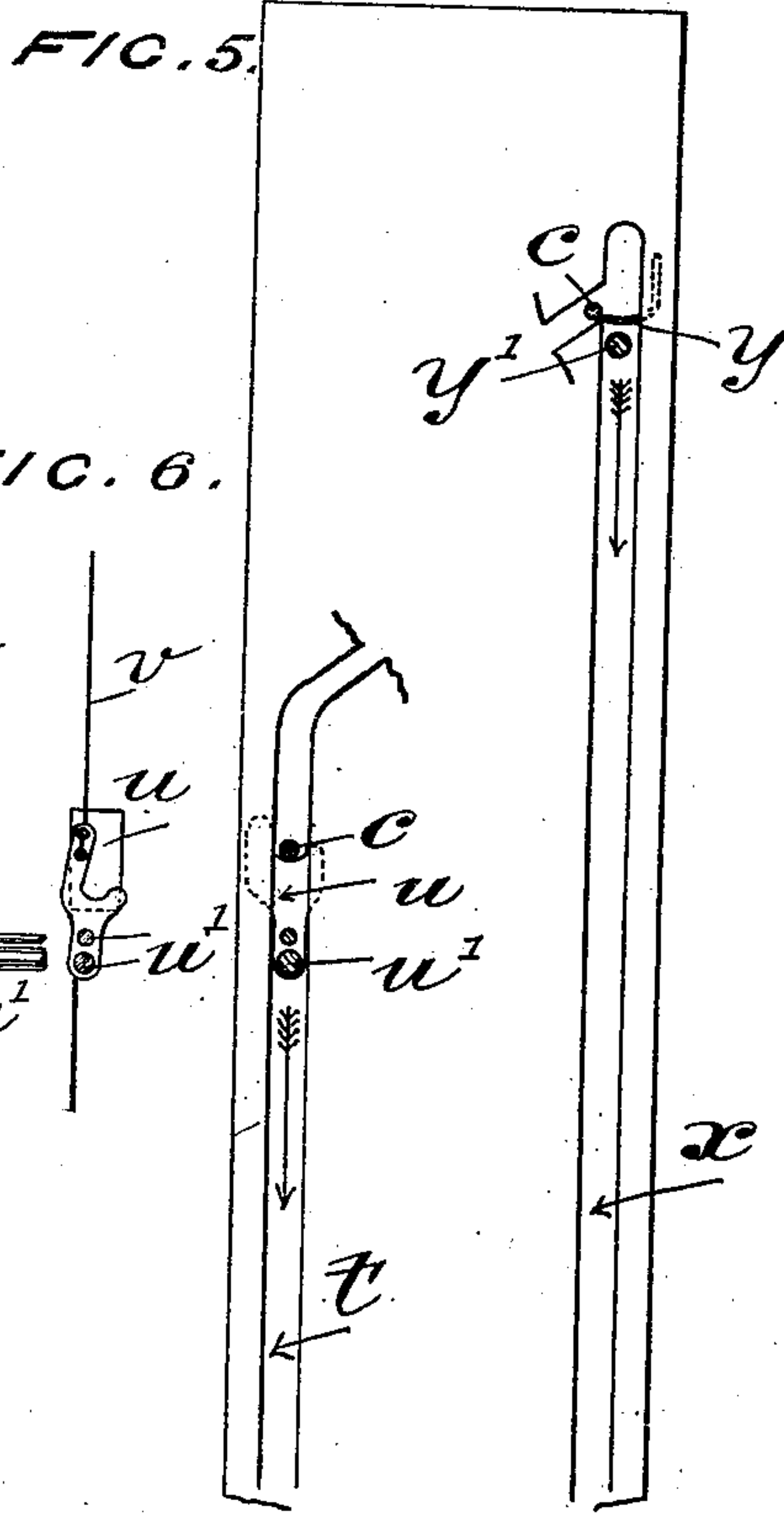
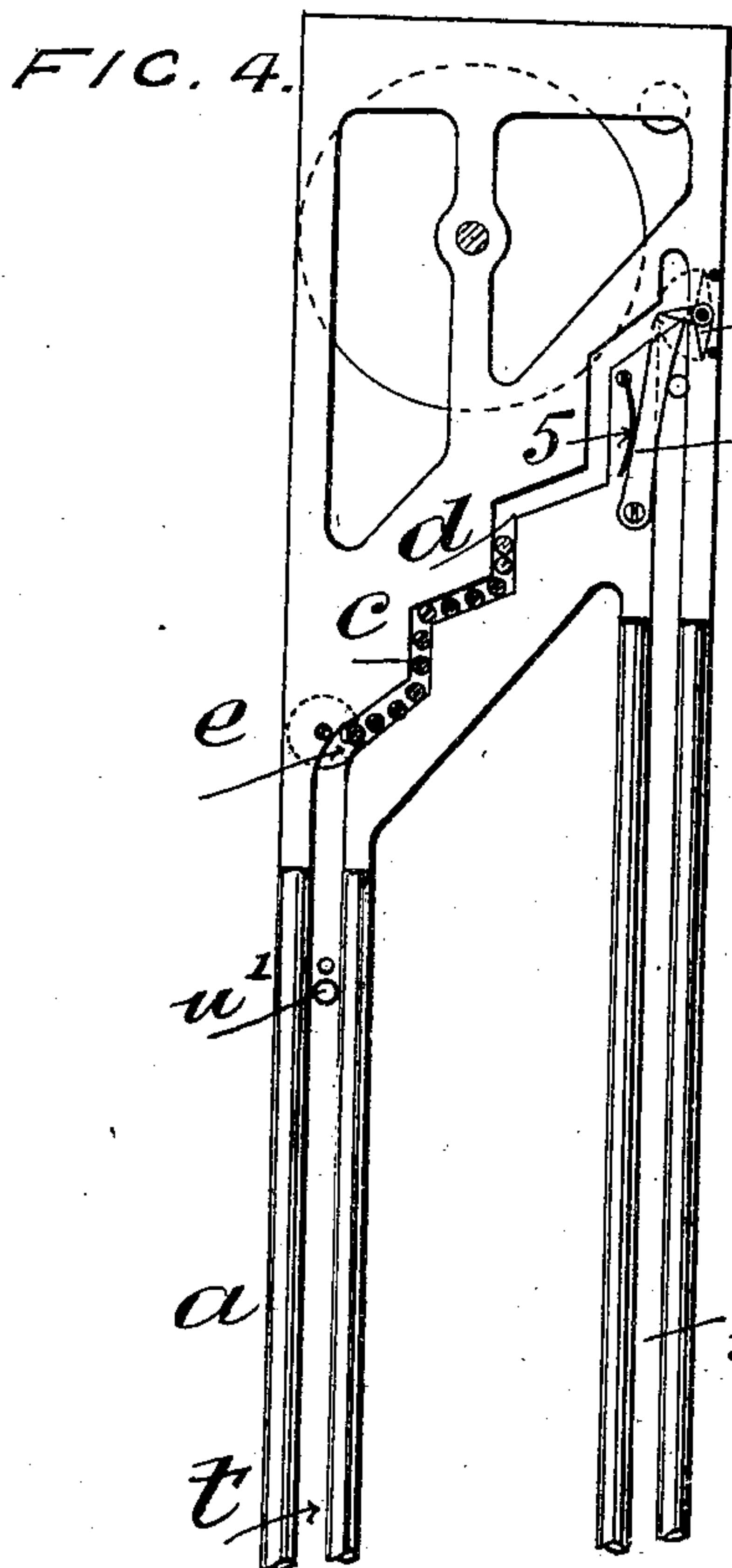
