

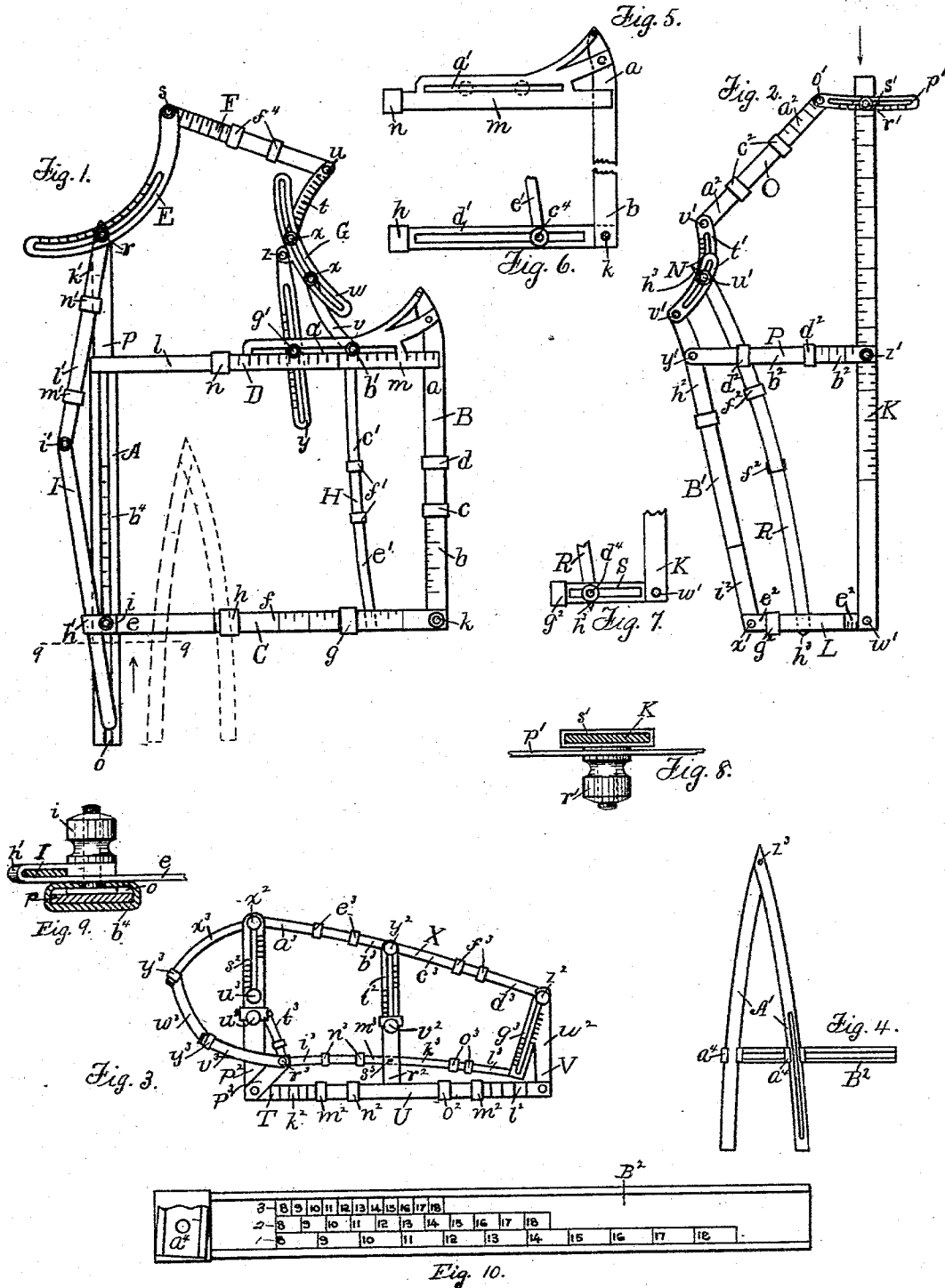
(No Model.)

H. HORN.

ADJUSTABLE PATTERN FOR DRAFTING GARMENTS.

No. 514,622.

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UNITED STATES PATENT OFFICE.

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ADJUSTABLE PATTERN FOR DRAFTING GARMENTS.

SPECIFICATION forming part of Letters Patent No. 514,622, dated February 13, 1894.

Application filed April 22, 1893. Serial No. 471,477. (No model.)

