

J. C. HAINES.
Clothes Drier.

No. 101,999.

Patented April 19, 1870.

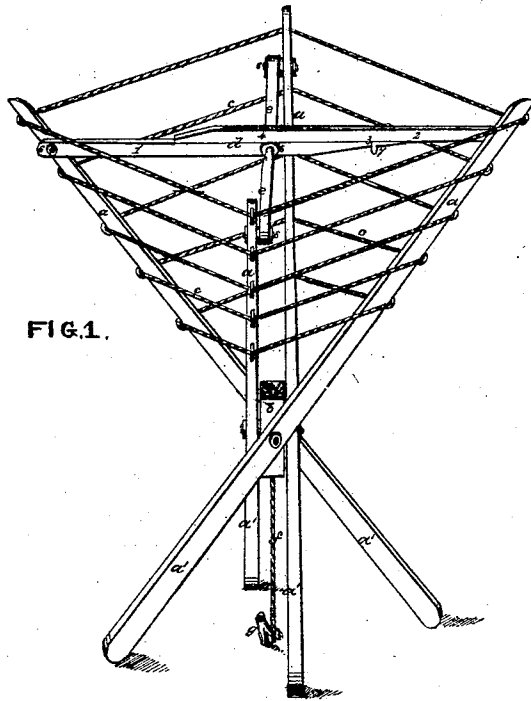


FIG. 1.

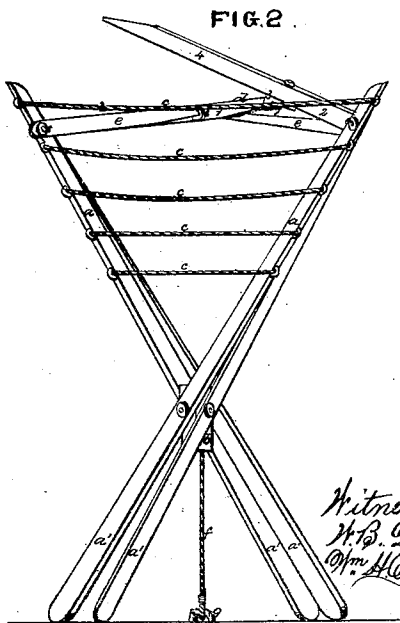


FIG. 2.

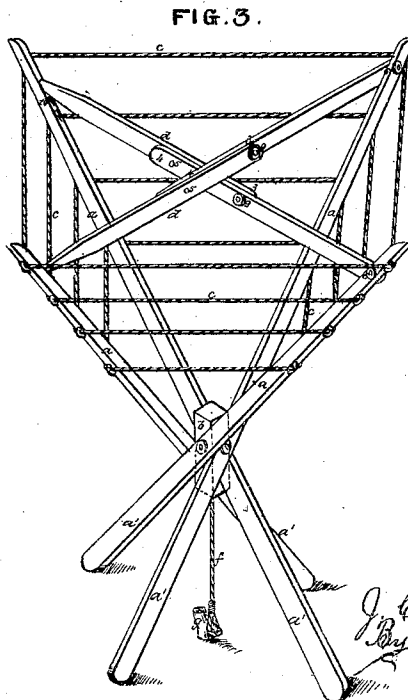


FIG. 3.

Witnessed
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JOSEPH C. HAINES, OF WEST PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 101,999, dated April 19, 1870.

IMPROVED CLOTHES-DRIER

The Schedule referred to in these Letters Patent and making part of the same

I, JOSEPH C. HAINES, of West Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Clothes-Racks, of which the following is a specification.

Nature and Objects of the Invention.

My invention relates to those forms of portable clothes-racks in which cords or lines, on which to hang the clothes, are supported by radiating inclined arms or bars, and stretched or tautened by the expansion of such arms or bars by braces or struts applied between their outer ends.

The labor involved in introducing the last of these braces has constituted a serious objection to the racks, owing to their use being by women.