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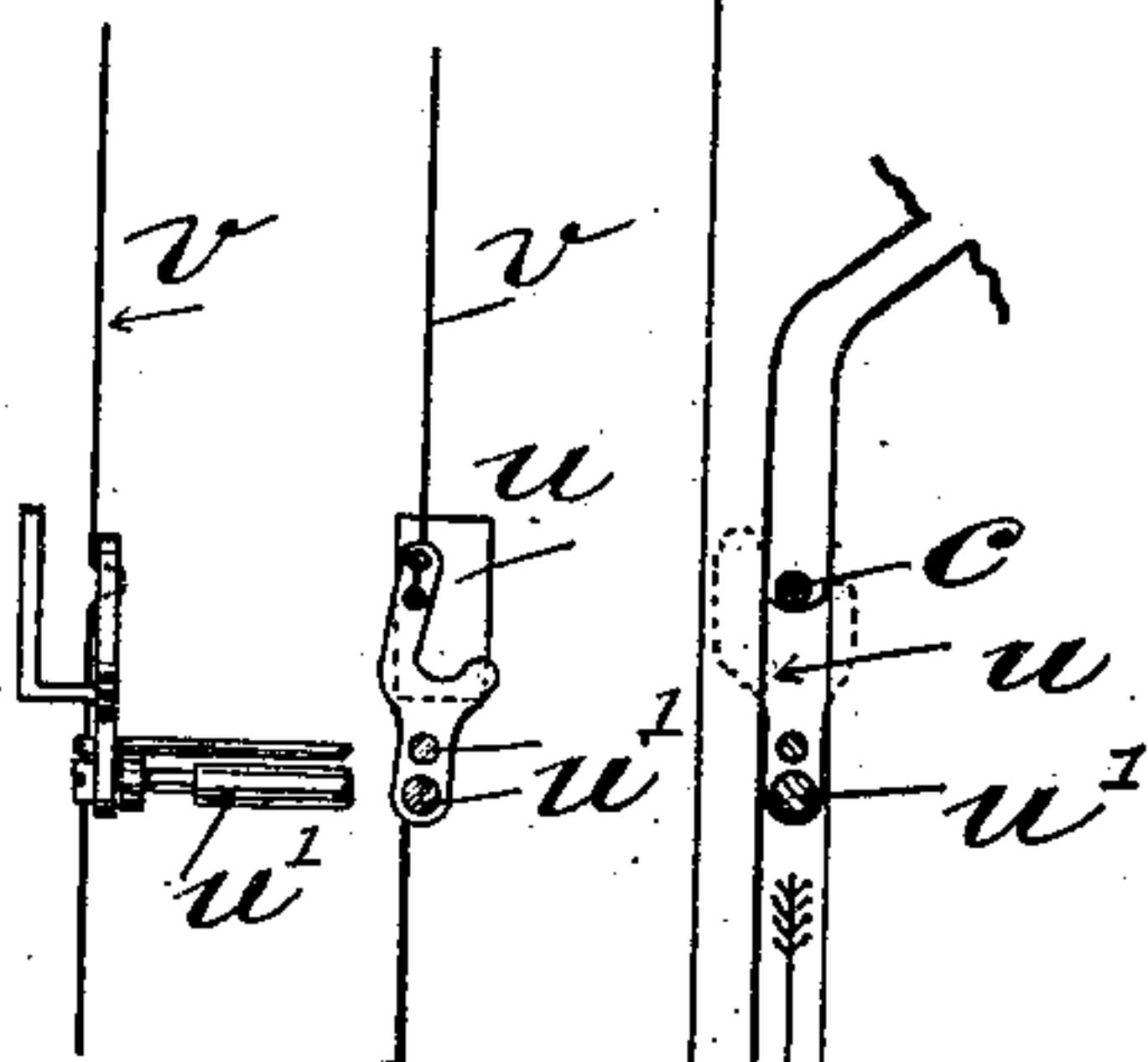
