F. HUTTER.

GARMENT PATTERN.

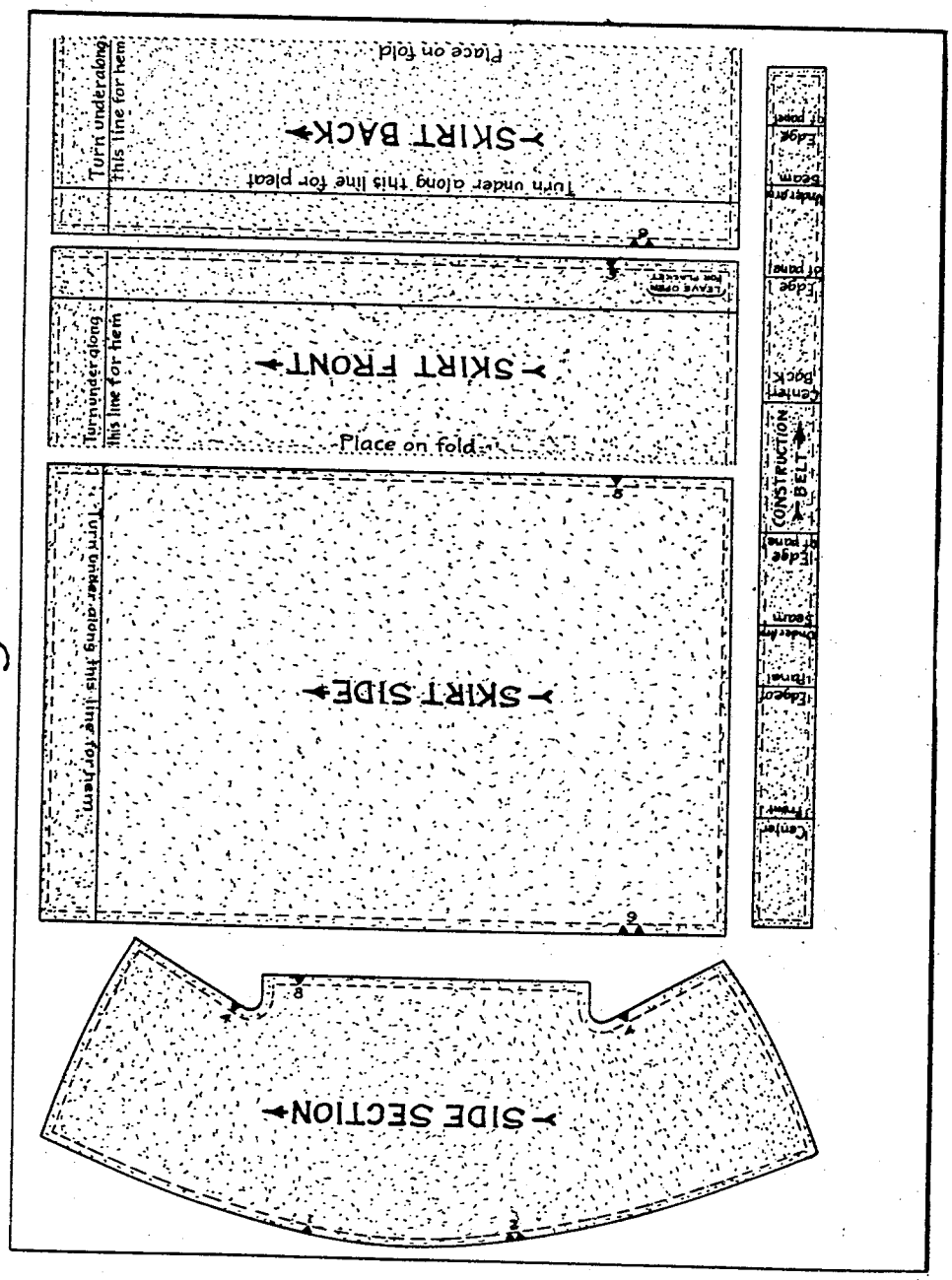
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1,387,723.

Patented Aug. 16, 1921.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 2.

