(No Model.)

2 Sheets—Sheet 1.

D. A. THURSTON.

WINDOW JACK.

No. 491,146.

Patented Feb. 7, 1893.

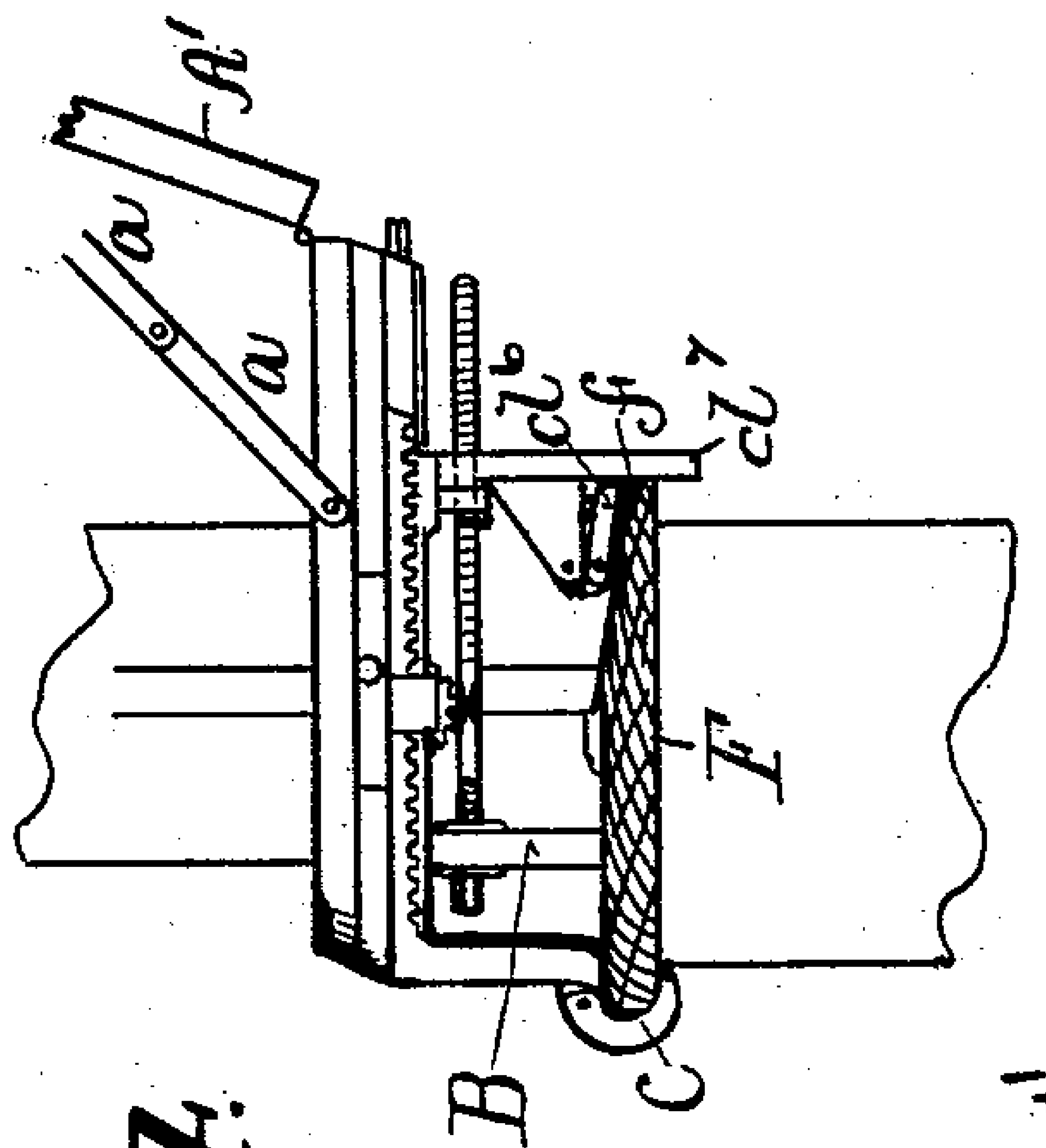

Fig. 4.

