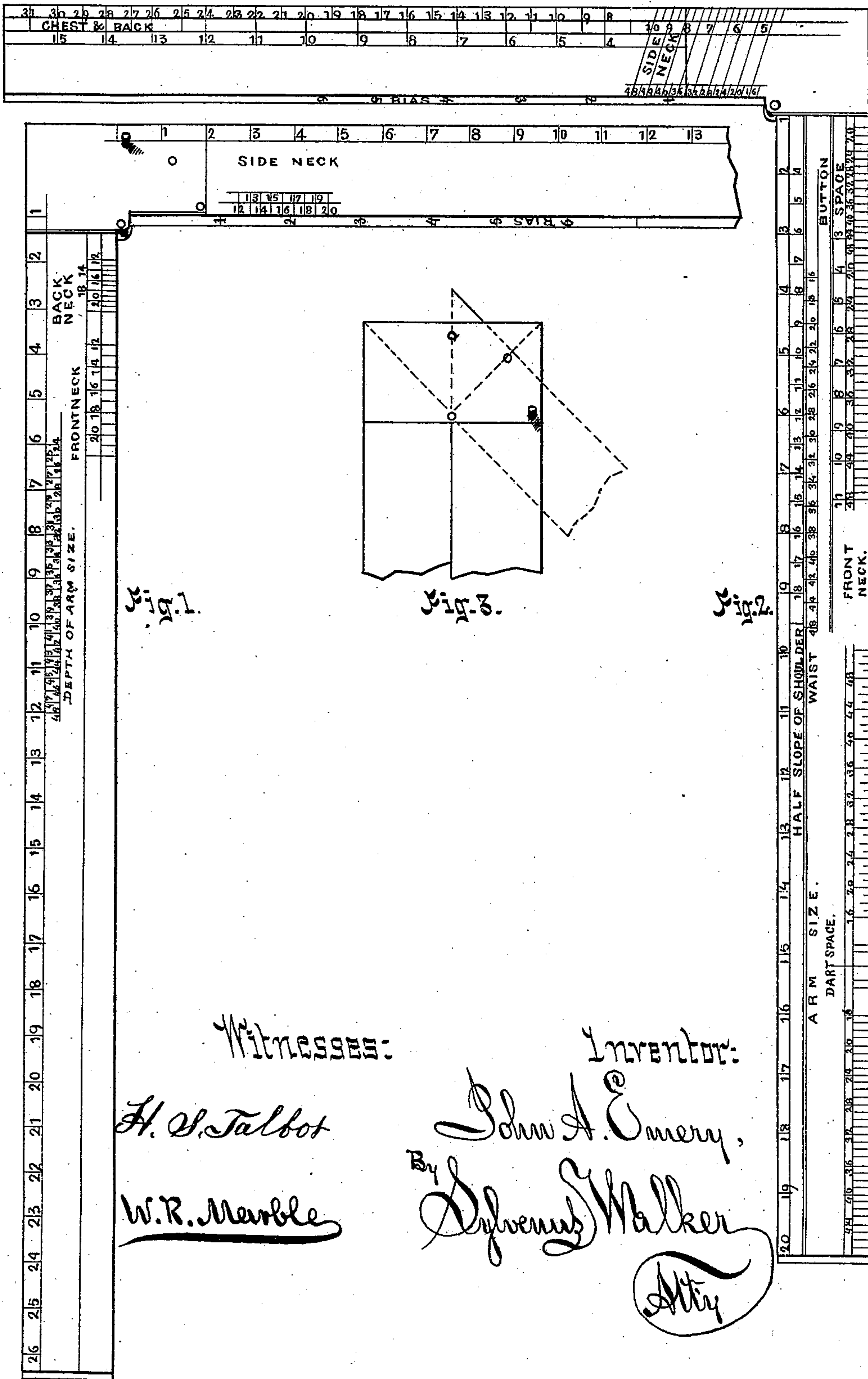


J. A. EMERY.
Dress-Maker's Square.

No. 226,605.

