Oct. 4, 1938. H. F. WANAMAKER 2,132,331

REST

Filed May 12, 1937 2 Sheets-Sheet 1

Fig. 3.

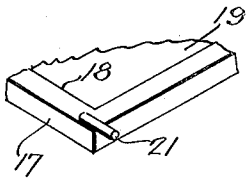


Fig. 1.

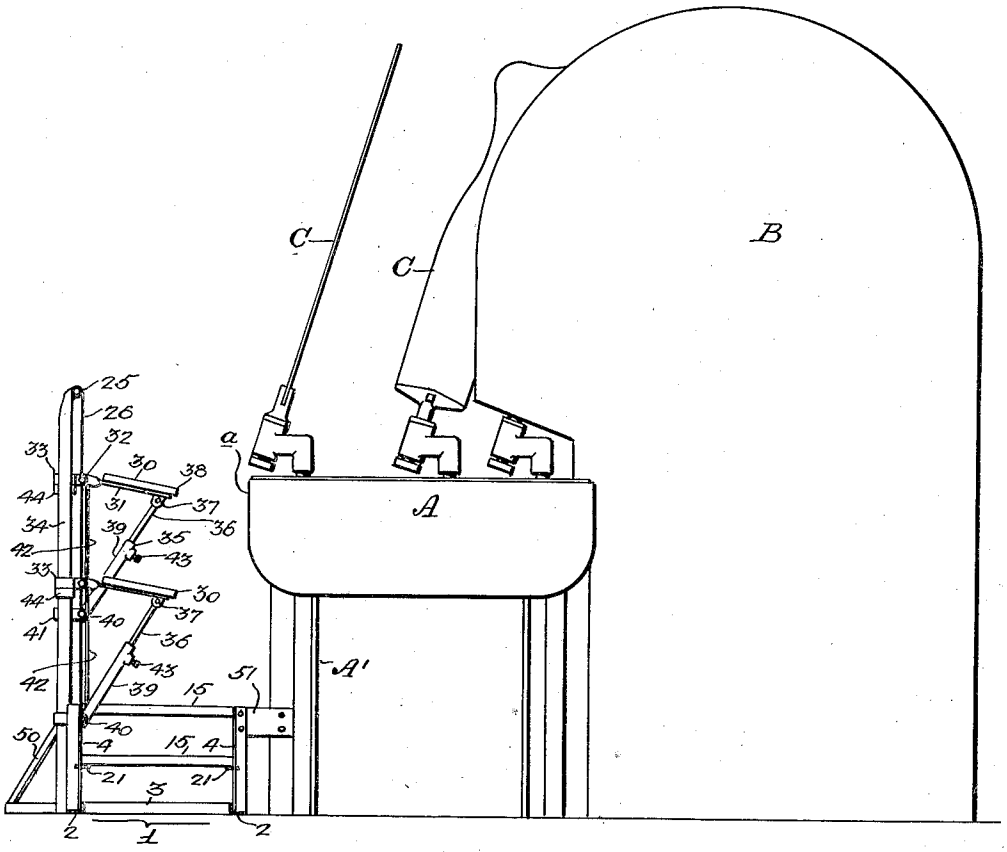
Inventor
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by his Attorneys.
Howson & Howson

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Filed May 12, 1937 2 Sheets-Sheet 2

Fig. 2.



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UNITED STATES PATENT OFFICE

2,132,331

REST

Harry F. Wanamaker, Philadelphia, Pa., assignor to Proctor & Schwartz, Incorporated, Philadelphia, Pa., a corporation of Pennsylvania

Application May 12, 1937, Serial No. 142,308

7 Claims. (Cl. 155—1)

This invention relates to apparatus for providing rests for stocking boarders while working in front of automatic hosiery drying machines of the type disclosed in the original United States Letters Patent No. 1,112,329, dated September 29, 1914, issued to Walter M. Schwartz and Harry Coulston; and subsequent patents issued to said parties and to others for improvements thereon.