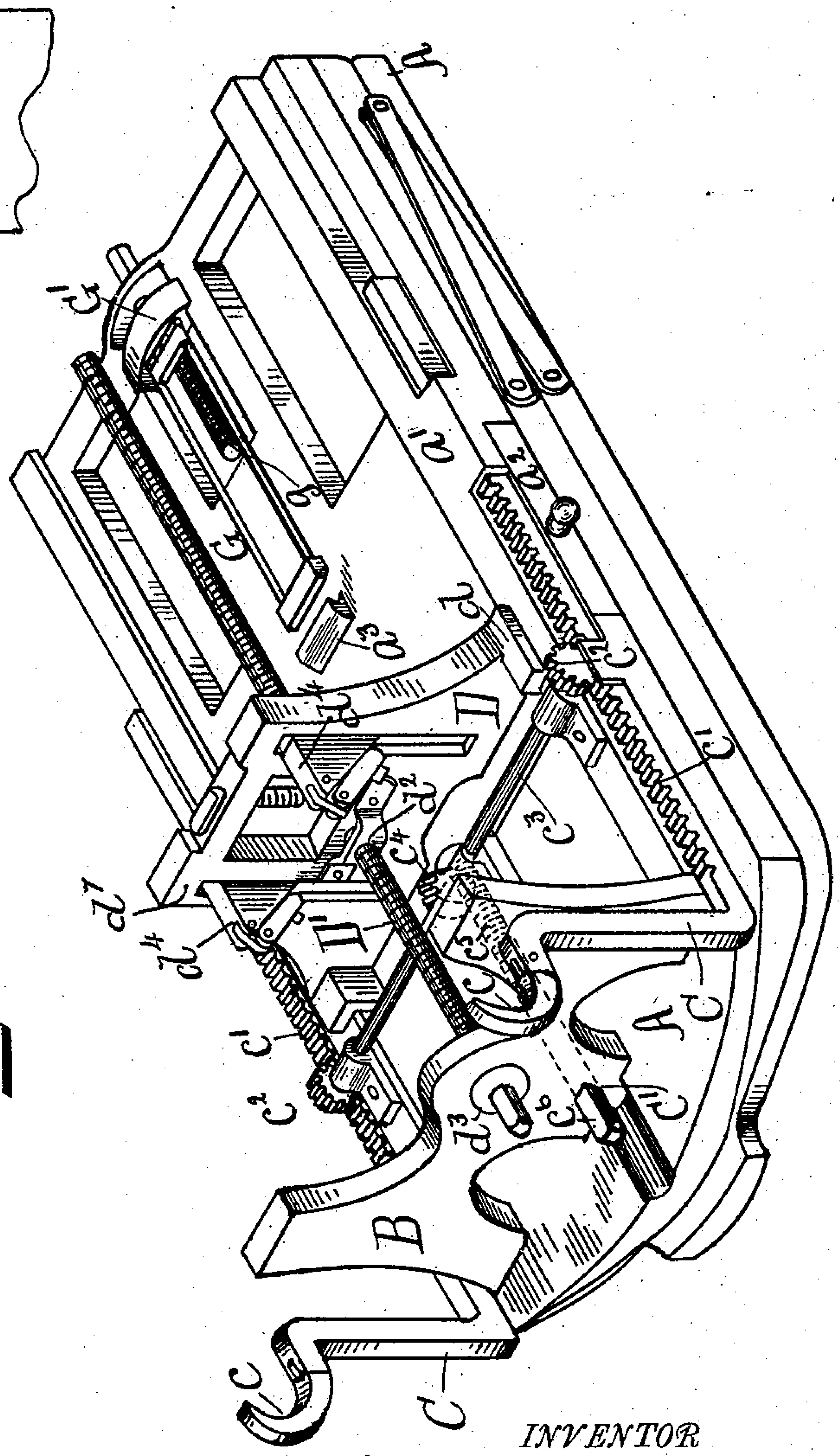

Fig. 1.

