

(No Model.)

W. H. H. TRACY.  
SHIRT.

No. 270,264.

Patented Jan. 9, 1883.

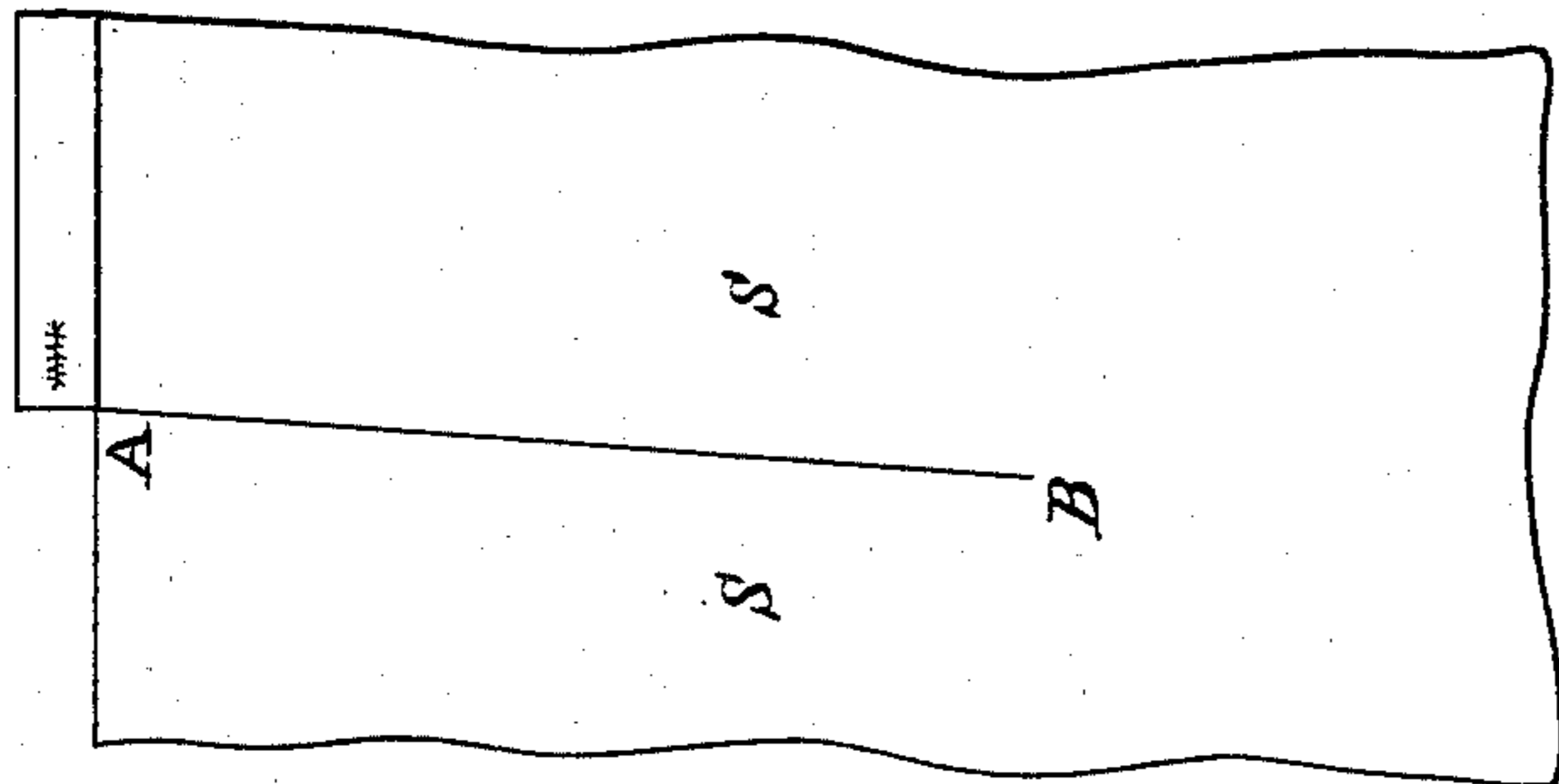


Fig. 3.

