

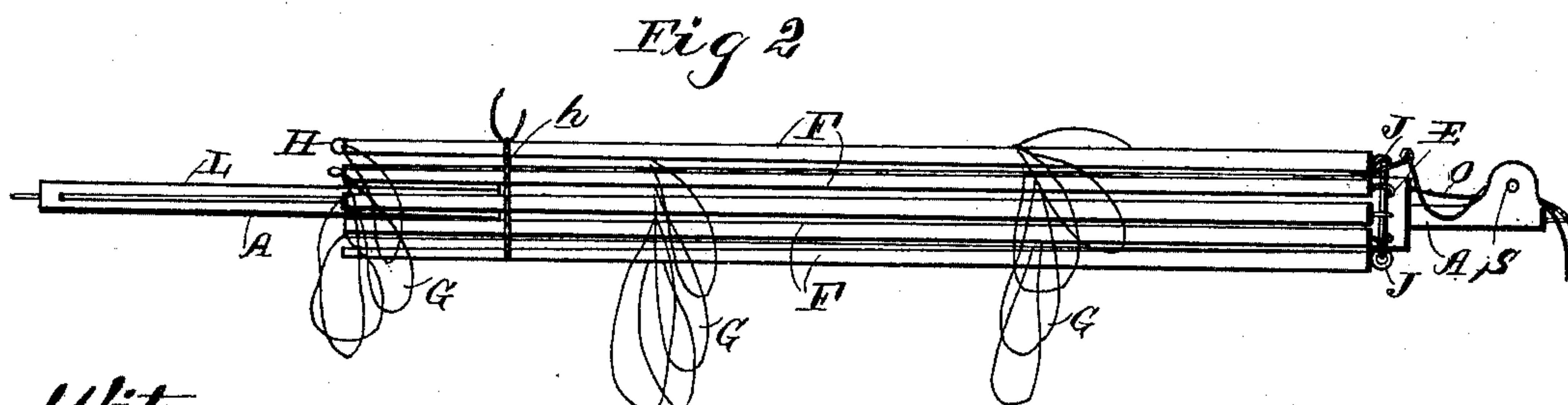
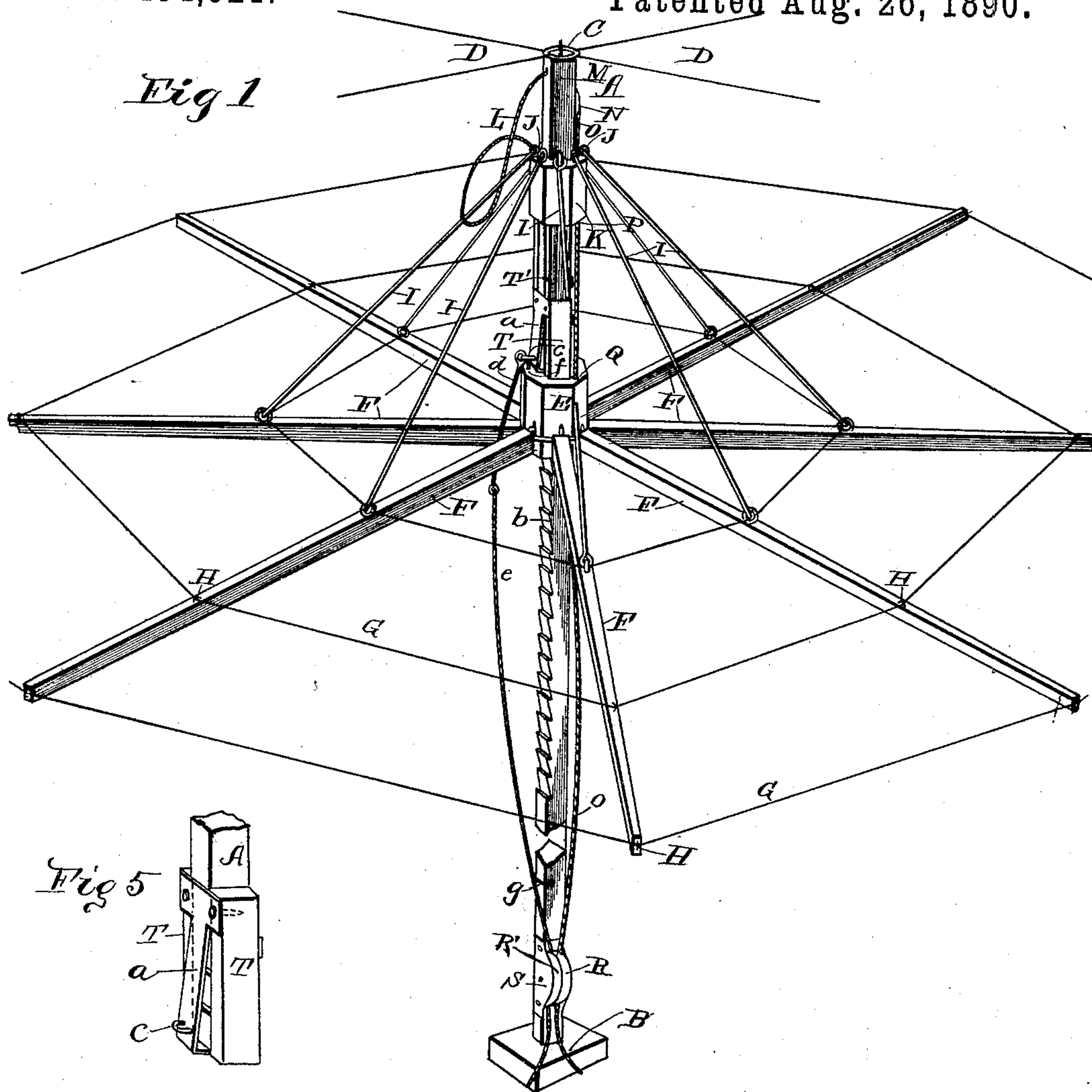
(No Model.)

