

(No Model.)

W. OTTMAN.

PRODUCTION OF PRINTS ON TRIANGULAR SHEETS.

No. 424,813.

Patented Apr. 1, 1890.

FIG. 1

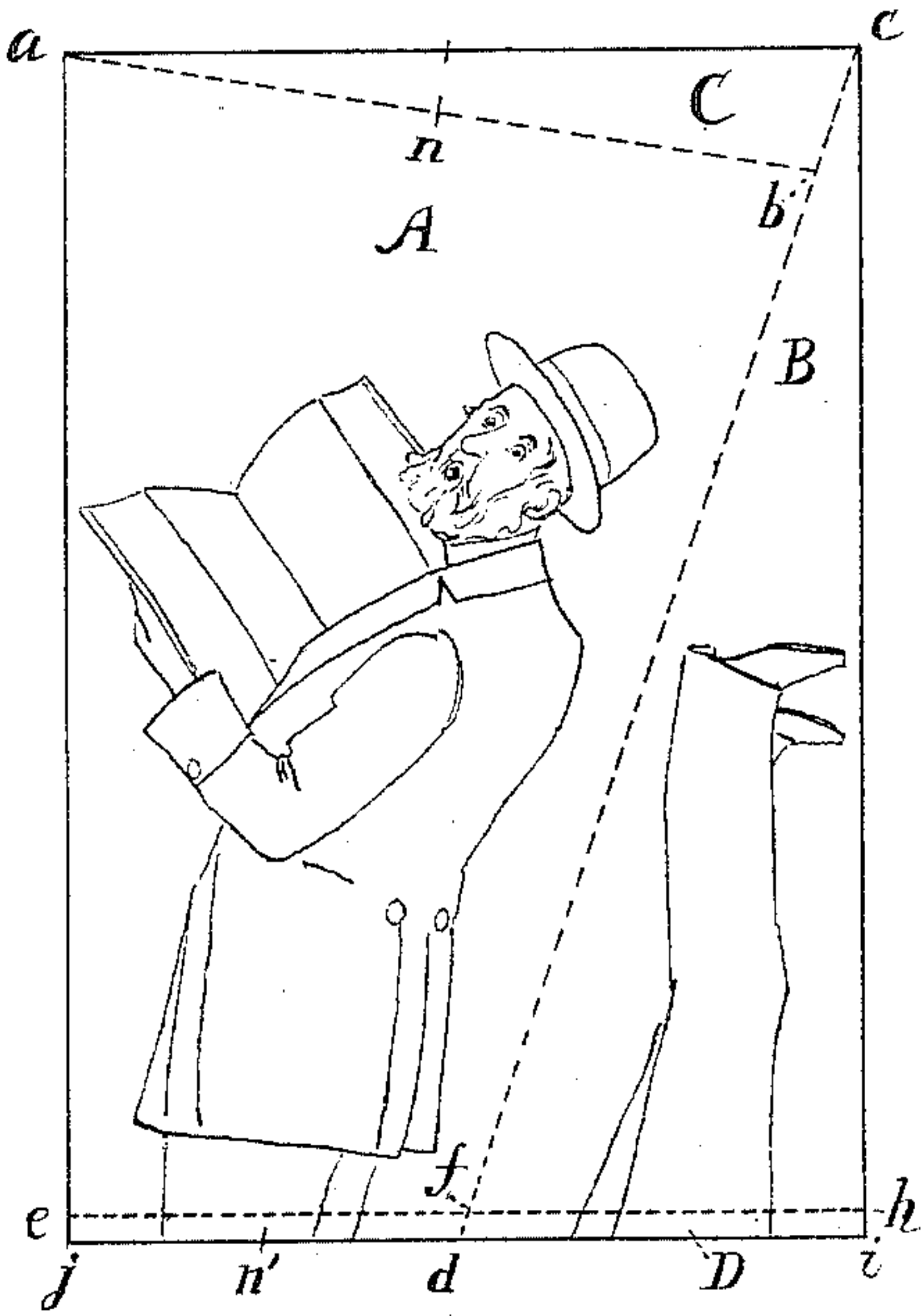
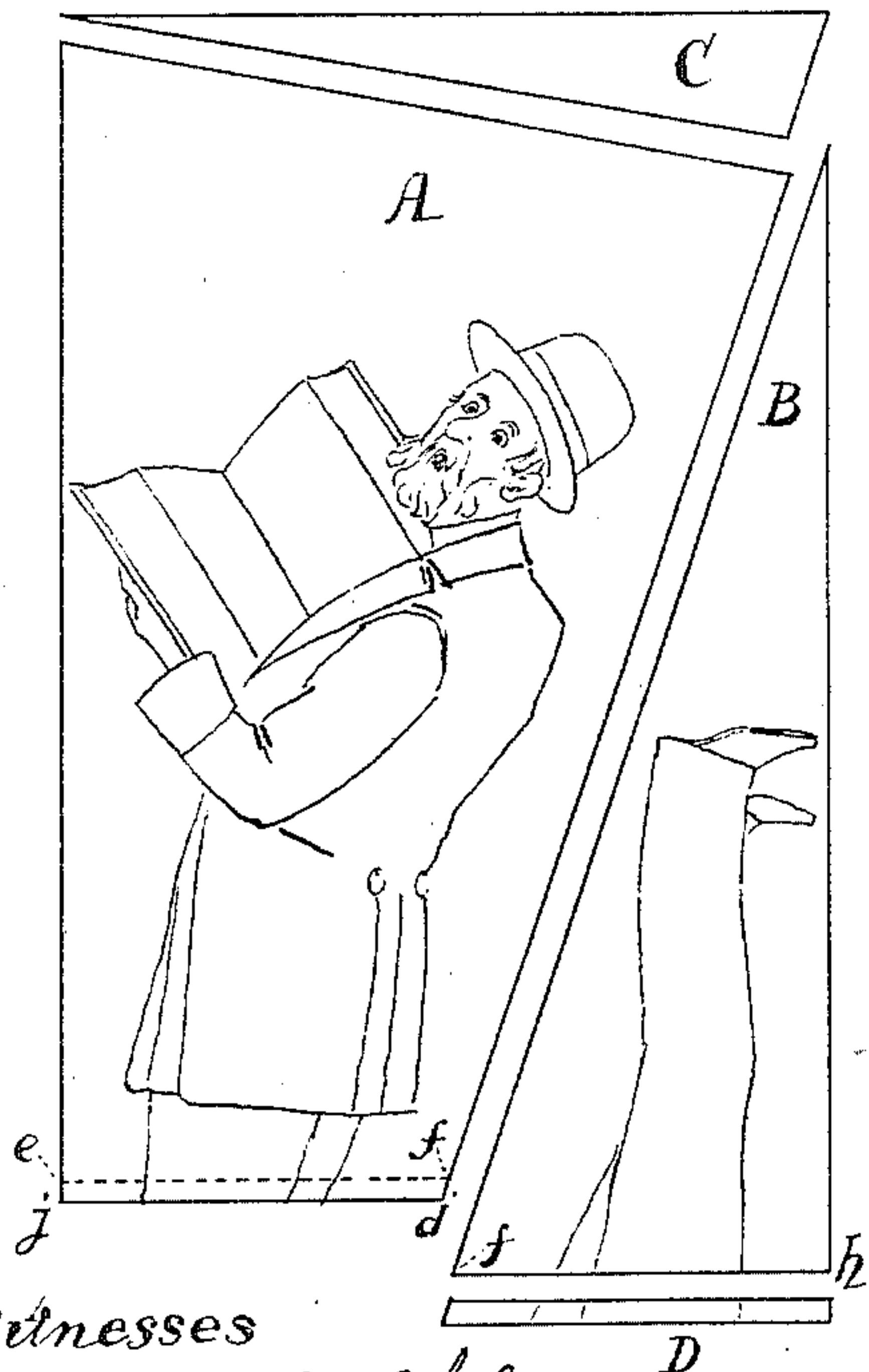


