

No. 667,409.

Patented Feb. 5, 1901.

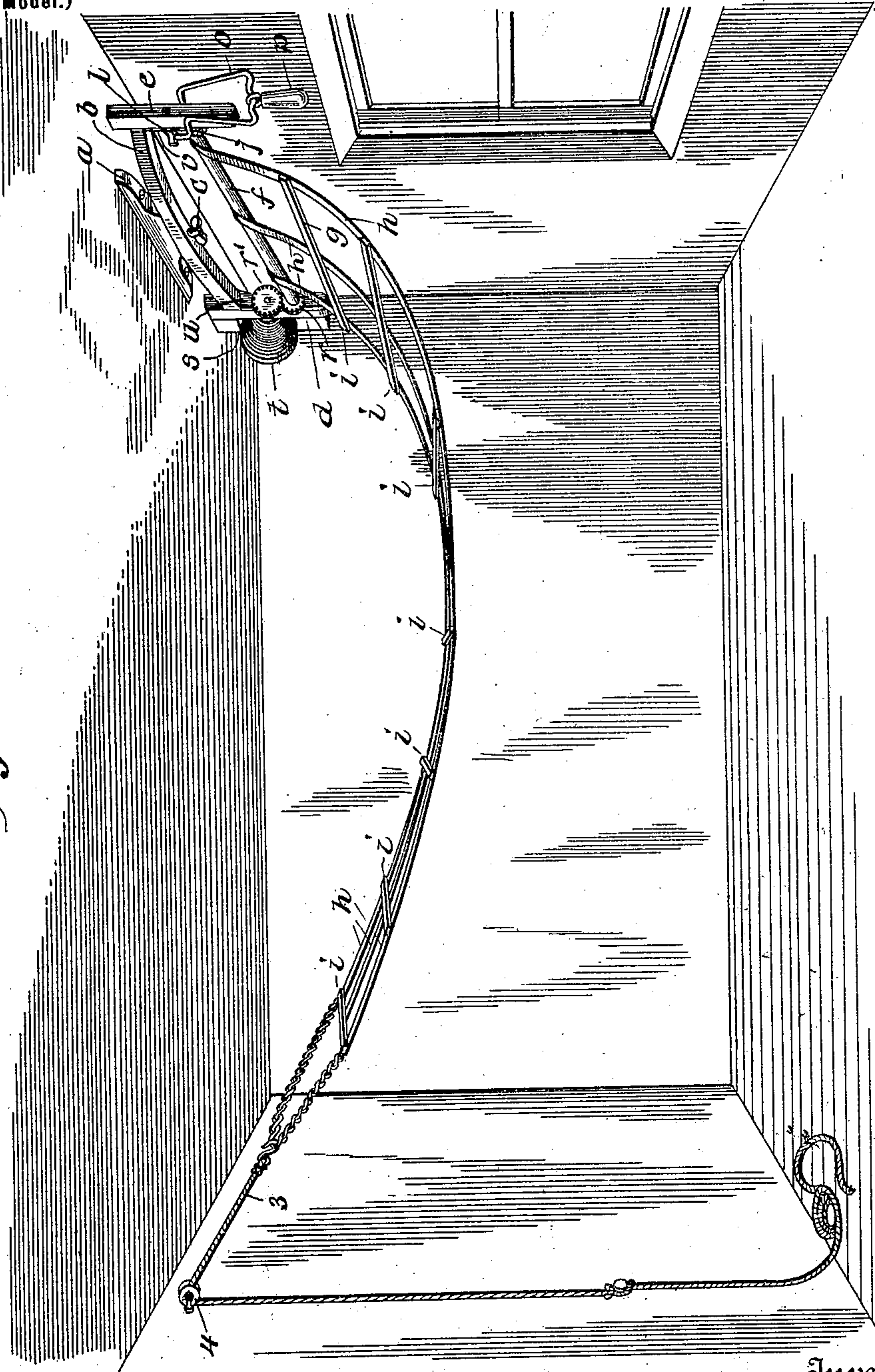
C. & J. ST. HILAIRE.
CLOTHES DRYING RACK.

(Application filed Oct. 4, 1899.)

2 Sheets—Sheet 1.

(No Model.)

