

Science and Art.

Improvement in Tailors' Measures.

On the 31st of October, last year, a patent was granted to John M. Krider, of Middletown Va., for an improved Tailor's Measure. The accompanying engravings illustrate this instrument, and its application to taking the measure of the human body for a coat; also the application of the Measure to cut out the various parts of the coat from the cloth, to make the garment of the person measured.

Figs. 1 and 2 show the application of the instrument to the front and back of a spry young gentleman of fashion and taste, and figure 3 shows the application of the instrument to set out the various parts of the cloth, according to the measure as taken and illustrated by figs. 1 and 2.

Various instruments for taking the measure of persons, in order to cut the cloth accurately for garments, have been used; but these, it is stated in the patent of Mr. Krider, have been defective, "by depending on the judgment in contracting the curved admeasurements, such as that arising in measuring from the arm pit to the collar and back seam, wherein the tape measure has two directions to give the curve, which must be uncertain when laid on the cloth as a plane." The object of this instrument is to secure a proper measure, independent of any exercise of the judgment, simply by an application of it to the body; and after the several measures are taken from fixed points, all of them can be transferred to the cloth. The lines measured over a curve on the body are flattened and applied to the cloth on a plane, and these are made to occupy the same place on the body in the coat as when measured by the instrument, thereby insuring perfect accuracy of fit.

P P represent the conspicuous parts of the instrument. It is first applied closely under the left arm pit, and secured with straps to the body. T is a protractor composed of a circle divided into degrees, and is placed upon a metal stud (like No. 1 and 2) S, a metal tape of brass, is now directed to the point, F, fig. 2.—As the tape is connected with the protractor, the latter moves round, and the degree indicated in its line with the fixed pointer or index, R, is noted by the operator; also the length of tape line. The tape is next applied to B, a point on the spine in a horizontal line with stud No. 1. The degree indicated on the protractor and the length of tape are again noted. The protractor is now shifted to stud No. 2, and the tape, S, is carried to the back seam of the collar at point A. The specification of the patent states that "this is a cardinal point which no other instrument has established," and it is the most essential point of the garment. With the protractor, T, on stud No. 2, a measure is taken to the point, B, and the length of line intersecting the horizontal one is noted. The protractor is now shifted to stud No. 3, and a measure taken to G—the top of the lappel and end of the collar. The breast measure is now taken to H, and the length of waist in front to J. The tape, S, is now dropped down until it comes in contact with the check pin, 4. The distance is now taken from the stud to the back seam at C and D. The ring on the end of the tape, S, is now placed over stud No. 3, and a measure is taken over the shoulder to F. The length of the back seam from A to D is made with the ordinary measure.

TRANSFERRING THESE MEASUREMENTS TO THE CLOTH—The cloth for the coat of the person measured is laid on a table, and on it is drawn a straight line for the back seam. On this the distance from A to B, and from the latter to C and D, are measured. A line is now run out at right angles to B C, and the instrument is slid on this line until the stud No. 1 indicates the distance from it to the center of the back. A weight is now placed on the instrument, and the several measures which have been taken as described are laid on the cloth, care being taken to shift the protractor from one stud to the other, as has been described. Every essential point will then be clearly set out on the cloth, as represented by fig. 3.

The strap used in securing P P to the body is carried back to the neck, then

KRIDER'S PATENT FORM TRANSFER.