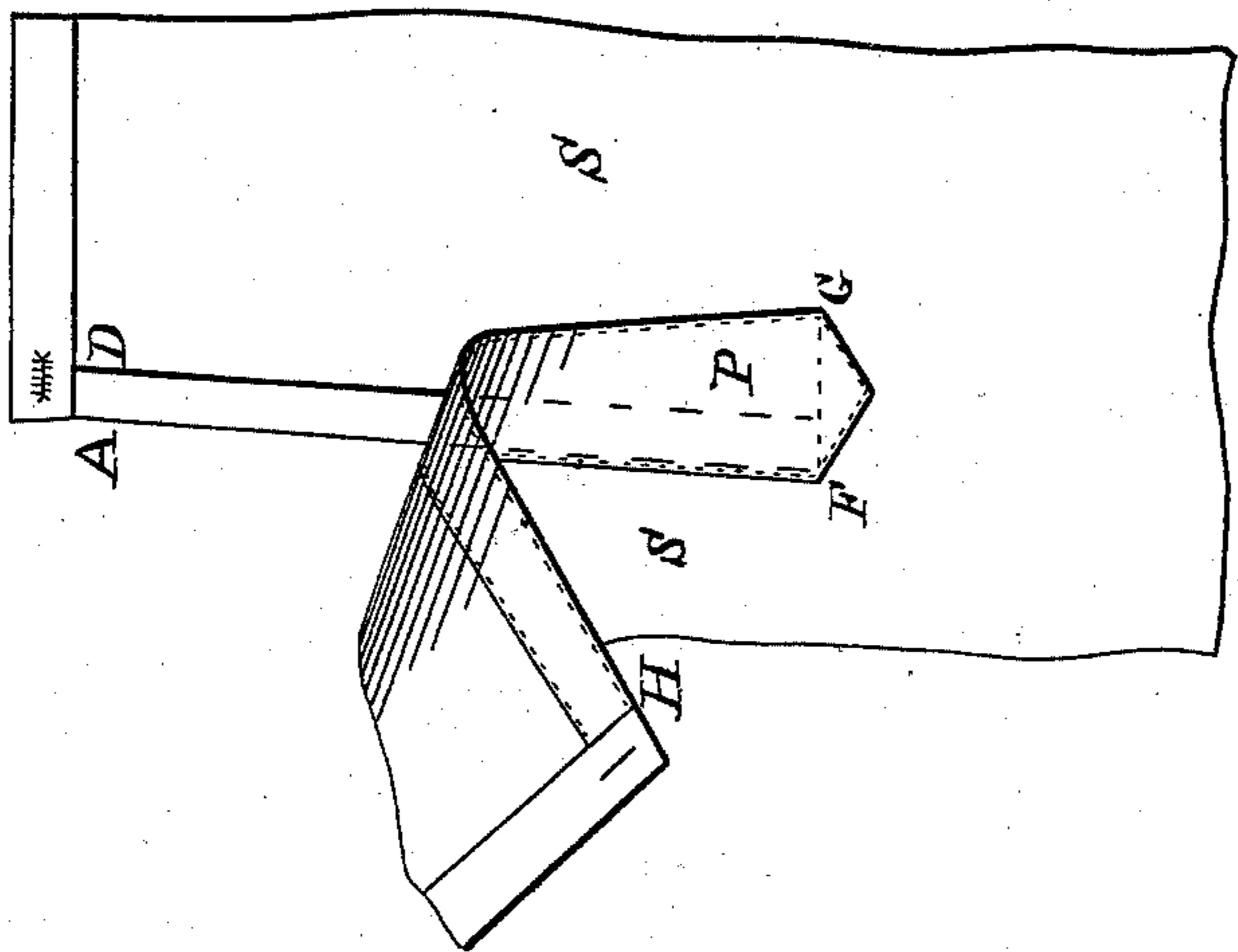


Fig. 2.

