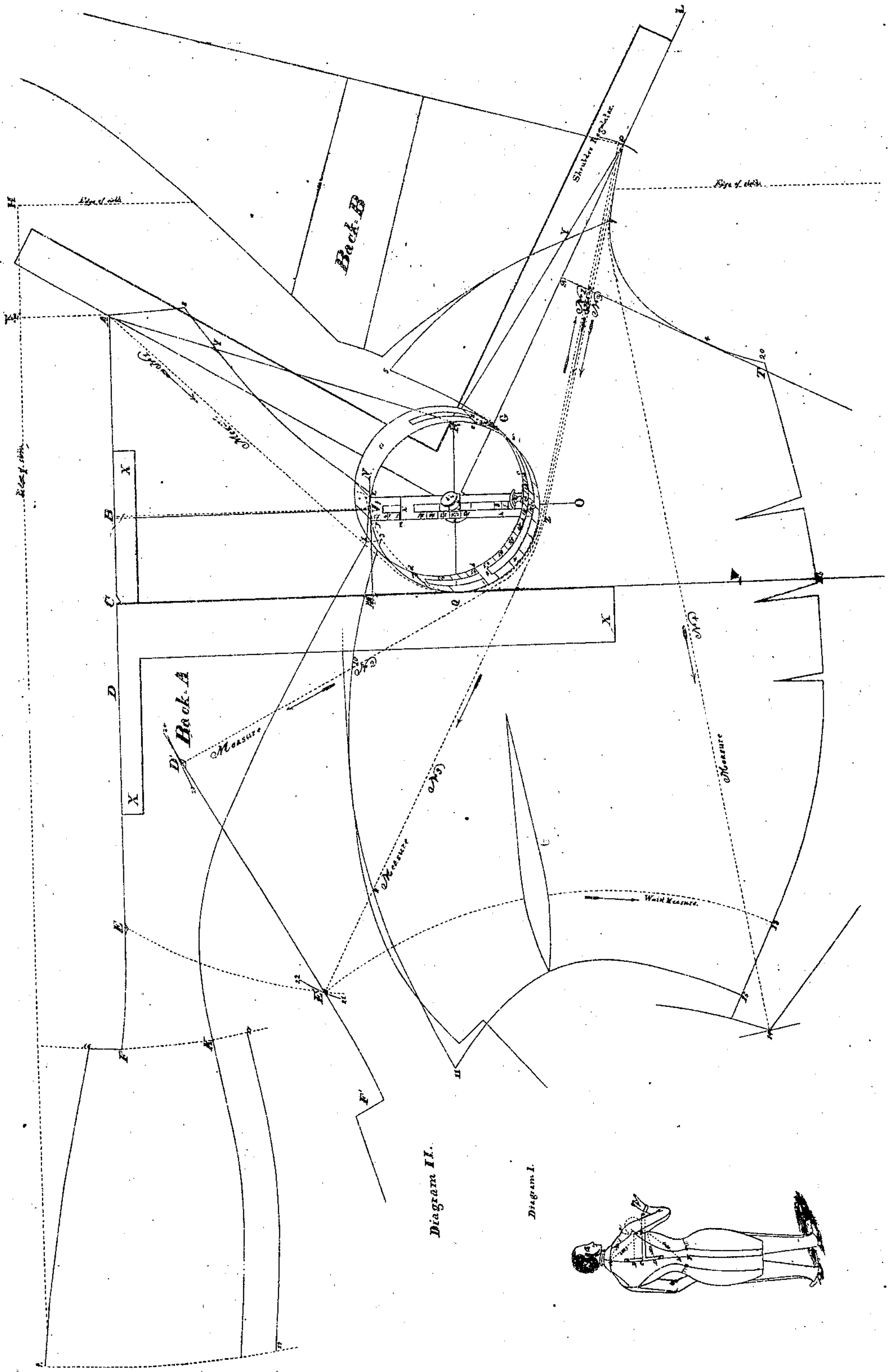
M.C. Simril.

Tailoring

No 4923. Patented Jan. 7. 1847



Witnesses.

Inventor.

UNITED STATES PATENT OFFICE.

MILES G. SIMRIL, OF CHESTERVILLE, SOUTH CAROLINA.

TAILOR'S MEASURE.