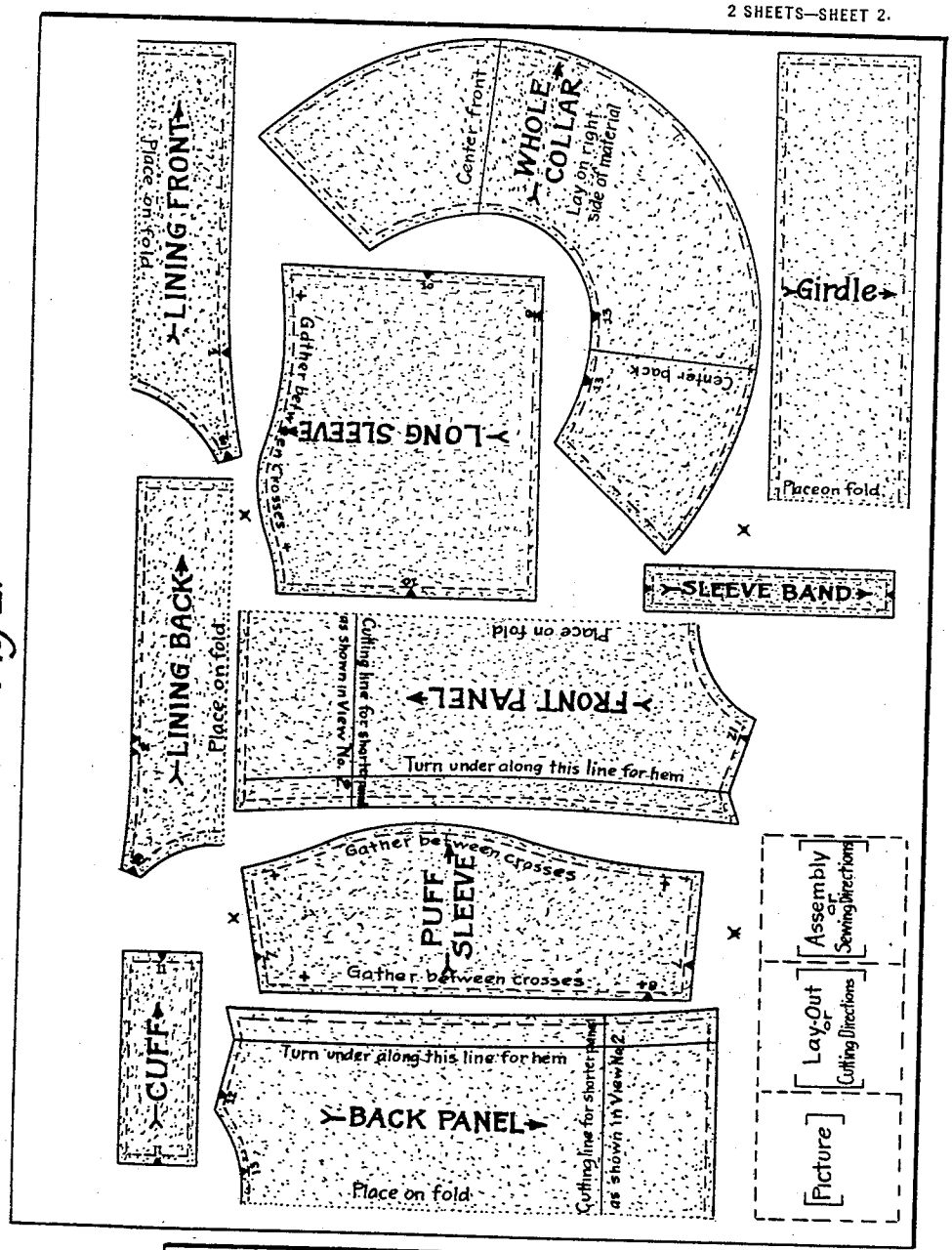
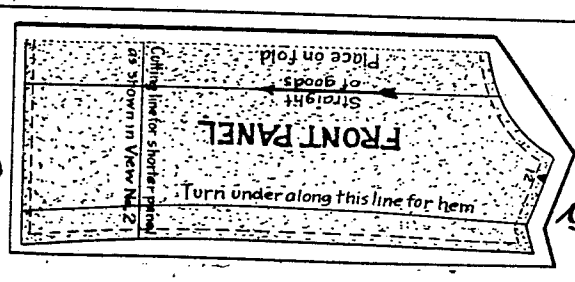


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANCIS HUTTER, OF NEW YORK, N. Y., ASSIGNOR TO THE McCALL COMPANY, A CORPORATION OF NEW YORK.

GARMENT-PATTERN.

1,387,723. Specification of Letters Patent. Patented Aug. 16, 1921.

Application filed November 27, 1920. Serial No. 426,781.

To all whom it may concern:

Be it known that I, FRANCIS HUTTER, citizen of the United States, and resident of the city, county, and State of New York, have invented certain new and useful Improvements in Garment-Patterns, of which the following is a specification.