Fig. 1.



Witnesses
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2 Sheets—Sheet 2.

Fig. 2.

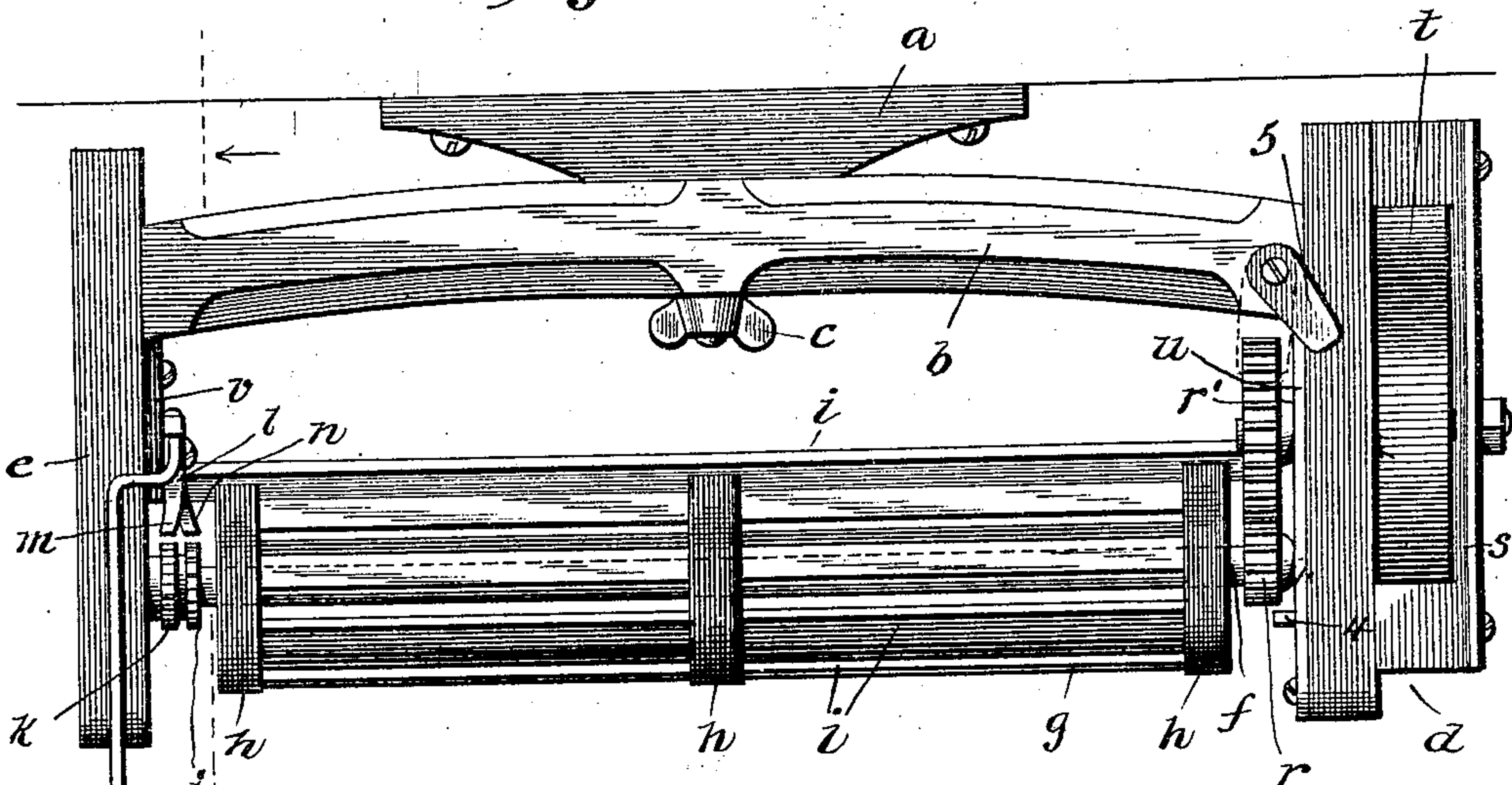


Fig. 3.