Specification of Letters Patent No. 4,923, dated January 7, 1847.

To all whom it may concern:

Be it known that I, MILES G. SIMRIL, of Chesterville, in the district of Chester and State of South Carolina, have invented a new and approved method of applying what are called by tailors the "scye and shoulder measures" combined to the use of cutting garments for the human form; and I do hereby declare that the following is a full and exact description thereof, reference being had to the annexed drawings, which form part of this specification.

My invention consists, in part, in providing a spring-steel ring, which I call the "circular measure" and which, being set to the exact size of the scye-joint of a person, and being properly located on the cloth from which the garment is to be cut, will represent on the cloth the scye-joint of the person, and act as a guide to the application of the "shoulder measures," No. 1, No. 2, and No. 3, as represented in Diagram II, and hereafter to be explained, the ring itself being the "scye-measure."

The ring *a a*, Diag. II, called the "circular measure," is made of a clip of spring steel, about 20 inches in length, one half or three fourths of an inch in width, and sufficiently thin to be flexible. This slip is bent in the form of a circle *a a*, the ends being made to lap. The portions that lap are grooved. The part that laps outward—the outward lap, is furnished at its extremity with a small sliding catch (*s*) which slides in the groove of the inner lap, and serves to clasp or hold the two laps together. The part that laps inside—the inner lap—is also furnished with a sliding catch (*u*) for the same purpose. By means of this arrangement the ring, or "circular measure" can be enlarged or diminished at pleasure, to suit the size of any person's scye joint. The part that laps inside—the inner lap—is graduated with inches from *d* to *e* (Diag. II), the inches numbering from 13 on to 20. (In the diagram, the inches from 15 (exclusive) to 20 are not visible, being concealed by the outward lap). These inches indicate the number of inches in the circumference of the ring or "circular measure" according as it is contracted or enlarged. Thus, when the outward lap is slid until its end comes to the inch-mark 15 (on the inner lap, as at *b*, Diag. II,) there will then be 15 inches in the circumference of the "circular measure." The part of the ring which laps outward—the outward lap—is graduated with numbers from 20 down to 13—from *b* to *c* Diag. II. (These numbers are intended to correspond with certain other numbers on the diameter of the ring, in a manner and for a purpose yet to be explained.) Forming a diameter to the "circular measure" are two brass bars, the two forming one and the same diameter. These bars are of about three fourths of an inch width, and are made to slide one upon the other. The under sliding bar—the under slider, marked *f f* Diag. II is immovably attached to the ring by one end. It is graduated wih numbers from 13 to 20,—from *p* Diag. II, onward, (the numbers from 15 (exclusive) to 20 being hidden by the upper slider). The upper sliding bar,—the upper slider (marked *h' h*) is attached by one of its ends to the opposite part of the ring, the end by which it is attached being furnished with a sliding catch (*l*) which slides in the grooves of the circular measure. This catch (*l*) also forms an index-point for the number marked on the outward lap of the ring. These bars are grooved and furnished with catches *g* and *h'*, by which they are made to slide one upon the other. These bars as before said, form one and the same diameter, and are made to slide upon each other in the manner indicated in order that the diameter of the "circular measure" may be lengthened or shortened according as the circumference of the ring is enlarged or contracted. Thus:—Having slid the outward lap of the ring to the number 15, as before directed, the ring will then have a circumference of 15 inches. This done, you will next slide the upper slider to 15 (marked on the under slider, as at *m*). The bars will then form the proper diameter to a circumference of 15 inches. Having found this diameter, you will next slide the index (*l*) along the grooves of the ring until it points to the number 15 that is marked on the outward lap. This done, the thumb-screw (*k*), is turned so as to hold the bar and the ring in the position to which they are set. To find the center of this "circular measure," the following arrangement will be noticed. On the upper slider (*h'*, *h*,) will be noticed the numbers 13, 15, 17, 19, 21 (the intervening numbers not being marked to avoid confusion). There is next a small piece of brass (*o*, *o*,) so constructed as to slide on the brass bars, this is called the center-

piece. The extremity of this center piece is pointed (marked with a (*) on Diagram II) and acts as an index for the above-mentioned numbers. Slide this center-piece until the index-point (*) comes to the number 15 as at *n* in Diagram II. This done, the thumb-screw (*i*) is turned, and this thumbscrew will then occupy the center of the ring or "circular measure." There is attached to this center thumb-screw (*i*) an instrument called the "shoulder regulator" (so marked in diagram). This is designed to regulate what is termed by tailors the "pitch of the shoulder." It is made somewhat after the manner of the common square used by carpenters, the arms forming, however, only an angle of about 86 degrees. It is made of tin, brass, wood, or any suitable material, the arms about 14 inches in length, and about 1 inch in width. This "shoulder regulator" is attached by its angular corner to the center thumb-screw (*i*), and it is intended that the vertex of the angle shall be exactly in the center of the circular measure. The use of this regulator will be hereafter shown.