In previous applications No. 290,998, filed April 18, 1919, and No. 375,245, filed April 20, 1920, and others, I have described a new sort of garment patterns and method of manufacturing the same. My present invention is in part a continuation of the foregoing applications, being at the same time directed to certain features not specified therein.

The systems now generally used in making paper patterns for garments include two elements; first, the separate pieces of the pattern and second an envelop, label, chart, card or the like containing instructions for the placing of the pieces of the fabric and for manipulating the corresponding pieces of the fabric and putting them together. For these purposes certain points and lines are indicated on the pattern pieces by cutting or punching them with various conventional signs.

In the manufacture of the patterns, a number of pieces are marked out on a sheet, a large number (a thousand for example) of such sheets are stacked on one another, and the pieces are cut and perforated in such a stack. There is some distortion of the paper in cutting and punching and some yielding of the band-saw generally used for cutting, so that the pieces at the bottom of a stack often have their edges and the perforations therein considerably out of their proper locations. The error often amounts to one-eighth of an inch or more, which at some points is a serious matter and produces an ill fitting garment. Also the punchings are sometimes indistinct and the paper is frequently torn. The line of punches that usually indicates the seam has the same inaccuracies as the edges of the pattern. It will be seen that with a shoulder seam, for example, or any other important seam line, a quarter of an inch out, which sometimes occurs with patterns of the old style, it is impossible to produce a well fitting and well hanging garment. We often find, with the old style of patterns, that two patterns intended to be of the same size and bought from the same shop or from different shops in the same town will show very substantial variations. It is chiefly to this error that we ascribe the "home made" look of some garments, as distinguished from garments made from patterns which are cut accurately by hand. Through the multitude of conflicting perforations and notches, most of which are substitutes for lines which cannot be cut in the paper, the aspect of the separate pattern pieces is confusing and their correlation with the instructions very difficult for any but the person of long experience. And even for experienced persons the meaning of the various signs can be gotten only by close study. This results in considerable loss of time for the users of the patterns and in many cases entirely prevents their use.

The mechanical work of making the various perforations and notches and correlating them with the instructions is also costly and is so complicated that in practice errors and omissions are bound to occur at times, making the patterns unreliable.

These patterns are produced in vast quantities and are shipped from the place of manufacture over a wide territory within this country and to foreign countries. It would be economical to make duplicates of a pattern in various centers of distribution. But such a method of production is very difficult with the present system because of the difficulty of conveying from the place of origin to an outside center dependable guides for the manufacturing of particular patterns. The difficulty is particularly in the making of the perforated and notched signs, for which complicated machinery and experienced workmen are needed. In distributing the patterns to foreign countries the directions have generally to be in foreign languages, and separate instructions have therefore to be printed, which adds to the complication and cost of manufacturing for shipment abroad.

I have invented a pattern which can be cheaply produced and from which the perforations and other disadvantageous features of the old patterns may be eliminated entirely or to a great extent. My improved pattern can be used easily and without loss of time by inexperienced persons, is more

accurate than those made by the old method, can be manufactured with certain economies impossible under the old method, and has other advantages referred to in detail hereinafter.

The improved pattern comprises a number of pieces of suitable shape and on which are printed graphic indications in exactly determined locations of the manner of cutting and use of the corresponding pieces of the fabric; various other features of novelty being described in detail hereinafter.

The accompanying drawings illustrate embodiments of the invention.

Figures 1 and 2 show two sheets of paper on which are printed all the pieces of a complete dress pattern including skirt and waist;

Fig. 3 illustrates a separate pattern piece.

A feature of improvement is in the use of a printed outline on the separate pattern pieces, with a margin outside of said printed outline. The general practice heretofore has been to make a cut edge of the pattern piece corresponding to the shape of the piece of fabric to be cut. By using a cut edge of the pattern piece as a guide considerable inaccuracies in the manufacture are unavoidable, and by the substitution of a printed outline I secure a perfectly accurate shape or guide for the cutting of the fabric. This printed outline can be made with perfect accuracy and with uniformity of all patterns intended to be of the same size. Thus a machine-made pattern, made according to this invention, is as accurate as if each pattern piece had been made separately by hand.

Another advantage of this printing of the outline is in the possibility of making patterns which were practically impossible with the old method of cutting the edges by machine. For example, it has been impossible heretofore to make paper patterns with fine scallops on the edge or with sharp concave angles or grooves. The band knife or similar tool could be turned only in a curve of comparatively large radius, and for concave angles or sharp curves the cut has to be made in two separate operations, first from one side to the angle and then from the opposite side to the same angle. Because of this handicap there have been many desirable designs omitted from the product of the pattern manufacturers.

