

(No Model.)

J. KATZENBERG.
SUSPENDERS.

No. 478,335.

Patented July 5, 1892.

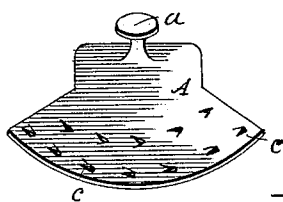
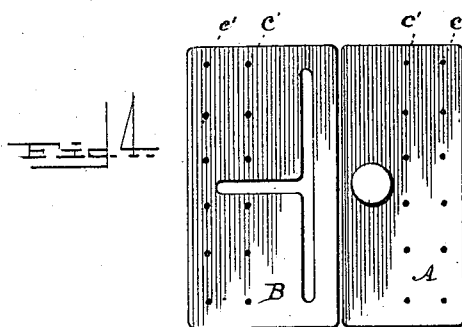
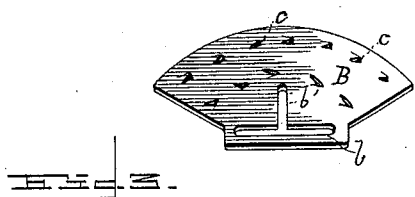
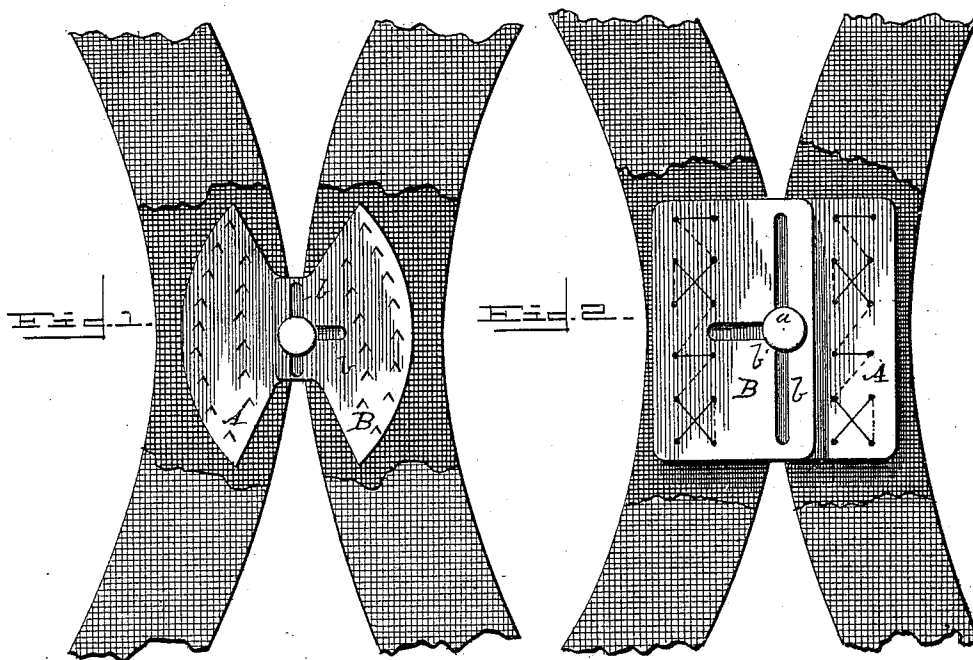
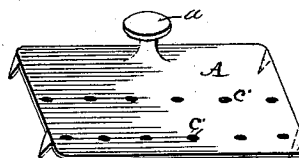
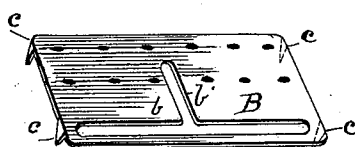


Fig. 5.



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SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 478,335, dated July 5, 1892.

Application filed April 26, 1892. Serial No. 430,763. (No model.)