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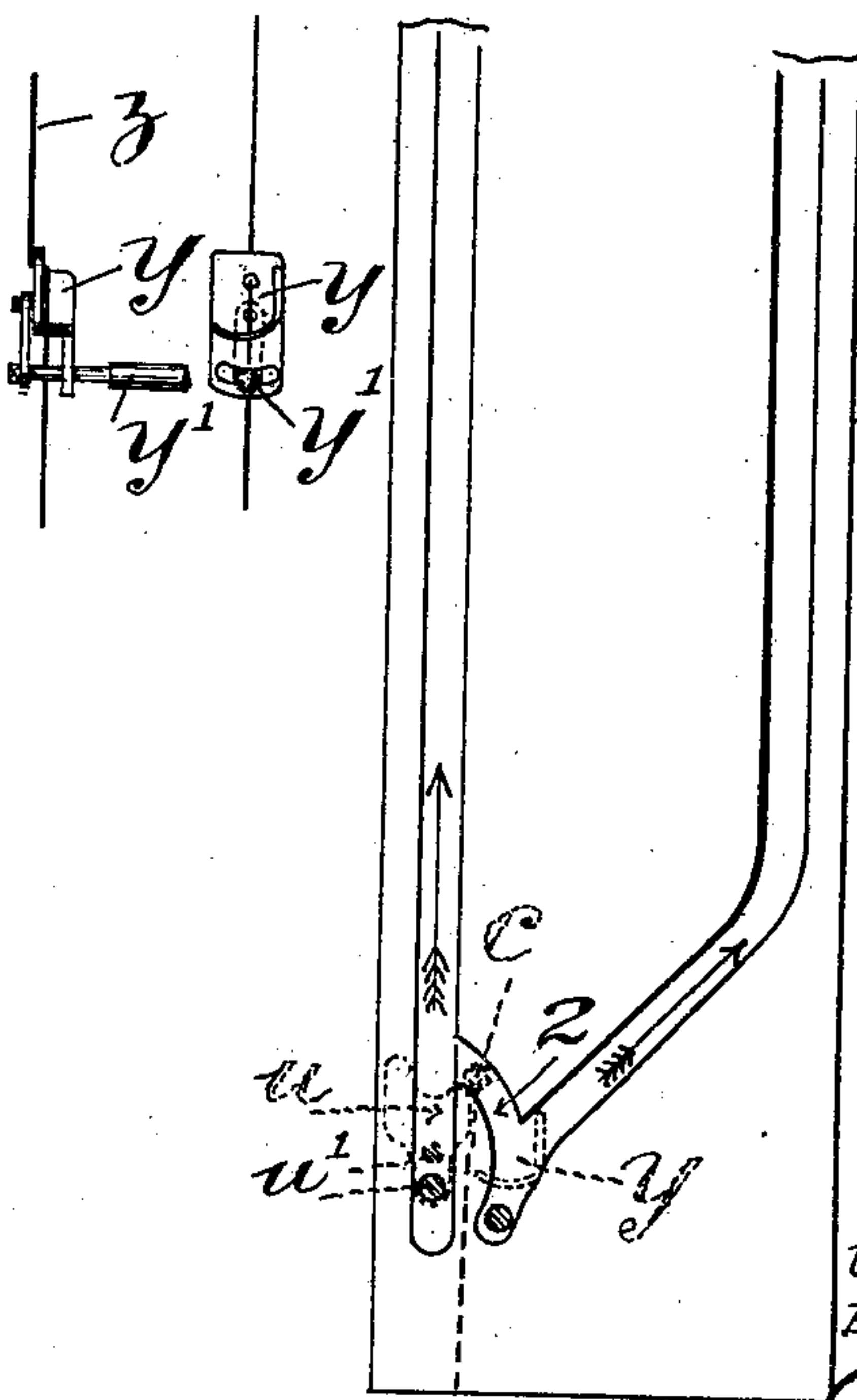
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**FIG. 6.**



