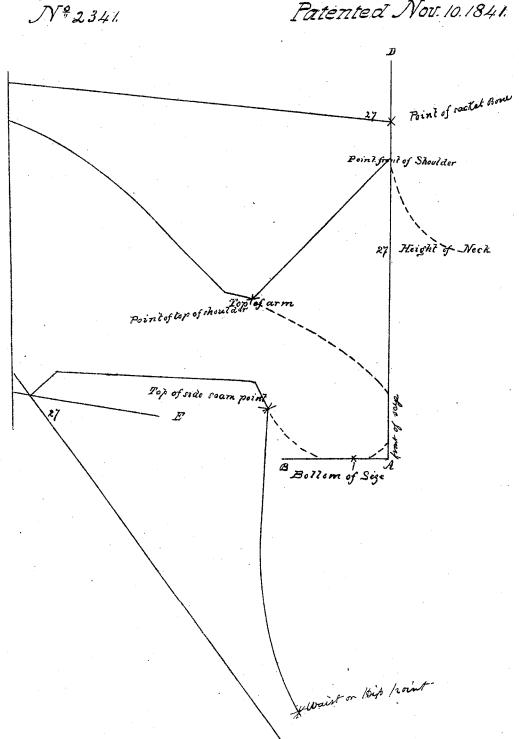


L. Flenner. Tailoring. Patented Nov. 10.1841.



## UNITED STATES PATENT OFFICE.

LEWIS FLENNER, OF PHILADELPHIA COUNTY, PENNSYLVANIA.

TAILOR'S INSTRUMENT AND THE MODE OF MEASURING GARMENTS.

Specification of Letters Patent No. 2,341, dated November 10, 1841.

To all whom it may concern:

Be it known that I, Lewis Flenner, of the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement called a "Graduator," to be Applied to the Drafting of All Kinds of Coats by Shoulder and Center Measurement.

The graduator is used only for drafting by shoulder and center measurement both of 10 which viz (shoulder and center measurement) have been in existence some years but not applied as follows or by means of a graduator of this construction, the shoulder measure is taken with a tape or leather 15 measure with inches half and quarter inches marked on, it is placed on the back of neck at the socket bone and from that point run around under the front of arm and up the back to meet the same point started from; 20 the center measure is taken by placing the tape or leather measure (as before stated) on the back of coat directly between the arms of the person in the center of the back and passed over the top of shoulder and under 25 the front of arm and back to meet the same point started from. After these measures are thus taken they are then applied to the graduator in the manner following: First measure some person with a tape or leather 30 measure (as before described). Suppose he or they should draw 27 inches shoulder and 27 inches center measure, then cut a back according to taste or fashion (without the graduator) then place the graduator on the 35 cloth or other material and draw a line down the front of perpendicular leg, A D. To get the front of leg and front of shoulder point and draw a line at the bottom of horizontal leg A, B. To get the bottom of 40 leg, and then draw a line down the diagonal part of graduator from C to E, and take a square edge (or ruler) and place it on the 27 line of horizontal leg A B, from the top of diagonal line, C E, on the 27 line and 45 draw line down over the outer edge some 16 or 18 inches, which when the back is placed inside the line so drawn will give the proper points in at the hip and top of side seam; then take the square edge (or ruler) 50 place it on the 27 line of perpendicular leg, A D, largest scale and draw a line from the front of graduator on the 27 line extending

over the inner edge some 8 or 10 inches when

the back is placed inside this line so drawn 55 will give the proper point of front of shoul-

shoulder at the top of arm, then take the square edge (or ruler) place it at the 27 smallest scale front of perpendicular leg A D and draw line out from the graduator which 60 will be the proper height of neck in front of coat, then take the graduator off the cloth or other material marked on and place the backs first cut inside of lines drawn by the graduator, and the points specified will be 65 shown.

The graduator is a square made of wood metal or ivory, and is constructed as follows. The horizontal leg from A to B is 194 inches long, and three inches wide at the 70 outer end of B to C, the perpendicular leg from A to D is 18 inches long on its outer edge, and 13 inches wide from top to bottom, the horizontal leg A B is 1½ inches wide at the inner edge from E to F. To 75 procure the proper angle of horizontal leg A B draw a line from C at the outer edge to A at the outer point of the angle of square, then divide the distance from A to C one half of the measure which will be nine 80 and  $\frac{3}{4}$  inches to C, then divide the remainder from E to C into 18 equal parts to be numbered from 18 to 36 each of which parts are again to be subdivided, then divide the perpendicular leg A D into two equal parts on 85 the outer edge of square which will be nine inches from bottom of square A to G, and from G to D the remaining nine inches to be divided into 18 half and 36 quarter inches. The half inches to be numbered 90 from 18 to 36, then come down the diagonal line of horizontal leg from C to H 18 inches toward the outer point of angle at A, then place a square at H on the diagonal line to the top of perpendicular leg at D to draw 95 the lines on the perpendicular leg of the square, the other lines on the perpendicular leg are drawn parallel with the first line drawn at D (36 line), then place a square from D to C to draw line 36 on horizontal 100 leg of square (A B) and all the other lines on the horizontal leg are drawn to correspond in the same manner with the corresponding numbers on the perpendicular leg A D, then place a square on the 24 line at 105 the outer edge of perpendicular leg A D, and across to the inner edge of diagonal line (C E) at the 24 line on horizontal leg and the same will be the result. All these lines are at right angles with their correspond- 110 ing numbers on the perpendicular leg der at the top of neck and proper point of A D largest scale. The second (or male

scale) on perpendicular leg (A D) commencing from bottom at A, then up the front of perpendicular leg to I is  $5\frac{1}{2}$  inches, and from I, to K is  $5\frac{1}{2}$  inches which are divided into 18 equal parts, to be numbered from 18 to 36 these parts to be again subdivided, the graduator may be constructed with a joint at the angle so as to render it portable by folding or without.

What I claim is—

Constructing one arm of the graduator with a diagonal edge on its inner side, di-

agonal division lines on said leg, the other arm or leg being graduated in the manner set forth also the employment of said gradu- 15 ator so constructed in combination with the shoulder and center measures for drafting garments, the same being applied and operating in manner described.

LEWIS FLENNER.

Witnesses:

EMANL. G. KROMER, ABRAHAM MYERS.