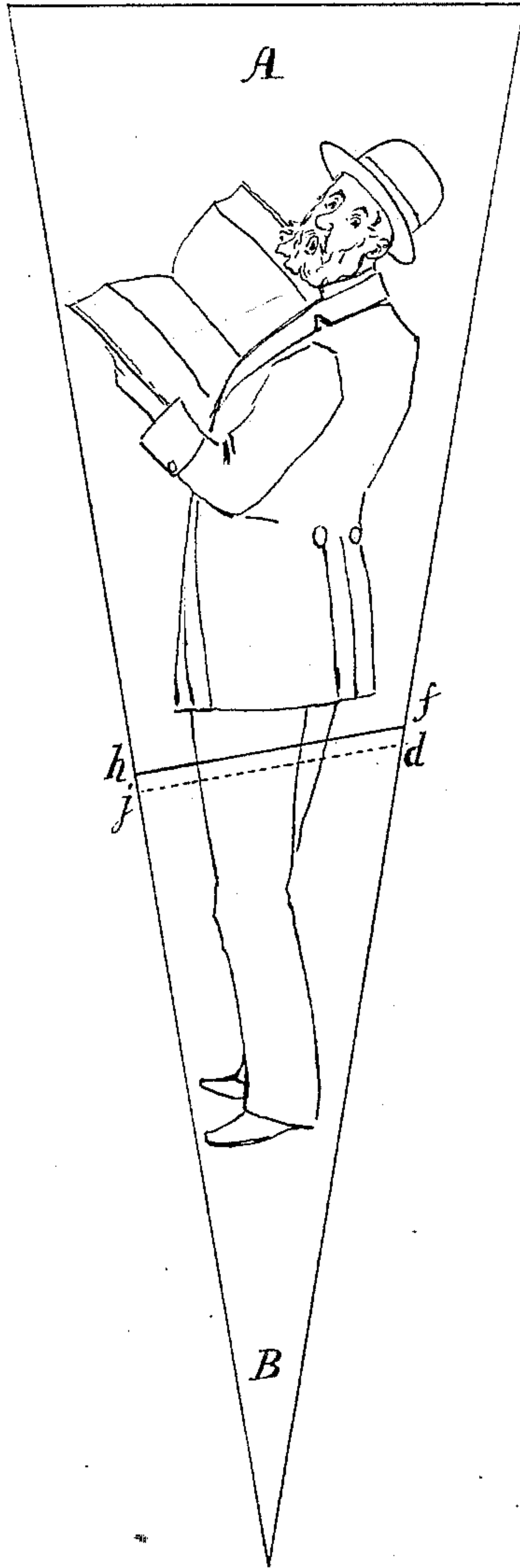
FIG. 2



Witnesses

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FIG. 3



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PRODUCTION OF PRINTS ON TRIANGULAR SHEETS.

SPECIFICATION forming part of Letters Patent No. 424,813, dated April 1, 1890.

Application filed January 14, 1890. Serial No. 336,903. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM OTTMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in the Production of Prints on Triangular Sheets, of which the following is a specification.

My invention relates to improvements in the manufacture of lithograph or other prints, and more especially of prints, whether in the form of banners, window display-bills, or posters, &c., which are of triangular or substantially triangular shape.

In certain instances, which are of frequent occurrence in the art, especially of show-printing, triangular sheets are preferable to those of rectangular form—as, for instance, for banners, posters, or window show-bills, where the representations displayed (whether a figure, scene, or character) are capable of being produced upon a sheet of that shape; in the case of window show-bills the advantage being that the obstruction to the light is materially reduced.

Hitherto the advantages of the triangular shape, where such shape could be utilized, have not been considered by manufacturers sufficient to warrant the increase of labor necessary for their production by the methods hitherto employed, mainly because the difference in quantity of material between the triangular and rectangular shapes was wasted. In other words, the full-length rectangular sheet was first produced and the triangular sheet cut out of it, the parts cut away being wasted.

The object of my invention is to facilitate the production of prints on triangular sheets, especially where the length of such sheet exceeds that of the bed of the press, and to reduce to the minimum the waste of material, whereby a representation which is capable of being produced upon a triangular sheet may be made in that shape at a cost less than were a rectangular sheet employed.