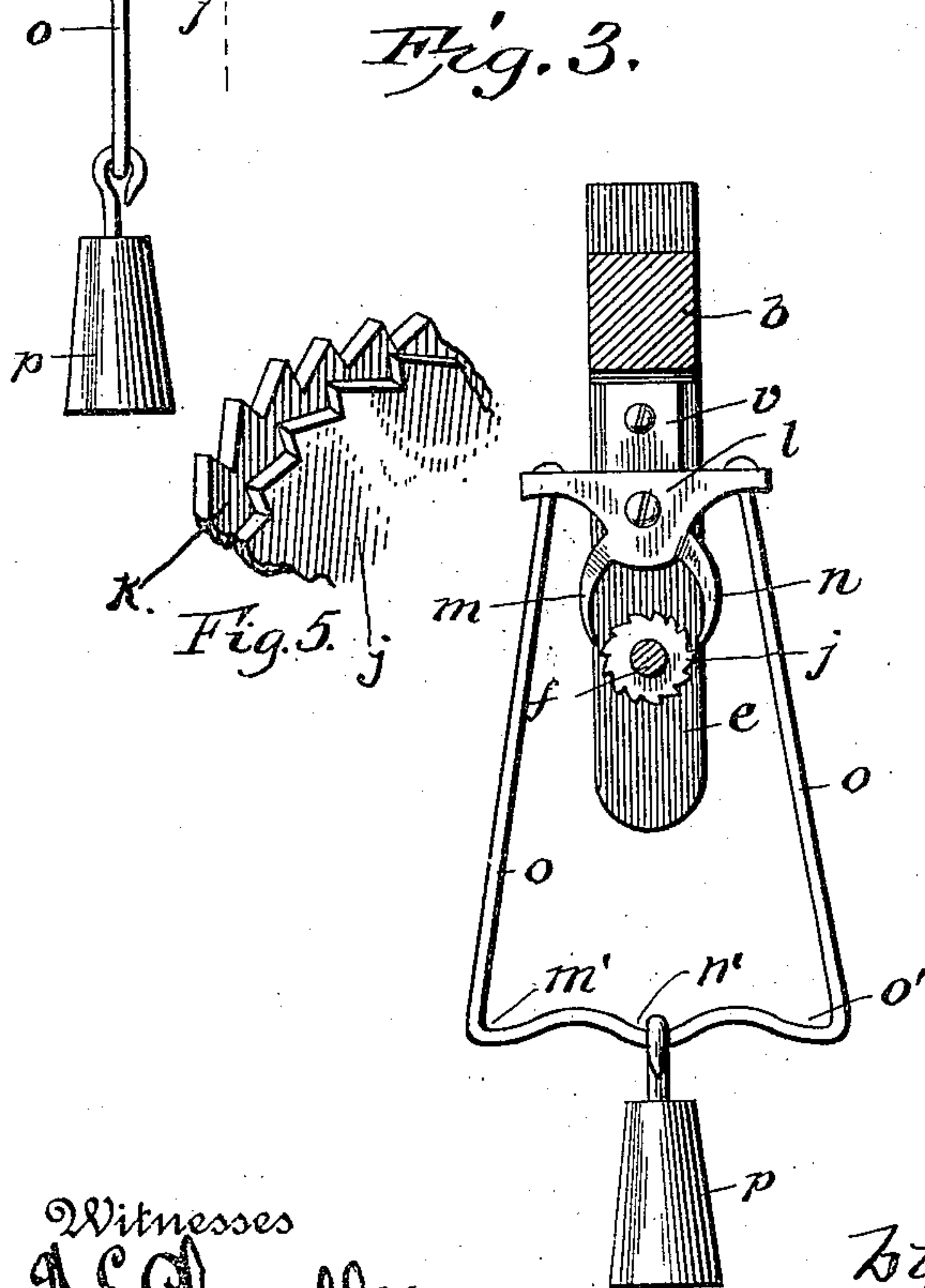


Fig. 4.