2 Sheets—Sheet 1.

W. CURTIS.
CLOTHES DRIER.

No. 434,921.

Patented Aug. 26, 1890.



Witnesses
C. C. Burdine
J. D. Davis,

Inventor
William Curtis
per
R. L. Davis
his atty.

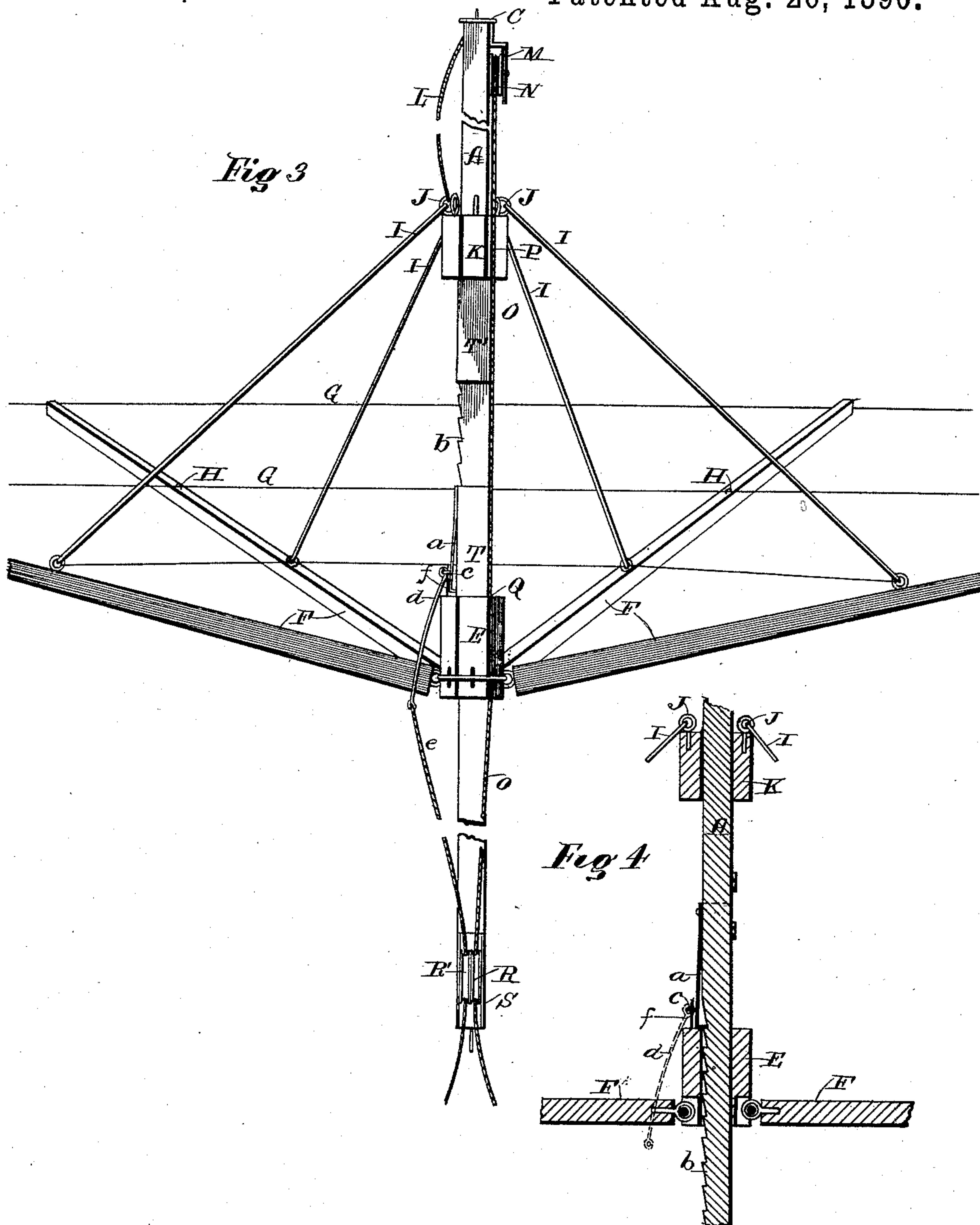
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UNITED STATES PATENT OFFICE.