My invention consists in making one or more of the braces of the rack in the form of a toggle, and extending the inner end of one member to form a lever, by which to straighten the toggle, said lever also forming the means for locking or supporting the brace in its extended condition.

I thus, without additional parts, and without appreciably increasing the bulk of the necessary parts or of the rack, as a whole, provide means which enables the rack to be stretched without more skill or strength than a child could furnish, at the same time providing a secure fastening for the device.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of my improved rack in a preferred form, adjusted for use.

Figure 2 is an elevation of the same, unstretched.

Figure 3 is a perspective view of a different rack, illustrating modifications.

Similar letters of reference indicate like parts in the several figures.

General Description.

I employ, as the base of my improved rack, four (more or less) arms or bars, *a*, connected at a proper point by a block, *b*, or its equivalent, and adapted to be spread apart at their outer ends, and which may be extended, as shown at *a'*, to form a stand.

A line or lines, *c*, attached to these arms, as represented, or in other suitable manner, provide the supports for the clothes.

To enable the arms *a* to be distended or spread apart, as required, to tauten or stretch the lines, I apply between each of one or more pairs of the same a brace, *d*, composed of two members, 1, 2, united in use by a hinge, or equivalent joint, 3, so as to form a toggle.

An extension, 4, of one member, 2, of this brace forms a lever, by which to operate it, and also the means for locking or supporting it, being held automatically, owing to the relative position of the axis of the joint 3, as represented in fig. 1, or by a suitable catch, 5, fig. 3.

Secondary braces *e e* of proper length passing from the remaining arms to one such brace *d*, between one pair of the arms *a* may be thrown into place simultaneously with the same, and the stretching be thus completed at one operation.

The braces *e e* and each of the members of the toggle-brace *d* may, for security, be hinged, as shown at 6, figs. 1 and 2, to the arms *a*, which they are to actuate, their hinges enabling them to be folded down when the rack is to be collapsed.

The joint 3 of the toggle-brace *d*, in this case, is formed by the end of the member 1 abutting against a shoulder, 7, of any suitable character, on the other member, 2.

The braces *e* are also, in this case, connected in like manner to the toggle-brace *d*, cups or sockets 8 being provided for the reception of their ends.

A rope, *f*, secured in or to the block *b*, of the form of rack exhibited, when used out of doors, may serve to fasten it to an anchor, *g*, to prevent its being overturned by the wind.

The hinge-joints shown are composed of transverse rivets, having washers at each end and between the parts, the members hinged lying side by side.

The non-essential portions of my rack are obviously capable of many modifications. Some of these, which I shall refer to, are represented for perspicuity in fig. 3.

I propose, as before stated, using one of the toggle-levers, *d*, between each pair of the arms *a* of the rack, as shown.

The joint 3 of said braces may also be a hinge-joint, as shown, the braces being in this event loose at one end, as at 9.

These loose ends may be utilized for rendering the braces adjustable, a number of holes or sockets, 10, being provided in the engaging arm of each for their reception.

The catch 5 shown is composed of a stud on the end of the lever 4, entering a corresponding socket in the other member of the brace, the parts being adapted to be sprung sufficiently to enable the same to be readily introduced.

Other means for adjusting the braces to take up slack in the lines may be employed. Toggle-levers, such as represented in figs. 1 and 2, may, for instance, be employed between all the arms, and be

made adjustable by a duplication of the shoulder 7 in the form of notches.

In racks having a center-post, the braces will abut against the same, as usual.

The joint 3 and lever 4 may, in this case, be provided in only one brace, to be applied last, and either of the described means for adjusting or any other suitable means for the purpose may be employed.

The braces may further, in this case, be hinged to the center-post, if preferred.

Claim.

I claim as new—

The toggle-braces *d*, one or more, provided with extensions or levers 4, and employed to spread the arms *a*, substantially as described.

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Witnesses:

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