Patented April 20, 1880.



UNITED STATES PATENT OFFICE.

JOHN A. EMERY, OF BOSTON, MASSACHUSETTS.

DRESS-MAKER'S SQUARE.

SPECIFICATION forming part of Letters Patent No. 226,605, dated April 20, 1880.

Application filed December 11, 1878.

To all whom it may concern:

Be it known that I, JOHN A. EMERY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Dress-Makers' Squares, of which the following is a specification.

The object of my invention is to provide a dress-maker's square which shall be more convenient and serviceable, as well as being adapted to a greater variety of uses than squares heretofore constructed for a similar purpose; and it consists of the hinged or jointed square provided with a self-acting stop adapted to hold the arm at such angles as may be desirable for drafting purposes, and at a certain angle for marking dress-goods, so as to facilitate the cutting of the same in strips of the desired uniform width on a "bias"; also, in the location and arrangement of certain figures, divisions, graduations, and scales, as hereinafter more fully described and set forth.

Figure 1 represents one side of my square. Fig. 2 represents the reverse side. Fig. 3 represents a portion showing the operation of the joint.

My invention is designed to be used in connection with the ordinary measuring-tape, or with one or more straps having one or more scales marked thereon, such straps being adjusted upon the square in any convenient manner.

The square is hinged at the juncture of the two arms, and has an inch-scale marked upon each arm, with the usual subdivisions, so as to enable persons of ordinary skill and little experience to take dimensions or measure the various portions of the human body above the waist, and apply the various measurements each to its corresponding scale marked upon the square, so as to draft a pattern for use in cutting garments, taking the depth-of-arm size measure as a basis for all the scales, instead of the breast-measure, as heretofore used for a basis of measurement.

It is found by experience that the breast-measure varies so very much in proportion to the other measurements taken that a perfect-fitting garment cannot be made in many cases without much extra labor, care, and trouble, being usually too low in the neck and too

large in the arm-size, in case of large, fleshy, or corpulent ladies being measured.

Commencing with Fig. 1, the outer edge of the square, beginning at the corner, is marked with the usual figures in inches and subdivisions, and on the short arm or top portion is seen marked "sideneck" over its scale, consisting of two rows of figures alternately numbered, commencing with 12 and ending with 20, inclusive, being consecutive numbers, and represented by division-lines about five thirty-sixths of an inch apart, giving one space to every inch of neck-measure, and is used to locate the shoulder-seam on the top of the shoulder.

Near the juncture of the two arms is marked on the long arm "back neck" over the scale numbered from 12 to 20, omitting the alternate numbers, and represented by ten lines, one-half being short lines, and the spaces between the lines being one-sixteenth of an inch, and is used to determine the width of back and shoulder seam at the side of neck.

The next scale below is marked "front neck," and numbered from 12 to 20, the alternate numbers being omitted, and is represented by ten lines, one-half being short lines, and the spaces between the lines are three-sixteenths of an inch, and is used to determine the lowest point of the front neck.

Below is marked the scale "depth-of-arm size," as seen, consisting of twenty-five lines one-fourth of an inch apart, and numbered consecutively from 24 to 40, giving the breast-measure in inches, set to the inches of the depth-of-arm size, giving as a basis the measurements for the several scales marked upon the square, as shown in Figs. 1 and 2.

Commencing with Fig. 2, the short arm is marked at the left-hand end farthest from the joint with the scale, "chest and back," as seen, consisting of twenty-four lines one-half an inch apart, one-half being short lines numbered from 8 to 31, consecutively. The long lines, one inch apart, are numbered one-half the former, or from 4 to 15, consecutively.

