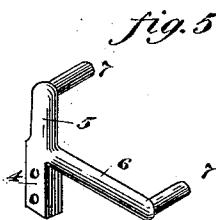
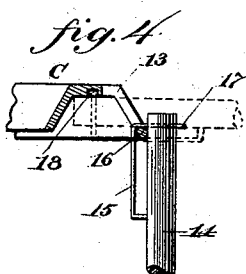
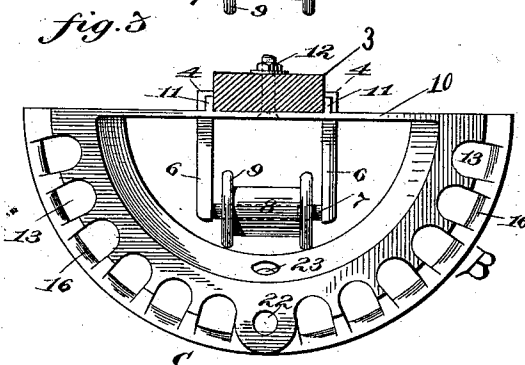
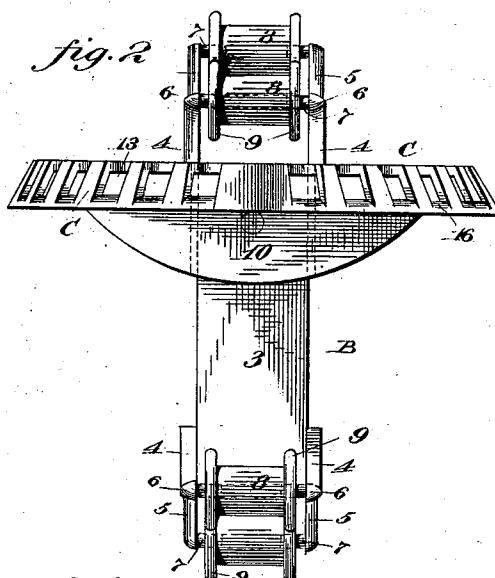
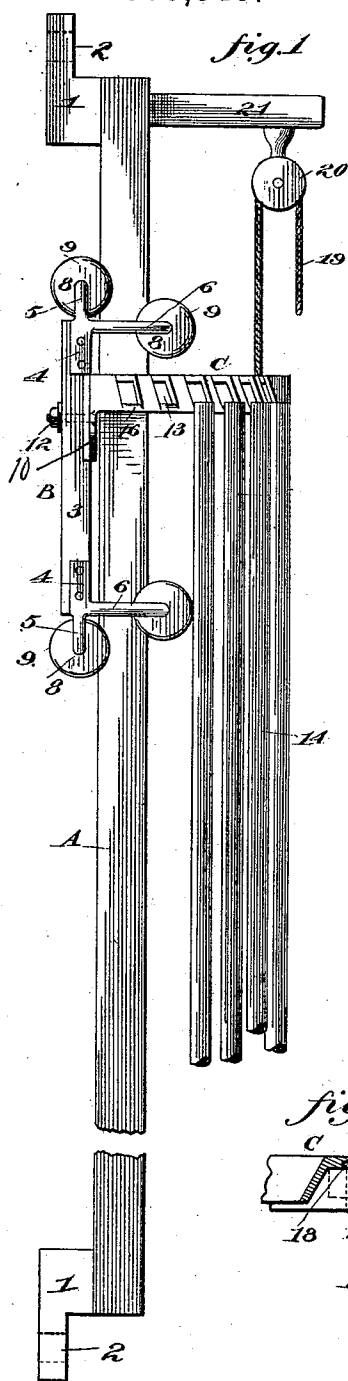


(No Model.)

J. J. BISEL.
CLOTHES DRIER.

No. 509,349.

Patented Nov. 21, 1893.



Witnesses.

J. Coleman
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Inventor

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UNITED STATES PATENT OFFICE.

JOSEPH J. BISEL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
TO AMBROSE B. CLEMMER AND ISAAC S. STOVER, OF SAME PLACE.

CLOTHES-DRIER.

