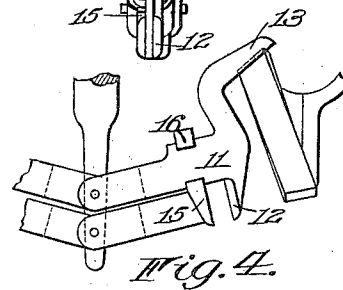
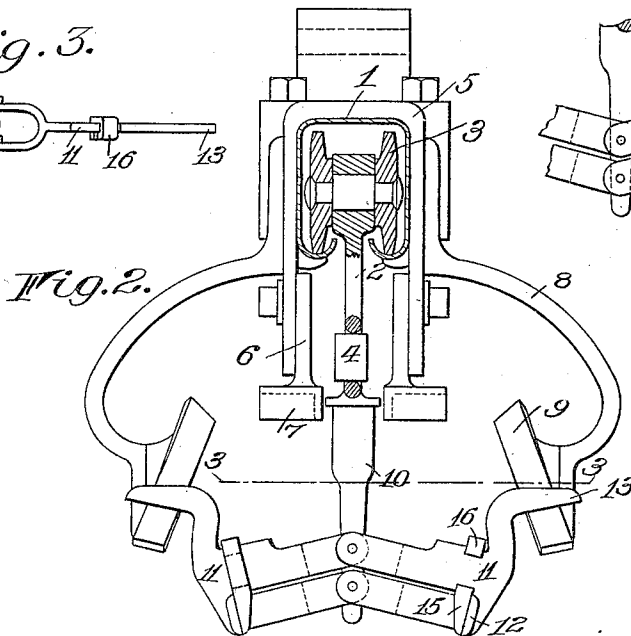
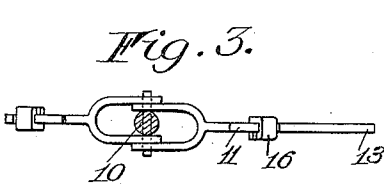
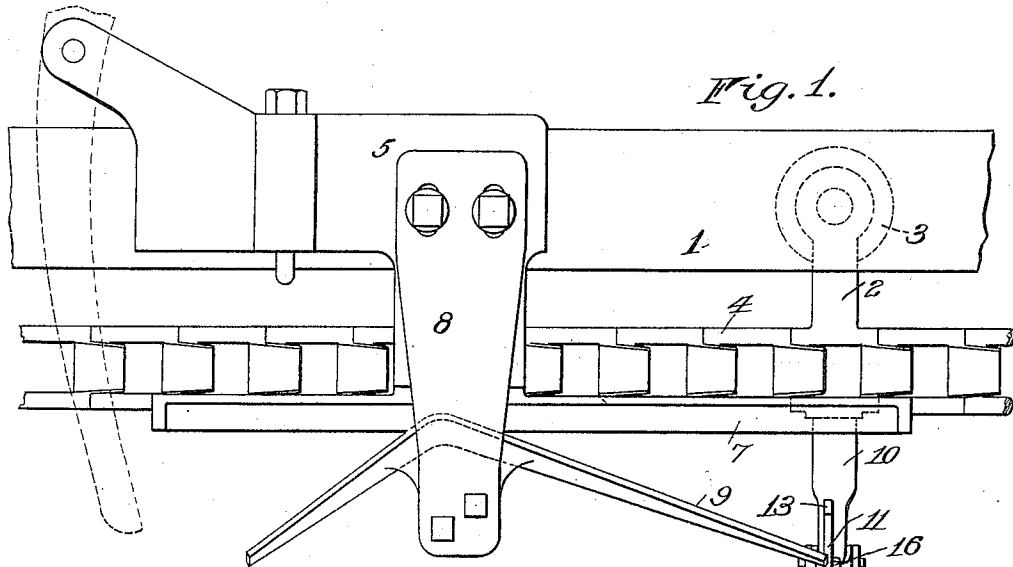


No. 822,604.

