

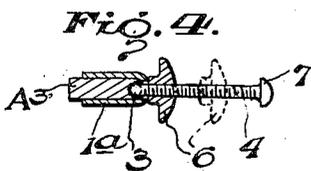
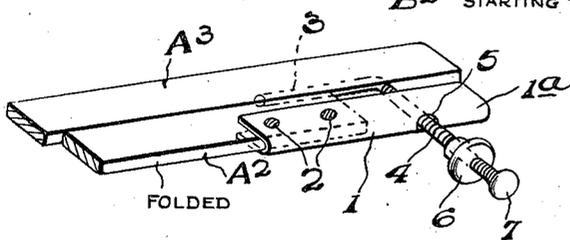
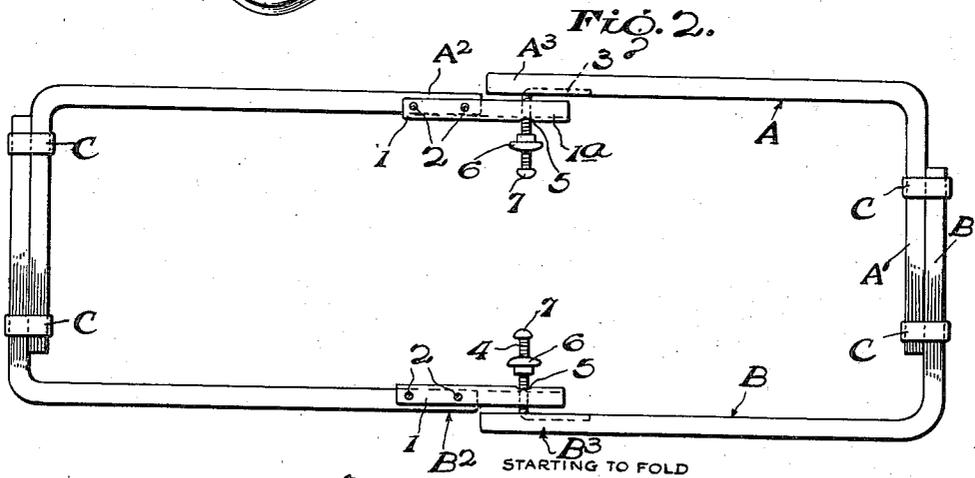
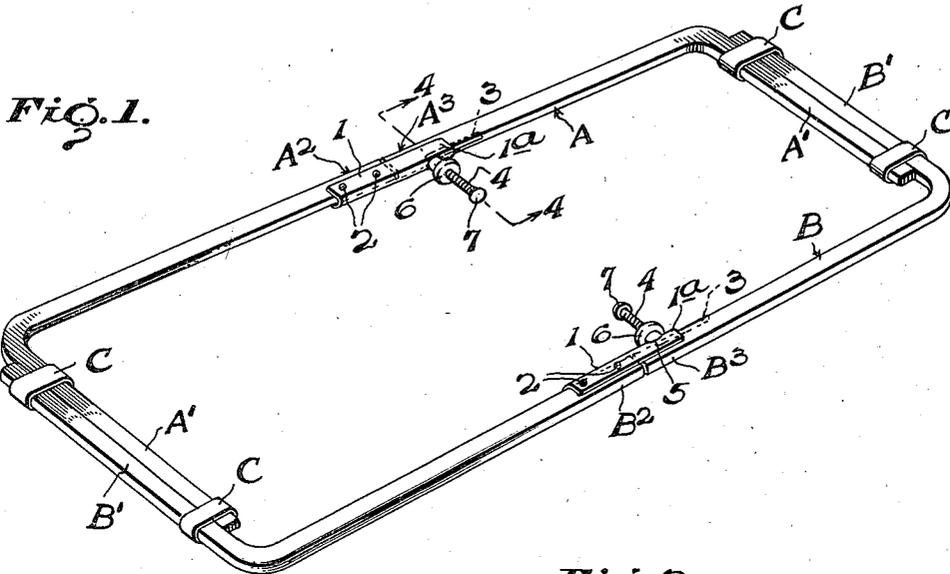
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COLLAPSIBLE GARMENT FRAME

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334

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## COLLAPSIBLE GARMENT FRAME

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2 Claims. (Cl. 223-63)

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This invention relates to a device for maintaining the shape and crease in men's trousers while the same are not in use, and has particular reference to a device which may be collapsed without dismantling in the respect that it may be readily folded to fit into a travelling bag, trunk, or the like.

Devices of this type are generally known and usually consist of substantially parallel frame sections which may be adjusted toward and from each other to facilitate their adaptability to different size trouser legs or make the same easy to insert into the trouser leg, and effect subsequent expansion or extension to keep the same creased. However, such devices, because of their length, are generally only usable when hung in closet space and therefore do not conveniently lend themselves to packing and carrying in travelling equipment.

Accordingly, a primary object of the invention is to cut the side frames of the device and provide a novel clamp and hinge construction for uniting the intermediate ends of opposite frame sections in such a way that a joint is formed which may be readily broken when desired, and also act as a hinge for collapsing purposes, while, at the same time, when in its normal position of use, it will hold the two sections of the side frame in rigid rectilinear relationship.

Another object of the invention is to provide a simple and practical form of connector and hinge which lends itself to standard manufacturing practices and is therefore simple to make and maintain, and which proves sturdy and durable in use.

With the above and other objects in view which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts, hereinafter more fully described, illustrated and claimed.

A preferred and practical embodiment of the invention is shown in the accompanying drawings in which:

Figure 1 is a perspective view of the complete device in its extended form.

Figure 2 is a plan view of the device as it is conditioned to be moved in its collapsed form.

