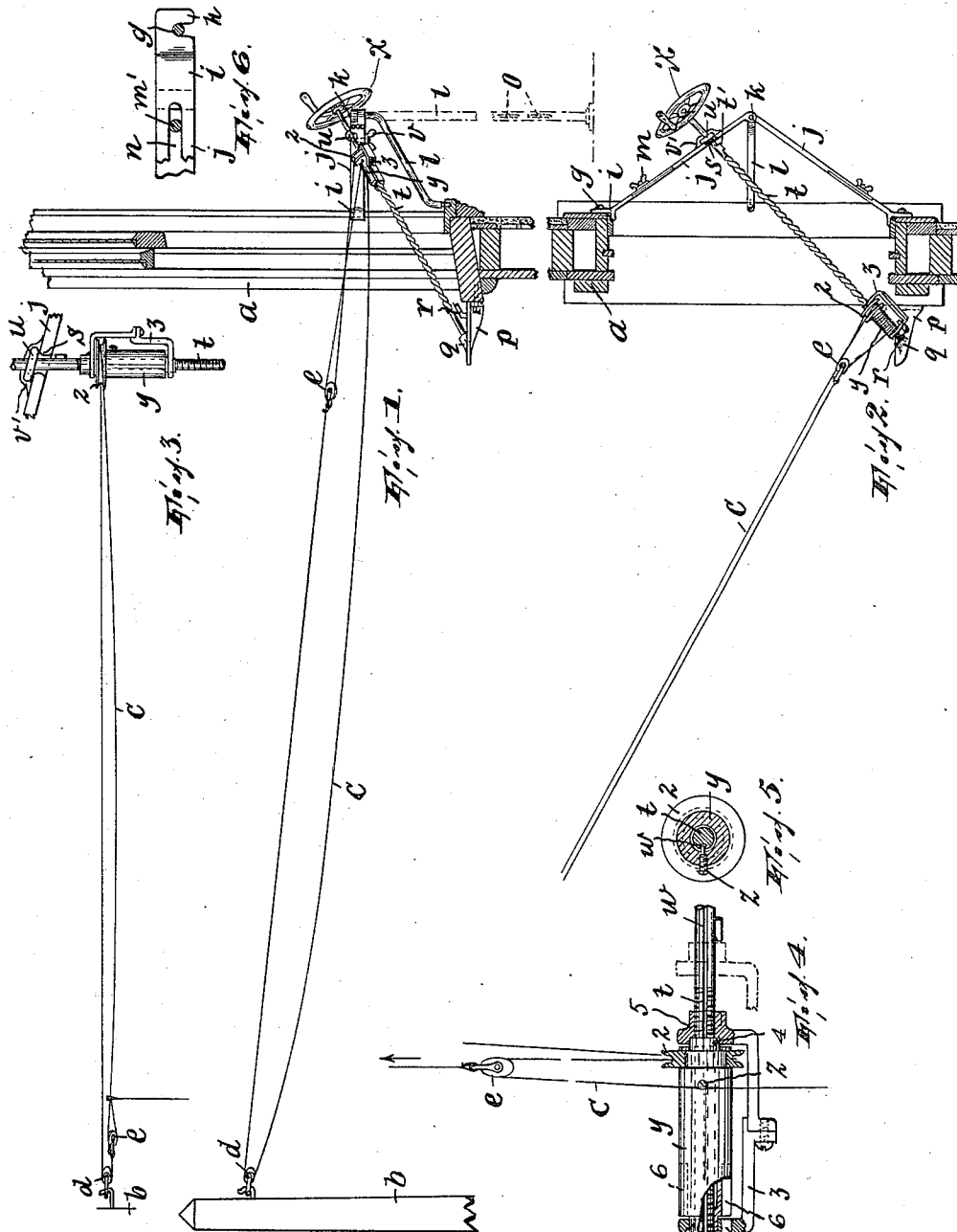


R. M. CRAIG.
CLOTHES LINE SUPPORT.
APPLICATION FILED MAR. 12, 1912.

1,045,104.

Patented Nov. 19, 1912.



WITNESSES

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UNITED STATES PATENT OFFICE.

ROBERT M. CRAIG, OF PATERSON, NEW JERSEY, ASSIGNOR OF ONE-HALF TO FRANK B. DONOHUE, OF PATERSON, NEW JERSEY.

CLOTHES-LINE SUPPORT.