The positions assumed by the boarders, when applying stockings to the drying forms which move continuously along a track in front of the boarders while the boarders stand in front of the machine, is one wherein the boarders' bodies, from the hips upwardly, are inclined slightly forward, i. e. toward the machine, with the arms outstretched. This posture is maintained for long periods of time without interruption, which tends to tire the boarders rapidly, and as the hours of occupation progress the efficiency of the boarders decreases.

Experiments have proven that, if the boarders are given an opportunity to stretch their limbs below the hips at an incline to the vertical, on an angle opposite to that assumed by the body above the hips, with the back portion of the anatomy adjacent the hips resting against a solid object located behind them, while engaged in boarding stockings, the operators do not become unduly fatigued by their continuous forward reaching pose and their efficiency remains at a high level throughout the whole of the normal working period.

It has also been proven by experiment that if the solid object constituting the rest against which the operator braces herself while at her task is in the form of a shelf arranged, preferably at a slight angle to the horizontal, with the brace-forming edge of the rest at a height to engage the person at the back of the upper limbs, just below the under-curvature of the buttocks, the working posture becomes still less fatiguing.

The object of the present invention is to provide a rest at the boarder's station of a machine of the type noted which will fulfill all of the above noted requirements.

The construction of the apparatus and its position relative to the machine will be fully disclosed hereinafter, reference being had to the accompanying drawings, of which:

Fig. 1 is a perspective view of the apparatus;

Fig. 2 is an end elevation of the machine with the apparatus in position at the boarder's station in front of the machine; and

Fig. 3 is a perspective view of a detail of the invention.

The apparatus comprises a substantially flat rectangular base frame 1 composed of side members 2, 2 and transverse end members 3, 3. At each of the four corners of the base frame 1 is a vertical post 4; and intermediate the corner posts 4, 4 along the side members 2, 2, are central vertical posts 5, 5.

The members 1, 2, 3, 4 and 5 are preferably composed of angle and T irons rigidly connected together, as by welding, to form a rigid foundation or framework of the rest-supporting structure.

The center posts 5, 5 are provided with flanges 6, 6 disposed in common parallel longitudinally extending planes at opposite sides respectively of the base frame 1. Each of the flanges 6 is provided with a series of relatively vertically spaced horizontal sockets, slots or notches 7, 7 formed therein.

Each of the corner posts 4, 4 is provided with a flange 8, in the same plane as the flanges 6, 6. Each of the flanges 8 is provided with a series of vertically relatively spaced sockets, slots or notches 9, 9 arranged with the terminal ends or bases 10 of the slots or sockets substantially at the same elevations as the horizontal slots 7, 7 of the center posts 5, and with the throats 11, 11 of the slots 9 arranged at an angle to the horizontal and pointing upwardly and outwardly in opposite directions from the frame at the opposite ends respectively of the frame 1.

Adjustably mounted in the base framework is a pair of platforms 15, 15 each of which comprises a rigid rectangular framework 16 composed of angle irons 17 welded together at the corners of the platform with horizontal flanges 18 turned inwardly and cooperatively supporting the planking 19 of the platform.

The platforms 15, 15 are of such dimensions as to fit comfortably between the flanges 6, 6 and 8, 8 of the posts 5, 5 and 4, 4 respectively and extend from the center posts 5, 5 in opposite directions to the end posts 4, 4 at the opposite ends respectively of the base frame 1.

Each platform 15 is provided with laterally extending projections in the form of pins 20, 20 at opposite sides respectively of one end of the platform arranged to fit into the horizontal slots 7, 7 of the posts 5, 5; and at the opposite sides respectively of the other end with laterally extending projections in the form of pins 21, 21 arranged to fit in the inclined slots 9, 9 of the end posts 4, 4 respectively.