WILLIAM CURTIS, OF SULLIVAN, INDIANA.

CLOTHES-DRIER.

SPECIFICATION forming part of Letters Patent No. 434,921, dated August 26, 1890.

Application filed May 16, 1890. Serial No. 352,033. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CURTIS, a citizen of the United States, residing at Sullivan, in the county of Sullivan and State of Indiana, have invented certain new and useful Improvements in Clothes-Driers; and I 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.

My invention relates to that species of clothes-driers in which a folding web or umbrella-like frame slides upon an upright post; and the object sought to be accomplished is to produce a more convenient, serviceable, and easily-operated device of this kind than has heretofore been known.

With these ends in view my intention consists in certain peculiarities of construction and combinations of parts, more fully described hereinafter, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a perspective view of my complete structure, showing the web open. Fig. 2 shows the device closed or folded up in compact form. Fig. 3 is a side elevation with the rack or frame half-way up on the upright post, as at the commencement of the raising operation; Fig. 4, a section through the center of Fig. 1, and Fig. 5 a detail view.

The reference-letter A indicates the upright post, which is preferably square and mounted to revolve, being journaled at its lower end in a suitable base or box B and turning at its upper end in a ring C, to which the guy-ropes D are attached. On this post slides the main hub or sleeve E, which carries the web, the latter consisting of a radial arm F, pivoted to said sleeve in like manner to the ribs of an umbrella, and the connecting ropes or lines G, running through suitable eyes H, secured to the arms. Stay-rods I are pivotally connected to the arms F, and at their upper ends engage eyes J, secured to the auxiliary sleeve K, which also slides upon the upright post, but is limited in its movement by a cord L, secured in one of the eyes J and connected to the upper end of the post. On one side of the post at its upper end depends a hanger M, in which is mounted a loose pulley N, and

a cable O runs over said pulley and is connected at one end on one side of the post to the main sleeve E, while on the other side it runs in a groove P in the auxiliary sleeve K and through a vertical perforation Q in the main sleeve, thence to the base of the post, where it runs under one of a pair of pulleys R R', mounted in a bracket S, secured to the post, and out from said pulley a suitable length to allow ready manipulation. Strips or blocks T T' project from each of the sleeves E K toward each other alongside the post A and are arranged to come in contact, being of such a length as to keep the sleeves at the proper distance apart when the web is opened out to its farthest extent.

I provide means for holding the frame or web at the desired height, which consists of a spring-pawl a, formed of a flat piece of resilient metal bent to the proper shape and secured to the upper ends of the strips T, and a rack b, extending a suitable distance along the side of the post and engaged by said pawl. The lower end of the pawl extends to the sleeve E, and is provided with a staple c, in which one end of a rod d is secured, said rod depending over the sleeve and through between a pair of radial arms F, being connected at its lower end to a cord e, which runs down to the base of the post A and under the pulley R' in the bracket S, and thence equally with the cable O, so that both cords may be manipulated by the operator simultaneously. A pin f projects from the upper side of the sleeve E into the staple c and limits the upward movement of the pawl. At the base of the upright a transverse notch g is made in one side of the pawl to engage when the frame is closed up, thus holding the parts in folded adjustment. A leather strap h is also provided, being attached to one of the radial arms and arranged to be secured about said arms when folded together to hold them in compact form.