To all whom it may concern:

Be it known that I, HENRIETTA HORN, of Newark, in the county of Wayne and State of New York, have invented a new and useful Improvement in Adjustable Patterns for Drafting Garments, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

My invention relates to adjustable patterns for drafting dresses or similar garments, in which various patterns are used in combination to draft the different parts necessary to make a complete garment except the skirt.

The invention is hereinafter fully described and more particularly pointed out in the claims.

Referring to the drawings, Figure 1 is the front and under arm pattern; Fig. 2, the back; Fig. 3, the sleeve; and Fig. 4 the dart rule. Fig. 5 shows more clearly the form of an essential part of the bust bar. Fig. 6 shows the slotted part of the front waist bar. Fig. 7 shows the slotted part of the back waist bar. Fig. 8 better shows the connection of the center back bar and the back neck-bar, parts being seen as indicated by arrow in Fig. 2. Fig. 9 is a cross section on the dotted line 9 9 in Fig. 1. Fig. 10 shows the graduated bar of the dart rule. Figs. 8, 9 and 10 are drawn to scales larger than that of the other figures.

Referring to the parts shown, the pattern for the front and the under arm piece, Fig. 1, is formed with a vertical front bar, A, and a main under arm bar, B, connected by a horizontal waist bar, C, and bust bar, D. A shoulder bar, F, is provided, connected with the front bar by a curved slotted neck bar, E, and to the bust bar by a compound arm's eye bar G.

The main under arm bar B is composed of two minor bars or parts, *a b*, fitted to slide longitudinally upon each other by means of loops, *c d*, one rigid with each part *a b*. The bar C is composed of minor sliding parts or bars, *e f*, provided with loops, *g h*. The bar D is composed of sliding parts or minor bars, *l m*, connected by a loop, *n*. The bar *l* is rigid with A, forming a right angle therewith, and the bar *m* is rigid with *a*. The parts *f b* of the bars C B are joined in a flexi-

ble joint controlled by a clamping screw *k*. The front bar A is composed of an outer main part or bar, *b⁴*, and an inner bar, *p*, the former being folded over at its edges forming a channel, *o*, within which the bar *p* is adapted to slide longitudinally, for getting front measures. The bar *p* is joined to the neck bar E by a clamping screw, *r*, passing through the slot in E.

The part *e* of the waist bar is adapted to be held rigidly to the outer bar *b⁴* of the front bar by a clamping screw, *i*, the inner bar *p* being always at liberty to move in *b⁴* with moderate friction. The shoulder bar F is made extendible like the other similar bars of the pattern by being composed of two overlapping sliding pieces connected by loops *f⁴*. This bar is preferably made slightly convexed upward in the middle and is joined to the neck bar by a clamping screw, *s*.

The arm's eye bar G is substantially the same as shown in former Patent No. 490,022, of January 17, 1893, and it consists of a part *t*, held by a movable joint, *u*, to the shoulder bar, a part *v*, held to the bust bar by a clamping screw *b'*, and a curved slotted part *w*, joined to the respective parts *t* and *v* by clamping screws *x x*. To a projection on the part *w* I attach a pendent slotted upper arm's eye bar *y*, joining the two parts by a movable joint *z*.

The part *m* of the bust bar, better shown in Fig. 5, is formed with a horizontal slot *a'*, through which the clamping screw *b'* for holding the part *v*, passes. The bar *y* crosses the bar *m* and a clamping screw *g'*, common to the slots in both, holds said bars together. On account of this construction and arrangement of the parts the bar *y* may be moved vertically, or swung laterally along the bar *m*, and secured in any desired position.

The bar *b* of the main under arm bar B is marked with a scale for under arm measurements, the scale being read at the lower end of the overlapping bar *a*. The bar *f* of the waist bar is marked with a scale for waist measurements, read at the right-hand end of the bar *e*. The bar *m* is marked with a scale for bust measurements, read at the right-hand end of the overlapping bar *l*. The bar *l* is marked with a scale for chest measurements,

read at the left-hand end of the loop n thereon. The bar y is marked with a scale for upper arm's eye measurements. The clamping screw g' , which holds the bars y and m together, also reaches over onto the bar l to hold the latter, so that all three bars, l , m and y , may be secured at once by turning down said clamping screw. By means of this construction and arrangement of these graduated bars they all may be set at one operation for bust measurement, chest measurement and upper arm's eye measurement.

