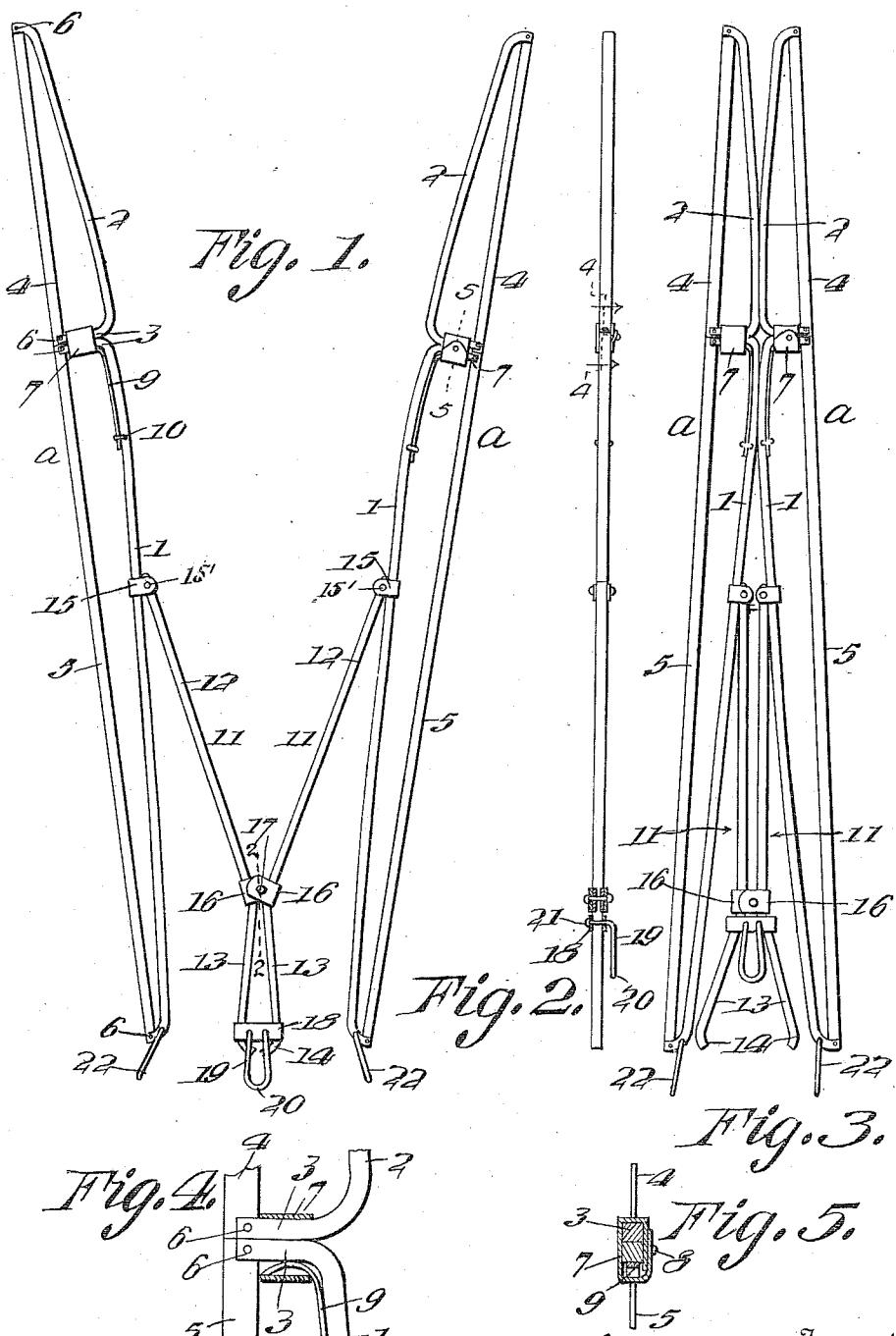


I. B. MACOMBER.
TROUSERS STRETCHER.
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973,444.

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Minnesota 5
Ada B. Tegert
Elsa B. Dana

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Isaac B. Macomber Inventor
by Joseph A. Miller Attorney

UNITED STATES PATENT OFFICE.

ISAAC B. MACOMBER, OF PORTSMOUTH, RHODE ISLAND.

TROUSERS-STRETCHER.

973,444.

Specification of Letters Patent. Patented Oct. 18, 1910.

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To all whom it may concern:

Be it known that I, ISAAC B. MACOMBER, a citizen of the United States, residing at Portsmouth, in the county of Newport and State of Rhode Island, have invented a new and useful Improvement in Trouser-Stretchers, of which the following is a specification.

This invention relates to improvements in trousers stretchers and pertains more particularly to an improvement in that type of stretchers adapted to be inserted into the legs of the trousers.

The object of the present invention is to provide a construction wherein the parts may be folded, collapsed, or knocked down, in order to occupy comparatively small space for purpose of transportation, storage or the like.

The further object of the invention is to enable the parts to be folded with ease, facility and rapidity, and to be likewise as easily and quickly restored to operative or extended position.

Further and other objects will be later herein manifested and set forth.

Referring to the accompanying drawings in which like characters of reference designate similar parts throughout the several views, Figure 1 is a front elevation of the trousers stretcher showing the same in expanded position, Fig. 2 is an end elevation partly in section taken on the line 2-2 of Fig. 1, Fig. 3 is a view similar to Fig. 1, showing the parts in contracted position ready for insertion into the legs of the trousers, Fig. 4 is a detail view partly in section of the connection between the side members of the stretcher which allows the side members to be folded, and Fig. 5 is a detail view being a section taken on the line 5-5 of Fig. 1.