1,045,104.

Specification of Letters Patent.

Patented Nov. 19, 1912.

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To all whom it may concern:

Be it known that I, ROBERT M. CRAIG, a citizen of the United States, residing at Paterson, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Clothes-Line Supports, of which the following is a specification.

This invention relates to clothes line supporting means and particularly to that class of such means whereby the line is held stretched between a building, near or at a window or other opening thereof, and some distant support, such as a post.

My object is to provide a clothes line supporting and operating means of this general nature in the use of which the operation of hanging out a wash or taking it in may be greatly facilitated, the apparatus being at the same time so constructed as to eliminate the necessity for the operator leaning out of the window and so risking a fall, and to allow the principal part of the mechanism thereof to be removed from its operative position so as to leave the window or other opening clear and allow the sash to be closed once the operation of putting out or taking in the wash has been completed.

The invention will be found fully illustrated in the accompanying drawing, wherein,

Figure 1 is a vertical sectional view through the window opening of a building, showing the parts of the apparatus in one position, and also showing the line and the distant supporting means therefor; Fig. 2 is a horizontal sectional view through said window opening, showing the parts of the apparatus in another position and a part of the line; Fig. 3 is a plan view of the line, the distant supporting means and parts of the apparatus, the line being shown run to the position which it occupies when the clothes are to be attached thereto; Fig. 4 is an enlarged detail of the traveler and a part of the line; Fig. 5 is a transverse sectional view in the plane of stud *z* in Fig. 4; and, Fig. 6 illustrates a detail of the frame of the apparatus, showing means for adjusting the frame and a part of the means for supporting the same.

a denotes that part of a building constituting a frame for a window or similar opening; *b* is the distant supporting means, such as a post; and *c* is the line. The line

extends through a pulley *d* on support *b* and has a pulley *e* attached to one end thereof, through which pulley the other end of the line is extended, thus forming a loop in the line.

A headed stud *g* projects inwardly from each side of the frame *a* near the inner edge thereof and is adapted to have fitted over it the hooked portion *h* of an angular foot *i* of one of two arms *j j* which are pivoted together at *k*, so that when removed from the window frame they may be folded, and whose angular feet *i* are adapted to abut the inner edges of said frame *a* as best shown in Fig. 2. The pivot *k* may be the end of an upright *l*, which may either be bent outward toward and so made to find support on the sill of the window frame (solid lines, Fig. 1) or extend down to and rest on the floor (dotted lines, same figure). In order to render the support or frame comprising the arms *j j* and upright *l* adjustable, each arm is shown as consisting of two members having longitudinally adjustable connection with each other afforded by the wing-bolt *m* the stem *m'* of which may pass through a longitudinal slot *n* in one of said members (Fig. 6). As the height from the window sill to the floor may vary, the upright *l* may be rendered adjustable in the same way, as at *o*, Fig. 1.

To the outer side of the sill of the window frame is secured a bracket *p* having a socket *q* and, beside the socket, a supporting pin *r*; both the socket and pin are set at an incline, with their axes parallel as shown in Figs. 1 and 2. In line with the socket the farther arm *j* is formed with a recess *s*. Into the socket is adapted to be stepped the outer end of a rotary threaded shaft or screw *t* (having its upper end portion smooth and provided with a stop *t'*) which may have a bearing in said recess *s*; when so arranged, a hook *u*, vertically movable in arm *j* may be engaged over the shaft to hold it down against the arm, the hook having a wing-nut *v* engaging the under side of a projection *v'* on said arm, which projection the hook penetrates. The shaft has a longitudinal key-way or groove *w*, and at its inner end it carries a hand-wheel *x*.

On the screw is arranged to move lengthwise thereof the traveler shown best in Fig. 4. This traveler comprises a drum *y*, having a stud *z* which engages a key or feather

in the groove *w* of the shaft, so that said drum is splined to the shaft, the drum also having, fixed thereto, a pulley 2, a bracket 3 affording bearings for the trunnions 4 of the drum and made in two parts, detachably secured together, so that it may be assembled with the drum, the part 5 at the upper end of the bracket having a threaded engagement with the shaft's threaded portion. In view of this construction and arrangement of parts it will be apparent that when the shaft is turned, the bracket 3 being held against rotation, the traveler will advance along the shaft and the drum and its pulley 2 rotate therewith. In the lower end of the drum are formed a circular series of holes 6 and in the corresponding portion of the bracket a hole 7, the purpose of which will appear later.