To all whom it may concern:

Be it known that I, JACOB KATZENBERG, a citizen of the United States, residing in the city and county of New York, and State of New York, have invented certain new and useful Improvements in Suspenders; and I do hereby declare that the following is a full, clear, and exact description of the invention, which, taken in connection with the accompanying drawings, forming a part of the same, will enable any person skilled in the art to make, construct, and use the same.

On the drawings, Figure 1 is a rear view of a section of a pair of suspenders with my improvement applied thereto. Fig. 2 is a like view showing a modification. Fig. 3 is a plan view of the two members of my adjusting device detached. Fig. 4 is a like view of the plates shown in Fig. 2. Fig. 5 is a plan view of the two members differing slightly in form, and Fig. 6 is a toothed plate which I sometimes use to conceal and cover the attaching-prongs of the two adjusting members.

Various improvements have been made by means of which the shoulder-straps of suspenders are adapted to adjust themselves to the movements of the wearer, and notably among them are what is known in the trade as the "lace-back," and in which the shoulder-straps are laced where they come together at the rear, either by an elastic or non-elastic lace. When an elastic lace has been used, it allows of some adjustment; but it soon tears in use and from the rotting of the rubber. The inelastic lace affords but little, if any, adjustment and is also soon broken. I obviate these objections by my improvement, which consists in providing the shoulder-straps at their point of junction in the rear with two plates, one of which carries a button or stud and the other has a triangular slot in which the shank of the stud can play, so as to provide both vertical and lateral adjustment, as well as to allow the shoulder-straps to be detached from each other, if desired.

On the drawings all the plates are alike excepting in the means of attaching them. A represents the stud-plate, and B the slotted plate.

The plates may be made substantially crescent-shaped, as in Figs. 1 and 3, or rectangular, as in Figs. 2, 4, and 5.

On the plate A, at a suitable distance from its edge, is mounted or formed a stud or button *a*, and the plate B has a slot *b* along its edge, which is of suitable length and width, and also a second slot *b'* at right angles to the slot *b* and intersecting the latter. Attaching prongs or points *c* are struck from or formed on both plates, as shown in Figs. 1, 3, and 5, or the plates may be provided with thread-holes *c'*, as in Figs. 2 and 4, and which are the equivalent of the prongs. These plates are attached to the shoulder-straps of the suspenders at the rear, and they may be attached to the webbing, or may be inserted between two plies thereof, if desired.

When the plates having the points or prongs are used, the latter are driven through the webbing and upset, and, if desired, the toothed plate C (shown in Fig. 6) may be applied from the under side to conceal and cover the upset points or prongs on the adjusting-plates. This plate may be rectangular or of the form shown in dotted lines.

When the perforated plates with the thread-holes are to be used, they of course are stitched to the webbing in their proper relation by any suitable means.

The surfaces of the plates may be ornamented in any way that may be desired.

The operation of my invention will be readily apparent. The motion of the body of the wearer upward or downward causes the shank of the stud to move back and forth in the slot *b*, and any lateral movement causes it to move horizontally in the transverse slot *b'*. In fact, the shoulder-straps will be automatically adjusted to almost any movement of the wearer. If it should be desired to separate the shoulder-straps in the rear, it is only necessary to turn the head of the button or stud edgewise, when it may be readily passed through the slot, and thus the parts may be readily detached.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. Suspenders having the shoulder-straps adjustably connected to each other in the rear by two plates secured thereto, one of said plates carrying a stud or button and the other provided with an angular slot forming a bearing for the shank of the stud, so that the

shoulder-straps will automatically adjust themselves to the movements of the wearer, substantially as set forth.

2. In suspenders, the combination, with the
5 shoulder-straps, of plate A, carrying a stud or button, and plate B, having vertical and transverse intersecting slots, and means for securing said plates to the webbing, substantially as set forth.

10 3. The combination, in suspenders, of the

shoulder-straps, the pronged stud-plate A, and the pronged angular slotted plate B, and the plate C to cover and conceal the attaching-prongs of the adjusting-plates, substantially as and for the purpose set forth.

JACOB KATZENBERG.

In presence of—

ABRAHAM NUSSBAUM,
A. LANNENBERG.