SPECIFICATION forming part of Letters Patent No. 509,349, dated November 21, 1893.

Application filed September 21, 1892. Renewed October 25, 1893. Serial No. 489,133. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. BISEL, a citizen of the United States of America, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Clothes-Driers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to clothes-driers; and it has for its object the production of an apparatus that will be efficient, simple, compact, and easily constructed.

The invention will first be described in connection with the accompanying drawings, and then pointed out in the claim.

In the drawings, Figure 1 is a side elevation of my invention with portions broken away. Fig. 2 is a front elevation of the carriage with the rod-holder attached. Fig. 3 is a plan view of the same. Fig. 4 is a detail view, showing the method of attaching the clothes-rod to the holder. Fig. 5 is a detail perspective view of one of the roller-bearings.

Referring to the drawings, A is a standard, provided on its rear side, at each end, with blocks 1, having holes, as shown in dotted lines at 2, through which pass nails for securing the standard to the wall. On this standard runs a carriage B, consisting of a bed 3, to which are screwed roller-bearings 4, having vertical arms 5, and horizontal arms 6. These arms have inward-projecting ends 7, which serve as axles for rollers 8, having flanges 9, and provided with an axial hole, (as shown by dotted lines in Figs. 2 and 3,) into which the ends 7 of the arms 5 and 6 project.

A rod-holder C is attached to the carriage by means of an integral vertical back-plate 10, which is provided with flanges 11, bearing against the edges of the bed, the plate being held to the bed by means of a central bolt 12, passing through the plate and through the bed, as shown. The rod-holder is provided with sockets 13, which are adapted to hold rods 14 in a radial position, each rod having a catch-wire 15, which engages a bead 16, from which the rods hang when withdrawn from the sockets.

I am aware that it is old to use a catch-wire,

which engages a bead, for securing the clothes-rods to the holder when hanging down, and also to provide the rod-holder with sockets for holding the rods in a radial, horizontal position; but in such construction it has been customary to notch the rods for engagement with lugs in the tops or bottoms of the sockets, to prevent withdrawal of the rods while in use; whereas in my apparatus I avoid weakening the rods, which arises from notching them, by projecting the rear end of the catch-wire entirely through the rod and a short distance above it, as at 17, and forming a recess in the top of the socket, as at 18, into which the projection 17 enters, thereby holding the rod from being accidentally withdrawn. To remove the rod from the socket it is necessary to raise the outer end of the rod to disengage the projecting end 17 from the recess 18, when the rod may be drawn forward and out of its socket and then swung down to a vertical position, where it is supported from the bead 16 by the catch-wire.

The carriage, together with the rod-holder and its load when in use, is raised and lowered on the standard by means of a rope 19; leading over a pulley 20, attached to a support 21, projecting from the top of the standard, the rope having one end passed through a hole 22 in the top of the rod-holder, thence through a hole 23 in the rear of the rod-holder, and then knotted to prevent withdrawal. To secure the holder in its elevated position the rope may be fastened in any suitable manner to the foot of the standard.

It will be observed that the standard passes in front of the carriage-bed 3 and between the front of the rod-holder and the plate 10. By this construction the center of gravity of the load is kept much closer to the standard than in any of the clothes-driers of which I have knowledge; also, the pulley-support 21 can be made much shorter by my arrangement than in such previously-constructed driers, thereby bringing less strain on the fastenings of the top of the standard.

As the rollers carried on the ends of the horizontal arms run on the front of the standard, and the rollers carried by the vertical arms run on the rear of the standard, and as

the flanges of the rollers engage the sides of the standard, it will be apparent that the whole weight of the load is held firmly to the standard and all motion in a horizontal plane prevented.

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

In a clothes-drier, a carriage consisting of a bed and a series of roller-bearings attached to the bed, each of said bearings having both a vertical and a horizontal arm, the ends of

which arms are bent inward at right angles, in combination with a series of rollers having flanges and axial holes, into which holes the ends of the arms project, substantially as described and for the purpose set forth.

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

JOSEPH J. BISEL.

Witnesses:

A. B. CLEMMER,
ARNOLD KATZ.