Accompanying the "circular measure and shoulder regulator" is an instrument called the T (marked X, X, X,) from its resemblance to the letter T. The long arm of this instrument is about inches in length, and one and a half in width, and the two short arms about inches in length, and ½ an inch in breadth. The use of this instrument will be hereafter explained. It forms not part of the invention.

After the method of taking the ordinary measures for drafting a coat, shall have been explained, the mode of applying these measures, in drafting will sufficiently explain the utility of my invention, and also the manner of using it.

Method of taking measures.—Let the person stand in his natural position with his coat buttoned. (See Figure 1 on Diagram I.) Take the instrument called the T and place its long arm under the person's right arm, and the two short arms to range with the center back seam of the person's coat, as represented by instrument X, X, X, on Fig. 1, Diagram I. With a piece of chalk, make a mark on the back seam at the notch of the T as at C on Fig. 1. With the measuring tape commonly used by tailors, you will take the measure of the scye-joint, called the "scye-measure," by passing the tape around the joint, in the direction of the dotted lines from *c* to *a* on Fig. 1. That portion of this measure which is visible on the figure, viz., from *c* to *a*, should be parallel with the center back seam A F. While the tape is in this position around the scye-joint, you will draw a mark on the person, with chalk, along that edge of the tape which is next to the back seam. Set down the size of scye-measure. With the arm hanging naturally, you will next take the measure from B to V, that is, from the back seam to the chalk-mark which was made along the edge of the tape as above directed. This is called the "width of back." Note down the distance. You will next make a mark, with chalk, on the person at A, *i. e.*, the socket bone; also one at D, *i. e.* at a point opposite to the blade bone; also one at E, *i. e.* the hollow of the waist; and also one at F, *i. e.* at a point some 2 or 3 inches (according to fashion) below E the hollow of waist. Place the end of measuring tape on the socket bone at A, and note the distances from A to C, from A to D, from A to E, and from A to F, and also to the bend of the knee, lower or higher as fashion may direct the garment to be cut long or short. Next, place the end of measuring tape at A, as before, and holding it firmly then with the left hand, take the following measures.

Measure No. 1: With the left hand holding the tape at A, with the right hand pass the tape over the right shoulder, in front, and under the arm, back again to A. (See No. 1, Fig. 1.)

Measure No. 2: Continuing to hold the tape at A with the left hand, (the tape being still around the arm as above) lower your right hand until the tape passes over the blade bone to the mark made at D (see No. 2, Fig. 1, Diagram I).

Measure No. 3: Lower your right hand still lower until the tape reaches the mark made at E. (See No. 3, Fig. 1, Diagram I.)

Measure No. 4: Bring your right hand to the person's front, and take the measure from A, passing over the shoulder, and down the breast to the lower edge of waist in front. Take the "breast measure," and "waist measure" by passing the tape around the person's body at the breast and the waist.

Note: To obtain point B (on Fig. 1 Diagram I) from which "width of back" is taken, you can go up from point C a distance equal to one sixth of scye-measure.

These measures being taken, your attention to the method of applying them will show the object and utility of my invention.