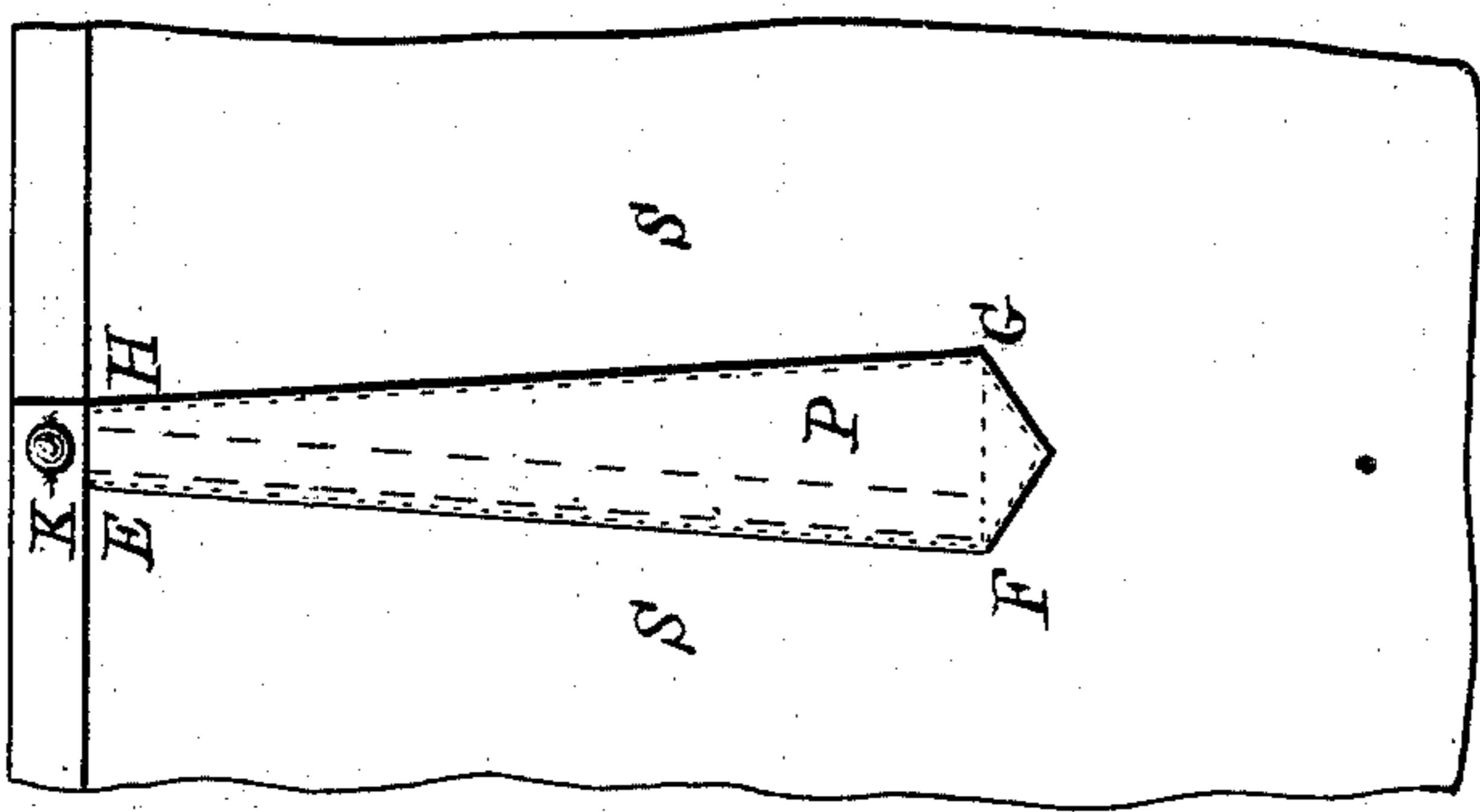


Fig. 1.