**FIG. 7.**



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# UNITED STATES PATENT OFFICE.

WILLIAM GARLICK, OF ASHTON-ON-MERSEY, ENGLAND.

## TOWEL RACK OR STAND.

SPECIFICATION forming part of Letters Patent No. 672,896, dated April 30, 1901.

Application filed August 29, 1900. Serial No. 28,423. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM GARLICK, gentleman, a subject of the Queen of Great Britain and Ireland, residing at Heathfield, Ashton-on-Mersey, in the county of Chester, England, have invented certain new and useful Improvements in Towel Racks or Stands, (for which I have made an application for patent in Great Britain, No. 2,034, dated February 1, 1900,) of which the following is a specification.

My said invention relates to improvements in the method of and means for automatically supplying clean towels on the prepayment of a coin or coins, suitable for use at railway-stations, railway-carriages, public buildings, lavatories, and similar situations.

The accompanying three sheets of drawings clearly illustrate my invention.

Figure 1 shows in front elevation an apparatus constructed in accordance with my invention, the front or door of the casing being removed in order to disclose the mechanism, and Fig. 1<sup>a</sup> is a detail. Fig. 2 is a view at right angles looking from the left-hand side of Fig. 1. Fig. 3 is a similar view from the right-hand side of Fig. 1. Figs. 4 to 7 are details.

In constructing an apparatus in accordance with my invention I provide a suitable casing A to inclose the mechanism. Within the casing A are secured two side frames *a a*. I provide any suitable number of towels *b*, one end of each towel being looped and a metallic rod *c* threaded therein. The side framework *a* is provided with zigzag (or it might be straight) slots *d*, arranged in an inclined direction, the ends of the towel-rods *c* being disposed therein. The towel-rods *c* tend to roll by gravity to the bottom of the slots *d*, the leading one of the series falling into a gap cut in disks *e*, mounted on a cross shaft or spindle *f*. In this position the disks *e* confine the towel-rods *c* within the grooves or slots *d*. Upon the shaft *f* is fixed a finger *f'*, to which is attached a rod *f*<sup>2</sup>, connected at its lower end to a pivoted lever *f*<sup>3</sup>, so that the rod *f*<sup>2</sup> may be moved vertically. Mounted to revolve in bearings in one of the frames *a* is a band-pulley *g*, having secured thereto a chain-wheel *h*, connected by means of a chain *i* with another chain-wheel *j*, mounted on a cross-shaft *k*. The other end of the cross-

shaft *k* carries a grooved pulley *l*, upon which is wound the cord *m* of a counterbalance weight or load *n*. A band *g'* upon the pulley *g* is connected to a carriage *o*, adapted to be slid upon a rod *p* by means of a handle *q*. The carriage *o* is or may be provided with ball-bearings to reduce the friction upon the rod *p*. To prevent the rotation of the handle and carriage upon the rod, the carriage is formed at the rear with fingers *r*, embracing a rod or guide *s*. The front of the side frames *a a* are formed with guides or slots *t*, within which slide the rods *u'* of a carrier *u*, having attached thereto cords *v*, passing around pulleys *w*, mounted on the cross-shaft *k*. Front and end elevations, respectively, of one end of the carrier *u* are shown in Fig. 6. At the back of the side frames *a a* are also slots or guides *x*, within which slides the rod *y'* of another carrier *y*, connected by means of cords *z* to the pulleys *w*. In Fig. 7 are shown front and side elevations, also, of one end of the carrier *u*.

For the better comprehension of my invention I will now describe the action of the apparatus when it is desired to obtain a clean towel.

In conjunction with my apparatus I employ any suitable coin-feed mechanism. On the insertion of a coin of the proper value the coin-feed mechanism is arranged to depress or traverse the rod *f*<sup>2</sup>. This might be effected by means of a lever of the coin-feed mechanism engaging with a finger or projection *f*<sup>4</sup> on the rod *f*<sup>2</sup>. The rod *f*<sup>2</sup> is thrust downward against the action of a spring *f*<sup>5</sup>, rocking the shaft *f* and turning the disks *e*, thus allowing the first towel-rod *c* occupying the gaps in the disks *e* to fall down the slots or guides *t* into the carrier *u*, as shown in Fig. 3. The spring *f*<sup>5</sup> returns the shaft *f* to its normal position, when the succeeding towel-rod *c* rolls into and occupies the gaps in the disks *e* in readiness for the next call. The handle *q*, which projects outside a slot in the front of the casing, is then depressed by the operator. The band *g'* thus rotates the pulley *g* and chain-wheel *h*, communicating motion to the cross-shaft *k*. This has the effect of winding on the cord *m* upon the grooved pulley *l* and raising the load *n*. At the same time the pulleys *w* are rotated, paying out the cords *v* and