Method of applying measures showing the utility of the invention. (See Diagram II)—You will commence drafting at the corner of the cloth at H on Diagram II. Take a distance from H to I equal to about 3 inches. From I take a distance to A, equal to about 2½ inches. Having thus obtained this point A, you will draw the line A F parallel to edge of cloth. This will be the center back-seam of the garment. On this line let the point A be the top of back, (corresponding with point A on Fig. 1, Diagram I.) Take a distance from A to C, equal to the measured distance from A to C

on Fig. 1, Diagram I. Take also a distance from A to D, equal to the measured distance from A to D on Fig. 1, Diag. I. Take also a distance from A to E, equal to the measured distance from A to E in Fig. 1, Diag. I. Also from A to F, equal to the measured distance from A to F on Fig. 1, Diag. I. These point A, C, D, E, and F (on Diagram II) now represent on the cloth, the same points that the corresponding letters represent on Fig. 1, Diag. I. You will now take the instrument called the T, and place it on the cloth as represented on Diagram II, the two short arms ranging with the line A F, and the notch being at the point C as in Diagram II. (This instrument now lies in the same position that it had on the person, as represented in Fig. 1, Diag. I.) While it lies in this position draw along its edge the line CW, across the cloth. On the line CW take a distance from C to M equal to the "width of back"—that is, the distance that was measured from B to V on Fig. 1, Diag I. At M draw the line MN, perpendicular to line CW. These lines CW and MN, having been ascertained and marked upon the cloth, you will next proceed to arrange the "circular measure" to the exact size of the scye-measure, observing the following directions. Suppose the person has measured 15 inches around the shoulder joint, you will slide the outward lap of the circular measure until its extremity comes to the inch-mark 15 (as at *b* on Diag. II). In the next place slide the movable end of the diameter along the grooves of the ring until the index (*l*) comes to number 15 (marked on the outward lap). This done fasten the thumbscrew (*k*). Next slide the upper bar (*h'*, *h*,) of the diameter until its extremity comes to number 15 (marked on the under slider) as at *m* on Diagram II. You will then move the center piece until its index-point (marked *) comes to number 15, (marked on the upper slider) as at *n* on Diagram II. This done fasten the thumbscrew (*i*). The "circular measure" will then represent a scye-measure of 15 inches, with the vertex of the "shoulder regulator" in the center of the circumference. The instrument being set to the exact size required, place it on the cloth, touching lines CW and MN, as represented by the ring *a*, *a*, on Diagram II. Being thus placed the "circular measure" will occupy identically the same position on the cloth, that the arm joint of the person has on his body; and by applying the various measures to the cloth around this ring, in the same manner in which they were taken around the scye-joint of the person, the most exact fitting can be secured. Holding the "circular measure" in this position, move the arm of the "shoulder regulator" to point A as represented in Diagram II. While in this position mark around the ring with chalk, and also draw the line GL along the edge of that arm of the regulator which is next to you. You will now apply the measures you have taken, as follows:

Measure No. 1: Place one end of the measuring tape at A, (the top of back) and holding it firmly with your left hand, with your right hand carry the tape around the circular measure, in the direction indicated by the arrow (→ measure No. 1) continuing it until the length of the measure terminates, making it to terminate on the line G L (which was drawn by the arm of the regulator) adding a half inch to length of measure.

Note: This measure (No. 1), it will be noticed, is taken on the person, from the socket bone, passing over the shoulder, under the arm, and back again to the socket bone, that is from A back again to A on Fig. 1, Diag. I. It might seem therefore that, in applying this measure to the cloth on Diagram II, the tape should pass from A around the circular measure, and back again to A. Such however is not the case, and for this reason. The measure as taken on the person, is taken on a convex surface, and when applied to the cloth, it is applied to a flat or level surface. An allowance must therefore be made for this difference in surface. Experience has established this rule, that it will suit all practical purposes if the measure be made to terminate on the line G L, that is, on a line which makes an angle of about 86 degrees with a line drawn from point A to the center of the scye, or the "circular measure." To this angle therefore the "shoulder regulator" is made, and it furnishes a convenient method of readily obtaining this angle, and thus of regulating what is termed the "pitch of the shoulder."

After the point P has been established (being the point when measure No. 1 terminates) you will lay the instrument aside. You will then draw the line B O, perpendicular to line A F, and passing through the center of the circle made around the circular measure. Next, draw line Q R, through center of circle, and at right angles with O B (the points Q and R are points of the circumference, the line Q R being a diameter). Draw a line from A to the circle at R, and also one from point P to the circle at R. You will now proceed to draft back A. Beginning at A, top of back, mark the line A—8 about 2½ inches. Next form the back-scye 1—2, the joint 1 being about one inch from point V, and the point 2 about ½ an inch from V. Next take a string or tape, and holding one end at A, and with a radius A F, make a sweep or arc from the edge of the cloth at 21 to 17. Of this arc take a distance from F to K, about 2½ inches. From the shoulder-seam 8—2, and the side seam 1—K. With pivot at A and a radius equal

to the required length of the coat, make a sweep from the edge of the cloth at 18 to 19. This will then form the bottom of skirt. Draft the lines 16—18 and 17—19. These several seams A—8, 8—2, 2—1, 1—K, K—17, &c., are formed by pattern, or by the judgment and skill of the one who drafts. No rule can be given for their exact formation, and it matters little as they are subject to frequent changes according to fashion.