Witnesses:

Geo. F. Nichols  
Dennis J. Sullivan

Inventor:

W. H. H. Tracy  
Per. Geo. A. Mosher  
Atty.

# UNITED STATES PATENT OFFICE.

WILLIAM H. H. TRACY, OF TROY, NEW YORK, ASSIGNOR TO JUSTUS MILLER, OF SAME PLACE.

## SHIRT.

SPECIFICATION forming part of Letters Patent No. 270,264, dated January 9, 1883.

Application filed May 22, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. H. TRACY, a citizen of the United States, residing at the city of Troy, in the county of Rensselaer and State of New York, have invented a new and useful Improvement in Shirts, of which the following is a description.

This invention, which relates to certain improvements in the back and sleeves of shirts, has for its object a threefold purpose, to wit: first, the diagonal cut in the back for the opening; second, in the angular-shaped overlapping piece for covering the back opening; and, third, saving of material and time in the manufacture of the overlapping pieces, as well as to secure a better and nicer finished shirt. I attain these objects by constructing the shirt in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the back or sleeve of the shirt with the opening closed. Fig. 2 is the same with the shirt partly open. Fig. 3 is a plan view of the back or sleeve of the shirt with the facings removed, showing the line of the cut.

Similar letters refer to similar parts throughout the several parts and views.

The back or sleeve of the shirt is first cut open down the line A B, Fig. 3, which line is diagonal to a perpendicular or vertical line. A facing, A D, Fig. 2, may then be stitched to the shirt along the right-hand side of the opening; or the same may be hemmed or secured in any other suitable manner. The piece E F G H, (marked P.) suitably faced or ornamented, as desired, is then stitched or otherwise fastened to the shirt at the other side of the opening, and across its lower end below the opening to G. The piece P is made wider at the bottom than at the top, and preferably of such a width that the line H G will form the same angle with a vertical line that the line E F does, which gives the piece a symmetrical and finished appearance. The piece laps over and conceals the opening, and is not likely to gap open when in use, for the reason that the piece P is secured at the middle of its upper end by the button K and stitched across its lower end to the point G, which latter point is on the lapped side of the shirt and beyond to the right of the vertical line passing through the button—a distance equal to half the width of the piece from F to G. The greater this distance until it equals the length of the piece the less likely

is the opening to gap. This will be easily understood by analyzing the forces acting upon the sides of the opening—that is, the piece P on one side and the facing on the other. We need not consider more than two forces: first, the longitudinal or horizontal strain, which tends to separate or pull apart the two sides of the shirt and cause the opening to gap; second, the vertical strain, which tends to retain the sides in their normal positions. If the vertical strain were applied in the same vertical line at both top and bottom, and the horizontal strain at points midway between the top and bottom, it is manifest that a very slight horizontal strain would overcome a very considerable vertical strain until the sides of the shirt had opened sufficiently to give the vertical strain sufficient leverage to overcome the horizontal.

Heretofore in making open-back shirts the opening has been cut and made on a vertical line, and for the reasons above given the opening would gap and assume an uncomfortable and uncouth position; but by cutting the opening on a line diagonal to the vertical line the strain comes upon the button K and the points F and G—that is, the moment the horizontal strain acts upon the sides of the shirt to widen the opening the vertical strain is all thrown upon the points F and G, and the farther apart these points are the more easily is the horizontal strain overcome and the shirt retained in the desired position.

Instead of cutting the opening on a diagonal line, a triangular piece or facing may be stitched or fastened to the inner or under side of the opening, or any shaped piece which will give the diagonal shape.

The sleeve openings are made just like the back-openings.

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

In a shirt, a back or sleeve opening cut into the body of the shirt or sleeve on a diagonal or oblique line, A B, in combination with an overlapping piece, P, which piece is wider at its lower end than at its upper end, and is stitched at one side to and across its lower end to the body of the shirt, substantially as described, and for the purposes set forth.

WM. H. H. TRACY.

Witnesses:

GEO. A. MOSHER,  
CHARLES I. BAKER.