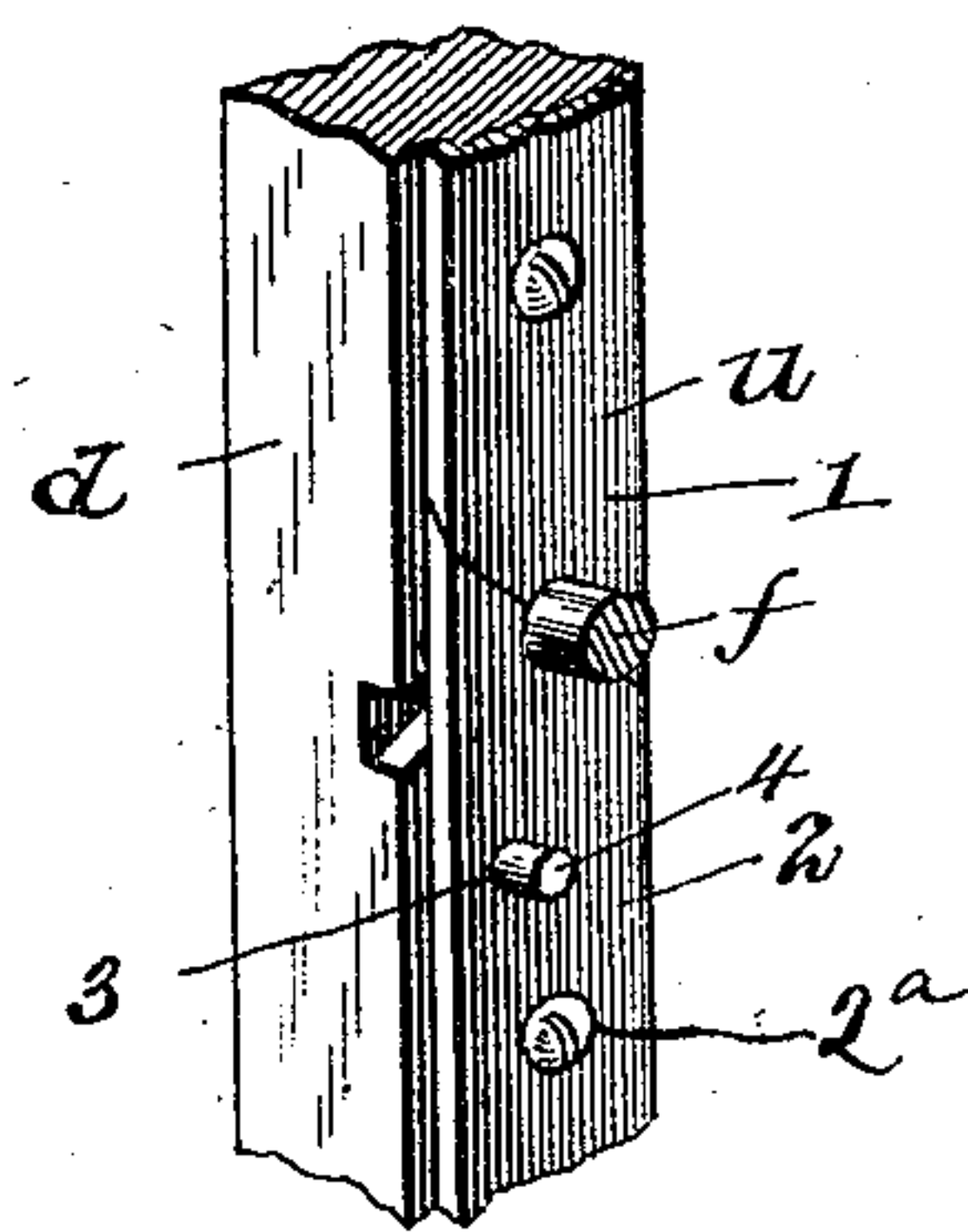
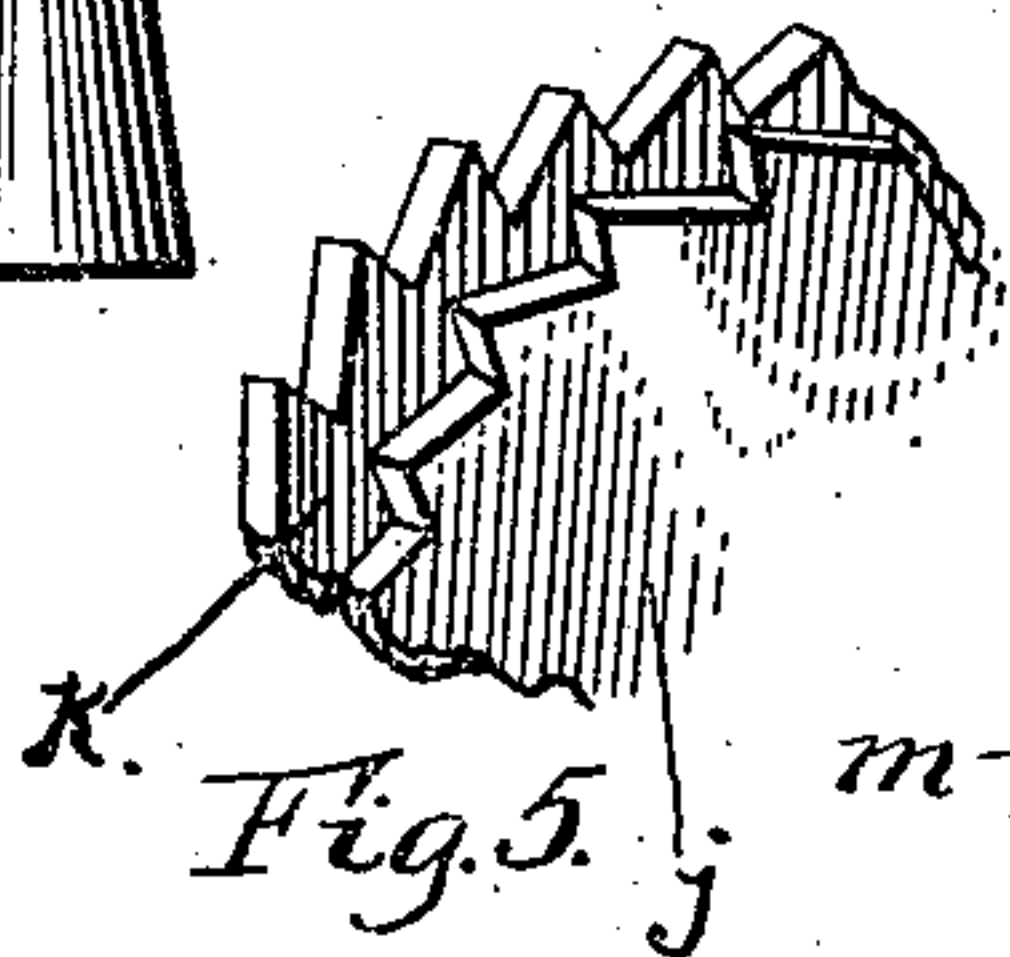