The pins 21, 21 engage the lower inclined edges of the slots 9, 9 which act as cams and the weight of the platform riding on these cam surfaces causes the platforms 15, 15 to tend to move toward the center posts 5, 5 and thereby hold the platform firmly in the main framework of the apparatus.

The arrangement of pins and slots above noted provides for ready adjustability of the platforms 15, 15 in the framework whereby the platforms may be set at the most convenient elevations for boarders of various statures.

The apparatus also includes a fixed guard rail 25 which extends parallel to and is spaced at a predetermined height above the longitudinal frame member 2, at one side of the foundation frame 1. The horizontal rail 25 is supported by vertical posts 26, 26 which, for the sake of rigidity and simplicity, are welded to the angle iron corner posts 4, 4 at said side of the frame 1. The guard rail 25 may be at such an elevation as to be engaged by the backs of the boarders in the region of the hips when standing on the platform 15. However, for greater convenience of the operators the apparatus is provided with an adjustable seat or rest member 30, above each of the platforms 15.

As shown in Fig. 2, each of the rear rest members 30 is in the form of a rectangular plank arranged to be adjusted to any desired angle below the horizontal, the normal position of the rest or seat 30 being approximately five to ten degrees with respect to the horizontal. At the under side of each rest element 30 is secured an arm 31 which is pivoted at 32 to a collar 33.

The collar 33 is rotatably mounted on a standard 34 having its lower end welded or otherwise secured to a side wall 2 of the frame 1 and its upper end welded or otherwise secured to the guard rail 25.

An adjustable telescopic link 35 has one end of one of the relatively slidable elements 36 pivotally connected at 37 to the free end of the arm 31, adjacent the front edge 38 of the rest element 30. The opposite end of the element 36 is slidably mounted in the second or sleeve element 39 of the telescopic link 35 which has one end pivotally connected at 40 to a second collar 41 which is rotatably mounted on the upright 34.

The collars 33 and 34 are rigidly connected by a bar 42, whereby said collars are maintained in fixed relation to each other to maintain the link element 35 as a strut for supporting the rest element 30 at any desired angle with respect to the horizontal.

The elements 36 and 39 of the telescopic link or strut member 35 are maintained in predetermined relation to each other by means of a set screw or other clamping means 43.

The rest element 30 and its supporting structure is arranged to be swung about the axis of the standard 34 out of position above the platform 15, when desired, and is arranged to be moved vertically along the standard 34 to any desired elevation.

The rotary and vertical adjustment of the rest 30 is made possible by means of a collar 44 which is adjustably mounted on the standard 34 and adapted to be secured in any position desired by the set screw 45.

It is customary to have two boarders working side by side in front of the hosiery drying machine, the one boarder merely taking the damp stockings and putting them on the forms which are moving progressively across the front of the machine, in front of the boarders. The second boarder's duty is to straighten each stocking on its form, and, in the case of full-fashioned hosiery having a seam along the sole of the foot and up to the back of the leg, to align the seam with the back edge of the hosiery form, at the same time pulling the stocking down smoothly on the form, after which the form with the stocking thereon automatically progresses along the track and into the drying chamber of the machine.

As shown in Fig. 2, the track structure of the machine is shown at A, the drying chamber at B, and the hosiery drying forms at C. The apparatus forming the subject of the present invention is arranged with the main frame 1 parallel to the front edge *a* of the track structure A with the rail 25 parallel to the path of travel of the forms, forming an alley therebetween in which the boarders work.

In order to prevent the rest from tilting backwardly under the weight of the two operators leaning against the rests 30, 30, the lower ends of the standards 26, 26 or 34, 34 or both may be provided with feet 50 which extend laterally from the main frame 1 a desired distance beyond the vertical plane of the guard rail 25 or the opposite side of the frame 1 may be rigidly connected to the front legs A^1 of the drying machine by plates or brackets 51 connected to the end posts 4, 4.