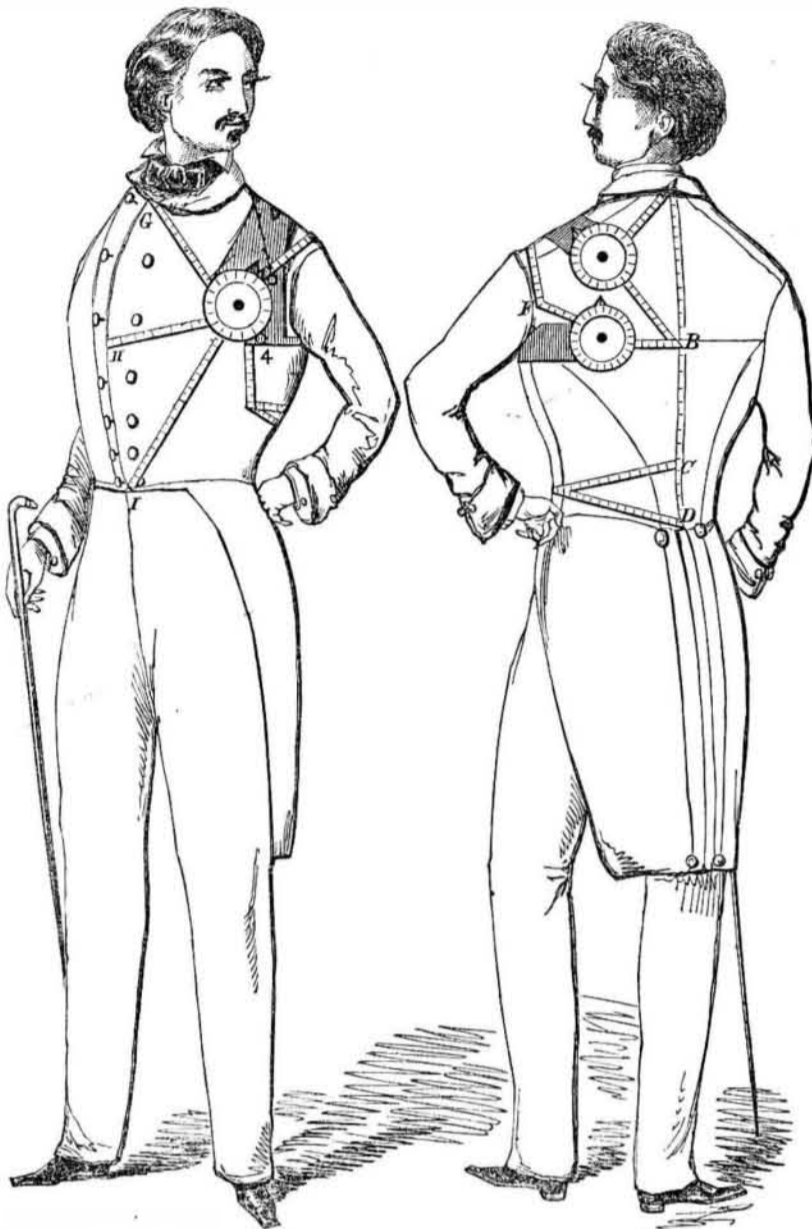


Fig. 1

Fig. 2

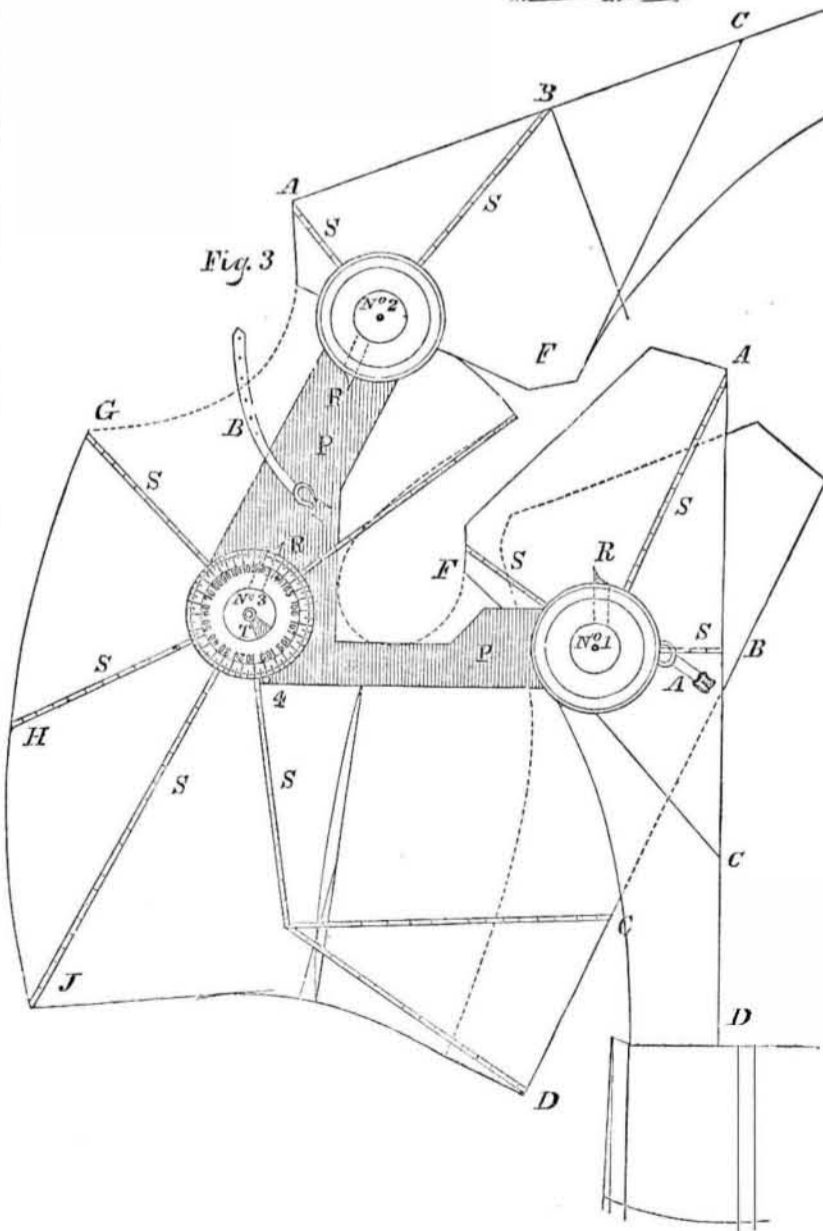


Fig. 3

down in front and under the right arm to the short strap and buckle, where it is sufficiently tightened to keep the instrument close to the body. The main part of the instrument is made of two thicknesses of Morocco leather with fine Bristol board between them. This instrument is equally adapted to breast and back measurements without unbuckling, and possesses advantages over others.

More information may be obtained by letter addressed to the patentee, at Middletown, Frederick County, Va.

Side Propellers.

Capt. H. Whittaker has published a long account of the performances of the side propeller *Baltic*, in the *Buffalo*, (N. Y.,) *Commercial Advertiser*, of the 11th inst. This is the first application, on a regular running steamboat, of side propellers, as substitutes for paddle wheels. Heretofore all propellers have been placed at the stern, but if it is a benefit to apply a paddle wheel at each side of a steamboat, or ship, why not a propeller? The *Hudson*, a paddle wheel boat of the same size as the *Baltic*, and also running on the same route, has an engine of four times the power, uses twice as much fuel, and yet does not average as much for receipts by fifty per cent. Capt. Whittaker asserts that the *Baltic* has more room for cargo, carries more, and makes better time than the *Hudson*. This is a subject worthy of the profound consideration of our marine engineers.

Reading in Railroad Cars Dangerous.

Several instances are lately recorded where persons who were in the habit of reading much in railway cars had become nearly blind, and an express agent near Boston had totally lost his sight, it being imputed to that cause. It appears the jolting motion causes the eye to strain in catching the separate letters, and makes their effect on the retina very injurious. — [Exchange.]



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