## Oct. 31, 1950 J. R. HAPPER DEVICE FOR PRESSING GARMENTS Filed May 18, 1948 2 Sheets-Sheet 1



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Inventor: Jamee Robert Happer Pennie, Edmondo, Moston Barrow Attorneys.

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# Oct. 31, 1950 J. R. HAPPER 2,527,997 DEVICE FOR PRESSING GARMENTS DEVICE FOR PRESSING GARMENTS Filed May 18, 1948 2 Sheets-Sheet 2

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### INVENTOR JAMES R. HAPPER

Pennie, Edmonds, Morton and Berrows, attys

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## UNITED STATES PATENT OFFICE

2,527,997

**DEVICE FOR PRESSING GARMENTS** 

#### James Robert Happer, Beechgrove, Moffat, Scotland

Application May 18, 1948, Serial No. 27,678 In Great Britain May 19, 1947

12 Claims. (Cl. 223-57)

This invention relates to a device for pressing garments, for example, trousers, and provides for forming a crease or creases in garments by pressure applied from the inside and from the outside, instead of entirely from the outside as is customary with "batten" type trousers pressers.

The invention aims to reduce the weight of the structure in order to render it readily portable and to simplify its use and manufacture from a wider variety of materials. For example, a trou- 10 sers press of the old type might weigh 18 or 20 lbs., whereas in a construction according to the invention the weight in thin stainless steel or alloy metal may be in the region of only 2 or 3 lbs.

comprises, for each tubular portion to be pressed, a main flat longitudinal member, interior outlineforming strips conforming to the outline of the flattened tubular portion and spaced from the longitudinal edges of said member substantially 20 in the plane of said member, said outline-forming strips being coupled near their ends to the centres of associated toggles, one end of each of which is pivoted to the main longitudinal member, and associated slide movable along said longitudinal member, a cross bar at one end of the main longitudinal member, and exterior creasing clips pivoted to the cross bar close to the ends of the cross bar.

The exterior creasing clips may comprise strips of spring material folded longitudinally to U-shape in cross section.

The exterior creasing clips may each comprise several sections linked to one another.

The sections of the exterior creasing clips may be linked to one another by rings. Additionally, said sections may be arranged to slide into, or over one another.

In a press for trousers two sets of apparatus as described may be fastened together at one end to lie side by side in parallel planes.

A practical embodiment of the invention is illustrated in the accompanying drawing in which A garment press according to the invention 15 Fig. 1 is an elevation view of the device of this invention; Fig. 2 is a sectional view taken on line 2—2 of Fig. 1, and Fig. 3 is a partial elevation view of the device taken on a larger scale than shown in Fig. 1.

The toggles may be interconnected to move simultaneously on movement of a selected slide.

The interconnection of the toggles may be such that selected toggles operate with a faster action than the others.

The toggles may be interconnected by resilient connecting means.

The interior outline-forming strips and/or the exterior creasing clips may each comprise a number of elements linked to one another to form a  $_{40}$ chain-like structure. The longitudinal member may be in several sections hinged to one another to facilitate storage, the interior outline-forming strips being correspondingly hinged to fold up along with the longi- 45 tudinal member. Alternatively, adjacent sections may be adapted to slide into, or over one another. The cross bar may be formed as a coat-hanger. The hinges connecting the sections of the outline-forming strips and the hinges connecting the 50sections of the longitudinal member may be springs or may be strips of flexible material such as rubber.

In the drawings, I denotes the main flat longitudinal member composed of upper and lower sections fitted together in any suitable manner. The outer walls of the member have slots formed therein within which the inturned ends of slides the other end of each of which is pivoted to an 25 13, 14 and 16 move. 2 denotes the interior outlineforming strips. 3, 4, 5 and 6 denote the links of toggles connected to the outline-forming strips 2 at 7 and 8. The toggle links 3 and 6 are pivoted at 9 and 10, respectively, to the main member 1, and the links 4 and 5 are pivoted at 11 and 12 to slides 13 and 14, respectively. 15 denotes auxiliary links each connected at one end to the auxiliary slide 16, and at the other end to the apex of the toggle constituted by the links 3 and 4. 16' denotes thumb hole grips on the outline-forming strips 2. 17 denotes the outline of a pair of trousers, and 18 denotes the turn-up at the foot of the leg. 19 denotes the cross bar. 20 denotes the exterior creasing clips made of spring material, each folded longitudinally to form a substantially U-shaped cross section. The clips are pivoted to the cross bar close to its end. 21 denotes springs connecting the sections of the main longitudinal member 1, and 22 denotes strips of flexible material connecting the sections of the outline-forming strips 2. 23 denotes the rings connecting the sections of the exterior creasing clips 20, and 24 denotes slot and pin connections between telescoping sections of the clips 20. 25 denotes a catch bar for locking the toggles. 26 denotes hinge locking rods adapted to be moved axially through two of the springs 21 whereby to prevent the main member I from being folded accidentally while the press is in use. In practice, the longitudinal member | with 55