PATENTED JUNE 5, 1906.

A. T. HAGEN.
CLOTHES DRIER.

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CLOTHES-DRIER.

No. 822,604.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed February 23, 1905. Serial No. 246,862.

To all whom it may concern:

Be it known that I, ARTHUR T. HAGEN, of Rochester, in the county of Monroe and State of New York, 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 same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention relates to improvements in clothes-drying apparatus of that type shown in Letters Patent No. 735,366, granted August 4, 1903, to Hagen and Cooper, and has for its object to provide an improved clamp or hanger for clothes or other articles carried thereby, in which the articles are clamped or gripped more certainly, their weight tending to hold them more securely, and whereby also they may be released and the articles dropped as the carrier, to which the clamping device is attached, moves along its way. To these and other ends the invention consists in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings, Figure 1 is a side elevation of a portion of a carrier, showing my improvements; and Fig. 2 is a transverse sectional view. Fig. 3 is a horizontal sectional view on the line 3 3 of Fig. 2. Fig. 4 is a view showing the jaws open.

Similar reference-numerals in the several figures indicate similar parts.

1 indicates a suitable track, preferably tubular in form and having a slot at the bottom for the passage of the shanks or projections 2, having at their upper ends rollers 3, operating on the lower horizontally-extending flanges of the track, the lower portion of the shanks or projections 2 being attached at intervals to an endless conveyer or sprocket-chain 4, supported below the track by said shanks, and said conveyer or chain extends around guide-wheels and driving mechanism arranged at the bends or curves of the track and below the same for the purpose of guiding the conveyer into, through, and externally of the drying-chamber. The bracket 5, to which the track is connected, is provided at its lower side with brackets 6, adjustably secured to the downward extension

of the first-mentioned bracket and provided on their lower ends with extended flanges 7, serving as guides for the lower portions of the shanks. Extending outwardly from the main bracket are the arms 8, to the lower ends of which are rigidly secured inclined track-plates 9, said plates being arranged at a slight angle relative to the plane of the track or way, as shown particularly in Fig. 2, and adapted to engage the releasing projection of the clamping or holding device for the goods, as will be described.

Secured to the lower end of the shank 2 is an arm or extension 10, upon the lower portion of which are secured the clamps, one extending from each side of said arm and in the present construction each consisting of two cooperating clamping-jaws, the upper jaw 11 having a yoke at its inner end pivoted on the arm, the downwardly-extending clamping-face 12, and the upwardly and outwardly extending release-arm or projections 13. The lower jaw of each clamp is pivoted to the arm or extension below the upper jaw 11, being provided with a yoke at this end and at its outer end provided with a clamping face or portion 15, adapted to cooperate with the clamping-face 12 on the other jaw. This jaw is also provided with an upward extension 16, extending over and partially embracing the upper arm 11, although permitted a sliding movement therein, to prevent relative lateral movement. When two clamps are provided upon the device, as shown, the yokes at the inner ends of the clamps or opposite sides of the arm are preferably arranged as shown in Fig. 3, this particular arrangement being employed because the arms or opposite sides are formed of similar castings. This is an advantageous arrangement of the parts because the clamping devices projecting laterally from each side of their supports may conveniently hold such articles as collars and cuffs out of contact with each other, and there being two clamps on each support the capacity of a conveyer of given length will be doubled.

From the above construction it will be seen that the jaws of the clamps may be opened by moving upwardly the outer arms 13 and articles placed between the jaws 12 and 15 will be grasped and held securely when said arm is released, the weight of the garment or article assisting in clamping it more securely,

and as the conveyer is moved it will be safely transported through the drier-room. It may be automatically released when it reaches the desired position by the engagement of the arms 12 with the releasing cam-tracks 9, the jaws 12 and 15 being widely separated as the arm 12 moves upwardly.

By pivoting the cooperating jaws of the clamp on different centers and causing their simultaneous operation the goods are held securely and readily released by the operation of one only of the jaws.