Having drafted this back you will proceed to cut it out. Commencing at A, cut from A to F, from F to 16, from 16 to 18, from 18 to 19, from 19 to 17, from 17 to K, from K to 1, from 1 to 2, from 2 to 8, and from 8 to A. After this, cut a small notch in the back at Y, where the lines A R and 8—2 intersect, also cut a notch at D, and also one at E. The back being cut out, place it again in its original position. Draft a line from 1 to 3—about half an inch. This done take a string and with a pivot at V, and a radius equal to the distance from V to E, sweep the arc E—E′. You will now replace the instrument in the exact position it first had; and apply measure No. 3 in the following manner. Place one end of the tape at P and carry it along in the direction indicated by the arrow (⟶ measure No. 3) touching the ring at Z. Holding the end at P with your left thumb, make a sweep or arc 21—22 with the other end of the measure, intersecting the other sweep E—E′. You will now press your thumb upon back A at point V, for a pivot, and draw it in toward you until the notch cut at E falls on E′, where the arcs intersect. You will now apply measure No. 2. Holding one end at P as before, carry the tape in the direction indicate by the arrow (⟶ measure No. 2) touching the ring from Z to Q, following the dotted lines until the measure terminates, making it to terminate with a sweep, 23—24, as at D′. You will now place your thumb upon the back at E′, for a pivot and throw the back from you until the notch that was cut on it at D falls on this sweep at D′. While the back is in this position you will form the side seam of the forepart, beginning at 3, and passing by 10 and 9 to 11. You will now apply measure No. 4, beginning at P, and following the direction indicated by the arrow (⟶ measure No. 4) making it to terminate at 14. This is the length of coat in front. Apply the breast measure beginning at D′, and curving the tape so as to make it touch the ring at Q, and terminate at W. Apply the waist measure from E′ in the direction indicated by the arrow, to 13. You will now lift back A from its position, and place it in the position of back B, making point A to fall on P, and the notch which was made at Y (on the line A R) to fall on the line P R at Y′. This done, you will form the shoulder seam on the cloth from 7 to 5, in the manner represented in diagram. Form the lower shoulder point from 5 to 6 as represented. Form the top of side-seam of forepart from 3 to Q as per dotted lines. You will now take a point S on the line P R, distant from the center of the circular measure about one and a half inches more than the half distance from P to the center of circular measure. (This point S is however regulated entirely by fashion.) At S erect the perpendicular T S. Form the neck from P by 7 to 20, touching line S T at 4. From W (where the breast measure terminated) to 12 is about 2½ inches, according to fashion. Form the front from 20 by 12, by 13 and by 15 as in diagram. Form the waist-seam from 11 to 15 as per diagram. These seams from P to 20, from 20 to 15 and from 11 to 15, and so on, are all formed by patterns, which vary with the fashion. The body is now ready to be cut out.

Having given the above directions for drafting and cutting the back and body of a coat, enough has been done to illustrate the utility of my invention, as well as the manner of using it. To tailors it furnishes not only a most convenient arrangement for applying the scye and shoulder measure in drafting; but an arrangement which secures them the most correct possible application of those measures; and guards them against the numberless uncertainties and inaccuracies which attend the usual mode, and which it requires the greatest skill to avoid.

To the method of taking measures herein mentioned, or to the measures themselves I prefer no claim. They are introduced merely to illustrate the utility and mode of using my invention. But

What I claim as my invention, and desire to secure by Letters Patent is—

The spring steel ring herein described and called the "circular measure" and the "shoulder-regulator" thereunto attached, which are manufactured and used in the manner herein set forth.

MILES G. SIMRIL.

Signed in presence of—
C. R. MELTON,
WM. A. RORBOROUGH.