In the drawings, *a*, *a* designate generally the two side members of which each stretcher is composed. Each side member consists of a pair of bow-shaped bars 1 and 2 which have their inner ends extended at substantially right angles as indicated at 3, and adapted to have their adjoining faces in abutting relation, as shown in Fig. 4. Each end of the supporting bars 1 and 2 is bifurcated to receive thin flexible metal creasing bars 4 and 5 respectively, the bars 4 and 5 being held in the bifurcated ends by pins 6 or the like. It will be observed with respect to Fig. 1 that the creasing bars 4 and 5

are in substantial alinement with each other. A sheet metal casing or housing 7 is provided which incloses the abutting right angular ends of the bars 1 and 2, this housing being formed of a piece of sheet metal which is wrapped around the ends 3, 3 and has its overlapping end parts secured as by a rivet 8, shown in Fig. 5. A spring of the flat type 9 has one end secured to the supporting bar 1 as at 10, and has its opposite end curved so as to engage between one side wall of the housing 7 and the adjacent face of one of the right angular ends 3, as shown in Fig. 4, it being understood that sufficient space is left between the said side wall of the housing and the adjoining right angular end 3, to accommodate the spring in a manner depicted in Figs. 4 and 5. It will thus be observed that each of the side members is composed of two parts which can be collapsed and folded with respect to each other, which is easily done by moving one of the parts against the tension of the spring so as to lie in engagement with the other part of that member.

The means for expanding the two side members *a* consist of a pair of arms 11, each having a long leg 12 and a short leg 13, the latter being arranged at an obtuse angle to the former and having their free extremities curved inwardly, as shown at 14. The free ends of the legs 12 are pivoted to central points along the length of the side members *a*, this being accomplished by the provision of U-shaped clips 15 suitably supported on the bars 1, and pins 15' which extend through the free ends of legs 12 and the two sides of the clips 15, the free ends of legs 12 being received in the space between the two sides of the clips 15. The two arms 11 are pivoted together by means of two substantially U-shaped members 16 which embrace the arms 11 at the inner ends of legs 12 and 13 thereof, a pin 17 being passed through the inner ends of the members 16. The means for operating the arms 11 from collapsed position to extended position and vice versa, consist of a guide member 18 which is freely slideable along the length of the legs 13 of arms 11. The guide member 18 is preferably constructed of a piece of metal which completely incloses the legs 13 and which is conveniently operated by a bail member 19, which latter consists of a hand engaging loop 20, the free ends of which are turned at right angles as shown in Fig.

2 and passed through points intermediate the length of the guide member 18, the extremities of the ends of loop 19 being headed as shown at 21. By reference to 5 Fig. 1 it will be observed that when the parts are in extended position the right angular ends of loop 19 will engage with the inner side faces of the inwardly curved extremities 14 of the legs 13 of arms 11 and 10 will thereby restrict the movement of the guide member with respect to the legs 13 preventing disengagement of the parts in 15 an obvious manner. The bars 1 are also provided with the clips 22 by means of which the bottom of the trousers legs are secured to the side member *a*.

In the operation of stretching and creasing trousers two stretchers are used one for each leg, each stretcher being contracted 20 into the position shown in Fig. 3 by moving the guide member 18 inwardly, after which the stretchers are inserted into the legs of the trousers. The clips 22 are then turned down on the material of the trousers legs to 25 clamp them to the side member *a*. The stretcher is then expanded by moving the guide member 18 outwardly, causing the creasing bars 2 to be placed under the required tension effecting proper creasing of 30 the trousers leg.

It will be seen from the above that the entire structure can be made of metal and being constructed in accordance with the invention will be found to be light in weight, 35 serviceable, and efficient in operation and can be easily applied or removed and readily collapsed and restored to extended or operative position as is desired.

Having thus described my invention, I 40 claim as new and desire to secure by Letters Patent;—

1. A trousers stretcher comprising two side members each consisting of two supporting bars having their adjacent ends 45 turned at right angles and in engagement with each other, a housing loosely embracing said right angular ends, a spring in the housing for holding said right angular ends in close engagement with each other and 50 with one wall of the housing, said bars being foldable against the tension of the spring, a creasing bar carried by each sup-

porting bar, and means for expanding and contracting said side members.

2. A trousers stretcher comprising two 55 side members, each side member being composed of two parts, said parts having their inner ends arranged adjacent each other, a housing loosely engaging said ends of the parts, means in the housing for holding said 60 ends of the parts in engagement with each other and with one wall of the housing, and means for expanding and contracting said side members.

3. A trousers stretcher comprising two 65 side members, each consisting of two supporting bars having their adjacent ends turned at right angles and in engagement with each other, a housing loosely embracing 70 said right angular ends, a flat spring secured to one of said bars and having its opposite ends curved and disposed in said housing to engage one of said right angle ends to hold 75 said right angular ends in engagement with each other and with one wall of the housing, 75 said bars being foldable against the tension of the spring, a creasing bar carried by each supporting bar, and means for expanding and contracting said side members.

4. A trousers stretcher comprising two 80 side members, each side member being composed of two parts, each of the parts including a bow-shaped bar, and a creasing bar secured between the ends of each bow-shaped bar, the bow-shaped bars of each part having 85 their inner ends arranged in juxtaposition to each other, and means to embrace said inner ends of said parts.

5. A trousers stretcher comprising two 90 side members, each composed of two bars 95 having their adjacent ends turned at right angles and in engagement with each other, means loosely embracing said right angular ends, a spring for holding said right angular ends in intimate contact with each other and with one wall of said means, and means for connecting the side members.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ISAAC B. MACOMBER.

Witnesses:

ADA E. HAGERTY,
J. A. MILLER.