Fig. 5.



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UNITED STATES PATENT OFFICE

CAMILLE ST. HILAIRE, OF WILSON, MICHIGAN, AND JOSEPH ST. HILAIRE,
OF KANKAKEE, ILLINOIS.

CLOTHES-DRYING RACK.

SPECIFICATION forming part of Letters Patent No. 667,409, dated February 5, 1901.

Application filed October 4, 1899. Serial No. 732,483. (No model.)

To all whom it may concern:

Be it known that we, CAMILLE ST. HILAIRE, residing at Wilson, in the county of Menominee and State of Michigan, and JOSEPH ST. HILAIRE, residing at Kankakee, in the county of Kankakee and State of Illinois, citizens of the United States, have invented certain new and useful Improvements in Clothes-Drying Racks; and we 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.

The objects of our invention are to provide a clothes-drying rack which shall be cheap of manufacture, simple of construction, which may be attached permanently in place, and which shall be so constructed as to occupy but a small space when not in use; and with these objects in view we have devised an article of this nature such as is described in the specification and shown in the accompanying drawings, in which like characters of reference indicate similar parts of the several views, in which—

Figure 1 is a perspective view showing our invention in place and ready for use. Fig. 2 is a rear view of our invention when out of use. Fig. 3 is an end view with a portion removed. Fig. 4 is a detail view, and Fig. 5 is a detail view showing the arrangement of the teeth upon the ratchet-wheels used in our invention.