The neck bar is marked with the usual scale for neck measurements, which is read at the clamping screw r . The shoulder bar F is marked with a scale at its left-hand end for shoulder measurements, read at the left-hand loop f^4 . The portion t of the arm's eye bar G is marked with the usual scale for arm's eye measurements. The bar p of the front bar is marked with a scale for front measurements; and when the adjacent end of the waist bar is set upon the part b^4 of the front bar for such measurements, it is set with reference to said scale, but secured to the part b^4 .

The waist bar C is provided with a slotted part or bar d' , beneath or back of the bar f , and of the same width and length, fully shown in Fig. 6. This bar d' is held at one end by the clamping screw k and at the other end by the loop h . A narrow reversible, extendible, under arm bar H , is provided, extending from the waist bar to the bust bar, composed of two sliding parts c' e' , having ordinary loops f' f' , one secured to each. The upper end of this bar is held against the bar m by the clamping screw b' which holds the part v of the arm's eye, so that both parts, v and H , move together as said clamping screw is carried along the slot a' . The lower end of the bar H is secured movably to the bar d' by a bolt or pin c^4 , Fig. 6, passing through said bar H and the slot in d' , the bar H being adapted to be moved with moderate friction laterally along the bar d' as may be required. The bar H is preferably formed with swivel pieces at its ends substantially as shown and described in the Letters Patent above referred to, and for the purpose therein stated, and is not here shown nor claimed to be new.

As a further improvement in dress patterns I provide the front bar A with a jointed, extendible, swell front bar, I . This bar has its upper end held by the clamping screw r in the neck bar and its lower end resting in a loop or bearing h' , of the waist bar; see Fig. 9. The bar I is formed of two main parts joined at the middle and secured by a clamping screw i' . The main part below i' is held to slide through the loop h' with moderate friction, while the part above i' is made extendible by being formed with two sliding pieces k' l' , held together by loops m' n' . By means of this construction of the swell front bar, it may have its middle part, at i' , ex-

tended to a greater or less distance forward of the front bar A or be carried up or down, the clamping screw i' serving to hold it in any position of adjustment.

The pattern for the back, shown in Fig. 2 consists mainly of a center back bar K , waist bar L , back side-bar B' , arm's eye N , and shoulder bar O . A slotted back neck bar, p' , is provided, joined to the shoulder bar by a pivot joint o' , and to the center back bar by a single clamping screw r' , and sliding clasp s' , Fig. 8. A width-of-back bar P , is joined to the bars K and B' parallel with the waist bar and in line with the bust bar D of the front pattern. The arm's eye is formed of two circular slotted parts t' t' , lapping upon each other and connected with the respective bars O and B' by pivot joints v' v' , and held together by a clamping screw w' . The waist bar L is held rigidly to the bar K by a rivet w' , and it is provided with a slotted bar S , beneath or back of it, see Fig. 7. This slotted bar is held at one end by the rivet w' and at the other end by the loop g^2 .

A shiftable side form bar R , is added to the back pattern, having its upper end held by the clamping screw u' , and its lower end held by a pin d^4 , passing through it and through the slot in S . This serves to connect said parts R and S so that the lower end of the former may be shifted laterally along the latter with moderate friction. This bar R is formed with projecting points h^3 h^3 , one at either end, to which to mark in laying out the back and the back side-form. The joint at x' between L and B' , and the joint at y' , between the bars B' and P , are movable. The bar P is joined to the center back bar, at z' , so as to move up or down thereupon with moderate friction.

The bar O is preferably made slightly convex like the bar F of the front pattern, and this bar and the bar P are each formed with two longitudinally sliding parts a^2 a^2 , and b^2 b^2 , respectively, with connecting loops c^2 and d^2 . Also the waist bar L is formed in two parts e^2 e^2 , with a loop g^2 , to join them. Likewise the side form bar R , which is slightly curved, is formed with two parts sliding upon each other through loops f^2 f^2 . The side back bar B' is also made longitudinally extendible by being composed of two parts h^2 and i^2 , like its counterpart B , Fig. 1, of the pattern for the front and under arm.

The bar K is formed with two scales, the upper one for length of back measurements and the lower one for under arm measurements. In setting the pattern for the former measurement the back neck bar p' is moved vertically along the bar K to indicate said measurement. The right-hand end of the bar P is likewise moved vertically along the bar K to indicate the under arm measurement, both measurements being made with reference to the waist line.