Next to the right, near the joint, is seen "side neck," consisting of two sets of numbers. The upper or outward set is from 5 to 10, consecutively, and the lower ones are from 16 to 48, omitting every second and third number,

increasing four numbers at each step, viz., 16-20. These numbers are represented by nine oblique lines, and are subdivided by nine short lines, forming a double scale. The smaller numbers, from 5 to 10, form a scale for indicating the size of one-half of the neck, and the larger numbers indicate the breast-measurement, forming a neck-scale of about six-sixteenths of an inch to one inch of breast-measure, and a breast-scale of about one-sixteenth of an inch to one inch neck-measure. The use of this double scale is to determine the position of the shoulder-seam at the side of the neck and the width of the back at the neck.

The "button space" scale is seen on the long arm near the joint, consisting of eighteen lines, marked from 20 to 48, omitting the second and third numbers, increasing four numbers at each step, viz., 20-24. This scale is used to give the button-space and the distance of the front dart from the center of the garment in front. The numbers of this scale are set to the size of the waist in inches, allowing about one-sixteenth of an inch to every inch of waist-measure.

The inner edge of the square it will be seen is marked in inches, commencing at the joint, and directly adjoining these divisions is seen "half-depth-of-arm-size" scale, consisting of sixteen lines one-half inch apart, numbered from 2 to 18, consecutively, so as to ascertain one-half of the depth-of-arm size. This scale is the same as the scale marked "chest and back," and may be used as such.

The next scale adjoining is marked "waist," and consists of sixteen lines, numbered from 16 to 48, consecutively, omitting the alternate numbers, the lines being about one-fifth of an inch apart, and is used to determine the proper width of the back and front waist.

Below the scale is seen "arm-size," "dart-space," and consists of two scales placed about two inches apart, or one inch each side of a line made equidistant from each scale, consisting of seventeen lines, and marked, respectively, 16 to 48, inclusive, every second and third number being omitted. This scale is used to determine the inner and outer point of the arm-size and the side seam of the front, and to find the center of the dart-space and the center of the darts. These scales have numbers set to the breast-measure, giving about one-sixteenth of an inch to each inch of breast-measure. There are two lines each side of the center line, the first line one-fourth of an inch

and the second three-eighths of an inch from said center line.

A "front-neck" scale will be seen near the button-space, consisting of thirty-four lines, every fifth line being a long line, and are numbered consecutively from 3 to 11, inclusive, and the short lines from 16 to 48, omitting the second and third numbers, or increasing four numbers at each step. This scale is used to determine the lower point of the front neck and the top of the button-space, the lines in this scale being about five thirty-seconds of an inch apart.

There will be seen upon the inner edge of the shorter arm a scale marked "bias," marked consecutively from 1 to 6, commencing at the joint, and represented by lines one and one-half inch apart, and is used to determine the diagonal width of a strip of cloth cut on a bias by means of the hinged arm and stop-joint shown in Fig. 3 in dotted lines as retaining the short arm at an angle of forty-five degrees. Such stop or pin is so arranged as to enter any one of three holes, so as to hold the arm at a right angle, as shown in Figs. 1 and 2, or in a closed position, as shown in Fig. 3.

Having thus described my invention, what I claim in dress-makers' measures is—

1. The square provided with the side-neck scale shown, marked with figures answering to inches and proportionate parts of inches in the neck-measure, constructed and arranged to operate substantially as shown and described.

2. The square provided with the chest and back scale shown, constructed and arranged to operate substantially as shown and described.

3. The square provided with the side-neck scale shown, constructed and arranged to operate substantially as shown and described.

4. The square provided with the bias-scale shown, constructed and arranged upon the edge of the square, substantially as shown and described.

5. The square provided with the stop-joint consisting of a spring-plate attached to one arm of the square and provided with a series of holes, the other arm having a projecting pin which engages with said holes, so as to act as a stop, substantially as described, as and for the purposes set forth.

JOHN A. EMERY.

Witnesses:

SYLVENUS WALKER,
H. S. TALBOT.