WITNESSES

F. Clough.

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INVENTOR

Douglas A. Thurston

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his *Attorneys.*

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

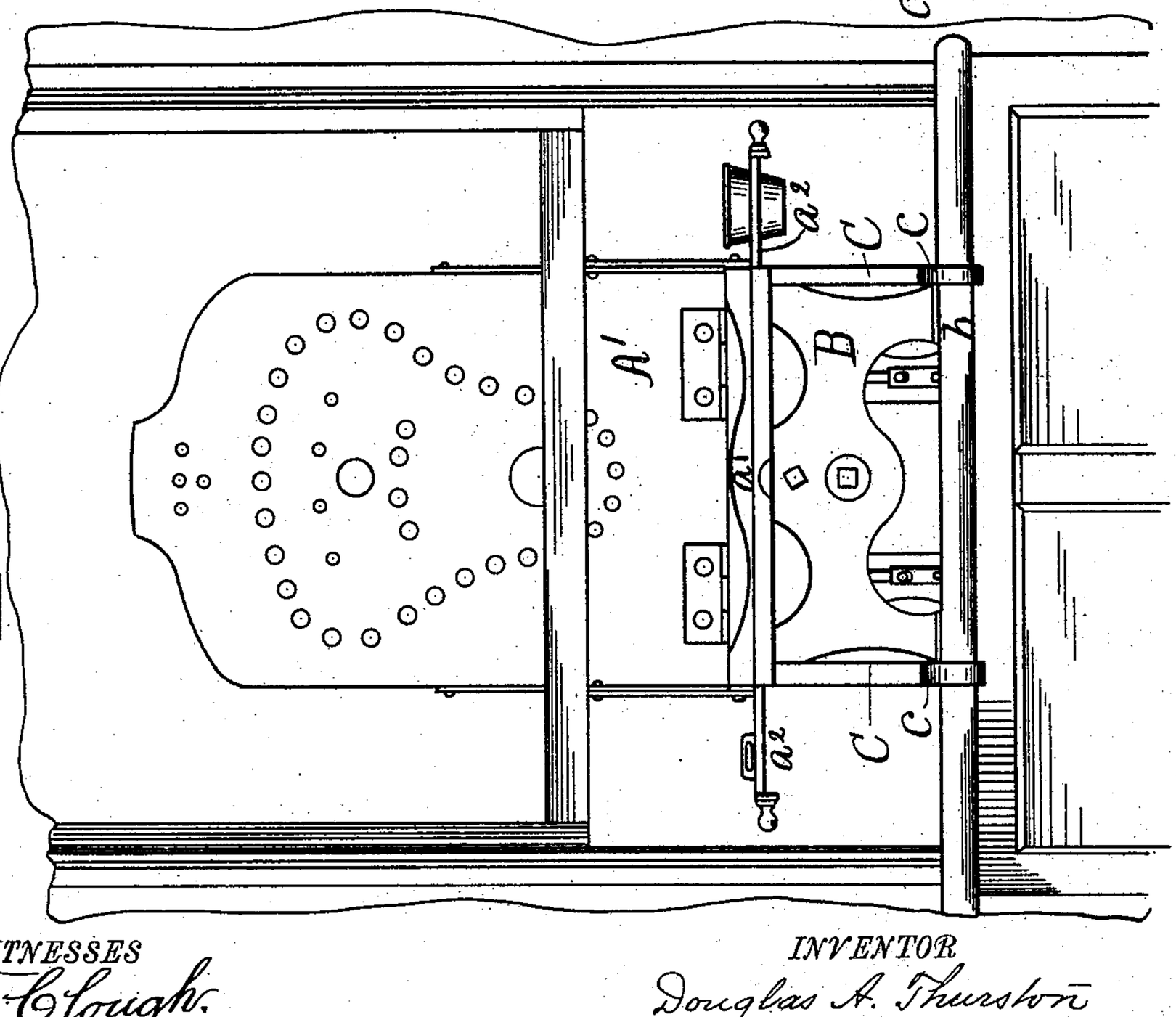
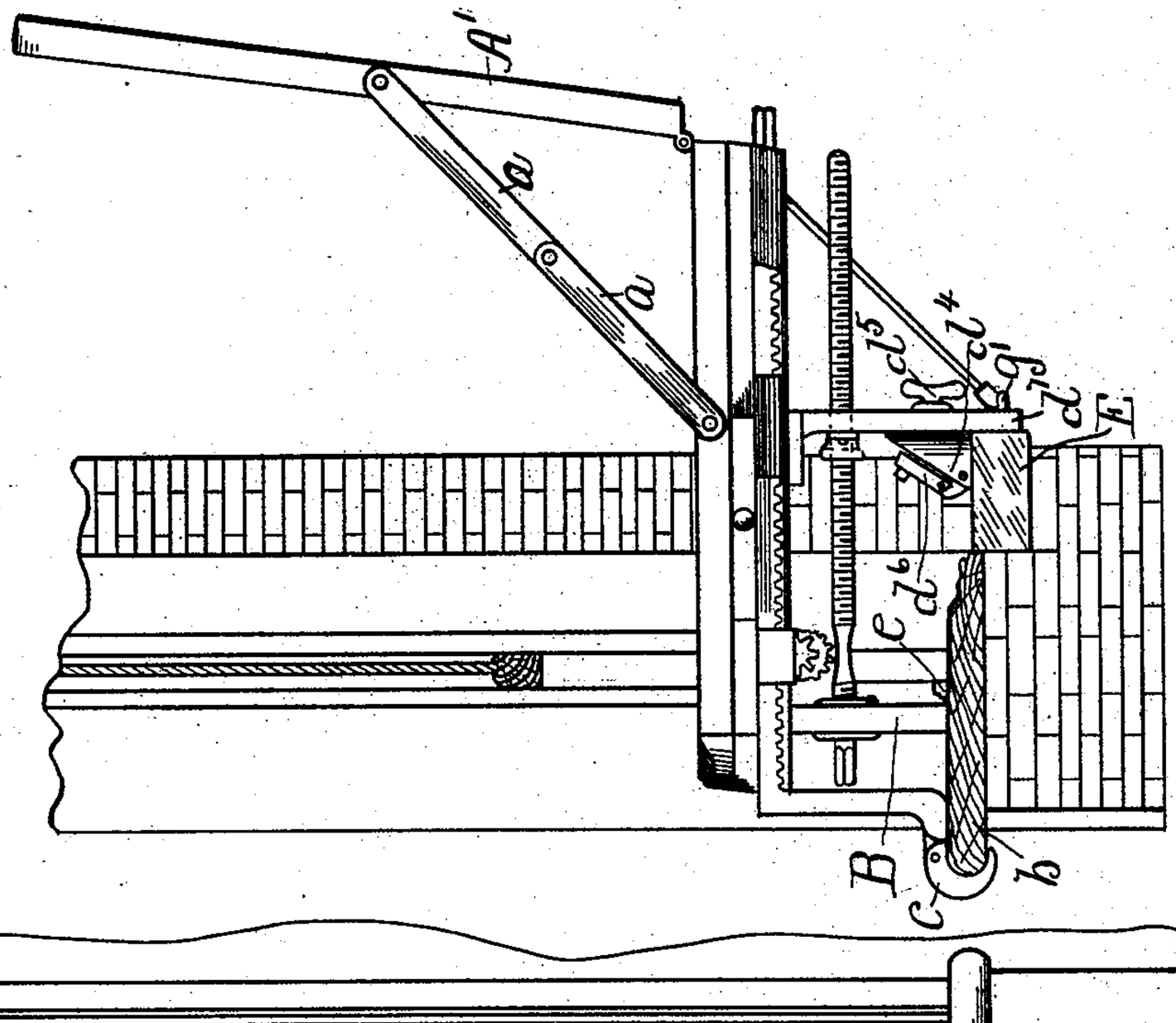