Figure 3 is a detail perspective view of the improved hinge and joint construction, with the related end of a frame member folded.

Figure 4 is a detail cross section taken on the line 4-4 of Figure 1.

Similar reference characters designate corre-

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sponding parts throughout several figures of the drawings.

Referring to Figure 1 it will be observed that the device includes in its organization a pair of relatively long side frames A and B which are turned inwardly at their opposite ends as indicated respectively at A<sup>1</sup> and B<sup>1</sup> to be held by suitable loops or clips C which permit the movement of the said frames toward and from each other. This adjustment enables the device to fit various types of trousers and also facilitates the insertion and removal of the device from each leg.

According to the present invention, it is proposed to interrupt or break the side frames A and B medially thereof to divide the entire frame in opposite sections and provide the related ends A<sup>2</sup>-A<sup>3</sup> and B<sup>2</sup>-B<sup>3</sup> of each section with a clamp I which is preferably of U-shaped cross-section, that is folded or doubled upon itself. This cross-sectional shape may be varied depending upon whether or not the stock from which the frame elements A and B are made is flat or round. In any event, the body of the clamp I is doubled upon itself to partially fit over and receive the near ends of the side frames so that when said disconnected end portions A<sup>2</sup>-A<sup>3</sup> and B<sup>2</sup>-B<sup>3</sup> are assembled in the clamp they are held in rectilinear relation.

The clamp I preferably has one half secured to the inner edge of the ends A<sup>2</sup> or B<sup>2</sup> of the main frames A and B as indicated at 2, by rivets or spot welding; the other half of the clamp serving as a socket 1a receives the related end A<sup>3</sup> or B<sup>3</sup> of the respective side frame.

The portion A<sup>3</sup> of the side frame opposite that to which the clamp I is secured is provided with a hinge element preferably of angular formation, one arm 3 being rigidly secured to the frame end and the other right angularly disposed arm 4 passing through an opening 5 in the bight of the folded clamp member I. The said angular portion 4 is preferably threaded to provide a screw stud which receives a clamping nut 6, and, in order to prevent the clamping nut from accidentally spinning off the stud, the latter is preferably provided with a head 7.

With the arrangement described, when the clamp I is secured to the end A<sup>2</sup> or B<sup>2</sup> of one of the side frames and the related end A<sup>3</sup> or B<sup>3</sup> is fitted in the socket portion of the clamp, the nut 6 may be screwed inwardly into contact with the outer face of the bight of the fold of the member I, thus holding both of the adjacent ends of each side frame in rigid alinement.

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When it is desired to collapse the entire frame A—A<sup>1</sup>, B—B<sup>1</sup>, including clips C, it is only necessary to back the nuts 6 away from the body of the clamp and onto the outer end portion of the threaded studs 4 which will release the end portions of the frames held in the socket portions 1a of the clamp so that said end portions A<sup>3</sup> and B<sup>3</sup> of the side frames may be sprung outwardly or displaced to clear the limits of the clamps. Since the studs 4 act as pivots in the holes 5, the opposite sections of the entire frame may be folded onto each other with the studs 4 as pivots. The nuts 6 remain in their backed-off positions until it is again desired to restore the entire frame to its extended condition. When this is desired to be done, the loose ends A<sup>3</sup> and B<sup>3</sup> of the side frames are put back into the socket portions of each clamp and the nuts 6 are then again screwed into contacting relation with the outer face of the fold of the clamp bodies.

From the foregoing it will now be apparent that a distinctive feature of the invention is the provision of a clamping element carried by one end of a frame element and adapted to receive the adjacent end of a frame element to be aligned therewith. The frame element which fits into the socket portion of the clamp is provided with a pivot or pintle member and clamping screw or stud for holding the parts in assembled relation, and, also, because of the latitude of movement between the adjacent ends of the side frames afforded by the elongated screw stud, the frame ends may be readily displaced from the clamp to be folded toward each other, while, at the same time, being prevented from accidental separation by the nut on the stud.

It will also be noted that the screw stud 4 and hole 5 are located at one side of the joint so that the wing nut 6 can exert a greater clamping effort on the rear of the clamp and more securely hold the arms A<sup>3</sup> and B<sup>3</sup> in the socket 1a.

I claim:

1. In a device of the class described, a pair of adjacent frame ends adapted to assume rectilinear or parallel relation, a clamp including a body of substantially U-shaped cross-section fitted to one of said ends and including a socket

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portion for displaceably receiving the adjacent end, said clamp body having an opening, a screw stud carried by the frame end adapted to fit in said socket portion of the clamp and said stud being disposed at right angles to the said end whereby it may pass through the said opening to provide a hinge pintle on which the frame end freed from the clamp may rotate to bring said ends from rectilinear to parallel relation, and a nut on said screw stud movable into and out of abutting relation to the outer face of the body of the clamp, said nut when out of abutting relation to the clamp serving to prevent accidental separation of the adjacent frame ends.

2. In a collapsible garment frame having side frames interconnected at their opposite ends for adjustment toward and from each other, said side frames being medially divided to provide opposite frame sections including adjacent frame ends, joint means for permitting said side frames to be folded toward each other and also to be held in rigid rectilinear relation, said means comprising a clamp of U-shaped cross section rigidly secured to each of the related ends of the same section and having a portion thereof extending beyond the end of the frame section to which it is attached with its open side directed outwardly to receive the related ends of the opposite section, said last-mentioned portion having an opening, a stud carried by the related ends of each frame section opposite that having the clamp secured thereto, said stud projecting through said opening, and a member cooperating with each stud for drawing the clamp rigidly to the ends of the frame section carrying the stud.

SIGMUND SAMUEL.

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