The loop of the line, formed by passing one end thereof through the pulley *e*, runs around the pulley 2. In the initial position of the parts the traveler abuts the stud *t'*, its threaded portion 5 being then penetrated by the smooth part of the shaft, so that the latter may be turned without advancing the traveler although the shaft will rotate the drum. Having lashed the free end of the line to the loop, the line is run out on the pulleys 2 and *d*, until pulley *e* is at or near pulley *d*, Fig. 3. The stretch of the line which is the farther one in Fig. 3 is then gradually fitted with the clothes and the line run back in the reverse direction until pulley *e* is again near the building. The advancing of the line in the ways described is accomplished by turning the shaft *t* first one way and then the other, the traveler being meanwhile held up on the shaft so that its bracket is kept unengaged with the threaded portion of said shaft. The free end of the line is then unlashed, and, having drawn taut the loop of the line, said end is attached to the outwardly projecting end of the stud *z* on the drum. The traveler is now slipped down on the shaft, whereupon the latter is turned, causing the traveler to feed down on the shaft and the drum to be rotated, winding the free end of the line thereon. As the traveler thus runs down the shaft the slack which would otherwise be formed in the line is taken up and the line kept taut. The prevention of the rotation of the bracket of the traveler necessary in order to accomplish its advance along the shaft by virtue of its screw engagement therewith, is afforded by the line itself, against which the bracket swings. When the traveler reaches the lower end of the shaft it is fitted to the pin *r*, which is made to enter the hole 7 of the bracket of the traveler and one of the holes 6 of the drum. The threaded shaft may now be turned backward until it becomes unscrewed from the bracket of the traveler, leaving the latter

hooked on pin *r* and supporting the line. Finally, the shaft *t* and its supporting means may be removed from the window frame, leaving the window opening clear and allowing the sash to be closed.

When the wash is to be taken in, the shaft *t* and its supporting means being readjusted to the window frame, and the shaft again operatively engaged with the traveler, the shaft is turned to advance the traveler upwardly thereon; at this time the drum revolves reversely to the direction in which it last revolved, so that the line is gradually paid out to compensate for the extension of the loop which now ensues as the traveler moves relatively away from the support *b*. When the traveler reaches the upward limit of its feeding movement, its bracket clear of the threaded portion of the shaft, the free end of the line may be again lashed to the loop of the line and the shaft rotated to advance said loop for the purpose of bringing in the clothes.

It will be understood that when the pin *r* is engaged with one of the holes of the drum at the time when the traveler is supported by the pin the drum is held from rotation under the pull of the line due to the weight of the clothes.

Having thus fully described my invention, what I claim and desire to secure by Letters Patent is:—

1. A clothes-supporting apparatus comprising, in combination with a support, a pulley on said support, a traveler including a rotary member comprising a drum and a pulley, a line having a running loop formed therein and extending around the two pulleys and having its free end attached to the drum, and means for moving the traveler back and forth to different distances from the support and for simultaneously rotating the rotary member thereof, substantially as described.

2. A clothes-supporting apparatus comprising, in combination with a support, a pulley on said support, a traveler including a rotary member comprising a drum and a pulley, a line having a running loop formed therein and extending around the two pulleys and having its free end attached to the drum, a second support, means thereon detachably engaged with the traveler and its rotary member, for moving the traveler back and forth to different distances from the first-named support and for simultaneously rotating the rotary member thereof, and means, carried by said second support for supporting the traveler and holding its rotary member against rotation when said first-named means is detached therefrom, substantially as described.

3. A clothes-supporting apparatus comprising, in combination, with a support, a pulley on said support, a traveler including

a bracket and a drum-and-pulley structure journaled in the bracket, a shaft having one end nearer the said support than the other and having screw-threading, a part of the
5 shaft remote from support being smooth, means for sustaining said shaft, the bracket of said traveler being formed with screw-threading engaging the threading of the shaft and the drum-and-pulley structure
10 being splined to said shaft, and a line formed with a running loop extending around the pulleys and having its free end

attached to the drum-portion of said structure, said free end of the line being adapted to be attached to the loop of the line when 15 the threaded portion of the bracket coincides with the smooth portion of the shaft, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT M. CRAIG.

Witnesses:

JOHN W. STEWARD,
WM. D. BELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