From the above, it will be clear that the platforms 15, 15 may be set at any desired elevations with respect to the fixed elevation of the path of travel of the boards or forms C, to accommodate boarders of various statures; and that the rests 30, 30 may be adjusted to any desired elevations and angles relative to the platforms 15 and to the path of travel of the forms C, C; and that the rests 30, 30 may be swung out of the boarders' alley between the rail 25 and the front of the machine to positions behind the vertical plane in which the rail 25 is disposed.

I claim:

1. In an apparatus of the kind described, the combination of a substantially rectangular frame, a vertical post at each of the four corners of said frame, a central post on each longitudinal side of the frame intermediate said corner posts, a pair of relatively movable substantially rectangular platforms between said posts and extending in opposite directions respectively from said central posts to the corner posts at the opposite ends of said frame, lateral projections on each of the four corners of each platform with the projections at the corners of the platforms lying adjacent said central posts projecting into horizontal slots formed in said central posts and the projections on the corners of the platforms lying adjacent the corner posts extending into inclined slots in said corner posts, the lower edges of said inclined slots functioning as cams to force said platforms in opposite directions towards said central posts, a vertical post extending upwardly from said frame adjacent one side of each platform intermediate the corner and central posts of said frame, and a rear rest carried by each of said intermediate posts above each platform.

2. In an apparatus of the kind described, the combination of a substantially rectangular frame, a vertical post at each of the four corners of said frame, a central post on each longitudinal side of the frame intermediate said corner posts, a pair of relatively movable substantially rectangular platforms between said posts and extending in opposite directions respectively from said central posts to the corner posts at the opposite ends

of said frame, lateral projections on each of the four corners of each platform with the projections at the corners of the platforms lying adjacent said central posts projecting into horizontal slots formed in said central posts and the projections on the corners of the platforms lying adjacent the corner posts extending into inclined slots in said corner posts, the lower edges of said inclined slots functioning as cams to force said platforms in opposite directions toward said central posts, a vertical post extending upwardly from said frame adjacent one side of each platform intermediate the corner and central posts of said frame, and a rear rest carried by each of said intermediate posts above each platform and rotatably mounted thereon for swinging movement from said positions above said platforms to positions beyond the edges of said platforms.

3. In an apparatus of the kind described, the combination of a substantially rectangular frame, a vertical post at each of the four corners of said frame, a central post on each longitudinal side of the frame intermediate said corner posts, a pair of relatively movable substantially rectangular platforms between said posts and extending in opposite directions respectively from said central posts to the corner posts at the opposite ends of said frame, lateral projections on each of the four corners of each platform with the projections at the corners of the platforms lying adjacent said central posts projecting into horizontal slots formed in said central posts and the projections on the corners of the platforms lying adjacent the corner posts extending into inclined slots in said corner posts, the lower edges of said inclined slots functioning as cams to force said platforms in opposite directions toward said central posts, a vertical post extending upwardly from said frame adjacent one side of each platform intermediate the corners and central posts of said frame, a rear rest carried by each of said intermediate posts above each platform and rotatably mounted thereon for swinging movement from said positions above said platforms to positions beyond the edges of said platforms, and means for securing said rear rests at various elevations on said intermediate posts while allowing for said swinging movements.

4. In an apparatus of the kind described, the combination of a substantially rectangular frame, a vertical post at each of the four corners of said frame, a central post on each longitudinal side of the frame intermediate said corner posts, a pair of relatively movable substantially rectangular platforms between said posts and extending in opposite directions respectively from said central posts to the corner posts at the opposite ends of said frame, lateral projections on each of the four corners of each platform with the projections at the corners of the platforms lying adjacent said central posts projecting into horizontal slots formed in said central posts and the projections on the corners of the platforms lying adjacent the corner posts extending into inclined slots in said corner posts, the lower edges of said inclined slots functioning as cams to force said platforms in opposite directions toward said central posts, a vertical post extending upwardly from said frame adjacent one side of each platform intermediate the corner and central posts of said frame, a rear rest carried by each of said intermediate posts above each platform and rotatably mounted thereon for swinging movement from said positions above said platforms to positions beyond the edges of said platforms, means for securing said rear rests at various elevations on said intermediate posts while allowing for said swinging movements, and a fixed rail secured to the upper ends of said intermediate posts above said rear rests and extending longitudinally of said frame.

