

(No Model.)

J. G. NIEKAMP.
TROUSERS PATTERN.

No. 484,445.

Patented Oct. 18, 1892.

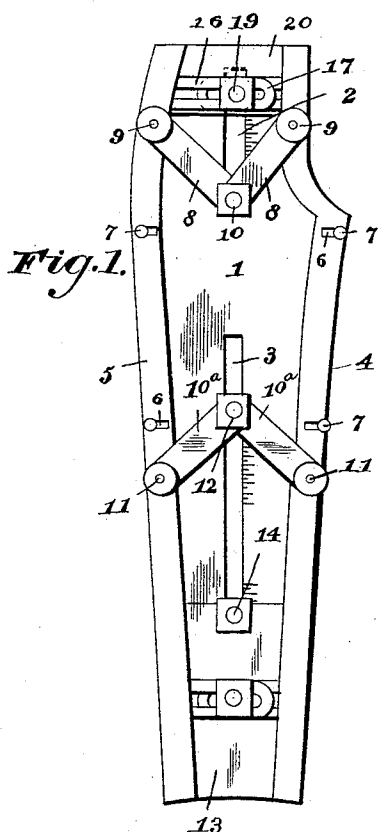


Fig. 2.

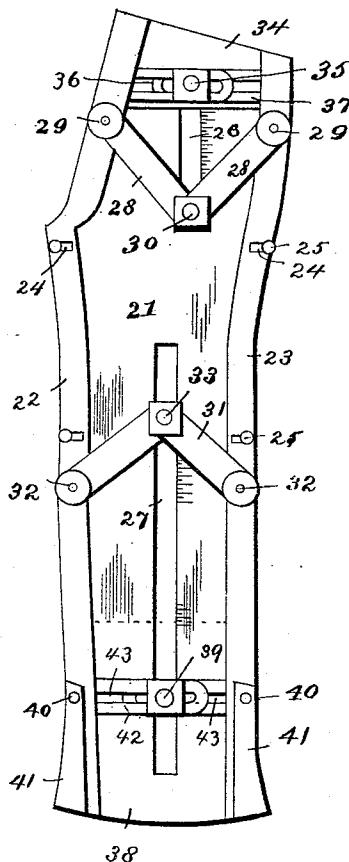


Fig. 3.

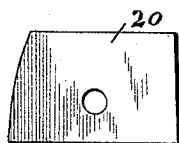


Fig. 4.

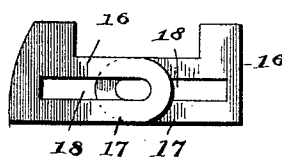
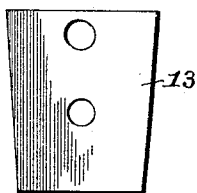


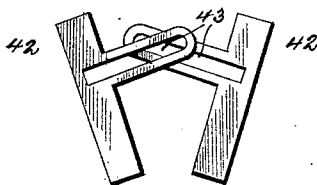
Fig. 5.



Witnesses

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Fig. 6.



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TROUSERS-PATTERN.

SPECIFICATION forming part of Letters Patent No. 484,445, dated October 18, 1892.

Application filed April 7, 1892. Serial No. 428,173. (No model.)

To all whom it may concern:

Be it known that I, JOHN GERHARD NIEKAMP, a subject of the Emperor of Germany, residing at Fort Recovery, in the county of Mercer and State of Ohio, have invented a new and useful Trousers-Pattern, of which the following is a specification.

My invention relates to trousers-patterns; and the objects of the same are to provide a pattern that may be readily adjusted to constitute an accurate measurement for pants of various proportions.

Various other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is an elevation of the fore section of the pattern. Fig. 2 is a similar view of the back section thereof. Fig. 3 is a detail of the upper lengthening member employed upon both sections. Fig. 4 is a detail of the two waist members. Fig. 5 is a detail of the bottom lengthening member. Fig. 6 is a modification of the two bottom widening members.

Like numerals of reference indicate like parts in all the figures of the drawings.

I will first describe the pattern for the fore part of the pants and subsequently that for the rear part.

The fore part or section consists of the base member 1, which has a contour usually given the fore section or part of a pant's-leg and of a dimension not exceeding the smallest, both in waist-measure, in and out seam, and bottom. This base member is provided at a point opposite its crotch with a slot 2, and from said point the slot extends to a point near the upper edge or end thereof. A similar slot 3 extends from a point between the crotch and knee of the base to a point near the lower end or bottom thereof. Opposite inner and outer side members or strips 4 and 5, respectively, partake of the general contour of those edges of the base to which they are applied, and they are at intervals provided with transverse slots 6, through which project the shanks of a series of studs 7, extending from the base 1 along the edges

thereof from the upper to the lower ends. Toggle-lever sections 8 are pivoted by rivets 9 to the inner and outer members 4 and 5, respectively, and have their inner overlapping ends pivotally connected by a bolt 10, the head of which is at the rear side of the slot 2 and is thus prevented from being withdrawn through the slot. A tap is located upon the upper or threaded end of the bolt, and it will be seen that inasmuch as the members 4 and 5 are loosely connected, by moving the bolt in said slot the said members will be spread or contracted in accordance with the position relative to each other and to a direct alignment of the levers 8, and in such position the said levers and members may be secured. A similar pair of levers 10^a is pivoted, as at 11, to the sections 4 and 5 opposite the knee portion, and the inner ends of said levers are connected by a bolt 12, moving in the slot 3 and provided with a tap, as was the bolt 10. By arranging these levers near to or farther from transverse alignment it will be obvious that the lower portions of the members or sections 4 and 5 will be spread or contracted at the knee portion.