The scale for width-of-back measurements is marked on the bar P and read at the right-

hand loop d^2 . The scale for waist measurements is marked on the bar L next the bar K. The scale for the arm's eye measurement is marked on the upper piece t' of the arm's eye bar, and the scale for back neck measurement is marked on the back neck bar p' .

The pattern of the sleeve, shown in Fig. 3, consists of a T-shaped piece U, and two rigid right-angled or L-shaped pieces V and T, having an arm of each, k^2 l^2 , lapping upon the respective ends of U. The latter piece is formed with loops m^2 m^2 , and the parts k^2 l^2 are provided respectively with loops n^2 o^2 , so as to slide upon the part U. The parts k^2 and l^2 with the contiguous parts of U form a straight line, and together constitute the main longitudinal bar or frame of the pattern. The arm p^2 of the piece T and the arm r^2 of the piece U hold slotted scales s^2 and t^2 , respectively; and clamping screws u^2 and v^2 passing through said arms and the slots in the scales serve to hold the contiguous parts together. The arm w^2 of the part V is also provided with a rigid inclined scale g^3 , slotted like s^2 and t^2 . A light extendible bar X crosses the scales s^2 , t^2 and g^3 ; clamping screws x^2 y^2 z^2 , being provided to hold said bar to the contiguous parts.

The bar X is composed of four sections a^3 b^3 c^3 d^3 , two at either side of the scale t^2 , the parts a^3 and b^3 being formed with sliding loops e^3 , and the parts c^3 and d^3 formed with sliding loops f^3 , as shown. The clamping screw x^2 passes through the slot in s^2 and is rigid with the part a^3 . The clamping screw y^2 passes through the slot in t^2 and forms a pivot joint with both the parts b^3 and c^3 . The clamping screw z^2 passes through the slot in g^3 , forming a rigid joint with the section d^3 .

An extendible bar composed of the parts i^3 , m^3 , k^3 and l^3 , with sliding loops n^3 and o^3 , is provided for the inside seam line of the sleeve. The part i^3 is joined, at r^3 , to an arm p^3 of the part T, and the part l^3 is joined to the scale g^3 , which latter corresponds to the wrist of the sleeve. The parts m^3 and k^3 are pivoted at s^3 to the piece U.

A short extendible bar t^3 , pivoted at one end, at r^3 , and held at the other end by a clamping screw w^3 , passing through the slot of the scale s^2 serves to form a part of the under arm portion of the sleeve.

To form the puff at the top of the sleeve I provide an arch composed of parts v^3 w^3 and x^3 , reaching above the scale s^2 . This arch is rendered extendible by its component parts being adapted to slide longitudinally one upon another through loops y^3 . The part v^3 is held movably by the pivot r^3 and the part x^3 is held movably by the clamping screw x^2 . The parts x^3 and a^3 being both controlled by the clamping screw x^2 they move simultaneously as said clamping screw is shifted along the scale s^2 . The parts b^3 and c^3 being controlled by the clamping screw y^2 both move together as the clamping screw is shifted along the scale t^2 to give the required dimension of the sleeve at the elbow. The shifting

of the clamping screw z^2 along the slotted part g^3 determines the size of the sleeve at the wrist.

The scale or part s^2 is marked at its left side with a lower arm's eye scale and at its right side with an upper arm's eye scale. The part t^2 is marked at its left side with lower elbow scale and at its right side with an upper elbow scale, and the part g^3 is marked with an upper and lower wrist scale at its right and left sides respectively. By means of these various upper and lower scales, and its construction otherwise, the sleeve pattern is adapted for marking out both the upper and the under pieces of the sleeve.

The scale for the measurement of length of sleeve from the shoulder to elbow is marked on the part T and read at the left of the left-hand loop m^2 . And the scale for the measurement of length from elbow to wrist is marked on the part V and read at the right of the right-hand loop m^2 .

With these patterns for the front, back and sleeve, I employ a dart rule, shown in Fig. 4, its application being indicated by dotted lines in Fig. 1. This dart rule consists of curved bars A', common in this class of dress patterns, and a base or cross bar B'. The parts A' are joined by a pivot z^3 , and are provided with swivel sliding clasps a^4 a^4 , of common construction to connect them with the base B'.

The bar or rule B', better shown in Fig. 10, is formed with folded edges and marked on its interior with three independent scales 1, 2 and 3, for cutting one, two or three darts. If, for instance, one dart only is to be made on each side of a waist the dart rule is set with reference to scale 1; if two darts are to be made on each side, the dart rule is set with reference to scale 2; and if three darts are to be made for each side of the waist in any given case, the dart rule is set according to scale 3. For hip curve the dart rule is set according to scale 1.