The device is found in practical use to be admirably adapted for drying apparatus of the endless-conveyer type, and the parts being simple and cheap they may be readily applied to a drying apparatus already in use.

I claim as my invention—

1. In a clamp for suspending garments, the combination with a support, of parallel arms pivoted thereon on different centers and having cooperating holding-jaws movable in intersecting arcs.

2. In a clamp for suspending garments, &c., the combination with a support, of two parallel arms pivoted on the support on different centers and having cooperating gripping-surfaces movable in intersecting arcs, said jaws being connected for simultaneous operation.

3. In a clamp for suspending garments, &c., the combination with a support, of the two parallel arms pivoted to the support one above the other, having opposing clamping-surfaces at points removed from their pivots and connections between said jaws for causing their simultaneous operation on their pivots.

4. In a clamp for suspending garments, &c., the combination with a support, of the two holding-jaws pivoted to the support one above the other having opposing clamping-surfaces at points removed from their pivots and connections for maintaining said jaws in substantial parallelism as they are moved on their pivots.

5. The combination with the support, of parallel arms pivoted at one end to said support on different centers and having opposing clamping-faces at their other ends, means for causing the simultaneous operation of the jaws on their pivots to approach or separate the opposing surfaces.

6. The combination with the support, of the clamping-jaws pivoted thereon at one end on different centers and having opposing clamping-faces at their other ends remote from their pivotal points, connections for causing the simultaneous operation of the jaws, one of the latter having an operating extension thereon.

7. The combination with the support, of the clamping-jaws pivoted thereon on different centers and having opposing clamping-faces, a projection on one jaw engaging the

other to cause their simultaneous operation and an operating portion on one of the jaws for causing their separation.

8. The combination with a traveling conveyer, of a pair of gravitating clamping-jaws thereon having opposing faces and relatively stationary means for causing the separation of said jaws.

9. The combination with a traveling conveyer, of a pair of gravitating clamping-jaws pivoted thereon and on different centers and having opposing engaging faces, connections for causing their simultaneous operation and relatively stationary means for separating them.

10. The combination with the traveling conveyer, of clamping devices projecting from opposite sides thereof, each embodying two opposing jaws pivoted on different centers, connections between the jaws for causing their simultaneous operation and relatively stationary means for separating said jaws.

11. The combination with the track, a traveling conveyer supported thereon and the downward extensions, of the clamping devices extending on opposite sides of said extensions and perpendicular to the plane of movement of the conveyer, said clamping devices embodying pivoted jaws connected for simultaneous operation and relatively stationary means for engaging and separating the clamping-jaws during the movement of the conveyer.

12. The combination with the track, a traveling conveyer supported thereon having the downward extensions, of clamping devices extending from opposite sides thereof each embodying a pair of opposing jaws pivoted on different centers and connected for simultaneous operation and relatively stationary means for engaging one of the jaws of each pair and causing their separation during the movement of the conveyer.

13. The combination with the track, a traveling conveyer supported thereon, having the downward extension, of a clamping device embodying a pair of jaws pivoted on different centers, connections between the jaws for causing their simultaneous operation and a stationary cam for engaging one of the jaws to separate them during the movement of the conveyer.

14. The combination with the track, a traveling conveyer supported on the track and extending below the same and guides at the sides of said conveyer, and a cam-track arranged below and laterally of said guides, of clamping devices supported on the conveyer and embodying relatively movable jaws one of which is adapted to engage the cam-track to separate the jaws.

15. The combination with a traveling conveyer, of a holding-clamp thereon embodying two jaws pivoted on different centers, and having opposing faces extending parallel

with the line of travel of the conveyer, one of said jaws having lugs engaging and sliding upon the other and one provided with an outwardly-extending operating portion.

5 16. The combination with a traveling conveyer and a support depending therefrom, of two clamping devices arranged one at each side of the support projecting laterally there-

from in opposite directions and relatively stationary means located at each side of the conveyer and coöperating with each clamping device. 10

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Witnesses:

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