The preferred construction of my device having been set forth, I will now proceed to describe its operation.

To bring the device to the position shown in Fig. 1, the operator will manipulate the cord O to slide the sleeve E up in the post, and when this sleeve has reached the position

shown in Fig. 3 and the radial arms have been thus straightened out it will be seen that continuance of the draft upon the cord will cause the stay-rods I to push the auxiliary sleeve K also up the post until it strikes the hanger M, and upon further pulling upon the rope O the sleeve E will be drawn up until its projecting strips T meet those T' of the sleeve K, when the radial arms will be extending at right angles to the sleeve E, and the whole frame will be in rigid adjustment, the same as an umbrella-frame. The engagement of the pawl a with the teeth of the rack b, will hold the sliding frame in this elevated position, and it will be apparent that said frame can be fixed at any height within the length of the rack, the pawl being released in the manner to be described in the folding operation.

To lower the frame to fold it in compact form, the operator pulls upon the cord e, which is connected to the lower end of the rod d, and this rod, extending over the sleeve E, as described, forms a lever, with its fulcrum on the upper edge of said sleeve, whence the pull upon its lower end causes the lifting of its upper end, and hence the release of the spring-pawl from the rack. The frame will now slide down the post by its own gravity, the draft on the cord e being maintained to keep the pawl clear of the rack; but when the sleeve K has dropped a certain distance its farther descent will be stopped by the limiting-cord L. The draft is still continued on the cord e, and the pawl will be pulled against the limiting-pin f, when it will become apparent that the cord will now act to pull down the sleeve E away from the sleeve K to the position shown in Fig. 3. The sleeve will then drop until the pawl engages the notch g, when it will be held from either upward or downward movement, and the upper ends of the radial arms can be brought together and bound by the strap h, when the device will be in compact form and can be taken down and stored away until again required.

It is evident that many slight changes which might suggest themselves to a skilled mechanic could be resorted to without departing from the spirit and scope of my invention. Hence I do not limit myself to the precise construction herein shown; but,

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

1. In a clothes-drier, the combination of an upright post, a folding frame sliding thereon

and consisting of a pair of sleeves, radial arms extending from one of them and stay-rods connecting said arms and the other sleeve, an elevating-cord connected to the lower sleeve and running to the top of the post and thence to the base, projections from the adjacent ends of said sleeves arranged to come in contact to hold the latter at the desired distance apart, a limiting-cord connecting the upper sleeve with the post, a rack in the side of the latter, a pawl engaging said rack and traveling with the lower sleeve, and a cord connected to said pawl and running to the base of the upright post and arranged to release the pawl, substantially as described.

2. In a clothes-drier, the combination of an upright post, a rack in the side of the post, a frame sliding on the latter, a spring-pawl traveling with the frame and engaging the rack, a rod connected at one end to the pawl and finding a fulcrum on the hub of said frame, thus constituting a lever, and a cord connected to the other end of said lever and arranged to be manipulated to actuate the same and thus release the pawl, substantially as described.

3. In a clothes-drier, the combination of an upright post, a folding frame sliding on the latter, a rack in the side of the post, a spring-pawl engaging the rack and traveling with the frame, a rod connected to the pawl and finding a fulcrum on the hub of the frame, thus constituting a lever, a cord connected to said lever and arranged to be manipulated to actuate the same, and projections from the hub of the frame to limit said pawl, for the purpose described.

4. In a clothes-drier, the combination of an upright post, a folding frame sliding thereon and consisting of a pair of sleeves, radial arms extending from one of them, and stay-rods connecting said arms and the other sleeve, an elevating-cord connected to the lower sleeve and running to the top of the post and thence to the base, a limiting-cord connecting the upper sleeve with the post, a spring-pawl on the lower sleeve, and a notch at the base of the post arranged to be engaged by said pawl when the frame is in folded adjustment, substantially as described.

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

WILLIAM CURTIS.

Witnesses:

EDWARD HANCOCK,
JOHN T. BEASLEY.