In using these patterns the swell front bar I and the side form bar R are set according to fashion. The front sliding bar p is raised to neck measure as indicated on neck bar, and the waist bar is adjusted to front measure as indicated on the scale on bar p . The reversible under arm bar is set according to fashion; and to mark the other seam it is moved one inch at waist bar and reversed to get the proper curve of side form. The main under arm bar is set to under arm measure. The bust bar and upper arm's eye bar are set to bust, chest and upper arm's eye measures indicated on the respective scales. Lower arm's eye measure is found by subtracting width of chest and width of back from bust measure. Shoulder bar is set for shoulder measure.

In using the pattern for the back the width-of-back bar is set on center back bar to under arm measure. The shoulder bar is set to shoulder measure. The back neck bar is adjusted both vertically and horizontally to in-

dicating at once the back neck measure and the length-of-back measure, both bars being held together by the single clamping screw r' . The parts $t' t'$ of arm's eye bar are set to arm's eye measure.

In using the sleeve pattern the parts T and V are shifted upon U to indicate measurements of length of sleeve from arm's eye to elbow and from elbow to wrist. The bars X and t^3 are shifted by moving the clamping screws x^2, y^2, z^2 and u^3 , along the respective scales s^2, t^2 and g^3 , to indicate the measurements at arm's eye, elbow and wrist. The parts forming the arch for the puff of the sleeve are adjusted according to fashion. The length of sleeve may be obtained by measuring from center of back to wrist and then deducting width of back. By loosening the clamping screws u^2 and v^2 the scales s^2 and t^2 may be closed onto the parts p^2 and r^2 to condense the pattern for convenience of packing or carrying. The point i' of the swell front bar I, Fig. 1, is adjusted to height of dart measure. This bar is shown in the figure projected farther forward of the front bar A than would be the case in practice this exaggeration in the drawings being resorted to more clearly show the operation of the bar.

What I claim as my invention is—

1. In adjustable patterns for drafting dresses, a bust bar formed of two overlapping bars or parts $l m$, the former being marked with a scale for chest measurements and the latter being formed with a slot and marked with a scale for bust measurements, in combination with a slotted upper arm's eye bar marked with a scale for upper arm's eye measurements, crossing said bars $l m$, and a clamping screw for said bars $l m$ and the upper arm's eye bar, serving to hold all three together whereby at a single operation the parts may be set to the measurements for bust, chest and upper arm's eye, and means for holding said parts in an operative position substantially as shown and described.

2. In adjustable patterns for drafting dresses, an arm's eye formed of curved slotted overlapping parts $t' t'$, a clamping screw there-

for, and a waist bar provided with a horizontal slotted part S, in combination with an extendible side form bar held at its upper end by said clamping screw and at its lower end by a pin adapted to slide laterally in said slotted part, said side form bar being formed with points $h^3 h^3$, projecting beyond said arm's eye and the waist bar respectively, and means for holding said parts in an operative position substantially as shown and described.

3. In adjustable sleeve patterns, a bar composed of a T-shaped piece U, and two L-shaped pieces, T V, adapted to slide upon the piece U, the pieces T V being marked with scales for length of sleeve from shoulder to elbow and from elbow to wrist respectively, the piece V being formed with a scale g^3 , and the pieces U and T being provided with sliding scales t^2 and s^2 respectively, in combination with two extendible bars for the sides of the sleeve, one connecting said three scales and the other connecting the scale g^3 with the part U and an arm p^3 rigid with the part T, and a flexible bar t^3 connecting said arm with the scale s^2 , substantially as shown and described.

4. In adjustable sleeve patterns a bar composed of three main parts V, U and T, adapted to slide one upon another the first and last of said parts being marked with scales for length of sleeve from shoulder to elbow and from elbow to wrist respectively, said main parts being each provided with a scale, in combination with extendible side bars connected with said scales and said main parts respectively, and an extendible arch above the part T having its respective ends controlled by fasteners $x^2 r^3$ which hold the ends of said side bars, to form a continuous contour with said side bars, substantially as shown and described.

In witness whereof I have hereunto set my hand, this 15th day of April, 1893, in the presence of two subscribing witnesses.

HENRIETTA HORN.

Witnesses:

ENOS B. WHITMORE,
M. L. WINSTON.