5. In an apparatus of the kind described, the combination of a substantially rectangular frame, a vertical post at each of the four corners of said frame, a central post on each longitudinal side of the frame intermediate said corner posts, a pair of relatively movable substantially rectangular platforms between said posts and extending in opposite directions respectively from said central posts to the corner posts at the opposite ends of said frame, lateral projections on each of the four corners of each platform with the projections at the corners of the platforms lying adjacent said central posts projecting into horizontal slots formed in said central posts and the projections on the corners of the platforms lying adjacent the corner posts extending into inclined slots in said corner posts, the lower edges of said inclined slots functioning as cams to force said platforms in opposite directions toward said central posts, a vertical post extending upwardly from said frame adjacent one side of each platform intermediate the corner and central posts of said frame, a rear rest carried by each of said intermediate posts above each platform and rotatably mounted thereon for swinging movement from said positions above said platforms to positions beyond the edges of said platforms, means for securing said rear rests at various elevations on said intermediate posts while allowing for said swinging movements, and a fixed rail secured to the upper ends of said intermediate posts above said rear rests and extending longitudinally of said frame and to vertical extensions of the corner posts at one side of said frame.

6. In an apparatus of the kind described, the combination of a substantially rectangular frame, a vertical post at each of the four corners of said frame, a central post on each longitudinal side of the frame intermediate said corner posts, a pair of relatively movable substantially rectangular platforms between said posts and extending in opposite directions respectively from said central posts to the corner posts at the opposite ends of said frame, lateral projections on each of the four corners of each platform with the projections at the corners of the platforms lying adjacent said central posts projecting into horizontal slots formed in said central posts and the projections on the corners of the platforms lying adjacent the corner posts extending into inclined slots in said corner posts, the lower edges of said inclined slots functioning as cams to force said platforms in opposite directions toward said central posts, a vertical post extending upwardly from said frame adjacent one side of each platform intermediate the corner and central posts of said frame, a rear rest carried by each of said intermediate posts above each platform and rotatably mounted thereon for swinging movement from said positions above said platforms to positions beyond the edges of said platforms, said rear rests each comprising a pair of collars spaced vertically along said intermediate posts, a bar extending between and rigidly secured at its opposite ends respectively to said collars, an arm pivoted to the upper collar, and a telescopic link pivotally connecting the outer end of said arm and to the lower collar.

7. In an apparatus of the kind described, the combination of a substantially rectangular frame, a vertical post at each of the four corners of said frame, a central post on each longitudinal side of the frame intermediate said corner posts, a pair of relatively movable substantially rectangular platforms between said posts and extending in opposite directions respectively from said central posts to the corner posts at the opposite ends of said frame, lateral projections on each of the four corners of each platform with the projections at the corners of the platforms lying adjacent said central posts projecting into horizontal slots formed in said central posts and the projections on the corners of the platforms lying adjacent the corner posts extending into inclined slots in said corner posts, the lower edges of said inclined slots functioning as cams to force said platforms in opposite directions toward said central posts, a vertical post extending upwardly from said frame adjacent one side of each platform intermediate the corner and central posts of said frame, a rear rest carried by each of said intermediate posts above each platform and rotatably mounted thereon for swinging movement from said positions above said platforms to positions beyond the edges of said platforms, said rear rests each comprising a pair of collars spaced vertically along said intermediate posts, a bar extending between and rigidly secured at its opposite ends respectively to said collars, an arm pivoted to the upper collar, a telescopic link pivotally connecting the outer end of said arm and to the lower collar, and a substantially flat rectangular board carried by said arm in a normally horizontal plane.

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