In the manufacture of a device in accordance with our invention we provide a main support *a*, to which is pivoted a supplemental support *b* by means of a thumb-screw *c*, which may be tightened to prevent the rotation of the last-named support. Secured to the ends of the supplemental support *b* are depending arms *d* and *e*, to the lower extremities of which is mounted a roller *f*, carrying a flexible frame *g*, which said frame is composed of flexible strips *h*, preferably formed of a fabric, such as canvas or the like, the ends of the strips being secured to the shaft at equal distances apart. The strips of fabric are connected by transverse strips *i*, of wood or other suitable material, the strips being spaced at equal distances similar to the rungs of a ladder, form-

ing a clothes-drying rack. To the outermost of the transverse strips *i* is attached a chain or other suitable suspending means. Rigidly secured to one end of the shaft *f* are two ratchet-wheels *j* and *k*, having inclined projections, the projections of one of the wheels being inclined in the opposite direction to those of the other of said wheels.

Pivoted to the arm *e* at a point directly above the shaft *f* is a lever *l*, having fingers *m* and *n* extending downwardly therefrom, the finger *n* being turned from the plane of the lever *l* and adapted to engage the projections of the wheel *j*, and the finger *m* being turned in the opposite direction and adapted to engage the projections of the wheel *k*. Secured to the ends of the lever *l* is a downwardly-extending bail *o*, the lower side of which is corrugated to form recesses *m'*, *n'*, and *o'*, and loosely secured to the bail *o* and adapted to rest in either of these recesses is a weight *p*, the use of which will be hereinafter explained.

Mounted upon the shaft *f* at the end opposite the wheels *j* and *k* is a spur-wheel *r* in engagement with a second spur-wheel *r'*, which is pivoted to the arm *d* and which is mounted on a shaft extending through the arm and terminating at a yoke *s*, which is attached to the outer face of the arm *d* at its ends and which incloses a spring *t*, having its outer end connected to the said yoke and having its inner end secured to the shaft of the wheel *r'*.

Bearing-plates *u* and *v* are secured to the inner faces of the arms *d* and *e*, the former to receive one end of the shaft *f* and the shaft of the wheel *r'* and the latter to receive the pivot of the lever *l*. The bearing-plate *u* is divided to form two sections 1 and 2, the section 1 being rigidly secured to the arm and section 2 being pivotally secured thereto, but having a perforation 3 to receive a pin 4 for holding it in a fixed position, with its uppermost end in engagement with the adjacent end of the section 1. A semicircular recess is formed in the meeting edges of the sections 1 and 2 to receive the end of the shaft *f*, and it will be seen that when it is desirable to remove this shaft from the frame

it will be necessary but to swing section 2 on its pivot 2^a, which will permit of the removal of the shaft.

Our invention is preferably secured to the ceiling of a room; but it may be secured wherever convenient, and its operation is as follows: Supposing the support *a* to be secured to the ceiling by means of screws or otherwise and supposing that a quantity of clothes are ready for drying, the drying-rack is drawn from the shaft *f*, which said shaft is caused to revolve as the rack is unwound, and as the rack revolves the spur-wheel *r'* is rotated, carrying with it its shaft, owing to its engagement with the wheel *r*, and as this action takes place the spring *t* is wound up and tends to rewind the clothes-drying rack when the latter is released. To prevent the rewinding of the rack, the finger *n* of the lever *l* is brought into engagement with one of the projections or teeth of the wheel *j*, in which position it is held by means of the weight *p*, which is placed in the recess *o'*. When a sufficient amount of the clothes-drying rack has been drawn from the reel or shaft *f*, it is secured at a distant point by means of a suitable cord 3, which may be attached to the suspending means at the end of the rack, passed through the screw eye or pulley 4, placed for this purpose, and secured within easy reach. The clothes are then placed upon the rack, and if it is found that they are of such weight as to cause an additional portion of the rack to unwind from the reel the weight *p* is placed in the recess *m'*, which will cause the finger *m* to engage the teeth of the wheel *k* and prevent its rotation. When our invention is not in use, the weight is suspended from the recess *n'*, and when the weight is in this position both of the fingers *m* and *n* are disengaged from the wheels *j* and *k*. When the clothes are dried, they are removed from the rack and the cord 3 is loosened, the weight *p* is placed in the recess *n'*, and the rack allowed to rewind itself upon the shaft *f* by the tension of the spring *t*.