13 designates the lower lengthening-section, and the same is merely a plate slightly tapered toward its lower end, and forming a continuation of the base-section 1, to which it is adjustably secured by means of a bolt 14, the head of which rests at the under side of the slot 3, and the threaded end of which is provided with a tap or nut. It will be seen that by sliding the section up or down the pattern will be lengthened to increase the length of the in and out side seams. This lengthening-section is located, preferably, between the strips or sections 4 and 5 and forms a lower extension terminal to the base 1. The slot 2 is provided opposite the path traversed by the levers 8 with a scale of inches, and the slot 3 is provided with a similar scale opposite the path traversed by the levers 10^a and the bolt 14, so that the members may be adjusted to a certainty.

16 designates a pair of T-shaped waist-sections, the stems 17 of which are provided with longitudinal slots 18, through which slots and

the slot 2 an adjusting-bolt 19 is passed. By means of this bolt it will be seen that the waist-sections may be graduated so as to increase or diminish the size of the waist.

20 designates the upper lengthening-section, and the same is simply a plate forming a practical continuation of the upper end of the base 1, and is adjustable upon the said base upon the same bolt 19 as is the waist-sections 16. This plate and waist-sections lie between the sections 4 and 5 and form an upper extension-terminal of the base 1, and the distance from crotch to waist is ascertained by means of a scale of inches formed at the edge of the slot 2 near the upper end of the same.

This completes the description of the fore section of the pants-leg pattern; and now, referring to Fig. 2, I will proceed to describe the back section pattern. The constructions of the two patterns are very similar, and the description need not be so particularized for that reason. I will simply state, therefore, that the back-section consists of the base 21, the opposite inner and outer strips 22 and 23, slotted at intervals, as at 24, to receive studs 25, projecting from the base-section. The base-section is provided above the crotch with a slot 26, which extends to near the upper end of the section, and below the crotch with a slot 27, which extends to near the bottom of the base. A pair of upper toggle-levers 28 are pivoted, as at 29, to the opposite strips or sections 22 and 23, and at their inner overlapping ends are pivotally connected, as at 30, by a bolt which is adjustable in the slot 26. A lower pair of toggle-levers 31 have their outer ends pivoted, as at 32, to the sections 22 and 23, opposite the knee portion, and their inner ends overlapped and pivoted by a bolt 33, which moves in the slot 27.

34 designates the upper lengthening-section, which is similar to the section 20 of the fore section of the pattern, in that it is held in position adjustably by a bolt 35, which passes through the slot 26. The same bolt passes through the slots 36, formed in the shanks of a pair of T-shaped waist-sections 37, the ends of which overlap in the same manner as before described. A lower lengthening-plate 38 forms a continuation of the base-section 21, and is adjustable in the lower portion of the slot 27 by means of a bolt 39. By manipulation of this bolt the in-seam may be increased or diminished.

If desired, various means may be provided for securing a guide to the proper spring desired. In the present instance I pivot by a pair of rivets 40, at points near the lower ends of the strips 22 and 23, wings 41, the outer edges of which are slightly curved. The pivots are sufficiently stiff to maintain the wings at a desired adjustment, and they may be swung in or out in a manner that may be readily observed. I also employ T-shaped sections in both patterns, which I

have shown in detail in Fig. 6. These sections (indicated at 42) have their shanks overlapped and slotted, as at 43, the bolt 39 serving as an adjusting means therefor, and by them and the sections 13 and 38 the bottoms may be widened or shortened.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided an adjustable pattern or chart which may be accurately set and secured in such position, and from which pairs of trousers or pants may be cut having any given proportion, either as to length or in and out seams, waist, hip, knee and bottom measurements.

Having described my invention, what I claim is—

1. A trousers-pattern for front or back sections, comprising a base approximating in shape that of the trousers-section and provided with independent slots, oppositely situated inside and outside longitudinal strips forming the outlines of the trousers-leg and expansively mounted, respectively, on the lateral edges of the base, graduated scales on the base at the edges of the slots, located, respectively, opposite the hip and knee portions, toggle-levers pivoted at their outer extremities, respectively, to the expansible strips and movable in the said respective slots and registering with the respective scales, and pivot-bolts loosely connecting the adjacent inner ends of the toggle-levers and retained in said slots for vertical play therein, substantially as described.

2. A trousers-pattern for fore or back sections, the same consisting of a base approximating in shape the desired section, provided with longitudinal slots, opposite inner and outer longitudinal strips outlining the trousers-leg section, toggle-levers pivoted at their outer ends, opposite the knee and hip portions, to said strips, bolts pivotally connecting the inner overlapping ends of the levers and retained in the respective slots for vertical movement therein, upper and lower lengthening-plates interposed between the opposite expansible-strips and attached as extensions, respectively, to the upper and lower terminals of the base and perforated, and the bolts passed through the plates and slot, substantially as specified.

3. A trousers-pattern, the fore or back sections of the same consisting of a base approximating in shape the shape of the trousers desired and provided with the upper and lower longitudinal slots 2 and 3, respectively, the inner and outer longitudinal strips 4 and 5, respectively, the toggle-levers 8 and 10, pivoted at their outer ends to the strips 4 and 5, opposite the hip and knee portion, the bolts passing through the slots and pivotally connecting the inner ends of the levers, the upper and lower extension-plates forming continuations of the base, the bolts passed through the same and through the slots in the base,

the opposite pair of waist-sections, of substantially-T shape, having their inner ends or stems overlapped and slotted to receive the bolt of the upper extension or lengthening
5 plate, and the lower expansible wings pivoted to the lower portion of the strips, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN GERHARD NIEKAMP.

Witnesses:

A. SHAFFER,
J. PASSMAN.