Fig. 3.



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UNITED STATES PATENT OFFICE.

DOUGLAS A. THURSTON, OF TORONTO, CANADA.

WINDOW-JACK.

SPECIFICATION forming part of Letters Patent No. 491,146, dated February 7, 1893.

Application filed January 2, 1892. Serial No. 416,762. (No model.)

To all whom it may concern:

Be it known that I, DOUGLAS A. THURSTON, a subject of the Queen of Great Britain, residing at Toronto, county of York, Province of Ontario, Canada, have invented a certain new and useful Improvement in Window-Jacks; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to window jacks, for use in painting and cleaning windows, and its object is to provide a structure adapted to rest on and be clutched to the window frame, and to furnish a secure seat for the person washing or painting the windows, with a back portion adapted to support the body and prevent accident. In such a structure, it is necessary to provide for a great variety of windows, having different widths, and made according to different designs. To accomplish this result, I provide my window jack with several adjustments, adapting it to meet the requirements of a large range of difference in windows.

In the drawings, Figure 1 is a perspective of the device from the under side, showing the details of construction, and the frame and back portion folded together. Fig. 2 is a front elevation of the device, attached to a window, showing the back, and the window partially raised. Fig. 3 is a vertical section through a window, showing a side elevation of the device. Fig. 4 is a view showing the device attached to a window having a single wooden sill.

In the drawings, A is the frame; A′, the back pivoted to the frame. The back is supported, when raised into its vertical position, by tie rods, consisting of the links *a*, *a*, adapted to fold upon themselves, when the back is folded onto the frame. The frame is provided with a seat, *a*′, extending back a sufficient distance so that the body of the person using the device comes outside of the window a sufficient distance to enable him to use both hands in his work. Into the sides of the frame, and having a sliding connection therewith, are the shelves a^2, each having an opening in which to support a water pail or other vessel, as shown in Fig. 2. When the device is folded, these shelves may be shoved into the frame and out of the way.