A catch 5 is pivoted to the support *b* and adapted to engage the teeth of the wheel *r'*. It should be placed in this position when the shaft *f* is removed from the frame to prevent reaction of the spring *t*, which might result disastrously to the mechanism.

Our invention may be made of any convenient material, and its construction may be modified to a certain extent without departing from the spirit of our invention. Among other alterations wheels *j* and *k* may be formed integrally as a single wheel with a double flange instead of as above described.

Having thus described our invention, what we claim is—

1. A clothes-drying rack comprising a support, a reel, mounted upon said support, a spring adapted to be wound by the revolution of the reel, ratchet-wheels secured to one end of the reel, the teeth of one wheel being turned in the opposite direction to the teeth of the

other wheel, a catch adapted to engage each wheel alternately, means for holding said catch in engagement with either or out of engagement with both of said wheels, and a flexible frame mounted upon the reel.

2. A clothes-drying rack comprising a support, a reel mounted upon said support, a spring adapted to be wound by the revolution of the reel, ratchet-wheels secured to one end of the reel, the teeth of one wheel being turned in the opposite direction to the teeth of the other wheel, a catch adapted to engage each wheel alternately, means for holding said catch in engagement with either or out of engagement with both of said wheels and a flexible frame mounted upon the reel, said frame comprising flexible longitudinal strips and rigid transverse strips.

3. A clothes-drying rack comprising a support, a supplemental support pivoted to the first-named support, arms depending from the supplemental support, a reel journaled between the arms, a flexible frame secured to the reel and adapted to wind thereupon, a spring mounted at one end of the supplemental support and having one end attached thereto, a gear-wheel having connection with the opposite end of the spring, a gear-wheel mounted upon one end of the reel and adapted to mesh with the first-named gear-wheel, ratchet-wheels mounted upon the opposite end of the reel, a catch in engagement with the ratchet-wheels, a bail secured to the catch and a weight loosely mounted upon the bail for throwing the catch into or out of engagement with the ratchet-wheels.

4. A clothes-drying rack comprising a support, a supplemental support pivoted thereto, arms depending from the supplemental support, bearing-plates attached to the inner faces of the arms, one of said plates being divided to form two members; one of said members being pivoted, the other being stationary, a reel journaled in the bearing-plates, a frame mounted upon the reel, said frame comprising flexible strips having transverse slats connecting the strips, a gear-wheel secured to one end of the reel, a second-named gear-wheel mounted adjacent the first-named gear-wheel and adapted to mesh therewith, a spring having one end attached to the supplemental frame and the other end having connection with the second gear-wheel, whereby said spring will be wound by revolution of the reel, ratchet-wheels mounted upon the reel and a catch adapted to engage the ratchet wheels.

5. A clothes-drying rack comprising a stationary support, a supplemental support pivoted to the stationary support, arms depending from the supplemental support, a reel mounted between the depending arms, a spring adapted to be wound by the revolution of the reel, ratchet-wheels secured to one end of the reel, the teeth of one wheel being turned in the opposite direction to the teeth of the other wheel, a catch adapted to engage

each wheel alternately, means for holding said catch in engagement with both of said wheels and a flexible frame mounted upon the reel.

5 6. A clothes-drying rack, comprising a stationary support, a supplemental support pivoted to the stationary support, arms depending from the supplemental support, a reel mounted between the depending arms, a spring adapted to be wound by the revolution of the reel, ratchet-wheels secured to one
10 end of the reel, a rocking lever pivoted to one end of the supplemental frame adjacent the ratchet-wheels, a catch formed upon each end

of the rocking lever, a bail secured to said lever, a weight supported by the bail to hold 15 the catches on the lever into or out of engagement with the ratchet-wheels, and corrugations formed upon the bail, for holding the weight in a fixed position.

In testimony whereof we affix our signatures in presence of two witnesses. 20

CAMILLE ST. HILAIRE.

JOSEPH ST. HILAIRE.

Witnesses:

RALPH PRINCE,

GEO. O. GRIDLEY.