the cords *z*, whereby the front carrier *u*, bearing the towel-rod *c* and towel *b*, suspended therefrom, and the empty back carrier *y* fall by gravity down the slots *t* and *x*, respectively. Near the bottom of the slot *t* (see Fig. 4) are pivoted angularly-arranged fingers 1. The cross-rods *u'* of the carrier *u* being at a lower level than the towel-rod *c* come first into contact with one of the fingers 1, turning them in the position shown in dotted lines. The rods *u'* of the carrier *u* pass below the fingers 1; but the towel-rod *c* is prevented from following by the fingers when in the position shown in dotted lines, Fig. 4, and the towel-rod *c* falls down the curved or inclined slots 2, as shown in Fig. 5, and thus into the carrier *y*. In its passage down the curved slots 2 the towel-rod *c* comes into contact with a pivoted loaded finger 3, which permits the towel-rod *c* to pass, the load afterward serving to return the pivoted finger 3 to its normal position. The casing *A* is placed upon a suitable pedestal, and the towel *b*, now projecting below the casing *A*, can be used by the person requiring it. The user or the next person requiring a towel returns the handle *q* to its normal position, thus reversing the direction of rotation of the pulleys *g w* and raising the now-empty front carrier *u* and back carrier *y*, which bears the dirty towel. On rising the rods *u'* of the front carrier *u* return the pivoted fingers 1 into their normal position. As the back carrier *y* travels through a greater distance than the front carrier *u*, their respective cord-pulleys are correspondingly varied in diameter to accomplish this. When the back carriage *y*, bearing the dirty towel, reaches the end of its upward traverse, the towel-rod *c* first comes into contact with spring-gates 4, which are thrust open against the action of a spring 5, and then against double pivoted fingers 6, which are turned into the position shown in dotted lines, permitting the rod *c*, bearing the dirty towel, to enter the zigzag slots *d* behind the supply of clean towels. After the passage of the rod *c* the lower of the pivoted fingers 6 act as stops and prevent the rod *y'* of the back carrier *y* from entering the slots *d*. This process is repeated until all the clean towels have been used. In order to notify the public of this fact, the last of the series of rods *c* instead of being provided with a towel might carry a suitable inscription announcing that the supply of clean towels was exhausted, which inscription could be displayed before a glazed aperture when the rod *c*, being the same, was received by the notched disks *e*.

To straighten out the towels, the rods *u'* of the front carrier *u* are provided with bent fingers 7, (see Fig. 1<sup>a</sup>,) which smooth out the towels and thrust the same away from the rods *u'* of the carrier *u* when the same is being raised.

To straighten out the dirty towels in their ascent, a spring-rod 8 is provided, which bears against the towel in its upward passage.

I declare that what I claim is—

1. In combination in an apparatus for delivering clean towels, a casing, guides therein, rods adapted to move in the guides and carrying the towels, mechanism for releasing a towel, a carrier arranged to receive the released towel-rod, said carrier being movable vertically to protrude the towel out of the casing, and a second carrier to receive the towel and remove the same to the back of the apparatus, substantially as described.

2. In combination, in apparatus for delivering clean towels, the casing, inclined ways or guides, a series of rods to slide in said ways and carrying the towels, notched disks for maintaining the towel-rods within the guides and for feeding them forward one by one, and means for rotating the notched disks to feed forward the towels, substantially as described.

3. In combination in apparatus of the indicated nature a carrier to receive the clean towel and a carrier to receive and remove the towel when dirty, means for reciprocating the carriers to permit the clean towel to be protruded beyond the casing of the apparatus and for removing the used towel substantially as described.

4. In combination in apparatus of the indicated nature the casing having the inclined ways or guides, a plurality of towels carried upon rods sliding in said inclined ways or guides, notched disks for confining the towel-rods within the guides, means for rotating the disks to feed forward one of the towel-rods, a carrier to receive the clean towel and a carrier to remove the towel when used, means for reciprocating the carriers to permit the clean towels to be protruded beyond the casing of the apparatus and be exchanged from one carrier to the other and means for removing the dirty towel and replacing the rod carrying the same in the inclined guides substantially as described.

5. In combination in an apparatus for delivering clean towels, the casing having the guideways, rods movable in said guideways and carrying towels, a carrier for the said rods, means for raising and lowering the said carrier, a carrier for removing the soiled towels and elevating them, means whereby the towels are transferred from the carrier first mentioned to the second carrier, and means whereby the towel-rods are transferred from the second carrier back to the upper ends of the guides, substantially as described.

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

WILLIAM GARLICK.

Witnesses:

JOSHUA ENTWISLE,  
ALFRED YATES.