B is a support, rigidly attached to the frame, from which the movable parts constituting the remaining supports for the frame are operated. This support B is adapted to rest on the window-stool *b*.

C, C, are sliding supports provided at the outer and lower end with the hook *c*, for engaging the inner edge of the window stool *b*. These supports C, C, are adjusted longitudinally of the frame through the racks *c*′, operated by the pinion c^2, mounted on the transverse shaft c^3. On the center of this shaft is mounted the pinion c^4, engaging with the worm c^5 on the shaft C′. This shaft is mounted in the frame, and extends forward through the support B, and is provided with a square end c^6 for operating it with a key.

Back of the shaft c^3 is the sliding support D. This support has a sliding connection at *d*, with the ways *a*′ on the frame. The screw shaft D′ has a screw connection at d^2, with the sliding support D, and is provided at each side of the support B with a collar d^3, which holds it in a fixed position longitudinally with the support B, and adapts it, when rotated by means of a key, by reason of its screw connection with the support D, to adjust that support on the sliding way, *a*′, of the frame. By means of this adjustment, the support D may be forced back to the rear end of the frame, if necessary, and adapted to any width of window. This support D is provided with supporting blocks d^4, having a vertical adjustment on the support D, consisting of a sliding connection with the support, in combination with a set screw d^5 on the back of the support, for holding them in any position of adjustment. These blocks d^4 are provided to rest upon the window sill E, as shown in Fig. 3, and the portion d^7 of the support D extending below these blocks d^4, rests against the outer side of the window sill. By reference to Fig. 3, it may be seen that by this construction, the window frame is embraced between the support D resting against the out side of the window sill and the hooks *c* engaged with the inside of the window stool;

while the frame and seat of the device is supported on the stationary snpport B and the adjustable supports d^4.

In engaging the device with the window, it is designed to rest the support B on the window stool just inside of the window stop *e*. While the supports D and C, with the hook *c*, are forced to embrace and clutch the window by operating with a key the screw shafts C′ and D′. The shaft C′, drawing the hook *c* inward through the rack and pinion connection, and the shaft D′ drawing the support D by reason of its screw connection therewith. By operating these two adjustments, the window jack may be clutched to a window frame of any width within a reasonable limit.

In Fig. 4 is shown a common form of window frame, in which the window stool and the window sill are formed of one piece, F, usually of wood, having the outer or sill portion, *f*, beveled to form an incline. To adapt the jack to rest on a window frame of this description, the supports d^4 are provided with an additional support d^6, pivoted to the end of the support d^4, and normally swung up above them; but adapted to be swung below, and provided with an angular block underneath the support to make it conform to the bevel of the window sill. The hooks *c* are preferably pivoted to the ends of the supports C.

In cases where the window frame is narrow, and the support D is necessarily drawn well in under the frame, I provide a strut G supporting the outer end of the frame from the lower end of the support D. This strut I pivot to a sliding block G′, mounted in the frame, and moved lengthwise of the frame by means of the screw *g*. The strut G is adapted normally to swing against the frame, as is shown in Fig. 1, out of the way. When it is desired to engage it with the support D, the frame is first clutched to the window, after which the sliding block G′ may be moved forward by the screw *g*, until the strut, when opened, will abut against the lug *g′* on the support D. On the bottom of the frame is the lug a^3, into which the free end of the strut may be forced to hold it in its closed position on the frame when not in use.

What I claim is—

1. In a window jack, the combination of a frame, the stationary supports B, the sliding supports C, C, provided with the hooks *c*, screw shaft, worm gear, and rack and pinion for operating said supports C, C, and the sliding support D with the screw shaft for operating it, substantially as described.

2. In a window jack, the combination of a frame, stationary supports, sliding supports provided with hooks adapted to engage inside of the window seat, means for operating said sliding supports and holding the same in position in engagement with the window, and a movable support with means for operating and holding it in position, substantially as described.

3. The combination of a frame, stationary supports, sliding supports provided with hooks for engagement with the window seat, a rack and pinion for operating said supports, and means for operating said rack and pinion and holding them in position, and a movable support D with means for operating it and holding it in position, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

DOUGLAS A. THURSTON.

Witnesses:
RICHD. CREDICOTT,
W. J. FRANKS.