To these ends my invention consists in the peculiar distribution of the upper and lower parts of the representation, whereby the whole representation may be produced upon a single rectangular sheet in a manner which will

enable the sheet to be divided (to separate the lower from the upper portion of the representation) into two parts of a triangle without material waste, which parts may then be joined in proper relation, preferably by pasting, and produce perfect matching together of the upper and lower portions of the representation.

In the drawings, Figure 1 shows an integral sheet upon which a figure is represented, illustrating the peculiar disposition of the upper and lower sections of the figure, to produce, when severed upon the dotted lines (as indicated in Fig. 2) and when pasted together in proper relation, the perfectly-matched figure upon a sheet having the form of an isosceles triangle, as shown in Fig. 3.

To lay out the figure to produce the triangle shown in Fig. 3 from the rectangular sheet in Fig. 1, a line is drawn from the upper corner *c* to a point *d* at the lower edge *j i* of the plane, the line crossing the center of the width of the plane at a point *f*, and separating the plane into the sections A, C, and B. A line drawn from the corner *a* in a direction at right angles to a line from *n* to *n'*, (which would extend centrally through the part A,) bisecting the line *c d* at *b*, divides the sections A and C. The upper or main part of the figure is drawn upon the section A in the direction of the line *n n'*, and therefore at an angle with the sides of the rectangular plane. The remainder of the figure is drawn in an inverted position upon the section B in the direction of a line extending centrally and longitudinally through that section. To compensate for the overlapping of edges when the sections A and B are pasted together, and to insure perfect matching together of outlines, a line *e f h* is drawn a short distance above and parallel with the base-line of the plane, which is the proper matching line for the two parts of the figure, and the portions of the figure drawn below that line are only useful to aid in the matching together of outlines. The sheet bearing the impression, as in Fig. 1, is severed along the lines *c d* and *a b*, the section C, which is a comparatively small part, being discarded, and to insure a perfect edge for the overlapping section of

the sheet the section B is severed along the line $f h$ and the strip D removed. The two sections A and B are then pasted together, as shown in Fig. 3, the strip between the edge $j d$ and line $e f$ being overlapped by the edge of the section B.

If desired, one or more angles of the triangle may be cut off where it will not mutilate any part of the representation, if this is deemed desirable for the purpose of giving variety to the shape of the sheet or to prevent curling or bending of the points.

Particular advantage is derived from the practice of my invention in the production of triangular show-bills which exceed in length the sheets which the press employed has capacity to print. Formerly to illustrate a representation of such length required printing upon two sheets, each sheet being of course separately run through the press. By producing the representation, where practicable, upon a triangular sheet by my improved process, but half the press-work formerly required is necessary.

It is obvious that the dotted lines shown would be imaginary lines in practice, and that the exact angles they outline may be varied to change the shape of the isosceles or substantially isosceles triangle where desired.

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

1. The process of producing a printed representation in natural position upon a triangular sheet, which consists in printing the representation in two parts relatively inverted upon a rectangular sheet at a proper angle

with the sides of the rectangle, then separating the rectangular sheet into parts, two of which when put together will form a complete triangle embracing the complete representation in natural position, substantially as described.

2. A rectangular sheet provided with a representation formed in two sections thereon and inverted with relation to each other and disposed at such an angle with relation to the sides of the rectangle that when the latter is cut substantially as set forth and the parts matched in the form of a triangle the representation shall appear complete and in natural position thereon, substantially as described.

3. A rectangular sheet, substantially as described, provided with a representation formed in two sections thereon and inverted with relation to each other, one part in the space A bounded by lines $a b d j$ and extending in a direction perpendicular to the line $a b$, and the other in the space B bounded by lines $c d$ and extending in the direction of a line drawn centrally and longitudinally of the triangle, the representation ending in effect at a line $e h$, whereby when the sheet is severed along the lines $c d$, $a b$, and $f h$ and the part B secured to the part A, with its edge $f h$ on the line $e f$ of the latter in the form of a triangle, the representation shall appear complete and in natural position, substantially as described.

WILLIAM OTTMAN.

In presence of—

J. W. DYRENFORTH,
M. J. FROST.