Another feature, and one which greatly facilitates the use of a pattern, is the use of a tint to distinguish the portion within the printed outline from the outside margin. The tint is preferably applied within the outline so as to make the pattern proper stand out conspicuously, though the tint may be applied to the outside margin; or different tints may be applied outside and inside of the outline.

In the case illustrated what I have called the graphic indications, that is the lines and letters or figures, and the contours of the several pieces are printed; and in addition the area of each piece is brought out clearly and distinctly by a stippled or otherwise evenly tinted surface covering the whole of each piece or enough to secure the optical effect of holding it together to the eye and distinguishing it at once from the margin and, in the uncut sheet, from the other pieces on the sheet.

The pieces of the pattern should preferably be arranged in such relative positions as to take up the least space on the printed sheet, as by laying a projecting portion of one within a re-entrant portion of another; see the "long sleeve" and the "whole collar" in Fig. 2. Various other arrangements may be adopted however, such, for example, as an arrangement with all the grain lines parallel to facilitate cutting out the material by laying the complete sheet of pattern pieces thereon before separating the pattern pieces. Whatever arrangement is adopted it is of importance practically to have the different pieces spaced apart so that at no point will they be less than about one-half inch away from each other. This will facilitate and very much cheapen the subsequent cutting operation. The sheets after being printed are stacked, say one thousand in a stack, all exactly alike and in reasonably close register, and the pieces are separated by means of a band-saw. Assuming that a space of one-half inch has been left between the different pieces on the sheet, the band-saw can be arranged and guided to cut with a margin of about one-quarter of an inch around each piece. Great accuracy in cutting is rendered unnecessary by the tinting of the surfaces of the parts, which tinting distinguishes the pattern pieces and leaves the outer margin a negligible element, to be disregarded in the use of the pattern. This provision avoids the trouble which might arise from inaccuracy of printing and of stacking the sheets.

We may facilitate the stacking of the sheets by printing on each sheet crosses (as shown in Fig. 2) or similar marks at points corresponding to a number of pins standing up from the stacking table. The operator would then force the successive sheets down with the pins passing through the marked prints, which would insure their correct register; after which they would be clamped together and cut out.

It would be quite difficult to cut a large stack of sheets simultaneously into separate printed pattern pieces, without such inaccuracies as would be seriously detrimental to their usefulness except by this expedient of leaving an extra margin. And with the tint to hold the true area of the pattern piece

together, this margin is no obstacle to the correct use of the pattern piece. In use such a tinted piece will be pinned on the goods, and the latter will be cut not to the outline of the entire pattern piece but only of the tinted area thereof; either cutting off the margin at the same time, or beforehand, as may be most convenient.

This tint is preferably uniform and extending over the entire area of the piece, as shown, but it may be varied in density, being lighter in the center, or it may be in the form of only a broad band of tint around the edge, or it may be varied in a number of other ways without departing from the effect of a tint solidifying and unifying each pattern piece separately.

Instead of using a tint stippled evenly on the paper we may get the tinted effect by the use of lines or by a combination of lines and stippling, and in this case the lines may be placed on the pattern piece in such a direction as to indicate the grain line or straight of the goods.

By varying the character of the tint on different pieces of the same it may be made to serve an additional purpose. For example, the stippling may be heavier or the lines thereon wider or differently spaced and numerous other variations may be introduced. Different pieces of the pattern might each have a different character of tint, or different groups of pieces such as the waist, skirt and trimmings of a dress, may have a different tint for all the pieces of each group. This variation in the tint may be effected with economy in my improved pattern because each piece is made with the help of a separate model which determines its outline and also the character of its surface. For certain purposes it has heretofore been proposed to use differently colored pieces in one garment pattern. But this has meant the cutting of some of the pieces from one sheet and others from a differently colored sheet; whereas with my invention the pieces are differently tinted on one sheet and are all cut therefrom at one operation.

The tint may be used also for another function, that is to show a distinction between one edge of a pattern piece and another as to their mode of use. The "front panel", for example, shows a solid outline along the edges where the material is to be cut and shows only the edge of the tint without any solid definition along the edge of the piece which is to be placed on a fold, as distinguished from a cut edge of the fabric. It is important to make a distinction of this sort between a cutting edge and a fold of the fabric. A mistake between these is easily and frequently made with old-style patterns and is sometimes expensive in the cost of fabric cut by mistake. And a distinction of the sort described is a feature of great value in my improved pattern. Where this scheme is used the pieces which do not have a fold edge should be defined by a solid line, as in Fig. 2. But I may use the edge of the tint alone to mark the outlines of the several pieces.