Locking means may be provided to lock the toggles in desired positions.

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the attached interior outline-forming strips is inserted into a tubular portion of a garment to be pressed, in the drawing, a leg of a pair of trousers, and the thumb hole grips 16' are moved away from one another, thereby moving the in- 5 terior outline-forming strips away from one another and against the inner wall of the portion of the garment to be pressed.

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The toggle links 5, in swinging away from one another cause the slide 14 to approach the links 10 6. When the toggle 3, 4, and 5, 6 are interconnected, movement of the slide 14 causes the slide 16 to move automatically in the same direction, thereby swinging the links 4 away from one another and causing the adjacent ends of the out- 15 line-forming strips 20 to move away from one another. The slides are then locked in position with the interior outline-forming strips against the inner surface of the garment and forming creases in the garment. The exterior creasing 20 clips are then clipped over the edges of the flattened garment, the crease with the contained outline-forming strip being between the arms of the U. The device may then be hung up, or otherwise stored. When out of use, the main longitudinal member I and the outline-forming strips 2 may be folded back on themselves about the hinges 21 and 22, respectively. The exterior creasing clips 20 may then be folded about the rings 23.

3. A garment press as claimed in claim 1 in which the toggles are interconnected to move simultaneously, but at different speeds, on movement of one slide.

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4. A garment press as claimed in claim 1 in which the outline-forming strips each comprise a plurality of elements linked to one another to form a chain-like structure.

5. A garment press as claimed in claim 1 in which the exterior creasing clips each comprise a plurality of elements linked to one another to form a chain-like structure.

What is claimed is:

1. A garment press comprising, for each tubular portion to be pressed, a main flat longitudinal member, interior outline-forming strips conformable to the flat outline of said tubular portion, 35 and spaced from the longitudinal edges of said member substantially in the plane of said member, toggles each coupled at the centre to an adjacent outline-forming strip, and each pivoted at one end to said main longitudinal member, 40 slides movable along said main member, the other end of each of said toggles being pivoted to an associated slide, a cross bar at one end of said main member, and exterior creasing clips pivoted to said cross bar close to the ends of said cross 45bar, said clips being so cooperatively arranged with respect to the outline-forming strips that engagement between the clips and said strips with the garment therebetween will form creases in said garment. 2. A garment press as claimed in claim 1 in which the toggles are interconnected to move simultaneously on movement of one slide.

6. A garment press as claimed in claim 1 in which the main longitudinal member is formed of a plurality of hingedly connected sections.

7. A garment press as claimed in claim 1 in which at least one element of each outline-forming strip comprises two sections hinged to one another.

8. A garment press as claimed in claim 1 in which the exterior creasing clips comprise strips of spring material folded longitudinally to U-shape in cross section.

9. A garment press as claimed in claim 1 in 25 which the exterior creasing clips each comprise a plurality of elements linked to one another, at least one element of each clip comprising two section slidable one within the other.

10. A garment press as claimed in claim 1 in-30 cluding locking means to lock the toggles in desired positions.

11. A garment press as claimed in claim 1 in which the cross bar is formed as a coat hanger. 12. A garment press as claimed in claim 1 in which the longitudinal member comprises a plurality of pairs of tubular sections, helical springs connecting the sections of each pair and acting as hinges, the axes of said springs being coincident with the axes of the sections of the respective pairs, and locking rods passing through said tubular sections, and adapted to be moved axially through said springs.

#### JAMES ROBERT HAPPER.

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