The margin around an individual tinted pattern piece is indicated in Fig. 3 which shows the shape in which the piece may be cut out, the cut edges approximating the edges of the tinted piece but not necessarily following such edges with any degree of accuracy; and thus being adapted for very quick and easy cutting out.

To indicate the way in which the pieces of the fabric are to be put together, the old practice has been generally to provide notches on the edges of the pattern pieces; a single notch on one to register with a single notch on another, a double notch registering with a double notch etc. Practical considerations have limited the manufacture to single, double and triple notches. I have shown such notches on the edges of my pattern pieces and they are identified by a numeral and intended to match with a correspondingly numbered notch on another piece of the garment, (or at another point on the same piece, such as the notches in the "side section" Fig. 1). Using printed numbers in this way I can distinguish an indefinite number of pairs of matching points.

To indicate the grain line, I have in Figs. 1 and 2, shown the title printed in the direction of the grain of the fabric with the opposite ends of an arrow forming a continuation of the direction at each end of the name. In Fig. 3 I have shown the grain line more emphatically by a thin line extending the length of the piece, part of the line being in the form of a heavier arrow with the legend "straight of goods" applied thereto.

The margin outside of the pattern proper can be advantageously used to pin the pattern piece on to the fabric, the two being then cut together. By fastening the pattern piece to the fabric outside of the line which is to be cut, the paper and the fabric are held together better than with the old style of patterns which were pinned on the fabric at points within the edge, leaving a loose edge as the cutting guide.

Within the pieces of the material or at their edges tucks, plaits, gathers or the like have frequently been shown. These have been indicated also by signs and notches cut into the pattern pieces and understood only by reference to the printed directions on the label. According to my invention they may be indicated graphicaly wherever necessary and are made unmistakable by the printing of suitable words thereon.

All the indications above referred to, and many others impossible under the old system, can be applied according to my inven-

tion and result in an accuracy and clearness quite impossible with the old perforated system.

At the same time I can save considerable expense and reduce the cost of the complete pattern as distributed by printing on the same sheet a label or envelop as indicated in the lower left hand part of Fig. 2. This is on such a small scale that I have merely indicated in a rough way the character of the matter to be printed. And it will be understood that the same principle can be applied to various other kinds of label. A separate application is made for patent for the preferred style of this label, and the combination of label and pattern.

In some cases it is desirable to use a pattern piece as a stencil by which particular points can be marked on the fabric. It will be understood that perforations of this sort may be used to a greater or less extent in connection with my invention, which substitutes printed lines or symbols for some or all of the old perforations which were used in only an informative or directional sense, not for stenciling through.

Although I prefer to cut out the separate pattern pieces, as shown in Fig. 3, yet they may also be sold as printed together in groups on the necessary number of uncut sheets (Figs. 1 and 2) or in suitable cases all on a single sheet. And for some cases the selling of them grouped on sheets would be preferable as showing at once an arrangement of the pieces which can be economically cut from a fabric of a determined width corresponding to that of the sheets on which the pattern pieces are printed and can be applied to only some of the pieces of a complete pattern, other pieces being made in any usual or suitable way; as, for example, where such other pieces do not call for the same degree of care in manufacture or cannot be so conveniently made according to my invention.

What I claim is:

1. An article of commerce consisting of a paper pattern for a garment comprising a number of separate pattern pieces having printed thereon the outline to be followed in cutting the fabric, and having a margin outside of said outline.

2. An article of commerce consisting of a paper pattern for a garment comprising a number of pattern pieces having printed thereon the outline to be followed in cutting the fabric and having a substantial margin entirely around the outline of each of said pieces.

3. An article of commerce consisting of a paper pattern for a garment comprising a number of pattern pieces having a margin and having a surface which is tinted to distinguish the shape to be cut in the fabric from the margin outside of such shape.

4. An article of commerce consisting of a paper pattern for a garment comprising a number of separate pattern pieces having printed thereon the outline to be followed in cutting the fabric, and having a margin outside of said outline and tinted so as to distinguish between the margin and the portion within said outline.

5. An article of commerce consisting of a paper pattern for a garment comprising a number of pattern pieces having printed indications for their use on one side, the paper being transparent so that such indications may be seen through the paper from the other side, the printed side of the paper having a margin and being tinted to distinguish between the margin and the portion within the margin.

In witness whereof, I have hereunto signed my name.

FRANCIS HUTTER.